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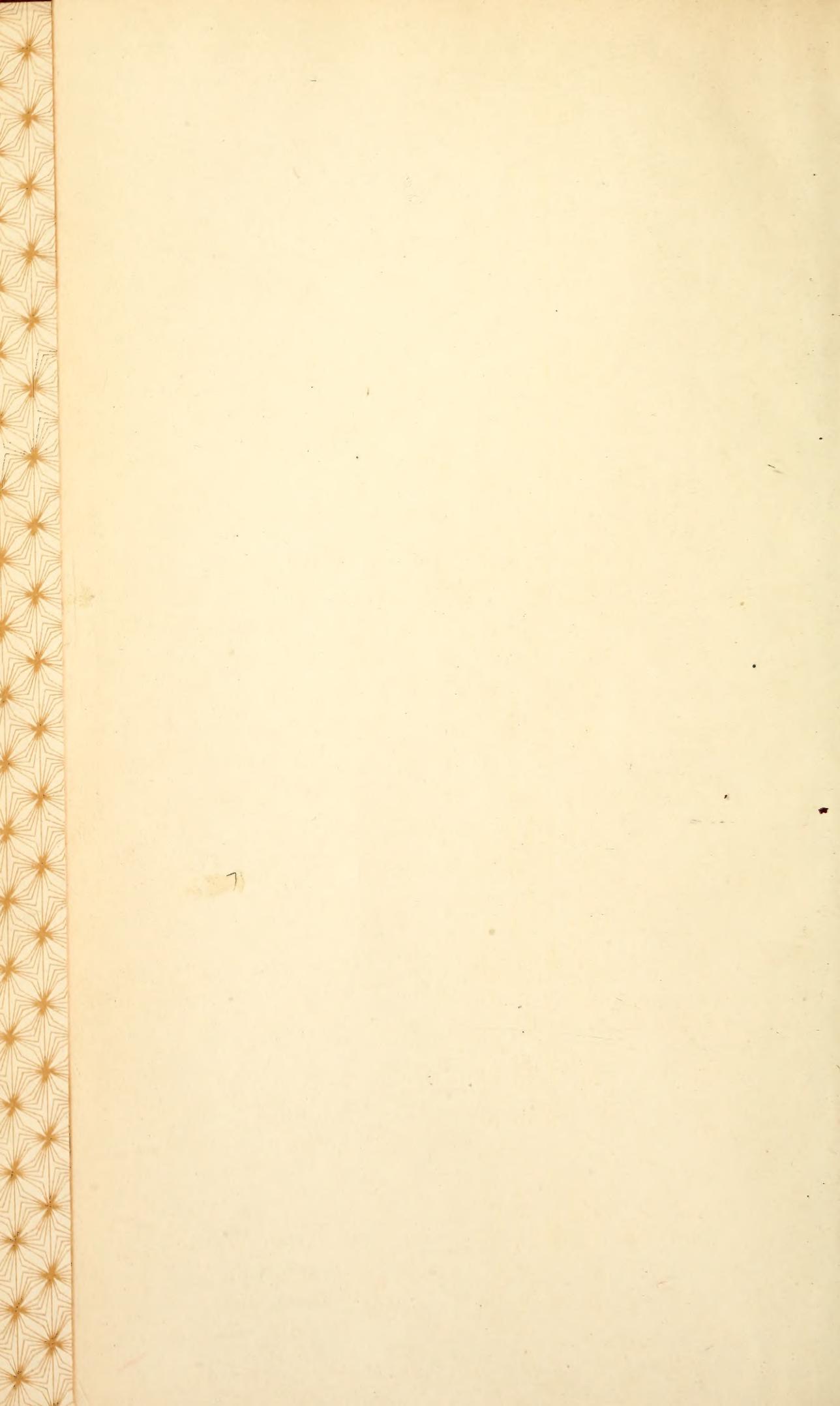
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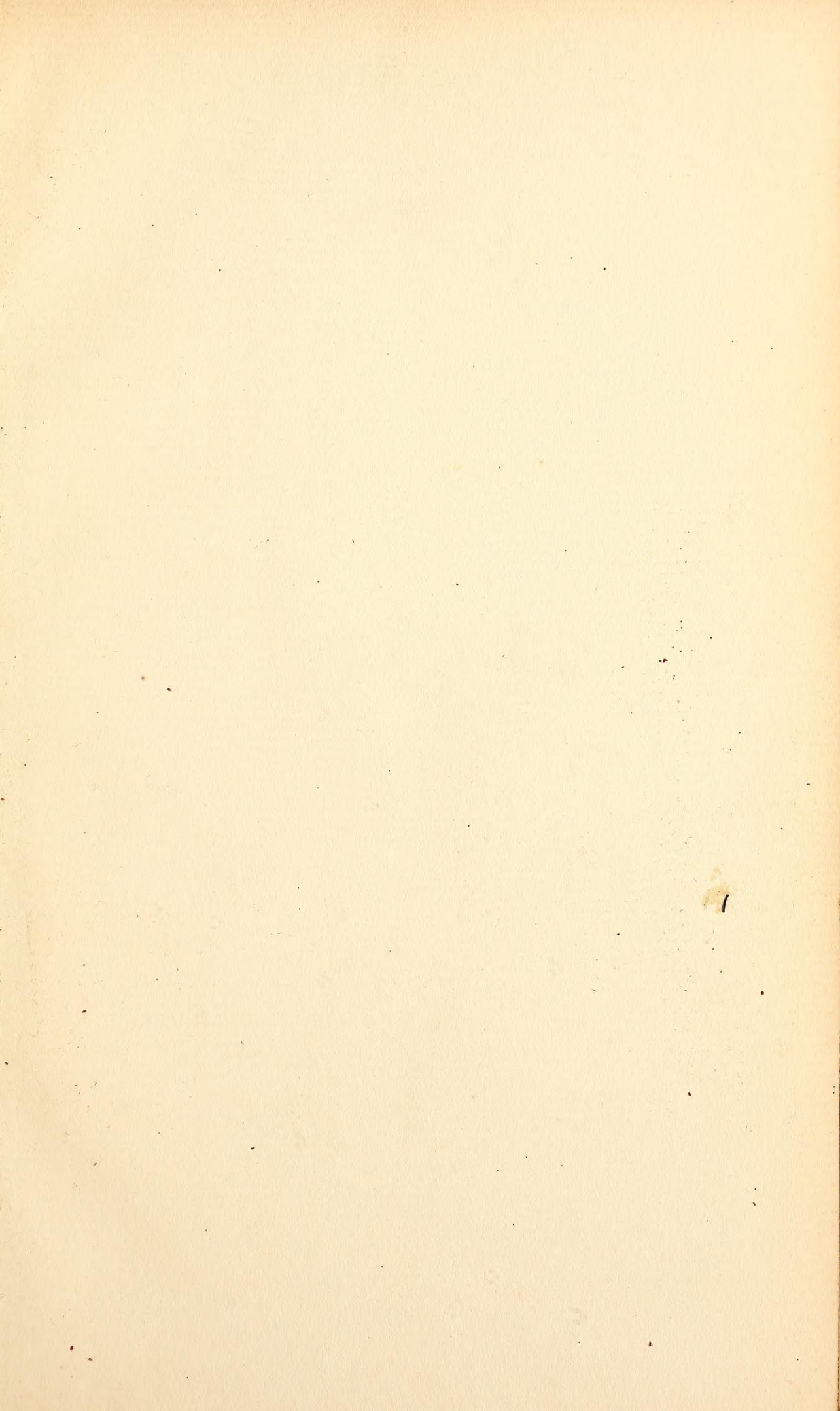
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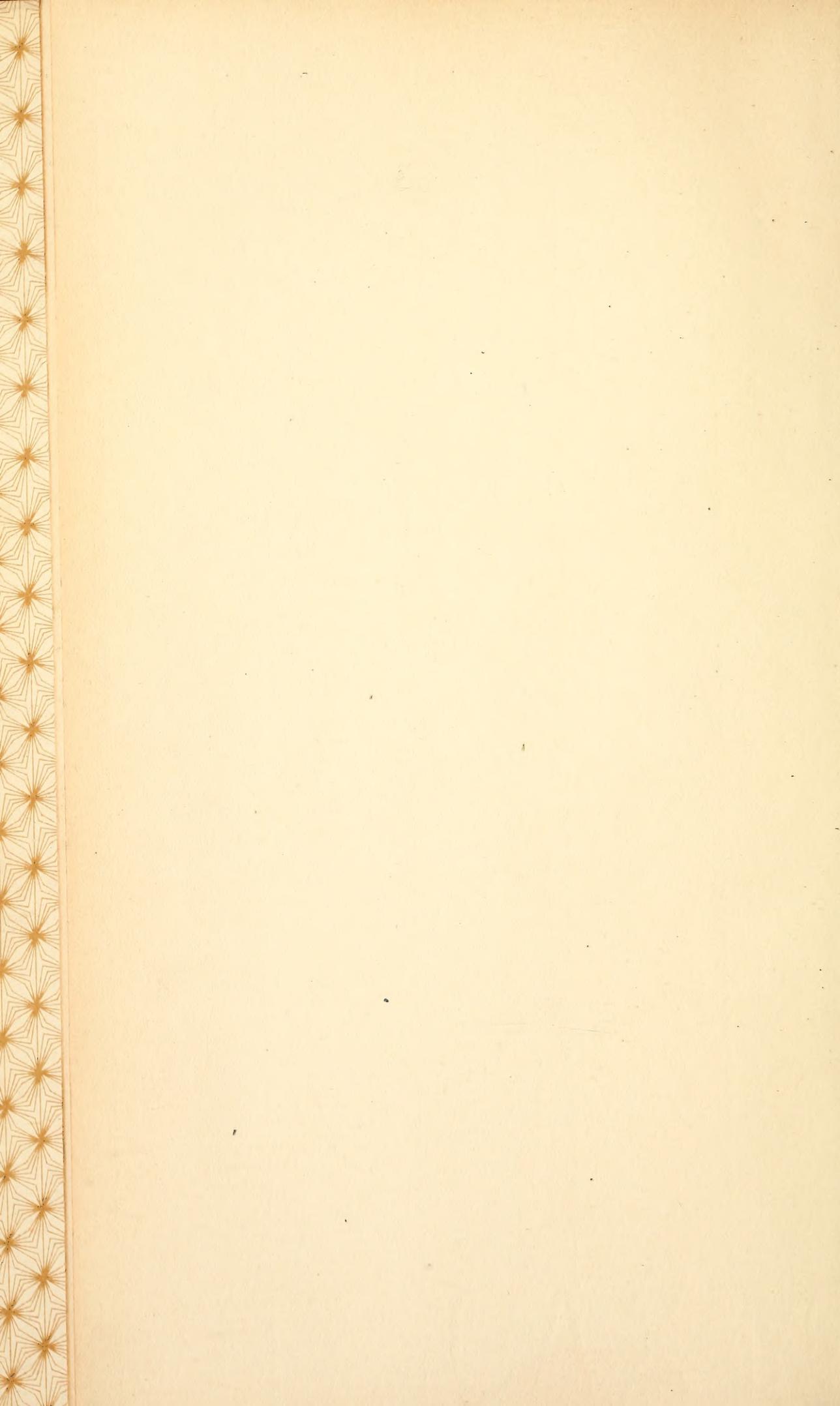
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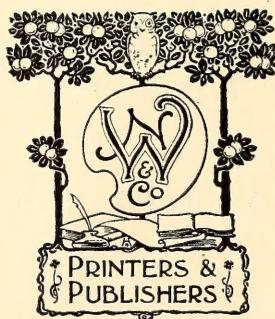
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*VOLUME VII.*

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COLEOPTERA OF SOUTH AFRICA.

CICINDELIDÆ—CARABIDÆ.



TRANSACTIONS  
OF THE  
SOUTH AFRICAN PHILOSOPHICAL  
SOCIETY.

VOLUME VII.

A DESCRIPTIVE CATALOGUE  
OF THE  
COLEOPTERA OF SOUTH AFRICA.

BY  
L. PÉRINGUEY, F.E.S.,  
*Assistant Curator of the South African Museum.*

WITH TEN PLATES.

29408

CAPE TOWN:  
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## PREFACE.

THIS first part of a descriptive catalogue of the South-African Coleoptera is intended to facilitate the identification of the insects belonging to that order.

A local fauna can only give an approximate idea of that of a continent, or of a well-defined area of distribution; it has, however, an advantage, inasmuch as the identification of a limited number of species is made easier for the beginner.

I have taken as a limit to the South-African fauna a line running roughly from Mozambique in the East to Mossamedes in the West, or about  $16^{\circ}$  of latitude South.

This limit is, of course, an arbitrary one, as all such limits must perforce be, but I have adopted it because the difference, generic as well as specific, seems to me to be more marked four degrees north of that line ( $10^{\circ}$  S.L.) than four degrees south of it ( $20^{\circ}$  S.L.)

On the Eastern side this difference is not so striking as in the West, and there exists a great affinity with the fauna of the Zanzibar mainland, Mombassa, Somaliland and Abyssinia.

All along the sea-coast extends a narrow tropical belt, which seems to end in the neighbourhood of D'Urban, Natal, and where many of the most northern types occur, and I believe that if the sea-board extending from D'Urban to St. Lucia Bay was carefully searched, nearly all the species found on the  $14^{\circ}$  of lat. would also be met with there.

In the west the difference in the fauna from that of the East is very sensible and the  $22^{\circ}$  longitude may be regarded as a good dividing line, and it is in the Cape Colony that this change is especially striking, the coleoptera of Little Namaqualand differ widely from those of Natal.

The fauna of Damaraland and Ovampoland is also greatly differentiated from that of Central Angola.

I have adopted the use of Genera and Sub-Genera, of Species and Varieties. It is so difficult now-a-days to agree on the respective value of some generic and specific characters that I prefer to leave to the student to decide if the small difference of colouring, size or sculpture, of what I consider a variety, should be regarded as constituting a species.

This catalogue cannot be regarded as final. Zanzibar, Gazaland, the northern parts of Ovampoland, will in all probability yield new forms of the wingless genera *Myrmecoptera*, *Dromica*, *Cosmema*.

South-African Museum,  
Cape Town, 1st December, 1892.

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## ERRATA.

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- Page 8, line 15, read *Castelnau* instead of *Castellan*.  
" 8, " 16, " *tuberculata*.  
" 15, " 21, " plate II, instead of 11.  
" 57, " Prodotes, T. Thoms., Ann. Fr., 1856, p. 332.

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## PLATES.

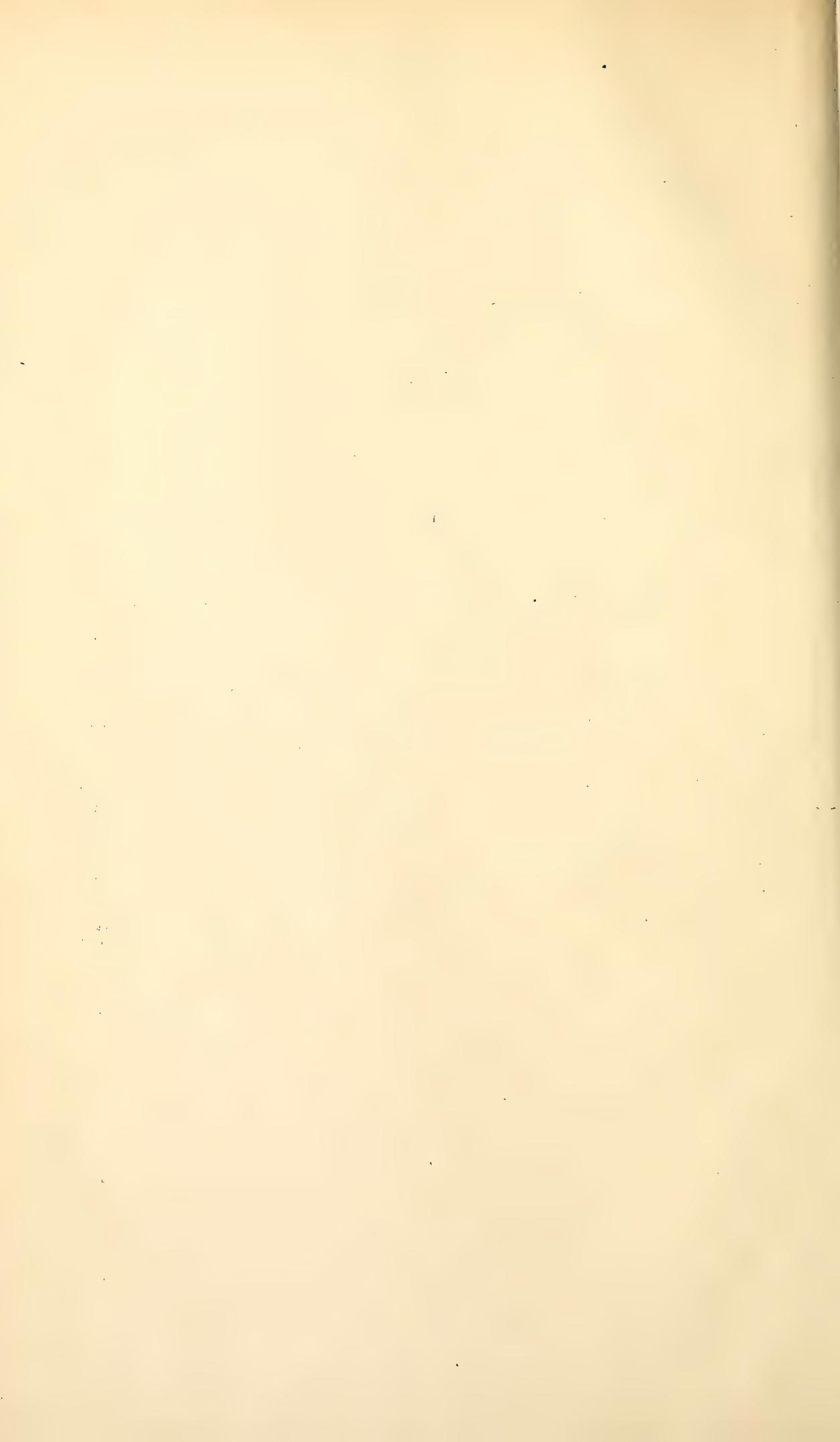
- Plate I, fig. 1, read *Mantichora ferox*, Péring., instead of *M. Ludovici*, Cast.  
" I, " 5, " *Cicindela notata*, Bohem., instead of *C. notata*, Péring.  
" II, " 3, " *Ophryodera* instead of *Ophrydera*.

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# BIBLIOGRAPHY.

## LIST OF WORKS QUOTED IN PARTS I. AND II.

(CICINDELIDÆ—CARABIDÆ.)

### BATES, H. W.

Notes on Cicindelidæ and Carabidæ, and descriptions of new species. Nos. 15 and 19. *Entomologist's Monthly Magazine*, 1872, vol. viii., pp. 285-287. *Loc. cit.*, vol. xi., pp. 177-180.

Notes on Cicindelidæ and Carabidæ, &c. No. 19. *Loc. cit.*, 1875, vol. xi., pp. 177-180.

Description of twenty-five new species of Cicindelidæ. *Cistula Entomologica*, 1875-1882, vol. ii., Part xxxviii., pp. 329-336.

Tropical African Coleoptera, chiefly from the Zanzibar Mainland. *Entomologist's Monthly Magazine*, 1886, vol. xxii., pp. 188-197; 1887, vol. xxiii., pp. 9-13, 54-57; 1888, vol. xxiv., pp. 200-203.

### BERTOLONI, G.

Illustrazione dei prodotti naturali del Mozambico. Illustratio rerum naturalium Mozambic. Coleoptera. Dissert., 1-5, 1845-1858 (1-3, *Nuovi Ann. Sc. Nat. Bologn.*; 4-5, *Memor. Acad. Sc. Inst. Bologn.*).

Coleoptera nova Mozambicana. *Rendic. dell. Acad. Scien. Bologn.*, 1846-1847, pp. 216-219; 1847-1848, pp. 35-38; 1854-1855, pp. 51-53; 1856-1857, pp. 80-82. *Nuov. Ann. Scien. Nat. Bologn.*, series 2, 1848, pp. 79-82; pp. 293-296.

Sept espèces nouvelles de Coléoptères carnassiers de Mozambique. *Revue et Mag. de Zoologie*, series 2, 1859, vol. ii., pp. 39-40.

### BOHEMAN, C. H.

Insecta Caffrariæ, annis 1838-1845, a J. A. Wahlberg collecta. Part I., 1848-1851. Holmiae, 297 pp.

Kongliga Svenska Fregatten Eugénies Resa omkring Jorden under Befäll of C. A. Virgin, 1851-1853 (Coleoptera). Stockholm, 1858, 4<sup>o</sup>, 183 pp.

Coleoptera samlade af J. A. Wahlberg i Syd-Vestra Afrika. *Ofvers. K. Vet. Acad. Förh.*, 1860, pp. 3-120.

### BONELLI, F. A.

Observations Entomologiques (Carabidæ). Part I. *Mémoires de l'Académie des Sciences de Turin*, 1809; Part II. *Loc. cit.*, 1813, p. 108.

### BRÈME, F. DE

Insectes Coléoptères nouveaux ou peu connus. *Annal. Sociét. Entom. de France*, 1844, pp. 287-313.

## BRULLÉ, A.

- Histoire naturelle des Insectes, &c. Paris, 1834-1838, 8vo, 4 vols.  
 Observations critiques sur la synonymie des Carabiques. *Silberman's Revue Entomologique*, 1834, vol. ii., pp. 89-114.

## CASTELNAU, F. L. DE LAPORTE

- Histoire naturelle et iconographique des Coléoptères. Paris, 1835-1840, 8vo, vols. i. and ii. Coléoptères.  
 Etudes entomologiques ou description des Insectes nouveaux, &c. (Carnassiers). Paris, 1834, 8vo.  
 Monographie des Mantichores. *Revue Zoologique*, 1863, p. 64, et sequitur.

## CHAUDOIR, M. DE

- Description de quelques genres nouveaux et de quelques espèces nouvelles ou inédites de Carabiques. *Bullet. de la Société impériale des Naturalistes de Moscou*, 1837, vol. x., pp. 1-20.  
 Genres nouveaux et espèces nouvelles de Coléoptères de la famille des Carabiques. *Loc. cit.*, 1837, vol. x., pp. 1-50.  
 Tableau d'une nouvelle subdivision du genre *Feronia*, Dejean. *Loc. cit.*, 1838, vol. x., pp. 3-32.  
 Description de quelques genres nouveaux de la famille des Carabiques. *Loc. cit.*, 1842, vol. xv., pp. 381-407; 1843, vol. xvi., pp. 383-430.  
 Carabiques nouveaux. *Loc. cit.*, 1843, vol. xvi., pp. 675-791.  
 Trois Mémoires sur la famille des Carabiques. *Loc. cit.*, 1844, vol. xvii., pp. 416-480.  
 Note sur le groupe des Stomides. *Loc. cit.*, 1846, vol. xix.  
 Mémoires sur la famille des Carabiques. *Loc. cit.*, 1848, Part I., vol. xxi., pp. 3-134; 1850, Part II., vol. xxiii., pp. 3-196; 1852, Part III., vol. xxv., pp. 3-104; 1854, Part IV., vol. xxvii., pp. 112-219; 1855, Part V., vol. xxviii., pp. 1-110; 1856, Part VI., vol. xxix., pp. 187-292; 1857, vol. xxx., pp. 1-64.  
 Matériaux pour servir à l'étude des Cicindélètes et des Carabiques. *Loc. cit.*, 1860, vol. xxxiv., pp. 269-337; 1861, vol. xxxiv., pp. 491-577; 1862, vol. xxxv., pp. 275-321.  
 Essai monographique sur le genre *Abacetus*, Dejean. *Loc. cit.*, 1869, vol. xlii., pp. 355-410.  
 Monographie des Lébiides. *Loc. cit.*, 1870, vol. xliii., pp. 111-255; 1871, vol. xliv., pp. 1-87.  
 Monographie des Graphiptérides. *Loc. cit.*, 1870, vol. xliii., pp. 282-340.  
 Observations sur quelques genres de Carabiques avec la description d'espèces nouvelles. *Loc. cit.*, 1872, vol. xlv., p. 382.  
 Matériaux pour servir à l'étude des Féroniens. *Loc. cit.*, 1873, vol. xlvii., pp. 85-114; 1874, vol. xlviii., pp. 1-34.  
 Genres aberrants du groupe des Cymindides. *Loc. cit.*, 1875, vol. xlix., pp. 1-61.  
 Monographie des Siagonides. *Loc. cit.*, 1876, vol. l., pp. 1-64.  
 Etude monographique des Masoréides et Tétragonodérides. *Loc. cit.*, 1876, vol. li., pp. 1-84.  
 Genres nouveaux et espèces inédites de la famille des Troncatipennes. *Loc. cit.*, 1877, vol. lii., pp. 1-81.  
 Description de genres nouveaux et d'espèces inédites de Carabiques. *Loc. cit.*, 1878, vol. liii., pp. 1-80.  
 Essai monographique sur les Morionides. *Loc. cit.*, 1880, pp. 1-68.  
 Description d'espèces nouvelles de Cicindèles et Carabiques. *Revue et Magasin de Zoologie*, 1862, 7 pp.  
 Description de Cicindélètes et de Carabiques nouveaux. *Loc. cit.*, 1863, March-April (author's copy), pp. 1-13.  
 Note sur les genres *Dromica*, *Tricondyla* et *Collyris*. *Loc. cit.*, 1864, 7 pp.  
 Description d'une *Anthia* inédite et de quatre *Polyhirma*. *Loc. cit.*, 1866, pp. 70-73.  
 Note monographique sur le genre *Omopron*. *Loc. cit.*, 1868, pp. 54-63.  
 Description d'espèces nouvelles de Carabiques de la tribu des Troncatipennes. *Loc. cit.*, 1872, pp. 101-138, 168-212, 241.

- Catalogue des Cicindèles et des Carabiques recueillis par M. Achille Raffray en Abyssinie avec la description des espèces nouvelles. *Loc. cit.*, 1876 pp. 329-388.
- Énumération des Cicindélètes et des Carabiques recueillis par M. Achille Raffray dans les îles de Zanzibar, &c., avec description d'espèces nouvelles. *Loc. cit.*, 1878, pp. 69-103, 145-161, 175-194.
- Mémoire sur les Thyréoptérides et les Coptodérides. *Annales de la Société Entomologique de Belgique*, 1869, vol. xii., pp. 113-256.
- Essai monographique sur le groupe des Pogonides. *Loc. cit.*, 1871, vol. xiii., pp. 22-61.
- Essai monographique sur les Orthogoniens. *Loc. cit.*, 1872, vol. xiv., pp. 95-130.
- Essai monographique sur les Drimostomides et les Cratocérides et description, &c. *Loc. cit.*, 1872, vol. xv., pp. 5-23.
- Monographie des Callidides. *Loc. cit.*, 1872, vol. xv., pp. 97-204.
- Monographie des Brachynides. *Loc. cit.*, 1876, vol. xix., pp. 1-104.
- Essai monographique sur les Panagéides. *Loc. cit.*, 1878, vol. xxi., pp. 83-186.
- Monographie sur les Scaritides. *Loc. cit.*, 1879, Part I., vol. xxii., pp. 134-182; 1880, Part II., vol. xxiii., pp. 5-130.
- Monographie des Chléniens. *Annali del Museo Civico di Storia Naturale di Genova*, 1876, vol. viii., pp. 6-315.
- Description de quelques genres et espèces de Carabiques nouveaux. *Annales de la Société Entomologique de France*, 1835, pp. 429-448.
- Description de Calosoma nouveaux des collections de MM. de Chaudoir et Sallé. *Loc. cit.*, 1869, pp. 367-378.
- Monographie des Oodides. *Loc. cit.*, 1882, pp. 317-378, 485-554.
- Description de Carabiques nouveaux. *Coleopterorum Novitates*. Rennes, 1883, vol. i., pp. 17-39.
- Catalogue de la Collection de Cicindélètes de Mr. le Baron Maximilien de Chaudoir. Bruxelles, 1865, 8vo, 64 pp.
- CHEVROLAT, A.  
Description du *Graphipterus femoratus*. *Revue et Magasin de Zoologie*, 1835, ann. v., No. 138.
- CLAIRVILLE, J. DE  
Entomologie helvétique, ou catalogue des Insectes (Coléoptères) de la Suisse, rangés d'après une nouvelle méthode, avec descriptions et figures, 1798 and 1806, 2 vols.
- DEJEAN, P. F. M. A.  
Spécies général des Coléoptères de la collection de M. le Comte Dejean. Paris, 1825-1831, 8vo, 5 vols. in 7 tomes.  
Iconographie et histoire naturelle des Coléoptères d'Europe. Paris, 1829-1840, 8vo, 5 vols.
- DOHRN, C. A.  
Exotisches. *Stettin. Entomologist Zeitung*, 1881, pp. 309-327; 1882, pp. 245-260; 1883, pp. 278-284, 357-364.  
Coleoptera Transvaalensia. *Loc. cit.*, 1891, pp. 382-386.
- DOKTOUROFF  
Spécies des Cicindélides, Part I. St. Petersburg, 1882, pp. 1-92.  
Matériaux pour l'étude des Cicindélides. *Rev. Mens. d'Entomologie*, 1883.
- DUFOUR, LÉON  
*Annales des Sciences naturelles*, 1826, vol. viii., pp. 358-361.
- ERICHSON, W. F.  
Die Käfer der Mark Brandenburg. Berlin, 8vo, 1837-1839, 2 vols.  
Beitrag zur Insecten-Fauna von Angola, in besonderer Beziehung zur geographischen Verbreitung der Insecten in Africa, pp. 199-267.  
Wiegman's *Archiv. der Naturgeschichte*. Berlin, 1843, vol. ix.

## FABRICIUS, J. C.

- Mantissa Insectorum sistens eorum species nuper detectus adjectis characteribus genericis, &c. Hafniae, 1787, 8vo, 2 vols.  
 Systema Entomologia sistens Insectorum classes, ordines, genera, species adjectis, synonymis, &c. Lipsiae, 1775, 8vo.  
 Entomologia systematica emendata et aucta secundum classes, ordines, genera species, &c. Hafullae, 1792-1794, 8vo, vols. i.-iv. cum supplem.  
 Systema Eleutheratorum secundum ordines, genera, species adjectis, synonymis, locis observationibus, descriptionibus. Kiliae, 1801, 8vo, 2 vols.  
 Index generum et specierum systematis Eleutheratorum. Kiliae, 1802, 8vo, pp. 1-79. Edit. altera. Helmstadii, 1803, 4° and 8vo.

## FAIRMAIRE, L.

- Note sur les Coléoptères recueillis par C. Coquerel à Madagascar et sur la côte d'Afrique. *Annales de la Société Entomologique de France*, 1868, pp. 754-820.  
 Enumération des Coléoptères recueillis par Mr. le Dr. Hans Schinz dans le Sud de l'Afrique, &c. *Loc. cit.*, 1888, pp. 173-202.

## FISHER VON WALDHEIM, G.

- Entomographia imperii russici; Genera insectorum systematice exposita et analysi iconographia instructa. Mosquae, 1820-1851, gr. 4°, 5 vols.

## GEER, DE

- Mémoires pour servir à l'histoire des Insectes. Stockholm, 1752-1778 4°, 7 vols.

## GERMAR, E. F.

- Magazin der Entomologie*. Halle, 1817-1821, 8vo, vols. i.-iv.  
 Insectorum species novae aut minus cognitae descriptionibus illustratae Coleoptera. Halae, 1824, 8vo, 1 vol.

## GERSTAEKER, C. E. A.

- Die Gliederthier Fauna des Sansibar-Gebietes. Leipzig, 1873, 8vo.

## GESTRO, R.

- Appunti sul genere Omophron. *Annali del Museo Civica di Storia Naturale di Genova*, 1892, vol. x. (xxx.), pp. 1-4.  
 Esplorazione del Giuba. Risultati zoologici Coleotteri. *Annali del Museo di Genova*, 1895, vol. xv., pp. 1, 254.

## GORY, H. L.

- Description de deux Coléoptères nouveaux. *Annales de la Société Ent. de France*, 1836, vol. v., pp. 209-211.  
 Centurie de Carabiques nouveaux. *Loc. cit.*, 1833, vol. ii., pp. 168-247.

## GUÉRIN-MÉNEVILLE, F. E.

- Iconographie du règne animal de Cuvier, &c. Paris, 1829-1844, 7 vols., 7th vol. Insecta.  
 Voyage en Abyssinie exécuté pendant les années 1839-1843 par Mr. Léfèbre. Insectes. Paris, 8vo, Part iv., vol. vi., pp. 239-290.  
*Revue et Magasin de Zoologie pure et appliquée*. Paris, 1849-1878.  
 Description de quelques uns des Insectes les plus remarquables découverts par Mr. A. Delegorgue dans le pays des Boschimans, Omazoulous, &c. *Revue Zoologique*, 1845, vol. viii., pp. 283-286.

## HERBST, J. F. W.

- Natursystem aller bekannten in-und ausländischen Insecten, 1785-1806, 8vo, 21 vols. Käfer, vols. i.-x.

## HOPE, F. W.

- Griffith's Animal Kingdom. Insects. London, 1832, 8vo, vol. xiv.  
 The Coleopterist's Manual. London, 1837-1840, 8vo, 3 vols.

## HORN, DR. W.

Fünf Dekaden neuer Cicindeleten. *Deutsche Entom. Zeitsch.*, 1892, pp. 65-98.

Beitrag zur Kenntniss der Cicindeleten. *Loc. cit.*, 1892, pp. 209-219.

Neue Cicindeleten. *Loc. cit.*, 1894, pp. 109-112.

Der 'Descriptive Catalogue of the Coleoptera of South Africa. Cicindelidæ.' *Loc. cit.*, 1894, pp. 305-317.

## HORN, DR. G. H.

On the Genera of Carabidæ, with special reference to the Fauna of Boréal America. *Trans. Americ. Entom. Soc.*, 1881, vol. ix., pp. 91-196.

## ILLIGER, J. C. W.

Magazin für Insectenkunde. Braunschweig, 1802-1807, 8vo, vols. i.-vi.

## KIRBY

A description of such Genera and Species of insects, alluded to in the 'Introduction to Entomology' of MM. Kirby and Spence, &c. *Transactions Linnean Society of London*, 1825, pp. 563-572.

## KLUG

Symbolæ physicae, seu Icones et descriptiones Insectorum, quæ ex itinere per Africam borealem et Asiam F. G. Hemprich et C. H. Ehrenberg studio novæ aut illustratæ redierunt. Berolini, 1829-1845, fol., 5 parts.

Jahrbücher der Insectenkunde mit besonderer Rücksicht auf die Sammlung im Königl. Museum in Berlin herausgehen. Berlin, 1834, 8vo. Erster (einziger) Band.

Bericht über eine auf Madagascar veranstaltete Sammlung von Insecten aus der Ordnung Coleoptera. *Abhandl. d. Königl. Akad. d. Wissensch. zu Berlin*, 1832-1833, pp. 91-223.

Die Arten der Gattung Manticora. *Linnea Entomologica*, 1849, vol. iv., pp. 417-424.

Uebersicht der von Hr. Peters während seines Aufenthalts in Mossambik veranstalteten entomologischen Sammlungen. *Bericht d. Verhandl. d. Ak. zu Berlin*, 1853.

Die Bearbeitung der Coleoptera (Carabiden bis Lamellicornien) in Peters' Reis nach Mossambique, vol. v. Berlin, 1855-1862, 4°.

## KOLBE, H. J.

Die Larve einer Manticora. *Berliner Entom. Zeitsch.*, 1885, p. 48.

## KRAATZ, DR. G.

Ueber die africanische Cicindeliden-Gattung Eurymorpha. *Deutsch. Entom. Zeit.*, 1891, pp. 255-256.

## LACORDAIRE, J. TH.

Révision de la famille des Cicindélites, accompagnée de la description de quelques genres nouveaux. *Mémoires de la Société des Sciences de Liège*, 1845, vol. iii.; 1848, vol. v.

Histoire naturelle des Insectes. Genera des Coléoptères. Paris, 1854, 8vo, vol. i.

## LAFERTÉ, F. DE.

Révision de la tribu des Patellimanes de Dejean. *Annal. Soc. Ent. de France*, 1851, pp. 209-294.

## LATREILLE

Histoire naturelle générale et particulière des Crustacés et des Insectes. Paris, 1802-1805, 8vo, 14 vols.

Genera Crustaceorum et Insectorum secundum ordinem naturalem in familias disposita, iconibus exemplisque plurimis explicata. Parisiis, 1806-1809, royal 8vo, 4 vols.

Considérations générales sur l'ordre actuel des animaux composant les classes des Crustacés, des Arachnides et des Insectes. Paris, 1810, 8vo.

Histoire naturelle et iconographique des Coléoptères d'Europe, avec M. Dejean. Paris, 1822, 8vo.

Familles naturelles du règne-animal, exposées succinctement, et dans un ordre analytique avec l'indication de leurs genres. Paris, 1829, 8vo.

## LEQUIEN

Monographie du genre *Anthia*. Guérin's *Magas. de Zool.*, 1832, vol. ii., Nos. 38-41.

## LINNÉ, CARL VON

Museum S. R. M. Ludovicae Ulricae Reginae, &c., in quo animalia rariora notica, imprimis insecta et conchilia describuntur et determinantur, prodromi instar editum. Holmiae, 1764, 8vo.

## MACLEAY, WILLIAM SHARP

*Annulosa Javanica*, or an attempt to illustrate the natural affinities and analogies of the insects collected in Java by T. Hornsfield (London, 1825, 4°). Coleoptera.

## MOTSCHULSKY, VICTOR VON

Antworp an Dr. Gebler auf einige seiner Bemerkungen in der No. 11 des Bulletin, &c. *Bulletin des Naturalistes de Moscou*, 1847, Part II., vol. xx., pp. 218-228; 1848, Part I., vol. xxi., pp. 483-493.

Note sur la *Glycia virgata* et le genre *Blechrus*. *Bulletin d. Natur. d. Mosc.*, 1864, p. 111.

Etudes Entomologiques. Helsingfors, 1853-1860, 8vo, vols. i.-ix. Dresde, 1861-1862, 3 vols.

## MURRAY, ANDREW

List of Coleoptera received from Old Calabar, on the West Coast of Africa. *Annals and Magazine of Natural History* (1857-1859), series 2 and 3; 1857, vol. xix., pp. 153-161, 313-326, 443-460; vol. xx., pp. 117-126; 1858 (series 3), vol. i., pp. 127-135; vol. ii., pp. 340-348; 1859, vol. iii., pp. 26-30; vol. iv., pp. 116-123, 352-358, &c. Also reprinted in one vol. from the *Ann. and Mag. Nat. Hist.*, 1857-71 (London, sm. 8vo, 1878).

## OLIVIER, ANTOINE GUILLAUME

Entomologie ou histoire naturelle des Insectes, &c. Coléoptères. Paris, 1789-1808, 4°, 6 vols.

## PÉRINGLEY, LOUIS

Contributions to the South African Coleopterous Fauna. Part I., *Transactions of South African Philosophical Society* (Cape Town, 8vo), 1885, vol. iii., pp. 74-149. *Loc. cit.*, 1888, Part II., vol. iv., pp. 67-194. *Loc. cit.*, 1892, Parts III. and IV., vol. vi., pp. 1-136.

Descriptions of some new species of Coleoptera in the British Museum. *Annals and Magazine of Natural History*, 1888, pp. 219-22.

Descriptions of new Cicindelidæ from Mashunaland. *Trans. Ent. Soc. Lond.*, 1894, pp. 447-453.

## PERROUD, B. P.

Description de quelques Coléoptères nouveaux ou peu connus, tribu des Carabiques, famille des Truncatipennes, section des Anthiaires. *Annales de la Société Linéenne de Lyon*, 1847, vol. i., pp. 25-64. Tirage séparé, pp. 1-40.

## PEYRON, EDOUARD

Description de deux genres et de quatre espèces de Coléoptères provenant d'Orient. *Annal. Soc. Entom. de France*, 1856, pp. 715-721.

## PUTZEYS

Monographie des *Clivina* et genres voisins, précédée d'un tableau synoptique des genres de la tribu des Scaritides. *Mémoires d. l. Société des Sciences de Liège*, 1845, vol. ii., pp. 521-623.

Postscriptum ad *Clivinidarum* Monographiam atque de quibusdam aliis. Leodii, 1862, 8vo.

## SAULCY, F. DE

Observations sur divers Coléoptères. *Ann. Soc. Ent. de France*, 1862, pp. 281-291.

SHARP, D.

On the classification of the Adepnaga, or carnivorous series of Coleoptera. *Trans. Entom. Soc. of London*, 1882, pp. 61-72.

SCHAUM, HERMANN RUDOLPH

Quelques observations sur le groupe des Panagéites et description de sept nouvelles espèces. *Annal. Soc. Entom. de France*, 1853, series 3, vol. i., pp. 429-441.

Das System der Carabiden. *Berlin Entomol. Zeitschr.*, 1860, pp. 161-178.

SCHIOEDTE, JOHAN GEORG

Moddelelse om et Paar nge guineiske Carabformer Kröger Naturh. Tidskrift, 1847, series 2, vol. ii., pp. 347-366.

SCHMIDT-GOEBEL, HERMANN MAX

Revision der Genera Demetrias and Dromius, Bonell. *Stettiner Entomol. Zeitung*, 1846, vol. vii., pp. 387-391.

Faunula Coleopterorum Birmaniae, adjectis nonnullis Bengaliae indigenis. Prag., 1846, 4°, Lief. i., pp. 1-94.

SCHONHERR, CARL JOHAN

Synonymia Insectorum oder Versuch einer Synonymie aller bisher bekannten Insecten nach Fabricius Syst. Eleutheratorum geordnet, &c. Eleutherata oder Käfer, 8vo, 3 vols.: 1806-1808, vols. i. and ii. Stockholm; 1817 and 1818, vol. iii. and Appendix, Skara.

SOLIER, ANTOINE JOSEPH JEAN

Observations sur les deux genres Brachinus et Aptinus. *Annal. Soc. Entom. de France*, 1833, vol. ii., pp. 459-463.

SOMMER, M. C.

Description d'une nouvelle espèce appartenant au groupe des Carabiques Patellimanés (Isotarsus eximius). *Annal. Soc. Entom. de France*, 1852, pp. 653-654.

STURM, DR. JACOB

Catalog meiner Insecten-Sammlung. Nürnberg, 1826, 8vo.

Insecten-Cabinet, nach der Natur gezeichnet und gestochen. Nürnberg, 1791-1792, 12°, 25 col. pl.

Catalog der Käfersammlung von J. Sturm. Nürnberg, 1843, 8vo, 6 col. pl.

THOMSON, JAMES

Description de quatre Lucanides nouveaux, d'une Cicindélide et de deux Longicornes. *Revue et Magasin de Zoologie*, 1856, vol. viii., pp. 516-528.

Monographie des Cicindélides ou exposé méthodique et critique des tribus, genres et espèces de cette famille. Paris, 1857, 4°, 10 pl.

Description de quelques Coléoptères nouveaux ou peu connus. *Annal. Soc. Ent. de France*, 1856, pp. 317-335, 1 pl.

Archives Entomologiques, ou recueil contenant des collections d'insectes nouveaux ou rares. Paris, 1857, 4°, 2 vols., 37 pl.

THUNBERG, CARL PETER

Novæ insectorum species descriptæ. Nov. Acta. Upsal., 1784, pp. 1-28.

TSCHISCHÉRINE, T.

Note sur quelques Feronia de l'Afrique méridionale et de l'île de Madagascar. *Horæ Entomol. Ross.*, 1891, xxv., pp. 150-159.

WALLENGREN, H. D. J.

Coleoptera Transvaliensia. *Entom. Tidskr.*, 1881, ii., pp. 9-22.

WATERHOUSE, G. R.

Description of a new genus of Carabidous insects from Tropical Africa. *Trans. Entom. Soc. of London*, 1842, pp. 210-213.

Description of a new Coleopterous insect of the genus Mantichora (M. latipennis). *Magazine of Natural History*, series 2, 1837, pl. 1, pp. 503-504.

## WEBER, FRIEDRICH

Observationes entomologicæ, continentes novorum quæ condidit generum characteres et nuper detectarum specierum descriptiones. Kiliae, 1801, 8vo.

## WESTWOOD, J. O.

Description of two anomalous Carabidous beetles. *Proceedings Entom. Soc. London*, 1864, p. 3.

Oate's, F., Matabeleland and the Victoria Falls. 2nd edition, 1889, Appendix K., pp. 338-389.

## WIEDEMAN, C. R. W.

Zoologisches Magazin. Kiel, 1817-1823, 8vo, 4 vols.

Neue exotische Käfer. Germar's *Magazin der Entomologie*, 1821, vol. iv., pp. 107-183.

## WISSMAN

Entomologische Notizen (Coleoptera and Diptera). *Stettiner Entom. Zeit.*, 1846, vol. vii., pp. 24-26.

DESCRIPTIVE CATALOGUE  
OF THE  
COLEOPTERA OF SOUTH AFRICA

BY

*L. PÉRINGUEY, F.E.S., F.Z.S., etc.,*

Assistant Curator of the South African Museum.

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PART I.

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*Cicindelidæ.*



THE TRANSACTIONS

OF THE

South African Philosophical Society.

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DESCRIPTIVE CATALOGUE OF THE COLEOPTERA OF  
SOUTH AFRICA. BY L. PÉRINGUEY, F.E.S., F.Z.S., ETC.,  
ASST. CURATOR SOUTH AFRICAN MUSEUM.

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PART I.

Order : COLEOPTERA.

Family : CICINDELIDÆ.

Mentum notched, labium very short, hidden by the mentum ; maxillæ long, slender, ciliated inwardly, ending in an articulated hook, and with an inner palpiform, bi-articulated process ; mandibles long, falcate, with several teeth on the inner curve ; palpi quadri-articulated ; antennæ with eleven joints ; legs slender, nearly always very long ; tibiæ not notched on the inner side ; tarsi five jointed.

Lacordaire (Gener. d. Coleopt. t. 1. 1854, p. 5) divides this family into five tribes, three of which only are represented in South Africa<sup>1</sup> : *i.e.*—

1. Maxillæ ending in an articulated hook.

(A.) Third joint of the maxillary palpi longer than the fourth.

*a.* First joint of the labial palpi hardly longer than the depth of the notch in the mentum. MANTICHORIDÆ.

*b.* First joint of the labial palpi longer than the depth of the notch in the mentum. MEGACEPHALIDÆ.

(B) Third joint of the maxillary palpi shorter than the fourth. CICINDELIDÆ.

### Tribe : MANTICHORIDÆ.

Palpi moderately long, the labial and maxillary of about the same length, both with the apical joint slightly flattened at the tip ; no wings under the elytra, six abdominal segments in both sexes,<sup>2</sup> the anterior tarsi not dilated in the male.

*A.* Abdomen with six segments in both sexes, anterior tarsi not dilated in the male. MANTICHORA.

*B.* Abdomen with seven segments in the male, six in the female, anterior tarsi of the male dilated : PLATYCHILE.

Gen. MANTICHORA. Fabric.

Syst. Eleuth. 1. 1801. p. 167.

Mentum broadly notched, and with a strongly developed, median, slightly hooked tooth ; mandibles long, broad, very powerful, labrum with six sharp teeth in front, palpi slightly flattened at the tip ; antennæ filiform, the seven apical joints slightly pubescent ; head broad, eyes prominent with two orbital ridges on each side, one above

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<sup>1</sup>The other two tribes are *Collyridæ* and *Ctenostomidæ*.

<sup>2</sup>The last segment, owing to a deep, narrow groove at the base, seems to be bi-segmented. It is not so, however, as I did not find any spiracle in connection with that groove.

the other ; prothorax short, narrowed in the anterior part, the posterior developed behind in two lobes, broadly notched in the centre ; elytra soldered together, plane or slightly convex, deeply depressed at the base for the reception of the prothoracic lobes, declivous behind, more or less densely set with short, setigerous granules, which are more closely set, larger and have longer hairs at the declivity ; legs long, with strong bristles, tarsi not grooved, the anterior ones not dilated in the male ; six abdominal segments in both sexes, the penultimate one not incised in the male.

The male has long, falciform mandibles, the left one overlapping the right, which is longer in the curve, furnished with two large, triangular, flat inner teeth, with one or more minor teeth between, and a bi or trifold one at the very base ; the elytra are always more or less amplified in the middle, almost parallel, (*tuberculata*) cordiform, (*mygaloides*, *scabra*) or even nearly orbicular, (*ferox*) with the disk plane or a little convex, and gradually or abruptly declivous behind.

The female has shorter mandibles, each one with two inner flat teeth, one near the base, the other in the centre, besides the bifid one at the very base ; the elytra not being narrowed at the base look more nearly parallel, they are more convex at a short distance from the base, more abruptly declivous behind, and are more closely granulated, and the granules more pronounced.

Mantichora are black insects, that perched high on their legs move about in the dry barren plains of the Karoo, in a jerky impetuous manner, which implies a bold, fearless temper, evidently aware of its physical power. They do not emit, like the *Anthia*, a volatile fluid, in spite of the assertion to that effect, but they inflict a somewhat painful bite on the would-be captor if they are allowed an opportunity of doing so. The greater development of the mandibles of the male has probably been acquired for the purpose of seizing hold, as they do, of the broad neck of the female for mating. The males are very pugnacious among themselves.

I am still wondering what the Mantichora prey upon, and I am not at all satisfied that ants are their staple food, although I have several times seen examples with heads of soldiers of *Formica rufopilosa* fixed by their jaws on antennæ or legs.

I met once with a great number of *M. tuberculata* in the neighbourhood of Kimberley. It was after a moderate shower of rain (December) on a barren, dry, red-coloured soil, where one could hardly expect to come across much of insect life. Yet close search revealed the presence of a few grass-hoppers, the females of which are devoid of wings, *Hoplotopha asina*, Sauss, and which owing to their colouring adapt themselves so well to their immediate surroundings as to be very difficult of detection. *Graphipterus* (Carabidæ) were also fairly plentiful.

I found several vertical galleries of the larvæ, which were, however, on the alert, and would descend rapidly as I drew near the entrance. The ground was too hard to excavate, and they would not be lured out of their burrows.

I had probably alighted on a special breeding place, as I could have easily captured more than two hundred examples of *Mantichora* in a few hours.

I found one sort of ant only in that locality, and it was not plentiful, and although I have no doubt that a *Mantichora* can easily attack an *Hoplotopha*, I still wonder at the kind of prey made use of by the larva, unless it is the white ant, *Termes*, spec. which swarms in huge numbers after a shower of rain. That food was, however, scarce in that locality was evidenced by the small size of most of my captured specimens, some of them being the smallest I have yet seen.

To this scarcity or abundance of nutritive material is probably due the great diversity in size and sculpture, which makes the specific study of this genus so very difficult.

Although *Mantichora* is, as stated, generally found running in open bare spots, Mr. J. H. Brady informs me that he has captured it under stones in the neighbourhood of Port Elizabeth (Cape Colony).

Rev. H. Junod, of Rikatla, near Lourenzo Marquez (Delagoa Bay) writes that the natives there are in the habit of crushing with their foot this beetle, which, according to them, has a nauseating smell, and it is a common occurrence to meet with a *Mantichora* with crushed elytra.

So far as is now known the genus *Mantichora* is not met with north of the Equator.

I have seen examples from Mozambique, and also one (British Museum) from Lake Nyassa.

I am not aware of any specimens having been captured on the Zanzibar mainland, although the entomological fauna of that part of Africa is now pretty well known, so far as the large-sized beetles are concerned.

Thus the limit of the range in the Eastern part of Africa would seem to be about the tenth degree of latitude South, while in the Western side one species (*M. congoensis*, Péring.) has been captured on the Congo River, *i.e.*, about four degrees more north than on the eastern side. This Congo species is small, about the size of *tuberculata*, while the South African species are larger in the northern parts.

However dissimilar the facies of a full-grown *Mantichora* is to that of a *Cicindela*, the larval state is almost identical.

Herr H. J. Kolbe has described (Berl. Entom. Zeit. 1885 p. 48) what he considered to be the larva of *Mantichora*, from an incomplete example collected at Barmen, a mission station in Damaraland.

Through the kindness of Mr. E. G. Alston, of Van Wyk's Vley, Cape Colony, I am able to give the description of what is undoubtedly the larva of *Mantichora tuberculata*, *Megacephala* not having been met with in that locality:—

Body of thirteen segments, head plane, horny with a trapeziform, distinct labrum denticulated at the tip, set with regularly-disposed, short, setigerous tubercles, and a few rigid long bristles, the hind margin bristly, pale yellow, with the labrum infuscated, a transverse brown depressed line starting on each side from the point of insertion of the antennæ, and culminating in a brown fossa; two longitudinal brown lines in the centre, above the labrum, and a larger, also brown, fossa on each side of the base. Width of head, 7<sup>m.m.</sup>; mandibles long, arcuated above the labrum, and with a long, stout inner tooth; underside very convex, bristly, with a long groove in the centre; mentum cordiform; labium quadrangular, bristly, with two median three-jointed, short palpi, and two lateral ones, each of these with a long stout basal joint, longer than the second, which bears two smaller ones, the outer one of which is three-jointed, while the inner one is single; antennæ quadri-articulated, with the basal articulation very thick;

four eyes on each side set on a very prominent black process, slightly bristly, the two upper ones very large, the lower ones hardly discernible; the three thoracic segments horny, the first one  $9\frac{1}{2}^{\text{m.m.}}$  wide, semi-lunar, broader than the head, and one-third longer, grooved in the centre, and with four dark impressions, two on each side of the median groove, carinated all round, with the outer carina set with short bristles, the second one, parallel, half the size of the first, grooved in the centre with a sub-lateral depression on each side, the third one trapezoid, shorter than the second and broader, the fourth, fifth, sixth and seventh horny above and underneath, the eighth with two large hirtose, fleshy tubercles, with a distinct horny ridge in the centre, and each tubercle with two curved sharp spines, the outer one twice as long as the inner one, ninth segment also raised . . . the other three have been crushed, each segment with lateral fascicles of hairs; legs five-jointed, tarsi with two claws, the inner one twice as long as the outer one. Length,  $38^{\text{m.m.}}$

It is almost impossible to identify quite accurately the species described by different authors and included in this genus.

For a long time only one species, *i.e.*, *M. tuberculata*, De Geer<sup>1</sup> (1778) was known; it was described anew by Thunberg<sup>2</sup> (1781), and by Fabricius<sup>3</sup> (p. 101). One wonders at such a conspicuous insect not having come under the notice of Linnæus.

Waterhouse, in 1837,<sup>4</sup> described another (a female), and gave it the name of *latipennis*.

Klug, in a monograph of the genus (1849),<sup>5</sup> described and figured the male of *latipennis*, and also three other species: *i.e.*, *herculeana*, *scabra*, and *granulata*, and Boheman in 1848<sup>6</sup> had added one species, *i.e.*, *tibialis*.

Jas. Thomson, in 1859,<sup>7</sup> made an attempt at monographing the

<sup>1</sup>Mém. Insect. VII., 1778, p. 623, t. 46, fig. 14.

<sup>2</sup>Nov. Ins. Spec. 1781, p. 25, t. 1, fig. 38.

<sup>3</sup>Syst. Eleuther. 1801, p. 167.

<sup>4</sup>Ann. and Mag. Nat. History, 1, 1837, p. 503, fig. 62.

<sup>5</sup>Monogr. Lin. Ent. IV., p. 417.

<sup>6</sup>Coleopt. Caffrar.

<sup>7</sup>Monogr. des Cicind.

genus ; he criticised several of the species already described, added two new ones, but although figuring the four species, which, according to him, form the genus, he cannot be said to have made clear the specific characters ; moreover, he makes egregious mistakes.

De Castelnau again, in 1863,<sup>1</sup> revised the genus, accepting, as well established all but one of the species of Thomson, and their synonyms, and added three more species, making the total ten.

De Chaudoir, in the Catalogue of the Cicindelidæ in his Collection (1865), adopts another synonymy for some of the species, although he had, doubtless, access to Thomson's and to Mniszech's collections.

Gemminger and Harold, in their *Catalogus Coleopterorum* (1868) have partly followed Castelnau's revision of the genus.

Few collections possess a good series of *Mantichora*, and the exact habitat of several species is not recorded accurately : it must not be forgotten that even at the time of De Castelnau's stay in South Africa, the country beyond the Orange River was almost an unknown land, crossed only by a few hunters and naturalists.

Wingless insects are also, owing to the limited area over which they can roam, more prone to making *races* than winged ones ; thus there are very slight differences in shape, granulation and size produced in different localities, owing to abundance or scarcity of food caused by droughts.<sup>2</sup> If to this we add that some so-called species have been described from one or two examples, we can easily understand the difficulty experienced in identifying them anew, even after examination of the types.

According to Klug there are  
5 species.

According to Thomson there  
are 4 species.

- |  |   |
|--|---|
| 1. <i>M. tuberculata</i> , De Geer. Caffraria. | 1. <i>M. tuberculata</i> , De Geer, Cape<br>(Port Elizabeth). |
| <i>gigantea</i> . Thunb. do.                   | <i>maxillosa</i> . Fabric.                                    |

<sup>1</sup>Revue Zoologique.

<sup>2</sup>In places, other than the Karoo, where abnormal atmospheric conditions occur but seldom, the size of *Mantichora* varies but little ; whereas Karoo examples vary enormously in size.

- |                          |                              |                          |                                     |
|--------------------------|------------------------------|--------------------------|-------------------------------------|
| <i>maxillosa.</i>        | Fabric. Caffraria.           | <i>gigantea.</i>         | Thunb.                              |
| <i>tibialis.</i>         | Bohem. do.                   | <i>tuberculata.</i>      | Guerin.                             |
| 2. <i>M. granulata.</i>  | Klug. Inter. S. Afric.       | <i>granulata.</i>        | Klug.                               |
| 3. <i>M. scabra,</i>     | „ Mozambique.                | <i>Dregei.</i>           | ?                                   |
| 4. <i>M. latipennis.</i> | Waterh. Natal.               | <i>tibialis.</i>         | Bohem.                              |
| 5. <i>M. herculeana.</i> | Klug. Interior<br>of Mozamb. | 2. <i>M. Sichelii.</i>   | Thoms., Border<br>of Caffraria.     |
|                          |                              | 3. <i>M. mygaloides.</i> | Thoms. Mozam-<br>bique, Natal.      |
|                          |                              | 4. <i>M. latipennis.</i> | Waterh. Kurri-<br>chan, Mozambique. |
|                          |                              | <i>scabra.</i>           | Klug.                               |
|                          |                              | <i>herculeana.</i>       | Klug.                               |

Castelnan tabulates them as follows :—

- |                           |                |               |
|---------------------------|----------------|---------------|
| 1. <i>M. tubercula a.</i> | De Geer, Klug. | Karoo.        |
|                           | Thoms.         |               |
| <i>gigantea.</i>          | Thunb., Guér.  |               |
| <i>maxillosa.</i>         | Fabric., Oliv. |               |
| 2. <i>M. tibialis</i>     | Bohem.         | Caffraria.    |
| 3. <i>M. Dregei.</i>      | Casteln.       | ?             |
| 4. <i>M. Sichelii.</i>    | Thoms.         | Orange River. |
| 5. <i>M. scabra.</i>      | Klug.          | Mozambique.   |
| 6. <i>M. herculeana.</i>  | Klug.          | Mozambique.   |
| 7. <i>M. Ludovici.</i>    | Casteln.       | Natal.        |
| 8. <i>M. latipennis.</i>  | Waterhouse.    |               |
| 9. <i>M. Livingstoni.</i> | Casteln.       |               |
| 10. <i>M. mygaloides.</i> | Thoms.         | Mozambique    |

Now I have been fortunate enough in being able to examine numerous series of *Mantichora* from nearly all parts of South Africa, as far as Mozambique in the East to Ovampoland in the West. I had also, four years ago, access for purposes of identification to the collections of De Chaudoir, now in the Paris Museum, of De Mniszech, owned by Mons. René Obertheir, in Rennes,<sup>1</sup> and to that of the British Museum ;<sup>2</sup>

<sup>1</sup>Which contains if not Castelnau's types, at least examples submitted to him. The Genoa Museum acquired Castelnau's Carabidæ, but not the Cicindelidæ.

<sup>2</sup>Contains, I believe, Thomson's types.

and I propose another arrangement of the species, laying stress, however, on the extreme difficulty of identifying the varieties. I do not myself believe that I have done better than those who have attempted this classification before, and I am not quite satisfied with my own arrangement, yet I believe it will make identification more easy than heretofore.<sup>1</sup>

I recognise 7 species :—

1. <i>M. tuberculata.</i>	De Geer.
<i>gigantea.</i>	Thunb.
<i>maxillosa.</i>	Fabric.
<i>granulata.</i>	Klug.
<i>Dregei.</i>	Casteln.
<i>Sicheli.</i>	Thoms.
var. <i>tibialis.</i>	Bohem.
2. <i>M. mygaloides.</i>	Thoms.
<i>Ludovici.</i>	Casteln.
var. <i>damarensis.</i>	Péring.
3. <i>M. Livingstoni.</i>	Casteln.
4. <i>M. latipennis.</i>	Waterh.
5. <i>M. herculeana.</i>	Klug.
6. <i>M. scabra.</i>	Klug.
var. <i>pseudo scabra.</i>	Péring.
7. <i>M. ferox.</i>	Péring.

The facies is very much the same for all the species, the difference being mostly in size, greater or lesser ampliation of the elytra in the middle and the declivity behind ; the colour is black, sometimes dark-brown ; the shape of the mandibles is nearly the same (*M. ferox* excepted), the head and prothorax are always vaguely punctured and have a few rigid bristles, the granulation consists of small, sharp, conical tubercles, directed backwards and carrying a fine bristle, this granulation is always more defined and closely set at the declivity where there is also a more or less distinct apical tuberculated ridge on each side,

<sup>1</sup>I have had to modify my arrangement as given in my 3rd contrib. to S. Afric. Coleopt. Trans. S. Afric. Phil. Soc., 1892.

each elytron has a fine dorsal raised line, better defined on the under part of the wing case than on the upper, and the outer sides are strongly serrated, with the humeral tubercle acute and more developed than the others in the male, while that of the female is very small.

The females are so very much alike that, with the exception of *ferox*, it is almost impossible to distinguish them, and I have therefore based my synopsis on male characters alone:—

## SYNOPSIS.

- ELYTRA : Nearly parallel, sloping gradually behind, the median anterior dorsal part nearly smooth. *tuberculata.*
- „ with the whole disk covered with small, closely set tubercles, tibiæ and basal joints of antennæ mostly reddish or reddish black. *var. tibialis.*
- „ amplified in the middle, slightly convex in the disk, gradually sloping behind, disk smooth in the anterior part. *mugaloïdes. var. damarensis.*
- „ elongated, slightly amplified in the middle, very plane, retuse behind, disk smooth in the anterior part. *Livingstoni.*
- „ slightly amplified in the middle, gradually sloping behind with the sutural part of the declivity much depressed, slightly granulated on the disk : *herculeana.*
- „ very little amplified in the middle, gradually sloping behind and retuse apically, closely granulated all over, the tubercles very conspicuous. *scabra. latipennis.*
- „ very cordiform, short, the posterior part more raised than the anterior, very retuse behind, and strongly granulated all over. *var. pseudo-scabra.*
- „ nearly orbicular, quite smooth, and shining on the disk and sides, slightly tuberculated behind, and the disk a little convex. *ferox.*

## M. TUBERCULATA. De Geer.

Mém. Ins. VII. 1778, p. 623, pl. 46, fig. 14.

Male : Black, moderately shining, head with a transverse impression between the point of insertion of the antennæ, and two longitudinal ones on the vertex, and with a few scattered bristles ; prothorax vaguely punctulated, although more closely in the anterior part than in the

posterior ; elytra with the outer sides serrated, but little amplified in the middle (average width  $14^{m.m.}$  behind the humeral tubercles,  $16^{m.m.}$  in the centre, and  $15^{m.m.}$  at the top of the declivity), sloping gradually behind, aculeated at the apex, and covered with short setigerous tubercles, leaving a broad, smooth space in the anterior part, the tubercles larger and more closely set at the declivity, and the hairs longer.

Length, mandibles excluded :  $33-41^{m.m.}$  ; width,  $15-18^{m.m.}$

Female : Coloured like the male, and punctuation of head and prothorax alike ; elytra amplified in the middle in the same proportion as the male, but the fact of its having the humeral angle only very slightly dented, instead of sharp and protruding, as in the male, makes it look more parallel ; it is also more convex and retuse behind, the tubercles are more closely set on the outer sides, leaving a narrower central smooth dorsal space.

Length,  $38-40$  ; width,  $16-18^{m.m.}$

Var. TIBIALIS. Bohem.

Insect. Caffr. vol. 1, p. 1.

Facies of the type-form, but generally a little more narrow ; the elytra are more closely tuberculated, and there is no smooth dorsal patch, although the tubercles are also smaller and not so closely set along the suture ; the four basal articulations of the antennæ are rufous, and so are the tibiæ (examples from Griqualand West and the Vaal River have these parts black) ; the raised line on each elytron is more distinct than in the type.

Male. length,  $35-40$  ; width,  $16-18$ .

Female. „  $31-38$  ; „  $14-17$ .

The habitat of the type-form and of the variety differs. While *tuberculata* seems to be restricted to the Western part of the Colony (Paarl, Montagu, Robertson, Prince Albert, Fraserburg, Beaufort West, Carnarvon, Little Namaqualand), the variety *tibialis* occurs in Willowmore, Port Elizabeth, Sunday River, Burghersdorp, Griqualand West, Orange Free State, ? Transvaal, and British Bechuanaland.

As must be expected, however, there are many forms of transition between the type and the variety.

The *M. Sichelii* of Thomson, Monogr. p. 9, is evidently from his description the typical *tuberculata*, although the figure pl. 2. fig. 1 does not show the smooth discoidal patch; and De Castelnau, who has doubtless seen Thomson's types, says in his Monograph: "that *Sichelii* is distinguished from both *M. tuberculata* and *Dregei* in having the disk of the elytra less granulated, and sometimes almost smooth.

In all probabilities it was *tuberculata* and not *tibialis* that found its way to Europe in the last century, because at that time the eastern and midland districts were either not occupied by the colonists or were not visited.

#### M. MYGALOIDES, Thoms.

Monogr. d. Cicind. 1857, p. 8 & 66, t. 2, fig. 3 & 4.

„ *M. Ludovici*, Casteln. Rev. Zool. 1883, p. 70.

Male: Black, or brownish black, not much shining: head broad, mandibles long and strong; prothorax of the usual shape, with a few punctures and bristles, the anterior part more closely punctured; elytra narrowed at the base and apex, and amplified in the middle, the sides of the disk depressed, the median part a little convex and sloping gradually behind; the line on each elytron more or less pronounced, the sides from the outer margin to the dorsal line finely granulated, the outer margin serrated, with the first tooth distant from the second.

Length, 46-43; width, 18-23<sup>m.m.</sup>

Female: Colouring of the male, elytra parallel, more or less granulated, the dorsal line either moderately well defined or obsolete.

Length, 37-43; width, 18-20<sup>m.m.</sup>

This species varies much in size.

I have taken as the types those examples the elytra of which are much narrowed in front and behind, and amplified in the middle (average width, 16-17<sup>m.m.</sup> behind the humeral tooth, 21 to 23<sup>m.m.</sup> in the centre, and 18-20<sup>m.m.</sup> at the top of the declivity). This form, however,

of which Thomson's figure gives a good idea, seems to be restricted to Northern Damaraland and Ovampoland.

The examples from the Limpopo region and the Transvaal, also from British Bechuanaland, are less amplified in the centre ( $16^{m.m.}$  across the shoulders,  $21^{m.m.}$  in the middle, and  $19^{m.m.}$  at the declivity), while other specimens from British Bechuanaland, Transvaal (Potchefstroom) and the Orange Free State, are hardly broader in the middle than a good size *tuberculata* ( $14^{m.m.}$  at the shoulders, 18 in the middle, and 16 at the declivity), from which they are to be distinguished less by the shape than by the finer granulation.

I believe that it is from *one* of these small examples that De Castlenau has described *M. Ludovici*, length,  $32^{m.m.}$ , width,  $16\frac{1}{2}^{m.m.}$  I cannot, however, consider it as a variety.

#### Var. DAMARENSIS.

Black, shining; head and prothorax like the type form; elytra more regularly cordiform, that is to say less narrowed at the base, with the whole of the disk from the outer sides gradually convex and sloping gradually behind, the sides are loosely granulated, and the sutural part nearly smooth, the outer margins are serrated as in the type.

The convex shape of the upper part of the elytra, which are also rounder laterally is the distinguishing feature of this variety. I have received a small example from Lower Damaraland, almost smooth, shining, and with the elytra nearly as sub-orbicular as *M. ferox*, and which, except for the differently shaped jaws, might have been taken for a variety of the latter.

Length, 37-40; width,  $18-22^{m.m.}$

Female like those of *mygaloides*.

Length, 39-41; width,  $20^{m.m.}$

Damaraland, vicinity of Lake N'Gami.

M LIVINGSTONI, Casteln.

Revue. Zoolog. 1863, p. 71.

Black, very shining, head and prothorax of *mygaloides*, the punctures

and the bristles alike; elytra more or less amplified in the middle (17<sup>m.m.</sup> across the shoulders, 21 to 24<sup>m.m.</sup> in the middle, and 19 to 22<sup>m.m.</sup> at the declivity), long, retuse behind, plane on the disk with the outer margins raised, and very closely and sharply serrated; the sides of the disk with a fine, dense, closely set granulation, leaving a nearly smooth discoidal space.

Length, 44-46; width, 21-23<sup>m.m.</sup>

Female: Colour of the male, and very shining, much depressed or moderately convex, the granulation very close, and the raised lines on each elytron well defined.

Length, 38-45; lat., 19-22<sup>m.m.</sup>

Doubtless closely allied to *mygaloides*, more shining as a rule and also longer. It is mostly differentiated by the serration of the outer margins, which is closer and sharper, the two humeral spines are always set at equal distance from one another, which is not the case with *mygaloides*; the more elongated shape of the upper part of the elytra, with the disk very much depressed, imparts to it a different facies, although the more rotund specimens form a link with *mygaloides*.

Mr. A. W. Eriksson has collected a good number of examples of this species in Northern Ovampoland, where *M. mygaloides* (typical) was also met with.

Northern Ovampoland.

*M. LATIPENNIS*, Waterh.

Magaz. Natur. Hist. 1, 1837, p. 503, fig. 62.

Hope. The Coleopt. Manual, 1838, frontispiece part II.

Klug. Linn. Entomol. IV. 1849, p. 421, pl. 11, fig. 6.

Waterhouse having described this species from a female example, the identity of *latipennis* cannot be ascertained, and although I believe that female to have been that of *mygaloides*, owing to the locality from which it is said to come from, I consider as the true *latipennis* of Klug, if not of Waterhouse, some examples I have received from the neighbourhood of Delagoa Bay, and which agree very much with the figure in Klug's monograph.

Black, very shining; head very broad, mandibles broad and very long; head and prothorax of the usual shape; elytra long, not much narrowed at the base, and very little amplified in the centre (16 to 19<sup>m.m.</sup> across the shoulders, 20 to 23 in the middle, and 19-21<sup>m.m.</sup> at the top of the declivity); plane on the disk, sloping gradually behind, and declivous at the apex, margins closely and sharply serrated, the whole of the upper part covered with a closely set, prominent granulation, and much more developed on the declivity than on the dorsal part.

Length, 45-47; width, 20-23<sup>m.m.</sup>

Although my examples of *latipennis* are, as a rule, not much amplified in the middle, yet I have received one, the elytra of which are as broad as those of *scabra* (19<sup>m.m.</sup> across the shoulders, 25<sup>m.m.</sup> in the middle, and 21 at the top of the declivity), the discoidal part is, however, longer, and the hind part is not so much raised.

Female: Colouring of the male, elytra with the whole of the disk conspicuously granulated.

Length, 43-46; width, 20-21<sup>m.m.</sup>

Delagoa Bay (Rikatla).

#### M. HERCULEANA, Klug.

Linn. Entomol. IV., 1849, p. 423, pl. 11, fig. 7.

Reise nach Mozambique, Insect, 1862, pl. VIII., fig. 1

Male: Black, moderately shining; head, mandibles and prothorax shaped like those of *latipennis*; elytra long, not much narrowed at the base, a little amplified in the middle (21<sup>m.m.</sup> across the shoulders 24<sup>m.m.</sup> in the middle, and 23 at the top of the declivity), plane on the disk, gradually dehiscent behind, with the sutural apical part deeply depressed; the granulation on the elytra, although close, is not much pronounced, and is denser on the sides than on the disk.

Length 50; width 24<sup>m.m.</sup>

The giant of the genus.

Closely allied to *latipennis*; the granulation of the elytra is not so dense nor so pronounced, and the depression of the suture in the posterior part is very noticeable.

Mozambique.

I have only a male example, but I have seen another one, I believe, from Lake Nyassa, in the British Museum.

M. SCABRA, Klug.

Linnaea. [Entomol. IV., 1849, p. 420, pl. 1, fig. 3 & 4.

Thoms. Monogr. d. Cicind., p. 8, pl. 2, fig. 1 & 2.

Reise nach. Mozamb. Insect. pl. 8, fig. 2 & 3.

Black, shining; head and mandibles as broad and long as in *latipennis*; prothorax of the usual shape; elytra short, very cordiform (16-17<sup>m.m.</sup> across the shoulders, 22-24 in the middle, and 19-20 at the top of the declivity), the anterior part of the disk depressed, the posterior part raised, very convex, and abruptly retuse behind; the whole of the upper part covered with a closely set prominent granulation, less dense, however, close to the suture.

The brevity of the elytra, which are also much amplified in the middle, and above all the convexity of the posterior part of the disk impart to this species a distinct facies.

Length, 43-47; width 22-24<sup>m.m.</sup>

The female is exactly like that of *latipennis*.

Length, 43-46; width, 20-21<sup>m.m.</sup>

Delagoa Bay (Rikatla, Antiocha),

Mashunaland (Manica, Tuli), Mozambique.

Var. PSEUDO-SCABRA.

Black, shining; head and mandibles of the type-form; elytra as cordiform, but with the posterior part of the disk less convex, that is to say, not so much raised, the granulation is smaller, the line on each elytron finer, and the discoidal space between these two lines smooth, and the lateral serration of the anterior part formed of five very distinct spines close to each other.

The granulation of the elytra, and also the lateral serration is that of *Livingstoni*, but the shortness of the elytra, the ampliation of the sides in the middle, and their abrupt declivity behind approximates this variety to *scabra*.

Length, 42 ; width, 23<sup>m.m.</sup>

I have seen one male only, which was captured by Mr. A. W. Eriksson, in Ovampoland (Cunene River).

**M. FEROX.** *new species.*

plate 1, fig. 1.

Brown, very shining ; jaws more slender than in the other species, the two inner teeth of the left mandible far apart, and of equal size, the apical one of the left with one or more minor teeth on each side, somewhat like a shark's ; head and prothorax of the usual shape, but hardly punctulated ; elytra nearly orbicular with the outer margins very acutely serrated, sharply declivous behind, with the posterior part of the disk somewhat convex, the upper part quite smooth, the declivity with very small setigerous granules not closely set.

Length, 30-45 ; width, 20-25<sup>m.m.</sup>

Female : As shining as the male ; the granulation of the hind part is, however, more pronounced, and there are also a few small tubercles scattered on the lateral sides of the disk.

Length, 39-44 ; width, 20-23<sup>m.m.</sup>

This species is very distinct from the others ; not only are the elytra more rotund than in any other, but the inner teeth of the mandibles are also differently shaped.

Great Namaqualand (Goagas), South-Damaraland.

Gen. PLATYCHILE.

McLEAY, *Annul. Jav.* 1825, p. 9.

Mentum with a long, acute tooth, the last joint of the palpi securi-

form, the basal one of the labial palpi a little longer than the tooth in the mentum ; mandibles with two inner falciform teeth and a bifid one at the base ; head broad ; labrum nearly straight with four teeth in the centre, the two median ones acute ; eyes not large ; antennæ filiform ; prothorax transversal, plane, the posterior angles produced in a very long, triangular spine fitting against the shoulders ; elytra ovate, not much convex ; no wings ; legs moderately long, tarsi very bristly ; male with the three basal, anterior tarsi dilated, and with seven abdominal segments, the penultimate one deeply incised, female with six segments only.

Although the shape of the mentum and of the palpi are those of *Mantichora*, I believe that the proper place of this genus is in the vicinity of *Tetracha* and *Megacephala*, in spite of its very distinct facies, for they have in common a seven-jointed abdomen in the male, with dilated tarsi, and mandibles nearly analogous ; the apical joints of the palpi are also in proportion more thickened than those of *Mantichora*, and like *Tetracha* they are nocturnal. The genus seems to be restricted to South-Africa, and has only as yet been met with on the Western part, from Houts Bay to Walfish Bay, and probably Benguela.

P. PALLIDA. Fabric.

*Syst. Eleuth.* 1, 1801, p. 167.

THOMS. Monog. des Cicind., p. 13, pl. 3, fig. 2.

Very pale-yellow, nearly transparent, smooth, shining ; apical part of the mandibles and inner teeth infuscated ; labrum with six rigid bristles in front ; head with two round median impressions ; prothorax trapeziform ; very little convex, very slightly narrowed at the apex and at the base, with a narrow, median groove, acutely marginated laterally with the basal angles produced in a long conical spine ; elytra elongato-ovate, very little convex, and amplified in the middle, faintly punctured in the anterior part, and very briefly granulose in the posterior part, with the suture marginated and raised ; legs very pale-yellow bristly.

Length, 12-13 ; lat. 5-6<sup>m.m.</sup>

This species was up to lately one of the rarest beetles in collections. I came across it quite by accident. It is found on the sea-side, lying in the day time in burrows in the sand-dunes from which it emerges at night or dusk. I have found several together in a single burrow. Mr. R. Lightfoot has kept some for a long time in captivity. They would bury themselves in the sand with very great rapidity, and come out at night to devour the flies given them during the day.

They are very pugnacious and courageous, using their mandibles freely when captured; their colouring, which harmonises wonderfully well with that of their surroundings, is transparent white, turning to pale-yellow after death.

Cape Colony (Table Bay, Houts Bay, Berg River, Port Nolloth).

Var. SUTURALIS. Péring.

pl. 11, fig. 1.

P. SUTURATA. Péring.

Trans. Phil. Soc., 1888, p. 67.

Very similar to the type-form, from which it differs merely by having two fuscous spots on the prothorax; the suture from the base to a little short of the apex is deeply infuscated; the punctures on the anterior part are deeper, and the granulation in the posterior part a little more defined.

Damaraland (Walfish Bay, Sandwich Harbour).

Length, 12-13; width, 5-6<sup>m.m.</sup>

Var. PLAGIATA.

pl. 11, fig. 2.

Differs from the var. *suturalis* by having besides the black sutural band an ovate fuscous plaga extending on each side of the suture.

Length, 11-13; width, 5-6<sup>m.m.</sup>

Damaraland (Walfish Bay).

In his *Encyclopédie d'Histoire Naturelle Coleopt.* 1877, vol. 1, p 13, Dr. Chenu gives a wood-cut of *Platychile pallida* with that same dorsal fuscous patch. It is not unlikely that the insect from which the drawing was made had been captured in Benguela by Moufflet.

Port Nolloth is the most northerly habitat of *P. pallida*, but the insects from that locality are exactly like those found near Cape Town, while in Sandwich Harbour, about 200 miles from Port-Nolloth, the varieties *suturalis* and *plagiata* only seem to occur.

### Tribe : **MEGACEPHALIDÆ.**

Palpi elongated, the labial longer than the maxillary, and with the basal joint much longer than the depth of the notch in the mentum, the notch with a very small tooth in the middle.

#### Gen. MEGACEPHALA. Latr.

Gener. Crust. et Ins. 1, 1806, p. 175.

Mentum with a short tooth, anterior part of the labium triangular, last joint of the palpi very securiform and hollowed at the tip, the basal labial joint longer than the notch in the mentum, the penultimate one twice as long as the last one, and a little curved; labrum narrow, denticulated at the apex, head broad; eyes large; antennæ long, fili-form; prothorax carinated laterally, narrowed at apex and base; elytra oblong, convex, no wings, legs moderately long, sub-quadrangular, with a median groove on each face, the male with the three joints of the anterior tarsi dilated inwardly, and seven abdominal segments,<sup>1</sup> the penultimate one not incised, the female with six segments only.

This genus has only one representative in South-Africa, but is represented in Africa by six other species, all closely allied, and differing mostly in the size of the granulation on the elytra, and also in the shape of the postical angles of the prothorax; two species are found

<sup>1</sup>Lacordaire (*Général. d. Coléopt.* 1854, p. 12) mentions six abdominal segments in each sex; I have before me the males of *M. regalis*, the abdomen of which is really seven-segmented.

on the Western side (Senegal and Guinea), one in Kordofan, and three on the Eastern side (Massai, Somaliland, and Mombassa).

M. REGALIS. Bohem.

Insect. Caffr. 1, 1848, p. 2.

Thomson's Monogr. d. Cicind., p. 21, pl. 4, fig. 3,  
pl. 1, fig. 2.

Brassy-green, palpi and mandibles at the base, antennæ, legs, with the exception of the knees of the intermediate and posterior pairs, and the last three abdominal segments yellowish; elytra dark-blue on the dorsal part, violaceous on the sides, and with the outer margin yellowish-red; labrum six-dented, with six rigid bristles; head broad, smooth, with a few lateral bristles and a semi-arcuated impression on each side above the labrum; prothorax not broader than the head, narrowed in front and behind, the central part rotund, with a deep, narrow groove in the centre, the outer sides with a double diverging, acute margin not produced in a spine at the basal angles<sup>1</sup>; elytra oblong, a little broader in the posterior part than at the base, very convex, with the suture depressed, and covered with very conspicuous, closely set granules, oblong on the back, round on the sides and apical part, and from the interstices of which spring light brown bristles; the anterior part of the disk has a nearly smooth line reaching from a little below the base to about the centre, and better defined in the male than in the female.

Length, 26-27; width, 10-11<sup>m.m.</sup>

Mr. E. G. Alston has captured some examples, running in the daytime in a trench, or water-furrow, after a shower of rain.

Transvaal (Klerksdorp), Bechuanaland (Kuruman), Maghaliesberg and Lake N'Gami, teste Boheman.

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<sup>1</sup>In the figure of *regalis* as given by Thomson in his Monograph, the lateral margins of the prothorax form two projecting teeth; while this angle is noticeable on one male example from Shoshong, although not so much developed as in Thomson's figure, it is entirely absent in two other male specimens from Klerksdorp.

## Var. HERERO.

Brassy-green, very shining on the head and prothorax, labrum, mandibles, with the exception of the apical part, antennæ and palpi pale-yellow, intermediate and posterior tibiæ sometimes infuscated; elytra elongated with the sides nearly straight in the male; bright metallic-green on the back, dark-blue on the sides and apex, very convex, covered with closely set granules, elongated on the back, round on the sides and behind, the suture slightly depressed, interstices with moderately long, rigid bristles.

Length, 22; width,  $7\frac{1}{2}$  m.m.

Differs from the type in the shape of the elytra much more parallel than in *regalis*, the colouring is different, the suture is less depressed owing to the dorsal tubercles being much less developed, which makes also the smooth discoidal space edging the three dorsal row of oblong tubercles less discernible.

Communicated by Professor C. Aurivilius, of the Stockholm Museum.

Damaraland.

Tribe : **CICINDELIDÆ.**

Palpi short, labial shorter than the maxillary; their basal joint hardly as long as the depth of the notch in the mentum, the notch with a sharp tooth in the centre, eyes with an orbital ridge; the tarsi dilated in the male, abdomen of the male with seven segments, the penultimate one notched; the female with six segments only.

A. Third joint of the labial palpi slender. BOSTRICHOPHORUS,

OPHRYODERA,

CICINDELA.

B. Third joint of the labial palpi thickened. MEGALOMMA.

Very thick.

MYRMECOPTERA, DROMICA

COSMEMA.

## Gen. BOSTRICOPHORUS. Thoms.

Annal. Soc. Ent. d. France, 1856, p. 331.

Mentum with the median tooth long and acute; palpi slender, mandibles with three strong, inner teeth, labrum very convex, produced in front, and with five teeth at the apex, antennæ with the four basal joints filiform, the 5th, 6th, and 7th sub-foliated, the apical four compressed; male with a little fascicle of hairs under the fourth joint, this fascicle rudimentary in the female; prothorax with the outer sides perpendicular and acutely carinated; elytra parallel, the sutural part spinose at the apex, not much convex on the upper part; legs long, slender.

## SYNOPSIS OF SPECIES.

Antennæ with the 5th, 6th, and 7th joint sub-foliated, elytra with three or four yellow spots on each side.

*Bianconi.*

Antennæ with the 5th, 6th, and 7th joint very much compressed; elytra with six or seven yellow spots on each side.

*notatus.*

Antennæ with the 5th, 6th, and 7th joint sub-foliated; elytra with two yellow fasciæ and a few lines.

*compressicornis.*

## B. BIANCONI. Bertol.

Dissert. Ins. Col., 1858, p. 7, pl. 1, fig. 1.

Pl. 11, fig. 5.

Very dark bronze, the basal joints of the antennæ, legs and under-side dark-blue, very shining; palpi pale-yellow, the apical joints dark-blue; labrum yellowish-white, narrowly edged with black, and having four setigerous punctures, one on each side, the other above the second tooth; head finely strigose; prothorax cylindrical, slightly impressed in front and behind, and grooved in the centre; elytra parallel, very little convex, the spines on each side of the suture very conspicuous, black, opaque, with the outer margins violaceous, closely punctured and with three or four yellow spots on each elytron; two, comma-shaped at the base, close to the suture, one at about the median part of the elytra, with a smaller one alongside of it, which is, however, often

wanting ; sides of the pectus and prothorax with long whitish hairs ; tarsi grooved on the upper part.

Length, 15-18 ; width,  $5-5\frac{1}{2}^{\text{m.m.}}$

Delagoa Bay (Rikatla).

**B. NOTATUS.** Bohem.

Insect. Caffr. 1, p. 6.

Pl. 1, fig. 5.

Very dark bronze on the upper part, underside and legs bright metallic violaceous blue ; palpi pale-yellow, the apical joint dark blue ; basal part of the mandibles yellow ; labrum convex, yellowish, slightly infuscated at the base in the female, the apical part five-dented, and with four setigerous punctures, one on each side, the other above the second tooth ; head strigose, with a few decumbent hairs, antennæ with the four basal joints filiform, the 5th, 6th, and 7th compressed and slightly sub-foliated, the fascicle of hairs under the 4th joint very small ; prothorax shagreened, sub-cylindrical, impressed transversely at base and apex, and slightly grooved longitudinally in the centre, spinose at the apex of the suture, opaque with moderately broad, brassy punctures and with six or seven small yellow spots on each side, arranged as follows :—one, comma shaped, under the scutellum, and another one, very faint, a little lower down, four in a row, the basal one also comma shaped, and another one in the disk outside the others ; sides of thorax and pectus clothed with white hairs ; tarsi not grooved.

Length, 13-16 ; width,  $5-6^{\text{m.m.}}$

Closely allied to *B. Bianconi* ; the 4th, 5th, 6th, and 7th joints of antennæ are not so much dilated, and the yellow spots on the elytra are more numerous.

Transvaal (Potchefstroom).

**B. COMPRESSICORNIS.** Bohem.

Ofvers. Vet. Ac. Forh. 1860, p. 4.

Metallic black on the upper part, dark blue with a greenish tinge underneath ; palpi yellowish, the apical joints dark blue ; labrum

yellowish marginated with black, with only three teeth in front; head strigose, slightly hairy; prothorax of the usual shape; elytra hardly punctated, the apical sutural spines very sharp, black with yellow patches spots and lines arranged as follows on each side: a sutural line reaching from the base to about the middle, a diagonal sinuated patch beginning below the shoulder, reaching from the outer margin to about the centre of the dorsal part, and with a round dot between the suture and the apex of the patch, another and broader sub-apical sinuated patch connected with the suture, but not with the outer margin, three small longitudinal lines between the two patches, and three minute dots between the supra apical patch and the apex; tarsi not grooved.

Length, 18; width, 6<sup>m.m.</sup>

I have made that description from an example in the British Museum, but I neglected to examine the labrum; Boheman in his description, l.c., says that it is tri-dentate, and his assertion is corroborated by Bates. Entomol. Month. Magaz., 1872, p. 287.

Vicinity of Lake N'Gami, teste Boheman; Middle Limpopo, teste Bates.

#### Gen. OPHRYODERA. Chaud.

Bull. Mosc. 1860, IV., p. 314.

Mentum with a short, acute median tooth; palpi slender, labrum long, very convex, produced in front, and with five teeth at the apex, antennæ with the seven ultimate joints compressed, the 5th, 6th, and 7th dilated; prothorax with the outer sides perpendicular and carinated; elytra parallel, moderately convex, narrowed diagonally behind; median and posterior tarsi grooved on the upper part.

#### O. RUFOMARGINATA. Bohem.

Insect. Caffr. 1, 1848, p. 3.

Pl. 2, fig. 3.

Bronze, more or less dark, the four basal points of the antennæ,

legs, tarsi and underside violaceous-blue, shining, head, prothorax and lateral sides of abdomen very pubescent; head strigose, labrum very long and convex, strongly five-dented at the apex with one setigerous puncture on the outer side, and two above the second teeth, yellow, marginated with brown and with two triangular fuscous maculæ at the base in both sexes; prothorax deeply impressed at base and apex, grooved in the centre, shagreened; elytra truncated at the base, parallel, not much convex, narrowed diagonally behind, granulated near the base, and from there broadly, but not deeply, punctured, opaque with the outer margin violaceous, and with yellow markings disposed on each side as follows: suture with a broad line on each side, a small dot at the base, near the scutellum, an oblique fascia very much broadened triangularly at the tip, starting from the humeral angle, in the male, disconnected with it in the female, and reaching the suture, below this fascia a narrow line, thickened at both ends, running diagonally from about the centre of the disc towards the suture, and a broad postical band rounding the apex and ascending a little along the outer margin.

In some male examples from Potchefstroom (Transvaal), the postical band ascends laterally as far as the tip of the diagonal dorsal line and unites with it.

Length, 22-23; width,  $6\frac{1}{2}$ -7<sup>m.m.</sup>

Transvaal (Potchefstroom, Rustenburg.)

Var. BRADSHAWI, Péring.

Ann. and Magaz. Nat. Hist., 1888, p. 220.

Shape and size of the typical form; the colouring of the elytra chalky-white instead of golden yellow; the basal dot, on each side of the scutellum, is wanting; the oblique dorsal fascia is narrow, begins below the shoulder, reaches the median part of the disc, and is not broadened at the end, instead of the narrow line below it there is a round dot, but the postical band remains the same.

Length, 20-22; width, 7<sup>m.m.</sup>

Manica, Zambeze River, Ovampoland,

## Var. OBERTHURI, Péring.

Ann. and Magaz. Nat. His., 1888, p. 21.

Size and colouring of the preceding variety ; the basal dot on each side of the scutellum is also missing ; the oblique dorsal fascia is longer, less curved, and does not reach the shoulder ; there is no discoidal spot, and the postical band, not much broader than the suture, ascends along the outer margin to about half the length of the elytron.

Length, 23 ; width, 8<sup>m.m.</sup>

Zambeze River.

## Var. ERIKSSONI, Péring.

Third Contr. etc., Tr. S. A. Phil. Soc. 1892, p. 4.

Colouring of var. *Oberthuri* ; the basal dot on each side of the scutellum is wanting ; the oblique dorsal fascia is narrow, curved, and reaches the humeral angle, and the outer margin from about the medium part has a white band, broadening towards the apex and emitting a short slanting dorsal ramus.

Length, 23 ; width, 8<sup>m.m.</sup>

Ovampoland.

## O. BOHEMANI, Péring.

Ann. and Magaz. Nat. Hist., 1888, p. 220.

Head and prothorax of *O. rufomarginata*, and equally pilose ; each elytron with a very broad, golden-yellow sinuated band, disconnected from the margin and the suture, narrowed in the median part, where it encloses a small rounded spot (background), enlarged from past the middle, narrowed towards the apex, and forming within the subapical sutural part a dent which leaves an irregular triangular patch of the background visible. Legs and underside as in *O. rufomarginata*.

Length, 21 ; width, 7<sup>m.m.</sup>

Angola.

This locality is beyond what I consider to be the limit of the South-African Coleopterous fauna. It is not far, however, and as no exact locality is given, it is possible that this species occurs also in Northern Ovampoland.

Gen. *CICINDELA*. Linn.

Syst. Natur. 11, 1735, p. 657.

Mentum with the median tooth strong and sharp, palpi slender, the ultimate ones sub-cylindrical and blunt at the tip; labrum not covering the mandibles entirely, either sinuated in the anterior part and with three more or less obsolete teeth; or convex in the centre and with one, three or five very sharp teeth in the centre, having always some setiger punctures in the anterior margin; head strigose; eyes very prominent; antennæ filiform; the four basal joints shining, the others opaque and briefly pubescent; prothorax short, deeply impressed transversely in front and behind, and longitudinally in the centre; elytra broader at the base than the prothorax; seldom deeply pitted; generally brassy or dark bronze with a glowing-red tinge, and dark or greenish-blue on the underside and legs; they are winged, and the legs are long and slender.

Species of a genus distributed all over the globe must perforce have undergone some modifications which have led to the creation of several genera, the characters of which are not very satisfactory; owing, however, to differences in the general facies, I propose to divide the South African species in four sub-genera:—

1. Labrum transverse, arched in the centre, strongly tri-dented at the apex, mandibles very long; elytra short, much amplified, very flat on the upper part; legs short. EURYMORPHA. Hope.
2. Labrum narrow or sub-triangular; uni or tri-dented at the tip; elytra very little convex, serrated behind and the suture ending in a short spine. CICINDELA. Linn.
3. Labrum narrow, convex, five-dented at the tip; prothorax narrow, elongated; elytra sub-cylindrical, not serrated behind. EURYODA. Lacord.

4. Labrum convex, tri-dented at the tip; elytra narrow with the shoulders rounded, very convex, each wing-cover singly rounded behind, serrated and ending in a short spine. PRODOTES. Thoms.

Sub-genus EURYMORPHA. Hope.

The Coleopter. Manual, 11, 1838, p. 160.

C. (E.) CYANIPES. Hope.

Coleopt. Manual 11, 1838, p. 160, pl. 1, fig. 4.

E. MOUFFLETI. Fairm.

Ann. Franc. 1856, p. 95.

E. BOHEMANI. Bohem.

Ofv. Vet. Ac. Forh., 1860, p. 4.

pl. II., fig. 4.

Metallic green, or brassy, shining on the upper part; very dark blue, almost black on the underside; basal articulations of the antennæ, head, prothorax, sides of pectus, (even transverse folds of the abdomen) and legs covered with dense, white, decumbent hairs; labrum green, or brassy, bi-impressed at the base, tri-dented in the centre; the central tooth long, the anterior margin with four setigerous punctures on each side of the median tooth; antennæ with the basal joints very hairy, the seven apical ones short, slightly compressed; head *punctulated*, strigose between the eyes; prothorax broader than long, impressed longitudinally in the centre and transversely at base and apex, with the apical and basal angles very acute, almost spinose; elytra broader than the prothorax, bi-sinuated at the base for the reception of the sharp angles of the prothorax, gradually amplified from the shoulders to the middle and very little attenuated behind; very slightly convex, with a depression behind on each side of the suture; closely but faintly punctured and with a series of four or five larger punctures, often ill-defined, on each side; posterior margin very finely serrated; sides of the pectus and femora thickly covered with white hair; abdominal segments with a transverse fringe of white hairs.

Length, 11-15; width, 6-7<sup>m.m.</sup>

Walfish Bay. Sandwich Harbour.

Hope was the first to describe and figure this species, but did not know whence it came. The colour of the typical insect was metallic green, and he thought it to be a native of Madagascar.

The same species, but bronze, instead of metallic green, was described anew by Fairmaire and Boheman, by the former from examples from Cape Negro (Mossamedes), by the latter from specimens collected on the banks of the Kuisip River by Wahlberg.

Owing to the liberality and kindness of J. J. Cleverly, Esq., Resident Magistrate of Walfish Bay, I have been able to examine several hundred examples of *Eurymorpha* collected in that vicinity, and have found among them two green ones only, and I have also received one green example from Sandwich Harbour. Very dark specimens are also occasionally met with. The habitat of this insect will probably be found to extend from Angola down to the Orange River mouth. Mr. Cleverly writes that the green variety is very scarce. I have seen a green example in the British Museum, which, I believe, although I am not certain, comes from Angola; and it has not been captured so far south as Port Nolloth, although eagerly looked for.

*E. cyanipes* has two features not met with among the South-African Cicindelidæ: the labrum and the mandibles of the colour of the body are without any trace of yellow patch or spot, and the abdominal segments have a transverse fringe of hairs.

It is met with on the sea-shore mostly, but also on the sand-dunes at no great distance from the sea, running with great rapidity, and taking readily to flight.

#### Sub-Gen. CICINDELA.

The South African species comprising this sub-genus may be divided in nine groups according to the pattern and colouring of the bands or spots on the wing-covers.

- A. Elytra white or yellowish white with bronze or golden bands disconnected with the suture: *Capensis*, *chrysographa*, *Elizabethæ*, *candida*, *Herero*, *Damara*, *Natalensis*, *Nilotica*, *nitidula*.

Spots or bands yellow or pale-yellow.

- B.* Elytra broad, short, two small dots on each elytron : *quadriguttata*.
- C.* Elytra broad with one basal, comma shaped spot, one in the centre alongside the suture, two lateral rami, one postical round spot, and an apical triangular patch on each elytron : *lurida*, *vidua*, *tenuipicta*.
- D.* Elytra elongated, with one basal, comma shaped spot, two alongside the suture, often connected, two lateral rami and an arcuated apical patch on each elytron : *brevicollis*, *vivida*, *clathrata*, *pudica*.
- E.* Base of elytra with a margin emitting a short narrow line on each side of the scutellum, outer margin broad, rami short : *Monteiroi*, *Bertolonii*.
- F.* Base of elytra with two small triangular patches on each side of the scutellum, and four very broad nearly parallel patches on each side : *regalis*.
- G.* Elytra with four broad, short fasciæ on each side, the postical one bisinuated, and a large post-median patch : *Dongolensis*.
- H.* Elytra elongated, narrow, each elytron with narrow rami, more or less disconnected, the white outer margin seldom entire : *melancholica*, *dissimilis*.
- D.* Elytra elongated, each elytron with a broad margin sending three more or less blunt dorsal rami : *pudibunda*, *marginella*, *intersita*, *intempestiva*, *inanis*, *longula*, *Bocagei*, *limbigera*.

#### SYNOPSIS.

SECTION A. Mandibles very long, elytra broad, each with a longitudinal dorsal band, three rami and a postical round spot ; the dorsal bands broad, very well defined :

Dorsal bands narrow, median oblique patch often missing :

Two basal, short bands only on each side :

*B.* Mandibles moderately long ; elytra with three dorsal rami, but no postical spot on each side :

Same, but the rami broader and uninterrupted :

Elytra with a supra humeral arcuated band, and a postical ramus on each side :

Elytra with a very broad sutural patch, and three dorsal rami on each side :

*Capensis.*

*chrysographa.*

*Elizabethæ.*

*candida.*

*Herero.*

*Damara.*

*Natalensis.*

Elytra with a narrow dorsal line on each side, three rami and an elongated sub-postical patch :

*nilotica.*

Elytra with the same markings as *nilotica*, but more elongated, and the dorsal bands narrower :

*nitidula.*

### C. CAPENSIS, Linn.

Syst. Natur. 17, 1735, II., p. 657.

Oliv. Ent. 11, 33, p. 19, t. 1, fig. 11.

Labrum wide, slightly sinuated on the anterior part with a small median tooth, three small setigerous punctures on each side of the tooth, and a larger one in the anterior angle, palpi with the exception of the ultimate joints and outer part of mandibles at the base, white; head and prothorax brassy, glowing-red underneath, covered with thick decumbent hairs; elytra broad, much amplified past the middle in the female, moderately convex, rugose, white with a narrow sutural bronze line, a longitudinal band reaching from the base to two-thirds of the length, and three short oblique rami disconnected with the outer margin and a round postical spot of the same colour on each side; the first ramus, a humeral one, and the second, a median one, coalesce with the longitudinal band, the third one is thickened at both ends, the hind one ending under the longitudinal band, but very seldom connected with it, and the round spot is above the outer margin, where the postical rounding begins; underside dark-blue, sides of abdomen thickly set with white hairs.

Length, 12-14; width, 5-7<sup>m.m.</sup>

*Capensis* is very common from October to April on the sandy seashore, but is seldom met with even one mile inland.

Cape Colony (neighbourhood of Cape Town, False Bay, Berg River).

### Var. CHRYSOGRAPHA, Dej.

*C. chrysographa*, Dej. Spec. 1831, V. p. 254.

*C. barbifrons*. Bohem. Ins. Caffr. I, 1848, p. 12.

Shape and colouring of the type-form, but a little smaller, setigerous

punctures of the labrum, hairiness of the head, prothorax and under part identical, but the bronze bands of the elytra are narrower, the median oblique ramus is generally wanting in the male, and often reduced to a mere dot in the female; the bronze bands often turn to metallic black.

Length, 11-13; width, 5-6<sup>m.m.</sup>

Common on the sea-beach near Port Elizabeth. Boheman gives the interior of Caffraria as the habitat of his *C. barbifrons*. It was very likely captured by Wahlberg at Port-Elizabeth, at the same time as *Mantichora tibialis* and *Microlestia rugosopunctata*.

The types of Dejean are two males in which the longitudinal band and the supra-humeral one are left, and are thus shaped like a Y, and with a small dot underneath, evidently the apical end of the postical ramus.

#### Var. ELIZABETHÆ.

Shape, size and colouring of *chrysographa*, but a little smaller; the elytra are white with a narrow golden suture, two narrow, short bronze bands at the base, and sometimes a very faint trace of a postical ramus on the female.

Length, 10½-11; width, 4-5<sup>m.m.</sup>

Cape Colony (Port Elizabeth).

#### C. CANDIDA. Dej.

Spec. 1, 1825, p. 123.

C. MIXTA. Chaud.

Ann. d. Franc. 1835, p. 436.

Labrum yellowish-white, wide in length, narrow in width, slightly tri-dentate in the male, the median tooth strongly developed in the female, two small setigerous punctures on each side of the median tooth and one in the anterior angle, palpi with the exception of the ultimate joints, and outer part of mandibles, yellowish-white; pro-

thorax brassy or very dark bronze, covered with white decumbent hairs; elytra slightly amplified in the middle in the female, hardly convex, very slightly punctured, pale yellow with a narrow sutural bronze line, and three dorsal ones on each side: the humeral one is arcuated and produced backwards along the suture in a narrow line coalescing with the median one, which is also arcuated and produced behind in a short line reaching to about the second third of the length of the elytron, the third line runs obliquely in the posterior part, and is much thickened at both ends; underside dark-blue, densely pilose laterally.

Length, 11-13; width, 4-5<sup>m.m.</sup>

Smaller than *C. capensis*, with the elytra less convex and also less amplified in the middle, the oblique rami are shorter and almost crescent shape, the longitudinal line on each elytron is wavy instead of being straight, and there is no postical spot.

The narrow lines uniting the thickened ends of the lateral rami disappear often leaving only more or less rounded dots on the elytra; it is on specimens in which these lines have partly disappeared that De Chaudoir described his *C. mixta*.

Natal (D'Urban), Cape Colony (East London, Port Elizabeth, Albany district)

Found on the sea shore in company with *C. chrysographa*, near Port Elizabeth, but unlike the latter it occurs also several miles inland on sandy paths or roads.

In the Natal examples the dorsal bands are more regular than in those from the Cape Colony.

#### Var. HERERO.

Smaller than the type form, colouring of the head and prothorax more greenish; elytra with the dorsal rami greenish instead of dark bronze, broader and beginning nearer to the margin than in the true *candida*.

In this variety the dorsal rami have become more developed than in

the type, and the white background is therefore not so conspicuous. Were it not for the peculiar shape of the elytra, which as well as in the type form, are more rotund in the centre and attenuated behind, it would be well nigh impossible to distinguish *herero* from *clathrata*.

Length, 10 ; width, 4<sup>m.m.</sup>

Communicated by Professor C. Aurivilius of the Stockholm Museum.

Damaraland.

C. DAMARA. new spec.

pl. 1, fig. 3.

Labrum convex in the centre, triangular in front, tri-dentate at the apex ; the median tooth long and sharp, two setigerous punctures on each side of the median tooth, and another one in the anterior angle ; head and prothorax pilose ; elytra elongated, nearly plane on the upper part, closely but not deeply punctured, pale-yellow ; the suture and the outer margin with a fine narrow dark-blue metallic line, a dark-bronze supra humeral, arcuated band, four or five punctures near the suture and a sinuated postical ramus, the apical end of which is often only left, on each side ; underside greenish-blue, thickly tomentose laterally.

Length, 11-12 ; width, 4<sup>m.m.</sup>

Sandwich Harbour.

C. NILOTICA, Dej.

Spec. 1, 1825, p. 119.

Klug. Symb. phys. 111, 1832, t. 21. fig. 4.

Labrum transverse, narrow, hardly sinuated in front, yellowish-white with five setigerous punctures on each side of the median tooth, which is hardly defined ; head and prothorax pilose ; elytra subquadrate, hardly convex, each one with a longitudinal dorsal line near

the suture reaching from the base to about two-thirds of the length; three oblique rami and a supra marginal patch, bronze or brassy: the humeral ramus is a little arcuated, and coalesces with the longitudinal band in the same way as the median one, which is broadly triangular at the top; the third one, longer than the others, is very much thickened at both ends, and the postical patch is situated between the outer margin and the apical thickened part of the postical ramus; underside bright metallic green.

Length, 9-9½; width, 4-5<sup>m.m.</sup>

A species with a wide distribution in Africa.

Recorded in South-Africa from Delagoa Bay (Rikatla) on the eastern side, and Sandwich Harbour, a little north of Namaqualand on the west, but so far from no intermediate inland place.

#### C. NITIDULA, Dej.

Spec. I., p. 120.

Lucas. Expl. Alger., p. 7, t. 1, fig. 5 a.

C. CAPENSIS. var. Oliv. Entom. II., 33, p. 19, pl. 2, fig. 19, a.c.

Labrum transverse, very slightly sinuated in front, without any median tooth, but with five setigerous punctures on each side: head and prothorax pilose; elytra elongated, with the shoulders rounded, not much broader than the prothorax at the base, and very slightly amplified behind, white, the suture with a fine brassy line, and a longitudinal dorsal band near the suture; three diagonal rami and a supra marginal, postical patch on each elytron, golden or reddish-bronze; the bands and spots are arranged like those of *Nilotica*.

Length 12-13; width, 4-4½<sup>m.m.</sup>

The shape of the elytra differentiates this species from the preceding one; they are narrower with the shoulders rounded, while in *nilotica* the humeral angles are sharp, and the elytra sub-quadrate; the dorsal rami are also more perpendicular in *nitidula*, owing to the narrowness of the elytra.

It is not without some hesitation that I include this species among

the South African ones. I saw, however, in De Chaudoir's collection two examples under the catalogue name *natalensis* which I could not differentiate from *nitidula*, and one of them labelled "Natal, don. Hope," and also "*Natala*. Reich."

*C. Nitidula* is common in Senegal, and occurs also on the Guinea coast.

### C. NATALENSIS, Péring.

Transact. S. Afric. Philos. Soc., 1888, p. 69.

Labrum short, transverse, slightly tri-dentate in the anterior part, yellowish-white; two small setigerous punctures on each side of the median tooth, and one in the outer angle; head and prothorax bronzy-green, very shining, the latter short, with the dorsal lobes very convex; elytra parallel, slightly convex, closely but not deeply punctured, yellowish-white with a broad, sinuated bronze patch extending on the suture from the base to two-thirds of the length, and on each elytron a humeral arcuated ramus uniting with this sutural band, a median, oblique one with the upper part very thickened uniting also with the sutural band, and a diagonal ramus thickened at both ends; underside bright metallic green with the apical abdominal segments yellowish-red; tibiæ pale yellow.

Length, 12; width,  $4\frac{1}{2}$  m.m.

Very distinct from any other South African species.

Transvaal (Boksburg).

## SECTION B.

### C. QUADRIGUTTATA, Wiedem.

Germ. Mag. Entom. IV., p. 116.

C. CÆRULESCENS. Klug. Jahrb. 1, p. 29.

C. ROTUNDICOLLIS. Dej. Spec. 1, p. 56.

Green or reddish-bronze, sub-opaque on the upper part, underside of thorax and pectus golden green; abdomen dark-blue;

labrum long, semi-circular with a moderately long median tooth, yellowish-white, with two setigerous punctures on each side of the median tooth, and one in the anterior angle; head and prothorax with a few erect setæ, the latter rounded, short, very slightly pilose on the outer margin and underneath, the hair greyish but not decumbent; elytra quadrate at the base, a little amplified in the female, closely punctured with the punctures moderately deep, each elytron with a broad yellowish spot at the base on the humeral angle, a smaller one past the median part of the disk and a little nearer to the outer margin than to the suture, and a smaller one below it, nearer to the suture than to the outer margin.

Length, 10-14; width, 5-6<sup>m.m.</sup>

The reddish-bronze variety is nearly as common as the green. Neighbourhood of Cape Town. Has not been recorded, to my knowledge, from any other locality.

Mountain slopes and grassy plains. Occurs from August to November.

#### SECTION C.

Elytra with the bands and spots well defined and moderately broad

*lurida.*

Elytra with the bands and spots very broad

*Namaqua.*

Elytra with the bands very narrow, the humeral band interrupted, and no immediate spot on suture

*tenuipicta.*

#### C. LURIDA, Fabric.

Spec. Insect, 1, p. 284.

Oliv. Entom. 11, 33, p. 18, pl. 3, fig. 35.

C. VIDUA. Gory. Ann. Franc., 1833, p. 174.

Dark-bronze, sometimes bronzy-green on the upper part; labrum elongated, strongly tri-dentate at the apex, with two setigerous punctures on each side of the median tooth, and one in the anterior angle; head and prothorax hardly pilose except on the sides of the latter; elytra much broader than the prothorax with the base square,

very slightly convex, hardly amplified past the middle in the female, rugose near the base, punctulated behind, each elytron with a small, round, yellow patch in the centre of the base, another one close to the suture at about the middle, a humeral diagonal ramus, one short, median ramus produced behind in a broad curved line the point of which, slightly inflated, reaches nearly the suture, a small round dot near the outer margin, often connected with the thickened apical end of the median ramus, and a narrow triangular patch in the apical margin; underside glowing-red; the abdomen dark-blue.

Length, 12-13; width,  $5-5\frac{1}{2}$  m.m.

Banks of ponds or ditches, sandy paths. Found throughout the year, but scarce in May and June.

Cape Colony (neighbourhood of Cape Town, Worcester).

Var. NAMAQUA.

Shape of type-form, although more robust, and marked alike, but the elytra are brassy, and the dorsal bands and spots nearly twice as broad.

Length, 12-14; width,  $4\frac{1}{2}$ -6 m.m.

Cape Colony (apparently restricted to Little Namaqualand (O'okiep, Sept).

Var. TENUPICTA, Chaud.

C. TENUPICTA: Chaud. Bull. Mosc., 1837, VII., p. 6.

Shape, size and colouring of *lurida*, but the dorsal bands are very narrow, and the spots very small; the humeral ramus is interrupted in the middle, and the median round spot close to the suture is wanting.

Length, 12; width,  $4\frac{1}{2}$  m.m.

Cape Colony (Riversdale, Knysna).

## SECTION D.

The two spots along the suture, on each side, quite disconnected, no marginal band :

*vivida.*

The two spots very elongated and coalescing, the humeral and median ramus connected by a narrow marginal line :

*brevicollis.*

The two spots are very much elongated and coalesce, forming a band near the suture, the dorsal rami are connected by a broad marginal band :

*clathrata.*

The two spots along the suture, round, small, far from one another, the dorsal rami blunt, and rich golden yellow :

*pudica.*

Same, but with a marginal band connecting the dorsal rami :

*hypocrita.*

A triangular patch past the median part of each elytron and an apical one, no marginal band :

*rusticana.*

## C. VIVIDA. Bohem.

Insect. Caffr. 1, 1848, p. 9.

Elongated ; head and prothorax bronzy, moderately shining, elytra very dark, opaque ; labrum elongated, convex, strongly tri-dentate at the apex, yellowish, and with two setigerous punctures on each side of the median tooth, and one in the anterior angle, head and prothorax with short, decumbent white hairs ; elytra elongated with the shoulders slightly rounded, not amplified in the middle in the female, somewhat, although slightly convex, faintly punctured, each elytron with a comma shaped yellowish patch in the centre of the base, two more, one below the other, along the suture, a humeral curved ramus, a median one also curved and produced backwards in an arcuated band, the tip of which is much thickened and reaches the suture, and an apical much curved marginal band with both ends thickened ; underside greenish-blue, thickly clothed with light hairs laterally.

Length, 12 ; width,  $4\frac{1}{2}^{\text{m.m.}}$ 

This species is so closely allied to *C. catena* Fabric. from India, and *C. abbreviata*, Klug, from Madagascar, that I hesitate in considering it as distinct from the former and older species.

Delagoa Bay (Rikatla).

## C. BREVICOLLIS. Wiedem.

Zool. Magaz. 1, 1823, p. 67.

Elongated, labrum white with two very fine setigerous punctures on each side of the median tooth, and another in the anterior angle ; head and prothorax brassy, moderately shining, with some decumbent white hairs ; elytra finely punctulated, bronze with often a blue line round the dorsal markings, slightly convex, the female's not amplified in the middle, and each elytron with a small comma shaped yellowish patch in the centre of the base, two elongated ones along the suture, as often coalescing as not, and then forming along the suture a narrow band strangulated in the middle, a humeral curved ramus, a median one also curved and produced behind in a curved band, the tip of which, much thickened, reaches the suture, and an apical, much curved marginal band, with both ends thickened ; the median ramus is often connected along the margin by a narrow yellowish streak with the humeral one, and sometimes also with the postical band, in which case the disposition of the dorsal bands and spots approximates to that of *clathrata* ; when this marginal streak is wanting, the dorsal design is that of *vivida*, the only difference being in the shape of the two spots along the suture which are always more or less elongated in *brevicollis*, instead of being round ; underside dark-blue or greenish-blue, sides covered with dense white hairs.

Length, 9-11 ; width, 4-5<sup>m.m.</sup>

I cannot differentiate *brevicollis* from *neglecta*. Dej., although the latter has a very narrow outer margin on the elytra uniting all the dorsal rami, this margin is also often met with in *brevicollis*, and I have often caught *in copulâ* examples with and without outer yellow margin.

Cape Colony (neighbourhood of Cape Town, Worcester) ; Senegal, Zanzibar (teste Gerst.).

On sandy spots near margins of ponds, sandy paths, sea-beach.

## C. CLATHRATA. Dejean.

Spec. 1, p. 115.

C. INTERMEDIA. Klug, Monatsb. Berl. Ac. 1853, p. 245; Peter's Reis. nach. Mozamb., 1862, p. 146, pl. 9, fig. 1.

Labrum elongated, convex, tri-dentate at the apex, white with two setigerous punctures on each side of the median tooth and one in the anterior angle; head and prothorax brassy, covered with white decumbent hairs; elytra slightly convex, not amplified past the middle in the female, finely punctulated, dark-bronze, sometimes bronze with a greenish tinge, each elytron with an inverted comma-like yellow patch coalescing with a band running along the suture (the said band formed by two very much elongated spots) as far as half the length, a humeral curved ramus, a median one also curved and produced behind in a curved band, the thickened end of which reaches the suture, and an apical, much curved marginal band with both ends thickened, and both humeral and median rami as well as postical band connected along the margin by a broad band of the same colour, underside dark-blue, sides covered with dense white hairs.

Length, 10-13; width, 4-5<sup>m.m.</sup>

The width of the dorsal markings is apt to vary; it is largest in some examples from Bushmanland, and narrowest in some examples from Delagoa Bay.<sup>1</sup>

I cannot consider this species otherwise than identical with *C. neglecta*, Dej., and *senegalensis*, Dej.

Cape Colony (Rondebosch, Cape Town, Hex River, Worcester, Enon, Bathurst, Graham's Town, East London, and Bushmanland); Natal (D'Urban, Maritzburg); Zululand (Eshowe); Orange Free State (Parys); Transvaal (Boksburg, Potchefstroom, Marico); Delagoa Bay (Rikatla): Gazaland, Mozambique (teste Klug).

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<sup>1</sup>The number of setigerous punctures varies much in that species; there are sometimes three on each side of the median tooth, sometimes one only.

## C. PUDICA. Bohem.

Insect. Caffr. 1, 1848, p. 8.

Labrum elongated, convex in the centre, strongly tri-dentate, pale yellow, with one deep setigerous puncture on each side of the median teeth and another in the anterior angle ; prothorax slightly pilose on the outer margins ; elytra elongated, dark bronze, with golden yellow markings, broadly but not deeply punctured, each elytron with a small, round spot in the base, two alongside the suture, a blunt humeral ramus, a median one produced behind in a broad diagonal band, and an arcuated, apical marginal band, underside glowing red, with the abdomen dark-blue, the sides slightly pilose.

Length, 12-14 ; width,  $4-5\frac{1}{2}$  m.m.

More robust than *clathrata*, and although the markings of the elytra are of the same pattern, the rami are broader and more blunt, the spots are much smaller and far from one another, and the colouring of the marking is of a rich yellow.

Natal (Frere).

## Var. HYPOCRITA.

Shape and colouring of the type, the body is longer, the markings of the elytra are similar, but the dorsal rami are connected along the outer margin by a broad, seldom narrow, yellow band.

Length, 15-16 ; width,  $5-5\frac{1}{2}$  m.m.

Orange Free State (Parys) ; Transvaal (Klerksdorp, Potchefstroom).

## Var. RUSTICANA.

Size, shape and colouring of the type ; the regularly disposed bands on the elytra have disappeared, leaving only two minute yellow spots on each side along the suture, three very indistinct ones in the median

part of the disk, a triangular patch past the middle, and a postical one on the apical margin.

Length, 15 ; lat.  $5\frac{1}{2}$  m.m.

Transvaal (Barberton).

### SECTION E.

Marginal band of elytra broad, median ramus well defined

*Monteiroi.*

Marginal band of elytra very narrow, median ramus hardly defined

*Bertolonii.*

### C. MONTEIROI, Bates.

Cist. Entom., vol. II., p. 331.

Labrum yellow, very much elongated, acutely five-dentate with one deep setigerous puncture on each side of the median tooth and one in the anterior angle ; head and prothorax very pilose ; elytra elongated, very dark bronze, margined with pale-yellow all round, base included, each one with a short line below the scutellum, connected with the basal margin, the lateral margin emits a short acute tooth, a median ramus directed towards the suture and a blunt inflation above the apical part ; underside and sides of abdomen thickly covered with white hairs.

Length, 11-11 $\frac{1}{2}$  ; width, 4-4 $\frac{1}{2}$  m.m.

Bate's description was evidently from an example in which the median lateral ramus was not produced obliquely behind towards the suture. I have seen examples from Lourenço Marques in which the median ramus is well-defined but the diagonal line it emits is very narrow.

Delagoa Bay (Lourenço Marques, Rikatla.)

Var. BERTOLONII. Chaud. in litt.

The undescribed species under that name which I saw in Chaudoir's collection, labelled Mozambique, is similar in shape, size and colouring to *Monteiroi*, but the marginal band is very much narrower, and the central ramus is hardly defined.

Length, 11 ; width 4<sup>m.m.</sup>

Mozambique (teste Chaud.) Rikatla.

## SECTION F.

### C. REGALIS, Dej.

Spec. V., 1831, p. 251.

Casteln. Hist. d. Ins. I., p. 15, pl. 1, fig. 6.

Labrum yellow, triangular apically, with a long median tooth : three equi-distant setigerous punctures on each side ; head and prothorax brassy ; elytra broad, with the outer sides nearly parallel, hardly convex, finely shagreened, very dark-blue or dark-bronze, with two sub-triangular pale-yellow basal patches on each side of the suture and four broad patches on each elytron : the first comma-shaped basal patch is alongside the scutellum, and its lower part often coalesces with the second one which runs for a short distance along the suture ; the humeral patch is slanting and rounds off the humeral angle, the other three patches, median, post median and apical, are very broad and transverse ; underside dark-blue, very shining, sides covered with dense white hairs.

Length, 17-17½ ; width, 7<sup>m.m.</sup>

This species, which has no ally, has a very wide range in Africa ; it is recorded from Senegal. My South-African examples have been captured on the Zambeze River at the junction of that river with the Shiré (F. C. Selous), Gazaland (Rev. Junod), and Tette (teste Klug).

## SECTION G.

### C. DONGOLENSIS, Klug.

Symb. physic. III

C. FIMBRIATA, Dej. Spec. V. p. 241.

Brassy on the upper part, underside metallic red with a faint bluish tinge ; labrum very long, triangular, ending in the apex in a very long,

sharp spine in both sexes, and with a double series along the apical margin of small punctures from which spring long setæ; mandibles very long, all the joints of the palpi reddish-brown; prothorax short, setulose on the outer sides; elytra broad, a little amplified behind in the female, finely shagreened, and with four lateral yellow patches and one round postical spot on each side: the humeral patch, rounding the humeral angle is nearly transverse and broader on the disk than on the shoulder, the median one very broad does not reach the suture; the post median is very small and connected along the outer margin by a very narrow line with the median one; the marginal apical patch is very much thickened at the tip, and reaches the suture, the round spot is situated on the disk, between the post median lateral patch and the suture; underside clothed laterally with dense white hairs.

Length, 16-17; width,  $6\frac{1}{4}$ -7<sup>m.m.</sup>

Like the preceding one this species has a wide range. It is recorded from Nubia and Senegal. My South-African examples have been captured on the Zambeze River, at the junction with the Shiré, and at Delagoa Bay (Rikatla).

## SECTION H.

Each elytron with a humeral slanting line, a marginal band reaching from below the humeral line to the posterior third part and sending a short-dented ramus, an apical marginal band connected at the tip with a small supra postical spot, and two discoidal dots, the anterior one with a transparent space underneath.

*melancholica.*

Each elytron with a moderately broad humeral slanting line, and a marginal band reaching the apex, and emitting a short median ramus, a round supra postical patch and a short apical line, also two discoidal dots.

*jucunda.*

Each elytron with a humeral slanting line, an arcuated median patch disconnected from the outer margin, an apical marginal band, and three disconnected discoidal dots.

*Dregei.*

Each elytron with a humeral dot, four discoidal ones and a narrow apical marginal band.

*disjuncta.*

Each elytron with a discoidal ante-median dot, a median crescent shape patch sending a small curved line, a small marginal postical dot, and two apical patches.

*dissimilis*.

C. MELANCHOLICA, Fabric.

Syst. Eleuth. 1, p. 236.

C. ÆGYPTIACA. Dej. Spec. I., p. 96.

Klug. Symb. phys. III., pl. 21, fig. 7.

Guér. Mag. Zool. 1845, p. 12, p. 161, fig. 1, a.

C. LUDIA. Dej. Spec. V., p. 244.

C. MICROSTICTA. Klug. Peter's Reis., 1862, p. 147.

C. CONGRUA. Klug. Monatsb. Berl. Ac. 1853, p. 245 ;

Peter's Reis. 1862, p. 148, pl. 9. fig. 2.

C. TANTILLA. Bohem. Ofv. Vet. Ac. Förh. 1860, p. 6.

Greenish bronze, shining but little on the upper part and bright greenish blue underneath ; labrum short, nearly transverse, slightly tri-dentate at the tip, pale yellow with one setigerous puncture on each side of the median tooth, and one in the outer angle ; head aciculated, prothorax short, finely rugose and with a few decumbent white hairs on the outer sides ; elytra elongated, slightly amplified past the middle in the female, closely punctured with the punctures bluish, the female with a smooth, shining, irregular patch on each side of the anterior part of the disk ; each elytron has a humeral narrow white band rounding the angle and followed by a small discoidal dot, a median narrow marginal band reaching from below the humeral line to the posterior third part, and emitting at about the middle a short narrow line a little thickened at the tip, and sometimes, although seldom, connected by a still narrower line with a round spot below it, and an apical marginal line the tip of which is connected with a minute dot placed a little below the second dorsal one ; underside clothed laterally with white decumbent hairs.

Length, 8 to 11 ; width,  $3-4\frac{1}{2}^m.m.$

*H. congrua* and *C. microsticta* cannot be considered even as varieties, and judging from the description, I take *C. tantilla*, Bohem. to be only a small example of *melancholica*.

The range of this species is very great. It is found in Sicily and Northern Africa, Egypt and Senegal, Nubia, Zanzibar, and Angola (*microsticta*), Madagascar (*trilunaris*); in South Africa it is recorded from Tette (*congrua*), and Lake N'Gami (*tantilla*), Delagoa Bay (Rikatla), and Gazaland, Transvaal (Potchefstroom), Cape Colony (Van Wyk's Vley and Carnarvon); also from Java, Eastern India, Transcaucasia and Northern Persia, according to De Chaudoir.

### C. JUCUNDA, Péring.

Trans. S. Afric Phil. Soc. VI., 1892, p. 4.

Labrum white, transverse, dented in the middle, and with one setigerous puncture on each side of the median tooth and another on the outer anterior angle; head, prothorax and elytra bright-green, the prothorax slightly pilose on the outer sides, elytra parallel, narrow, a little convex, closely punctured, with the punctures slightly blue, and having on each side a humeral, slanting white line rounding the humeral angle and reaching the centre of the disk, but slightly disconnected at the apical end which is thickened in the shape of a dot, a marginal moderately broad band reaching from below the humeral slanting line and reaching the suture, but sending at about the middle a straight ramus, thickened at the tip, and reaching the centre of the disk, and from there directed backwards to the third postical part of the disk where it is much thickened at the end, also a short lateral patch at the rounding of the wing cover above the apical part, followed by a short, upright line; underside densely clothed laterally with white hairs.

Length, 10; width, 4<sup>m.m.</sup>

Allied to *melancholica*, still more to *vicina*, and not to *pudivunda*, as I have erroneously stated, (Trans. S. Afric. Philos. Soc. vol. VI., 1892, p. 4), but differs much from the former in the colouring of the upper part, which is bright green instead of bronzy-green; the dorsal bands and spots are very much broader, pure white instead of

yellowish-white, and there is a continuous, well-defined marginal band from under the humeral diagonal line to the apical suture.

Only the male of this species is known to me.

#### Ovampoland.

#### C. DREGEI, Mannerh.

Bullet. d. Mosc., 1837, II., p. 16.

Chaud. loc. cit., 1837, III., p. 3.

Greenish-bronze, not shining on the upper part, bright greenish-blue underneath; labrum pale-yellow, short, sub-triangular, the apex slightly tri-dentate with three setigerous punctures on each side of the median tooth and one in the anterior outer angle; prothorax slightly pilose on the outer sides; elytra elongated, finely punctured, the punctures greenish-blue, each elytron with a humeral yellowish-white line rounding the shoulder and reaching the centre of the disk, but disconnected on the disk, a crescent-shaped line disconnected with the outer margin, with the points facing backwards and a round patch below it near the suture, a round discoidal spot above the apex, and a very narrow apical margin of the same colour; underside densely set laterally with white decumbent hairs.

I have not seen the female of that species, which seems to be a form of transition between *melancholica* and *disjuncta*.

Length, 10; width, 4<sup>m.m.</sup>

Cape Colony (Burghersdorp), Transvaal (Potchefstroom).

#### C. DISJUNCTA. Dej.

Spec. vol. 1, p. 98.

C. AFRITA. Thoms. Archiv. Entom. vol. 1, 1857, p. 130.

C. CENTROPUNCTATA. Dej. Spec. V, p. 245.

Dark bronze, very little shining on the upper part, greenish blue and shining underneath; labrum yellowish, short, sub-triangular at the apex and tri-dentate in the middle with the setigerous punctures on

each side of the median tooth and another one in the anterior outer angle ; prothorax with the outer sides clothed with a few decumbent white hairs ; elytra elongated, a little amplified behind, the female without any smooth shining discoidal patch, rugose in the anterior part punctulated behind, each elytron with a small yellowish patch on the humeral angle at the base, two on a transverse line in the anterior part of the disk, a sub-triangular patch close to the outer margin with two small round dots underneath, the upper one close to the suture, the lower one near the outer margin, and a very fine marginal band edging the postical part ; underside clothed laterally with white hairs.

It sometimes occurs, although very seldom, that the median patch is united with the small dot below by a very fine, narrow, diagonal line, this is the *C. centropunctata* Dej., apparently described from one example only.

Banks of streams or water-furrows. Cape Colony (Graham's Town, in February, Seymour, in March), Natal (D'Urban, Frere, Pinetown, Maritzburg), Transvaal (Potchefstroom).

#### C. DISSIMILIS. new spec.

Dark bronze on the upper part, bright greenish-blue underneath, labrum white, short, slightly triangular apically and tri-dentate, with two setigerous punctures on each side of the median tooth and a broader one in the anterior outer angle ; prothorax slightly pilose, elytra elongated, a little amplified behind, convex, closely and finely punctured, and with four or five broader punctures near the base in a supra humeral depression and a moderately well defined series of the same on each side of the suture from base to apex, these punctures are greenish-blue ; each elytron with a discoidal irregular, small, yellowish-white patch in the anterior part, a shagged, broad, median patch, disconnected with the outer margin, and sending backwards a narrow ramus running parallel to the suture and thickened and curved at the tip, a small postical dot on the outer margin, opposite the thickened apical part of the dorsal ramus, and two conspicuous patches of the same colour on the apical part, (the sutural one the largest of the two)

connected together by a very narrow marginal whitish line ; underside clothed laterally with white hairs.

Length, 9 ; width,  $3\frac{1}{2}^{\text{m.m.}}$ .

A very distinct species without any ally known to me in South-Africa.

Delagoa Bay (Rikatla).

### SECTION I.

Each elytron with a broad marginal band ; band very broad, the median ramus not much directed backwards :

*pudibunda*.

Band narrower, median ramus very slender, nearly always interrupted :

*marginella*.

Band broad, median ramus wide, diagonal :

*intersita*.

Band narrow, interrupted in the posterior part, median ramus slender :

*intempestiva*.

Band moderately broad, no median ramus :

*inanis*.

Band broader than in any of the allied species, the median ramus diagonal :

*longula*.

### C. PUDIBUNDA. Bohem.

Ofvers. Vet. Ac. Förh. 1860, p. 5.

Metallic green, moderately shining on the upper part, underside of prothorax and pectus glowing red, abdomen dark-blue, legs golden green, basal joints of palpi, mandibles (apex excepted) and labrum yellowish-white, the latter slightly tri-dentate at the apex, with the median tooth more pronounced than the others, and with three setigerous punctures on each side ; antennæ with the four basal joints golden green, the others rufescent ; head strigose ; prothorax short, the sides with decumbent white hairs ; elytra elongated, very little amplified behind, deplanated, closely punctured, the punctures dark-blue, and having each a broad, yellowish marginal band emitting three hook-like fasciæ ; the first one in the anterior part is short, reaching about the centre of the disk, the second, a median one, is not longer

than the first, but is produced at the tip into a short, curved, ramus reaching nearly the suture, the third one above the apical part is very short and blunt ; sides of the pectus with a whitish pubescence ; legs bristly.

Length, 13-14 ; width, 4-5<sup>m.m.</sup>

Transvaal (Potchefstroom.)

Damaraland (Svakop River) teste Bohem.

*C. MARGINELLA*. Dej.

Spec. d. Coleopt. II. p. 417.

*C. NITIDIPE*. Wallengr.

Entom. Tidsk. vol. II. p. 9, 1881.

*C. MIMAX*. Wallengr.

loc. cit. p. 10.

Metallic green on the upper part with the outer sides of prothorax and the pectus glowing red, or bronze with the underside dark-blue, legs green or glowing red ; basal joints of the palpi, outer side of mandibles, and the labrum yellowish white, the latter slightly tridentate at the apex, and with two setigerous punctures on each side ; mandibles short, antennæ with the four basal joints glowing red, the others rufescent ; prothorax short, with the outer sides setulose ; elytra elongated, nearly parallel, closely punctured with punctures dark-blue or green, and having on each side a moderately broad yellowish marginal band, throwing a very small blunt tooth in the anterior part, another one, a little longer than the first, and as often as not produced at the tip in a short diagonal ramus directed backwards, and a very obtuse one above the apical part, where the rounding of the elytra begins.

Length, 10-12 ; width, 3½-5<sup>m.m.</sup>

A very variable species with a wide range. In the type form the median ramus emitted by the margin is often absent or but slightly produced, or again only the apical point of the ramus, looking then as a dorsal dot, is left.

Cape Colony (Port Elizabeth, Graham's Town, Bathurst), Transvaal (Boksburg).

Var. *INTERSITA*.

Bronze on the upper part, shape of the type-form, but lateral margin and teeth and rami broader and better defined.

Length, 10-12 ; width, 4-5<sup>m.m.</sup>

Cape Colony (Riversdale, Enon.)

Var. *INTEMPESTIVA*.

Bronze on the upper part, shape of the type-form, elytra with the diagonal ramus complete, or incipient, sometimes with the apical spot only left, but the lateral margin narrow and disconnected behind with the postical one.

Length, 10-11 ; width, 4-4½<sup>m.m.</sup>

Cape Colony (Bathurst, Seymour).

Var. *INANIS*. Wallengr.

Entom. Tidskr. vol. II., p. 10, 1881.

Metallic green or greenish bronze, shape of the type-form, but somewhat longer, elytra with a moderately broad marginal pale-yellow band, emitting three small teeth on each side, these teeth are very often quite rudimentary, although there is often a darker spot where they ought to have been, and there is no trace of the dorsal ramus.

Length, 12-13 ; width, 4-5½<sup>m.m.</sup>

Natal (D'Urban) ; Transvaal (Johannesburg, Potchefstroom, Barberton).

*C. LONGULA*, Péring.

Trans. S. Afric. Philos. Soc., vol. IV., 1886, p. 68.

pl. 1, fig. 4.

Head and prothorax brassy, elytra dark-bronze, legs glowing red,

abdomen violaceous-blue ; basal joints of the palpi, outer sides of mandibles, and the labrum yellowish-white, this last part slightly tridentate at the apex, and with three setigerous punctures on each side, mandibles short, antennæ with the basal joints metallic, the others faintly rufescent ; prothorax short with the outer sides setulose ; elytra elongated, very slightly amplified behind, dark, greenish-bronze, faintly, although closely, punctured, and having on each side a very broad, pale-yellow marginal band emitting a short, although acute, inward tooth in the anterior part, another one in the middle, longer than the first, and produced at the tip in a slanting narrower ramus, directed backwards, and a very obtuse one above the apical part, where the rounding of the elytra begins.

Although I considered at one time *C. longula* to be a variety only of *C. marginella*, I think it may be considered, provisionally, as a good species ; it differs from the type-forms and varieties, not only in having six setigerous punctures in the labrum, thus causing it to approximate to *C. pudibunda*, but the elytra are more elongated, and the marginal band is considerably wider, invading nearly the half of the discoidal part.

Length, 12 ; width, 5<sup>m.m.</sup>

This species is one of the rarest in Collections ; I only know of three examples, two of which were collected in the Western part of the Cape Colony, and another, without record of the locality, in Chaudoir's collection under the name which, previous to seeing it, I had already selected.

Cape Colony (Fraserburg, Clanwilliam).

### Sub-Gen. EURYODA.

#### SYNOPSIS OF SPECIES.

Elytra with three yellowish-white spots in the disk of each elytron, apical and postical margins narrowly edged with white.

*guttipennis.*

Elytra with two moderately large yellowish spots on each elytron.

*quadri-pustulata.*

Elytra with two minute yellowish spots on each elytron.

*algoensis.*

Elytra with a basal spot, and a broad marginal bi-ramose band of white hairs on each elytron.

*tereticollis.*

C. (E.) GUTTIPENNIS, Bohem.

Coleopt. Caffr. I, 1848, p. 13.

Sub-cylindrical, violaceous-black, but little shining on the upper part, pectus and legs brassy-green, external basal part of mandibles and palpi yellowish, with the ultimate joints of the latter black; labrum moderately large, bronze-black, tri-dentate at the apex, head strigose lengthways, with six foveæ between the eyes; prothorax sub-cylindrical, irregularly aciculated transversely; elytra elongated, more closely punctured behind than in the anterior part, impressed lengthwise on the disk, very dark-blue, moderately shining and with three small, whitish maculæ on each side, the first one immediately behind the central part of the disk, the second one, round like the first, near the apex, the third one oblong, but occasionally absent, is situated in the outer margin at about the middle of the length; the postical and apical margins are also narrowly edged with white, legs moderately long and setulose, brassy-green.

This species, which I have not seen, but a drawing of which was courteously sent me by Professor C. Aurivilius, of the Stockholm Museum, is doubtless very closely allied to, if not identical with, *quadripustulata*.

Length, 13; width,  $4\frac{1}{2}^{\text{m.m.}}$

Caffraria meridionalis (teste Bohem.).

C. (E.) QUADRIPUSTULATA, Bohem.

Insect. Caffrar. I, 1848, p. 14.

pl. 1, fig. 7.

Sub-cylindrical, brassy-green, underside dark-blue, legs green, shining, external basal part of the mandibles, and basal joints of the palpi pale-yellow, labrum acutely five-dentate at the apex, and with two deep setigerous foveæ above the three median teeth, pale-yellow, slightly

infuscated at the base, head strigose, with four slight impressions between the eyes; prothorax finely shagreened, and but slightly impressed longitudinally in the centre and also transversely at the apex and base; elytra parallel in the male, a little amplified behind in the female, convex, narrowed diagonally at the apex, closely punctured, and with one longitudinal discoidal depression on each side, and also two conspicuous, round, yellowish spots, the first one at about the middle of the disk, in the discoidal depression, and the second one, slightly larger than the first, above the apex, but nearer to the outer margin than to the suture.

Length, 10-11; width,  $3-3\frac{1}{2}$  m.m.

Transvaal (Potchefstroom); Zambezia.

C. (E.) ALGOENSIS, new spec.

Dark bronze with a coerulean tinge, violaceous-blue underneath, external part of the mandibles near the base, the two basal joints of the maxillary palpi, and the three labial ones pale-yellow, the apical ones violaceous, labrum five-dented, with two deep, setigerous foveæ above the three median teeth, black with a median yellow line in the male, totally black in the female, head strigose with four impressions between the eyes; prothorax cylindrical, hardly impressed transversely at the apex and base, or longitudinally in the centre; elytra with the outer sides parallel, a little convex, narrowed diagonally at the apex, closely punctured, with two longitudinal depressions on each side, the one near the suture the longest and best defined of the two, and also two yellowish dots, the first one at about the middle of the elytron and in the depression nearest to the outer margin, and the other one, close to the outer margin, where the narrowing of the elytra begins.

Length,  $13-14\frac{1}{2}$ ; width,  $4-5$  m.m.

Closely allied to *E. quadripustulata*; it is, however, larger, the colouring of the labrum differs; the elytra have two depressions on

each side instead of one, and the yellow patches are one-half the size of those of the former.

Delagoa Bay (Rikatla).

C. (E.) TERETICOLLIS. Bohem.

Ofvers. Vet. Ac. Förh., 1860, p. 5.

Oblong, moderately convex, unequally covered with white setæ; black, moderately opaque on the upper part, dark-blue underneath; prothorax and pectus with a brassy tinge; head closely punctured, plane on the upper part and with a few white hairs; labrum large, light-yellow, with a triangular black patch from the base to the centre, and five-dentate at the apex; prothorax twice as long as broad, sub-cylindrical; roughly and closely granulated, slightly pilose and with a brassy, smooth and very shining areolet on each lateral side; elytra closely and somewhat deeply punctured, with the outer margins brassy and shining, and with one basal median patch of white hairs on each elytron, and a lateral band of the same colour sending two very short blunt, tooth-like rami on the posterior part; this lateral band which is broader behind than in the anterior part, probably unites with the basal patch, but the white hairs connecting the two are worn off in the type; underside unequally covered with whitish hairs.

Length,  $10\frac{1}{2}$ ; width,  $3\frac{3}{4}^{\text{m.m.}}$ .

Neighbourhood of Lake N'Gami.

I am indebted to Professor Cr. Aurivilius, of the Stockholm Museum, for a drawing of this remarkable species.

Sub-genus PRODOTES.

C. (P.) FATIDICA. Guér.

Rev. Zool. 1847, p. 4.

p. 1. fig. 6.

Very dark-bronze with a slightly iridescent tinge on the elytra,

dark-blue or greenish-black underneath; labrum short, convex, strongly tri-dentate at the apex, yellowish, broadly margined with black at the apex and narrowly on the sides, and with two deep setigerous punctures on each side of the median tooth and another one on the anterior outer angle; third and fourth joints of the antennæ very bristly; head closely plicated; prothorax short, quadrate, roughly shagreened and with a few, short, decumbent hairs on the outer sides; elytra slightly broader than the prothorax with sloping humeral angles, very convex, the outer sides nearly straight in the male, slightly amplified in the female, attenuated behind and singly rounded at the apical suture which is produced in a small sharp spine, broadly but not deeply punctured, and each elytron with two minute round yellowish spots along the suture, one in the anterior part, the other at about the middle, a moderately broad line running diagonally from the humeral angle to a little short of the apex, and a posterior supra-marginal one beginning at the third part of the elytron and reaching the apex; the dorsal diagonal line emits two very small hooks directed inwards, and also an outer one, the supra-marginal postical line has also a small inner hook near the tip; underside clothed with dense white hairs laterally.

Length, 15-16½; width, 5-6<sup>m.m.</sup>

The general facies is more that of *Dromica* than of *Cicindela*. This very distinct species has no ally.

Natal (D'Urban), Matabeleland, Delagoa Bay (Rikatla), Transvaal (no exact locality.)

#### Gen. MEGALOMMA. Westw.

Annal. & Magaz. Natur. Hist. VIII., p. 203 (3).

PHYSODEUTERA. Lacord. JANSENIA. Chaud.

Catal. Collect. Cicindel., 1865, p. 55.

Mentum with an acute tooth, nearly as long as the depth of the notch; labrum long, convex, covering entirely the mandibles, three dentate in the middle, labial palpi shorter than the maxillary, the third one much thickened, the last one very short and truncated at the apex;

eyes very large; prothorax sub-cylindrical; elytra sub-parallel; legs slender, tarsi not grooved.

The thickened third maxillary palpi is the only distinct generic character which differentiates *Megalomma* from *Euryoda* of which they have, besides, the general facies; and the mentum tooth is not very much shorter.

The genus *Jansenia* has been created by De Chaudoir in order to include *Dromica Westermanni*, Schaum., an Indian species, and he has added to it *Cicindela chlorida*, from Malabar, and also, but without sufficient cause I think, *Physodeutera angusticollis*, which I prefer to retain in the genus *Megalomma*.

#### M. ANGUSTICOLLIS. Bohem.

Insect. Caffrar. vol. I, p. 15.

Head, prothorax, scutellum and humeral part of the elytra brassy, shining, elytra very dark bronze with the lateral margins greenish-blue; underside and legs dark-blue, the tibiæ red, basal joints of palpi pale-yellow; labrum yellow with six setigerous punctures in the anterior part, head strigose, prothorax cylindrical, slightly narrowed in front and behind, not grooved in the centre, finely shagreened; elytra a little broader than the prothorax at the base, with the sides nearly straight, but a little amplified behind in the female, rounded behind ending in a sharp spine on each side of the apical part of the suture, convex, closely punctured with a distinct row of broader green punctures on each side of the suture, dark-bronze, and each elytron with three sinuose, irregular, longitudinal black lines, a small yellowish dot at about the median part of the disk and two patches of the same colour behind, one, the largest, a little above the apical part, nearer to the margin than to the suture, and the other, a smaller one, at the very apical part.

Length, 10-11; width, 4<sup>m.m.</sup>

Natal (D'Urban, Maritzburg, Frere), Transvaal (Potchefstroom, Lydenburg.)

## M. LIMBIGERA. new spec.

Brassy, shining on the head and prothorax; labrum yellowish-white, sub-quadrate, very slightly unidentate, even in the female, at the apex, but slightly acute in the anterior angle, with one setigerous puncture on each side of the median tooth, and another on the outer angle; head and prothorax very metallic, hairless; elytra elongated, a little amplified behind in the female, dark-bronze, very faintly punctured, but with a row of broad, deep, bluish-green punctures on each side along the suture, and a broad yellowish marginal band sending a small short hook in the anterior part, a longer and blunter one at about the median part, and a small sinuation in the third, posterior part; the median ramus is, as often as not, produced in a slightly slanting, narrow dorsal ramus a little thickened at the tip, but sometimes wanting the connecting dorsal band, when there is only a small, round, post median dorsal spot left; underside glowing-red, abdomen greenish-blue, very slightly pilose.

In size and colouring this species resembles much *Cicindela marginella*.

Length, 10-12; width, 3-4<sup>m.m.</sup>

Cape Colony (Port Elizabeth), Transvaal (Potchefstroom, Boksburg), Orange Free State (Parys), Natal (Frere).

## Gen. MYRMECOPTERA. Germ.

Mag. Zool. Ins. A., 1843, t. 124.

Body oblongo-ovate, wingless; mentum with a very minute median tooth, labrum with five teeth; third articulation of the labial palpi very thick; head broader than the prothorax; antennæ with the four basal joints filiform, the other five compressed, sub-foliated, the last two more slightly dilated outwardly; prothorax long, narrow, nearly cylindrical, slightly narrowed at the base and apex, with a very fine median longitudinal groove, (but neither the transverse impressions nor the median groove are deep enough to give to the disk the appearance of being raised) and always finely and closely plicated

transversely ; elytra oblongo-ovate, not broader than the prothorax at the base, those of the male broadening slightly past the middle, and those of the female much more amplified, always convex, aculeated behind, with the suture raised and produced at the apex in two sharp spines, nearly always longer in the male ; legs very long and slender, tarsi and tibiæ grooved in the upper part, the three basal joints of the fore tarsi of the male dilated and ciliated underneath.

De Chaudoir has included in the genus *Dromica*, Dejean, the *Myrmecoptera* of Germar, and *Cosmema* of Boheman. There is no distinctive generic character between the three, except the dissimilarity in shape of the antennæ, and also the general facies.

Even then, apart from the general facies there is a strong connecting link between the *Myrmecoptera* (as I understand them) and the *Dromica*, in *D. Clathrata* with thickened antennæ, and *D. pseudoclathrata* ; in the last-named species these organs are as much subfoliated externally as in any other *Myrmecoptera*.

I propose, however, to retain the three genera and to include in :

*Myrmecoptera*. All the species with thickened antennæ, and long, narrow prothorax plicated transversely : type *M. Bertolonii*.

*Dromica*. A. Species with thickened antennæ and quadrate prothorax with two protuberances on the disk : type *D. pseudoclathrata*.

B. Semi-filiform antennæ and quadrate prothorax with two protuberances on the disk. *D. tuberculata*.

C. Antennæ very filiform.

*Cosmema*. Bodies very slender, and prothorax sub-cylindrical, impressed transversely in front and behind, but without any protuberances on the disk, the two sides of which are only very slightly raised. *C. coarctata*.

The Cicindelidæ included in these three genera are wingless insects, extremely agile, which, in spite of their livery, adapt themselves wonderfully well to their surroundings. From all accounts they do not seem to be as gregarious as *Cicindela*, and are occasionally met with in open glades, stubble or paths ; they run with great rapidity, and are captured with difficulty.

Myrmecoptera seem to be occasionally met with in Natal and the Southern part of the Transvaal; their habitat extends, however, from the 24th of lat. S. to Abyssinia; the South-African species are more numerous between the 26th and 15° lat. They have not been recorded from Great Namaqualand, but are found in Ovampoland, in the vicinity of the Limpopo, on the banks of the Zambeze, and in the provinces of Mozambique and Delagoa Bay.

Outside the South-African limit two specimens of this genus are met with in Abyssinia; one in Somaliland; one in Zanzibar (Lake Jipe); one in East Africa (Mamboia); and ? one in Angola.

I divide the South African species into four different sections:

1. Body slender, elytra with a continuous white supra-marginal band, and a dorsal patch: *tenella*.
2. Body slender, elytra with a more or less interrupted supra-marginal band, and with dorsal markings: *spectabilis*.  
*bi-lunata*, *Saundersi*.  
*limbata*, *Erikssoni*.
3. Body less slender, elytra costate in the anterior part, and shagreened in the posterior part, with no white marking, or with an apical white patch: *algoensis*, *Junodi*, *Bertoloni*.  
*foveolata*, *costata*, *Limpopoiana*.
4. Body less slender, elytra costate, foveated or deeply pitted, one white band at the base on each side of the suture, and one apical, sutural, or supra-marginal patch: *polyhirmoides*, *Mauchi*.

#### SYNOPSIS OF SPECIES.

##### A. Elytra without any raised lines.

Elytra deeply pitted, outer margin with a continuous yellow band, and a round post median spot on each side of the disk. *tenella*.

Elytra deeply pitted, outer margin with a white humeral band, a median spot, and an apical, long, narrow band, disk with a small round spot. *foveolata*:

Elytra deeply pitted, with a supra humeral broad white patch, and a post median marginal band reaching the apex, disk with a transverse patch uniting with the marginal band. *spectabilis*.

Elytra deeply pitted, each with a small sub-humeral spot, a

marginal apical narrow band, and a post median arcuated dorsal patch in the shape of a crescent with points downwards.

Elytra deeply pitted, with no humeral spot, but with a narrow, white marginal post median band, and a very narrow dorsal patch.

Elytra deeply pitted, with a long sub-humeral band, a narrow one reaching the apex, and a post median arcuated dorsal patch shaped like a crescent with the points upwards.

Elytra narrowly and closely pitted, no humeral spot, but with a broad, post median yellowish-white marginal band, and a diagonal discoidal patch.

Elytra broadly pitted in the anterior part, and coarsely shagreened behind, with no lateral or dorsal markings.

Elytra broadly pitted in the anterior part, and coarsely shagreened behind with an elongated whitish patch near the apex.

*B.* Elytra with raised lines.

Elytra very broadly pitted in the anterior part, and shagreened behind, each with five raised lines, and an elongated whitish-yellow patch near the apex.

Elytra very broadly pitted in the anterior part and shagreened behind, each with five raised lines, and no whitish-yellow patch near the apex.

Elytra broadly pitted in the anterior part, and shagreened behind, each with four raised lines and an elongated whitish patch near the apex.

Elytra broadly pitted in the anterior part, and shagreened from past the middle, each with one raised line near the suture, and an elongated whitish patch near the apex.

Elytra broadly pitted to a short distance from the apex, and each one with five raised lines, a short white line at the base close to the scutellum, and a sutural elongated patch at the apex.

Elytra pitted, each one with five raised lines, a short yellowish line at the base, close to the scutellum, and an elongated marginal patch near the apex.

*limbata.*

*Saundersi.*

*bi-lunata.*

*Erikssoni.*

*Junodi.*

*Algoensis.*

*Bertolonii.*

*fossulata.*

*costata.*

*limpopoiana.*

*polyhirmoides.*

*Mauchi.*

*M. TENELLA*, new spec.

Black, almost opaque on the upper part, prothorax very cylindrical, long, closely and finely plicated obliquely, with the folds very narrow ;

elytra oblong, a little amplified past the middle, with the suture produced apically in two long, sharp spines; they are closely pitted and have on each side a broad, continuous yellowish supra-marginal band reaching from a little below the shoulder to the apex, and a round spot of the same colour on the disk at a little past the median part; legs and underside reddish with a green metallic tinge.

Length, 8; width, 2<sup>m.m.</sup>

I have seen only one male example of this pretty species, which was captured near Barberton (Transvaal).

*M. FOVEOLATA.* Péring.

Trans. S. Afr. Phil. Soc., 1888, vol. IV., p. 71.

Violaceous-black, moderately shining on the upper part, much more so underneath; labrum yellowish-white, edged with black, head strigose; prothorax very long, cylindrical, closely plicated obliquely; elytra deeply pitted with a row on each side of deeper golden foveæ at a short distance from the suture, and reaching from the base to about the middle, narrow, a little amplified past the middle with the suture produced apically in two long acute spines, and having on each elytron a supra-marginal narrow band below the shoulder, another one in the middle, and a third one near the apex; legs metallic blue-black.

Length, 13; width, 4½<sup>m.m.</sup>

The type has no dorsal markings, but a male in the British Museum has a small round dot on the post median part of each elytron, and the sub-humeral supra-marginal band is not so well defined as in the type.

? Damaraland. Natal (D'Urban), teste Herr Guenzius.

*M. SPECTABILIS,* new species.

Dark metallic blue-black, moderately shining on the upper part; labrum white with the apical and basal part narrowly edged with black; head strigose; prothorax long, cylindrical, closely plicated obliquely;

elytra very elongated, deeply pitted, very slightly amplified past the middle (male) with the apical sutural part produced in two long, sharp, teeth, and having on each elytron a supra-humeral broad, whitish patch, and another one on the post median part of the disk which unites with a broad supra-marginal band reaching the apex; underside steel-blue with a greenish iridescence.

Length, 15; lat., 3<sup>m.m.</sup>

Zambezia.

**M. LIMBATA, Bertol.**

Diss. Ins. Coleopt. Bologn., 1858, p. 14, t. 1.

Dark metallic blue-black, moderately shining; labrum black in the centre and yellow on the outer sides, head strigose; prothorax cylindrical, plicated obliquely; elytra deeply pitted, amplified past the middle with the suture produced at the apex in two short spines, and having on each above the outer margin a sub-humeral small dot, and a narrow straight band reaching from past the middle to the apex as well as a post median dorsal patch in the shape of a crescent, the two points of which are directed towards the apex.

Length, 17<sup>m.m.</sup>

Mozambique, De Chaudoir's Collection.

**M. SAUNDERSI, Chaud.**

Catal. Collect. Cicind. 1865, p. 51.

Dark metallic blue-black, moderately shining; size and facies of *M. limbata*, and coloured alike; elytra with the apical suture ending in two long spines, no sub-humeral white spot, the apical supra-marginal band is the same shape as that of *limbata*, but the dorsal patches are very small and round.

The two examples in De Chaudoir's Collection are males.

Delagoa Bay (teste De Chaud.)

*M. BI-LUNATA.* Dohrn.

Stett. Ent. Zeit. vol. XLIV., 1883, p. 278.

Dark metallic blue-black, almost opaque on the upper part; head strigose, labrum of male white with the base and apex narrowly edged with black, that of the female black and edged laterally with white, head strigose; prothorax cylindrical, plicated obliquely; elytra of the male more deeply pitted than those of the female, each with a median series of deeper foveæ with a golden tinge reaching from the base to a little past the middle, apical sutural teeth of the male very long and sharp, those of the female very short, very little amplified from past the middle in the male, much more in the female and with each elytron having a supra-marginal broad white band reaching from below the shoulder to the middle in the male, but shorter in the female, another one reaching from past the middle to the apex, and also a distinct crescent-shaped post median dorsal patch, the points of which are directed towards the base.

Length, 15-18; width, 4-5<sup>m-m</sup>.

Country between Limpopo and Zambeze (T. Ayres), Zambeze River (Dr. Bradshaw).

*M. ERIKSSONI.* Péring.

Trans. South. Afric. Philos. Society, 1892, p. 5.

Brassy-green, shining, with the underside steel-blue; head strigose, labrum entirely black; prothorax, long, cylindrical, finely plicated obliquely; elytra very closely and narrowly pitted, with a faint series of broader spots on each side of the suture, a little amplified past the middle with the suture ending in two short spines at the apex, and each one having at about the middle of the disk a diagonal yellowish-white patch directed towards the outer margin where it coalesces with a broad supra-marginal band of the same colour reaching from past the middle to the apex. Male unknown.

Length, 14-15 ; width, 4<sup>m.m.</sup>

Allied to *M. nobilitata*, Gerst., from Lake Jipe.

Northern Ovampoland.

*M. JUNODI*. Péring.

Trans. S. Afric. Philos. Society, 1892, p. 95.

Metallic blue-black, shining on the upper part; labrum yellow with a black basal patch in the male, that of the female black with the outer sides narrowly edged with white; head strigose; prothorax very long, slender, cylindrical, finely plicated obliquely; elytra deeply pitted from the base to about past the middle, and less deeply in the posterior part, and having a row of deeper foveæ with a golden tinge reaching from the base to about the middle, the apical part of the suture produced in two very long, sharp spines in both sexes, but those of the male are the longest, no white patch on the margin or disk; underside steel-blue, very shining.

Length, 18-20; width, 4 $\frac{5}{8}$ <sup>m.m.</sup>

From Delagoa Bay—20 miles from Lourenço Marques. Seen a female from that locality the labrum of which is entirely black.

*M. ALGOENSIS*.

Metallic blue-black, shining on the upper part; labrum totally black (female); head strigose, prothorax very long, slender, cylindrical, finely plicated obliquely; elytra deeply pitted from the base to about the middle, but less deeply in the posterior part, and having a row of deeper foveæ with a golden tinge reaching from the base to about the middle: apical part of the suture produced in two very sharp, long spines, a white elongated patch on the posterior margin.

Length, 19; lat., 4 $\frac{1}{2}$ <sup>m.m.</sup>

Differs only from *M. Junodi*, in having an apical marginal

whitish band, which is entirely absent in the 13 examples of *Junodi*, which I have examined.

From Rikatla (Delagoa Bay).

*M. BERTOLONII*. Thoms.

Revue. Zool., 1856, p. 482.

Lacord. Gen. Atl. t. 1, f. 4.

Metallic black on the upper part, shining dark-blue underneath; head strigose, labrum black edged with yellowish-white outwardly; prothorax cylindrical but not very long, plicated obliquely; elytra much amplified past the middle, acuminate behind with the apical part of the suture produced in two moderately long, sharp spines, deeply and broadly foveated from the base to past the middle, strongly shagreened behind, and each one having five slightly sinuated raised lines, the supra-marginal of which is the longest and reaches to past the middle, and also a small elongated, often inconspicuous, yellowish-white spot near the apex.

*M. FOSSULATA*. Wallengr.

Entom. Tidskr. vol. II., 1881, p. 11.

It is with some doubt that I place here this species which I know from the description only; if it is a true *Myrmecoptera* it will prove very probably identical with *M. Bertolonii*, lacking only the apical yellowish-white marginal marking on the elytra: on the other hand no S. African *Myrmecoptera* can be said to have the dorsal part of the elytra moderately depressed (dorso subplano) but in *Dromica* the dorsal part of the male is certainly depressed.

Bronze-black; antennæ dilated outwardly with the apical points attenuated; labrum with the margins white but not the apex; base of mandibles whitish; palpi yellow, black at the apex; head and prothorax closely but not very rugosely plicated, and both with a moderately shining dark-blue tinge, the prothorax slightly grooved in the middle, impressed obliquely in front and behind, with the disk hardly

raised; elytra depressed in the dorsal part, each with five raised lines (costæ), the said lines somewhat obliterated past the middle, with the intervals closely fossulated, and coarsely punctuated towards the apex; under-part of the body, especially the abdomen, dark-blue; legs brassy-black.

Length, 18<sup>m.m.</sup>

<sup>1</sup>Captured near Christiana (Transvaal), teste Wallengren.

M. COSTATA. new species.

pl. II, fig. 6.

Black with brassy tinge on the upper part, steel-blue underneath; head strigose, labrum black with outer edges yellow; prothorax plicated obliquely, cylindrical but not very long; elytra amplified past the middle, acuminate behind, with the apical sutural spines short but acute, deeply foveated from the base to a little past the middle, coarsely shagreened from there to the apex, and each one having four slightly wavering raised lines reaching only to a little past the middle, and also a conspicuous marginal, short, white band near the apex.

The foveæ of the anterior part of the elytra are not so broad as those of *M. Bertolonii* to which it is however closely allied, but *Bertolonii* has five raised lines on each elytron, whereas *costata* has only four.<sup>2</sup>

Male unknown.

Marico and Potchefstroom (Transvaal).

M. LIMPOPOIANA. new spec.

Black with a brassy tinge, moderately shining on the upper part, steel-blue underneath; head strigose, labrum quite black or

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<sup>1</sup>Mr. Wallengren has no longer the typical example of *M. fossulata* in his possession, but he writes that so far as he remembers, the facies is that of *M. costata*, as figured in plate II., fig. 6.

<sup>2</sup>The insect figured in plate II. should have four lines on each elytron instead of two.

black in the centre and broadly edged with yellow; prothorax plicated obliquely, long, cylindrical; elytra amplified past the middle, with apical spines of the suture very short, deeply foveated from the base to the middle with the postical part closely shagreened; and each one has a slightly raised line, parallel to the suture and reaching the middle, and also an inconspicuous, short, narrow white line near the apex.

Length, 21; width,  $6\frac{1}{2}^{\text{m.m.}}$ .

I have not seen the male of this species.

Middle Limpopo (Neighbourhood of Fort Tuli).

*M. POLYHIRMOIDES.* Bates.

Ent. Month. Magaz., 1892, p. 286.

*M. HOLUBI.* Dohrn.

Stett. Ent. Zeit. XLII., p. 318.

Black with a brassy tinge, dark-blue underneath; head strigose, labrum black with a broad white central patch in the male, and a narrow line in the female; prothorax not very long, cylindrical, plicated obliquely; elytra oblongo-ovate, very little amplified past the middle, apical sutural spines of the male long and sharp, those of the female very short, almost obtuse; they are broadly foveated from the base to three-fourths of their length, and closely shagreened in the postical part; each one has five slightly sinuated raised lines edging the foveae (which have a bright golden tinge) also a narrow basal white band parallel and close to the suture, not reaching the median part of the elytron, and an elongated apical patch of the same colour extending on both sides of the suture.

Length, 21-22;  $5-6\frac{1}{2}^{\text{m.m.}}$ .

Middle Limpopo (neighbourhood of Fort Tuli).

*M. MAUCHI.* Bates.

Ent. Month. Magaz., 1872, p. 287.

*M. OATESI.* Westw. Oates' Matabeleland, 1881, p. 359, pl. G. fig. 5.

Black, opaque on the upper part, shining underneath; head strigose,

labrum black with a yellowish median band; prothorax elongated, sub-cylindrical, plicated transversely, the longitudinal median groove with white tomentum; elytra amplified past the middle with the apical sutural spines short, deeply and closely pitted; on each one are five raised, narrow lines disappearing before reaching the apex, and also a basal, very short, yellowish-white band, and an elongated supra-marginal patch of the same colour close to the apex.

Length, 24-25;  $7\frac{1}{2}$ -8<sup>m.m.</sup>

Middle Limpopo, Zambeze River.

The sub-foliation of the antennæ and the shape of the prothorax as delineated in Oate's Matabeleland, are defective.

#### Gen. DROMICA. Dejean.

Spec. II, 1826, p. 434.

Body oblongo-ovate, wingless, labrum five-dented; mentum with a very small median tooth, third articulation of the labial palpi thickened; head slightly broader than the prothorax; antennæ with the first four basal joints filiform and the other seven either compressed or sub-foliated or filiform; prothorax short, quadrate, deeply impressed in front and behind and grooved in the centre, with the two sides of the disk produced in a long tubercle; elytra oblong, as broad as the prothorax at the base, those of the male a little depressed and nearly parallel, the female's convex and nearly always amplified past the middle, suture raised and ending in two apical moderately sharp spines in the male, nearly obtuse in the female; legs long and slender, tarsi and tibiæ not grooved in the upper part, the three basal joints of the fore tarsi of the male dilated and ciliated.

*Dromica* is met with in the Cape Colony (Seymour, Graham's Town, East London), in Natal, Zululand, the Transvaal, Middle Limpopo and Mozambique.

So far as I am aware species of this genus have not been captured outside the South-African limit.

## SYNOPSIS OF SPECIES.

A. Antennæ compressed (*a*) or sub-foliated (*b*).

*a.* Elytra with five raised lines on each side reaching from the base to two-thirds of the length with intervals broadly pitted, very rugose behind and having a small elongated or rounded whitish spot on each sub-apical outer margin. *clathrata.*

*b.* Elytra with six raised lines on each side reaching from the base to two-thirds of the length, intervals reticulated, not foveated, and with an elongated whitish patch on each sub-apical outer margin. *pseudo-clathrata.*

Elytra with five raised lines reaching from the base to two-thirds of the length with the intervals very broadly foveated, and having on each side at a little distance of the suture a broad white apical band. *grandis.*

## B. Antennæ filiform.

Elytra with five raised lines on each side, the two dorsal ones shorter than the others, the first, third and fourth uniting above the apex, and having on each side a supra-marginal, apical white patch, often very indistinct. *sculpturata.*

Elytra with five raised lines on each side, the first one shorter than the third and fourth, the wing covers of the female very convex, the supra apical marginal patch sometimes indistinct. *Natalica.*

Elytra with four raised lines on each side, reaching to a short distance from the apex, and having on each side a small humeral white spot, a median one and an apical band of the same colour. *octocostata.*

Elytra having on each side a short basal ridge near the suture, a dorsal one consisting of four disconnected oblique ridges, a supra-marginal uninterrupted one reaching from the shoulder to two-thirds of the length, and the outer margin with a small humeral whitish dot, often wanting, another one of the same size in the median part, and a very fine sub-apical line of the same colour. *tuberculata.*

Elytra as in *tuberculata*, the dorsal ridges more raised, outer margin with a small sub-humeral yellowish-white round dot, a larger one in the median part and a broad band near the apex. *var. carinulata.*

Smaller than *tuberculata* and *carinulata*; elytra as in *tuberculata*, outer margin with a sub-humeral yellowish-white band, in both sexes, a broad spot in the centre, and an elongated apical band. *var. Transvaalensis.*

Elytra as in *tuberculata*, but with the outer supra-marginal ridge sinuated, but reaching from the shoulder to the apex, outer margin with a post median dot and an elongated sub-apical whitish band.

*var. acuminata.*

Elytra as in *tuberculata*, but with a white broad uninterrupted supra-marginal ridge reaching from the shoulder to the apex

*albivittis.*

Elytra with an uninterrupted raised line near the suture, a dorsal one three times interrupted, a second dorsal one consisting of three disconnected oblique ridges, and a continuous external one reaching from the shoulder to near the apex.

*immaculata.*

#### D. CLATHRATA. Klug.

Jahrb. 1, p. 40, 1834.

D. GIGANTEA. Brème. Annal. Franc., 1844, p. 289, pl. 7, fig. 3.

Metallic black, with a greenish and golden tinge on the upper part, dark, metallic blue underneath; head strigose, antennæ with the seven apical joints compressed and sub-dilated outwardly; labrum black in both sexes, with a median, narrow, yellowish longitudinal band; prothorax quadrate, plicated, the plication sinuated, deeply impressed in front and behind, grooved in the centre, the disk produced in two long protuberances; elytra elongated: those of the male nearly parallel, and much depressed, of the female very convex and much amplified a little past the middle, suture raised and ending in two very short spines, (one on each side); on each elytron are five, slightly sinuose, raised lines reaching from the base to two-thirds of the length (the two external ones reaching a little further than the others) the intervals of which are foveated, with the foveæ reticulated, the apical part is very rugose, and has a marginal, more or less rounded white patch, which is often very indistinct, or entirely wanting; legs, very dark-blue with a bronze tinge.

Length, 17-23; width, 5-8<sup>m</sup>.

There can be no doubt as to the identity of *D. gigantea* with

*D. clathrata*, and the typical *clathrata* of De Chaudoir's, represented by one example only in his collection, is a small male specimen in which the outer, or fifth costa is well defined, and the postical dot is more elongated than usual; this postical whitish patch is often reduced to a mere dot, and even disappears altogether in specimens captured in one locality and at different times of the year. The compression and dilatation of the joints of the antennæ vary also; in some examples before me from Potchefstroom (Transvaal), they are almost sub-foliated, although always in a lesser degree than in the two species *pseudo-clathrata* and *grandis*, and also sub-filiform or at least not much dilated, in both sexes.

Transvaal (Klerksdorp, Boksburg, Potchefstroom, Rustenburg), Mozambique (teste Bertoloni), Delagoa Bay, Lake N'Gami (teste Chaudoir).

#### D. PSEUDO-CLATHRATA. new species.

Metallic black with a greenish, golden tinge on the upper part, dark metallic blue underneath; antennæ with the seven apical joints compressed and sub-foliated outwardly; labrum black with a narrow median, yellowish longitudinal band, head strigose; prothorax quadrate, grooved in the centre, deeply impressed in front and behind, the disk produced in two long protuberances, plicated transversely; elytra ovate, very convex, amplified at a little past the middle, suture ending in two short spines on each side, each elytron with six raised lines not sinuose, and of equal length reaching from the base to three-fourths of the length, (the outer one disappears below the humeral angle), the intervals between these raised lines are closely plicated but not foveated, the posterior part is very rugose and has on each side a long, marginal, white patch which does not extend as far as the apex; legs dark-blue with a bronze tinge.

Length, 25; width, 8<sup>m.m.</sup>

Allied to *clathrata*, but the joints of the antennæ are much more compressed, the elytra are not so suddenly amplified past the middle, and are therefore more ovate, the raised lines, six in number

instead of five, are nearly straight instead of being sinuose as in *clathrata*, the reticulation of the interstices is different, and the suture is distinctly bi-spinose on each side. Male unknown.

Transvaal (no exact locality).

D. GRANDIS. new species.

Brassy-black, the foveæ of the elytra with a golden sheen; head strigose, labrum black with a median, narrow, yellowish band in both sexes; antennæ with the exception of the first four basal joints sub-foliated; prothorax quadrate, as broad as the head, short, deeply impressed in the anterior and posterior parts, plicated, with the folds sinuated, and with the disk produced in two long protuberances; elytra of the male nearly parallel, depressed, those of the female oblong, amplified in the middle and gradually narrowed behind, the sutural apical spines longer in the male than in the female, each elytron with five slightly raised lines reaching from the base to two-thirds of the length, the intervals between the lines very broadly foveated, the foveæ reticulated, and the posterior part very rugose; on each side of the posterior part, and reaching about from the apex to the dorsal costæ, is a long, broad, parenthesis-like white band.

Length, 19-24; width, 6-8<sup>m.m.</sup>

Allied to *D. clathrata*, but easily distinguished owing to the sub-foliated antennæ, and the different shape of the apical markings of the elytra; the elytra of the female are also more gradually amplified from the base to the middle, the alveolæ are much broader and deeper, and the outer line, a very narrow one, runs quite close to the fourth, instead of being broadly separated as in *D. clathrata*.

I have also received two smaller examples of this species from Barberton (Transvaal), in which the apical white patch is not discernible; I believe these examples to be immature.

Middle Limpopo (Fort Tuli), Transvaal (Barberton).

*D. SCULPTURATA.* Bohem.

Insect. Caffrar. part I, 1848, p. 17.

*D. BIS-BICARINATA.* Chaud.

Rev. Zoolog., 1864, p. 10.

*D. QUADRICOLLIS.* Chaud.

Rev. Zool., 1864, p. 37.

Brassy-black, shining; head strigose, antennæ filiform, labrum yellowish-white, narrowly edged with black in both sexes; prothorax quadrate, strongly impressed in front and behind, grooved in the centre, and with the disk produced in two elongated protuberances; elytra very much depressed, those of the male nearly parallel, with the two sutural apical spines short, those of the females amplified past the middle, with the sutural part slightly divaricating and blunt; they are covered with closely set, somewhat reticulated, moderately deep punctures, and have on each side five raised lines, the second and third, running close to each other coalesce near the base, reach a little beyond the middle where they unite, and the first, fourth and fifth reach to a little distance short of the apex where they also unite; on each side of the outer apical angle is a white, elongated, supra-marginal, more or less conspicuous patch, sometimes entirely absent. Legs bluish-black, with the base of the tibiæ and at times the hind shanks slightly reddish.

Length, 19-22; width, 4-8<sup>m</sup>.m.

Natal (Frere).

*D. bis-bicarinata* is undoubtedly identical with *D. sculpturata*. Chaudoir himself admits that the only difference between the two is the colouring of the basal part of the tibiæ.

*D. quadricollis*, which I have closely examined, does not seem to me to differ from *bis-bicarinata* beyond having in the female a little more sideways infuscated labrum, in one of the males (from Damara-land) the second and third costæ are very short, but the same thing occurs also in males of *D. clathrata* captured in one locality.

## D. NATALICA, new species.

Colouring and size of the preceding species, the female, however, of a more light-bronze sheen, head and prothorax similar; elytra of the male elongated, plane on the back, with the apical spines moderately long, sharp, and straight, those of the female very convex, the apical part hardly divaricating and without any spines, set with broad, somewhat reticulated, deep punctures, and having on each side five raised smooth lines; the first one near the suture does not reach the base, and disappears after the median part of the disk, the two discoidal ones unite at a short distance from the base, run parallel to one another and reach about to three-fourths of the length, and the fourth and fifth stop short of the apex; on each side is an elongated white patch, sometimes missing.

Length, 19-22; width, 4-8<sup>m.m.</sup>

Although the male, or at least what I conjecture to be the male, is hardly discernible from *sculpturata*, the only difference being in the first dorsal carina very short in the anterior part, and the two dorsal ones which are longer than in *sculpturata*, the female is very distinct owing to the convex form of the elytra, the first dorsal carina is also not so well defined, nor does it reach so far towards the apex.

Natal (D'Urban).

## D. OCTOCOSTATA. Chaud.

Rev. Zool. 1864, p. 38.

Brassy with a golden tinge; head strigose, labrum black with a median yellowish band; prothorax irregularly plicated, quadrate, with the discoidal protuberances much raised; elytra oblongo-ovate, convex, covered with broad punctures, and the apical, sutural parts produced in very sharp spines; they have on each side four acute raised lines placed at the same distance from one another, and disappearing before reaching the apex, on the outer margin there is a sub-humeral white spot, a post median one, rounder than the sub-humeral

spot, and sometimes missing, and a moderately narrow line of the same colour near the apex.

Length, 16-18 ; width, 7<sup>m.m.</sup>

De Chaudoir's types have no post median marginal spots, but I have seen two examples in the British Museum in which these markings are well defined.

Delagoa Bay.

D. TUBERCULATA. Hope.

Animal Kingdom, 1, 1832, p. 265, pl. 29, fig. 6.

Brassy, moderately shining on the upper part, antennæ and under-side cyaneous ; head strigose, labrum of the male yellowish-white narrowly edged with black, that of the female black with a median yellowish band ; prothorax irregularly plicated, quadrate with the discoidal protuberances much raised and the posterior angles very acute ; elytra oblong, not much depressed on the upper part in the male, convex in the female, acuminated behind, with the sutural apical part a little divaricating and slightly spinose ; they are covered with closely set punctures, and have on each side a short ridge running from the base to one-fourth of the length, a dorsal one consisting of four oblique disconnected ridges and an external uninterrupted one above the outer margin and reaching from the shoulder to three-fourths of the length ; in the outer margin there is a small whitish dot placed at about the middle, and a small narrow line of the same colour near the apex ; legs cyaneous, with the tibiæ somewhat infuscated.

Length, 15 ; width, 5<sup>m.m.</sup>

Cape Colony (Seymour).

D. TUBERCULATA.

Var. CARINULATA. Chaud.

Bullet. Mosc. 1860, IV., 306.

Brassy, or brassy-black, moderately shining on the upper part,

cyaneous-black underneath ; head strigose, labrum of the male yellowish-white narrowly edged with black, that of the female black with a median yellowish band ; prothorax very quadrate, irregularly plicated, the discoidal protuberances much raised, and the posterior angles very acute ; elytra oblong, somewhat depressed on the upper part in the male, those of the female very convex, acuminate behind, with the sutural apical part a little divaricating and slightly spinose ; they are covered with closely set punctures and have on each side a short ridge running from the base to one-fourth of the length, a dorsal one consisting of four oblique disconnected ridges, and an external uninterrupted one above the outer margin and reaching from the shoulder to three-fourths of the length ; in the outer margin there is a sub-humeral white dot, a broad one a little past the middle, and an elongated band of the same colour near the apex ; the sub-humeral dot is wanting in the female examples which I have examined.

Extremely near *tuberculata* ; the carinae of the elytra are more raised and the marginal dot and patches larger and more clearly defined.

Length, 15-17 ; width,  $4-5\frac{1}{2}$  m.m.

Natal (D'Urban) ; Zululand (Eshowe).

#### D. TUBERCULATA.

##### Var. TRANSVAALENSIS.

Brassy or coppery-green, very shining, underside dark-blue, head strigose, labrum yellowish-white, narrowly edged with black in both sexes ; prothorax irregularly plicated, quadrate with the protuberances of the disk much raised and the posterior angles very acute ; elytra oblong, hardly depressed on the upper part in the male, convex but not much amplified in the female, acuminate behind, the male with two long, sharp sutural spines, the female's are nearly blunt ; they are covered with closely set punctures, and have on each side a short basal ridge, a dorsal one consisting of four oblique disconnected ridges, and an external uninterrupted one above the outer margin reaching from the shoulder to a little past the middle ; in the outer margin there is a long sub-humeral yellowish-white band, a broad

median patch, and a band of the same colour near the apex ; the tibiae are slightly infuscated.

Length, 15 ; width, 5<sup>m.m.</sup>

Smaller than *tuberculata* and *carinulata*, and with the marginal markings very well defined ; the sub-humeral band is very distinct in both sexes.

Transvaal (Lydenburg).

#### D. TUBERCULATA.

Var. ACUMINATA. Chaud.

Rev. Zool. 1864. p. 40.

Brassy or brassy-black, underside dark-blue ; head strigose, labrum yellowish-white narrowly edged with black ; prothorax irregularly plicated, quadrate, with the protuberances of the disk much raised ; elytra oblong, hardly depressed in the male, acuminate behind, the male with two long sutural spines ; they are covered with closely set punctures, and have on each side a short basal ridge, a dorsal one consisting of four oblique disconnected ridges, and an external one reaching from the shoulder to the apex ; in the outer margin there is a median yellowish-white patch, and an elongated band of the same colour near the apex.

Closely allied to the preceding variety ; lacks, however, the sub-humeral whitish band, and the external ridge reaches the apex.

Length, 15 ; width, 5<sup>m.m.</sup>

#### D. ALBIVITTIS. Chaud.

Catal. Collect. 1865. p. 50.

Brassy, shining, dark-blue underneath ; head strigose, labrum of the male whitish and narrowly edged with white, that of the female more broadly edged with black, or having sometimes a lateral yellowish band on each side and one in the middle ; prothorax irregularly plicated, quadrate, with the discoidal protuberances much raised, and

the posterior angles very acute; elytra oblong, not much depressed in the male, a little more convex in the female, acuminate behind, with the apical sutural part very spinose in the male, and less so in the female; they are covered with closely set punctures, and have on each side a short basal ridge, a dorsal one consisting of four oblique disconnected ridges, and a broad, uninterrupted, external, white supra-marginal ridge reaching from the base to the apex.

Length, 14-16; width,  $5-5\frac{1}{2}$  m.m.

Transvaal (Lydenburg, Barberton).

D. IMMACULATA. Péring.

Trans. S. Afric. Phil. Soc., vol. IV., 1888, p. 70.

pl. II, fig. 7.

Brassy, moderately shining, underside dark-blue; head strigose, labrum (female) black with a median yellowish band; prothorax irregularly plicated, quadrate, with the protuberances of the disk much raised, and the posterior angles acute; elytra oblong, convex, closely and deeply punctured, suture divaricating at the apex and obtuse; they have each a narrow raised line parallel to the suture and nearly reaching the apex, a dorsal one interrupted as it reaches the middle and continued by a short line, a second discoidal one formed by four disconnected oblique ridges and an external, continuous supra-marginal one reaching nearly from the shoulder to the apex.

Length, 18; width, 6 m.m.

A female example has a very small, almost obsolete, median yellowish dot in the lateral margin.

Length, 18; width, 6 m.m.

Cape Colony (Graham's Town).

Gen. COSMEMA. Bohem.

Insecta Caffrariæ, 1848, Part. I, p. 19.

Body very slender, wingless, oblong, convex, labrum five dentate

(the teeth more pronounced in the female), mentum with a very minute median tooth, third articulation of the labial palpi thickened; head very slightly broader than the prothorax, antennæ filiform; prothorax short, sub-cylindrical,<sup>1</sup> slightly impressed transversely in front and behind, grooved in the centre, with the two sides of the upper part of the disk a little raised, and finely plicated transversely; elytra elongated, nearly parallel in the male, amplified past the middle in the female, much acuminate behind and generally ending in two sharp spines, very long and slightly divaricating in the male, much shorter in the female; legs long and very slender, anterior tibiæ and all tarsi finely grooved on the upper part, the three first joints of the fore-tarsi of the male dilated and ciliated.

*Cosmema* occurs in the Eastern part of Cape Colony (Port Elizabeth, Sunday River, Albany, Graham's Town), Natal (D'Urban, Maritzburg), Zululand (Eshowe), Transvaal (Parys, Potchefstroom, Rustenburg, Boksburg, Barberton, Lydenburg), British Bechuanaland, Lake N'Gami, and Delagoa Bay. This genus has not, to my knowledge, been found in the Western part of Cape Colony.

Besides the South-African species, three more have been described: one from East-Central Africa (Mamboia), one from the river Quango, and one from Somaliland.

#### SYNOPSIS OF SPECIES.

A. Outer margins of elytra with yellowish-white, interrupted lines or spots:

Elytra depressed, shagreened, each with three narrow yellowish-white supra-marginal bands in the male, two only in the female.

*tri-notata.*

Elytra deeply pitted, each with a supra-marginal, narrow, yellow band reaching from the shoulder past the middle, and a postical one.

*ambitiosa.*

Elytra deeply pitted, each with three oblong, yellow, supra-marginal spots.

*sex-maculata.*

Elytra deeply pitted, each with three very large, rounded yellow supra-marginal spots.

*citreo-guttata.*

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<sup>1</sup>The prothorax of *C. tri notata* is quadrate.

- Elytra finely shagreened, each with three yellowish-white supra-marginal oblong yellow patches, the humeral one the smallest of the three. *Gruti.*
- Elytra finely shagreened, each with two supra-marginal, yellowish-white spots and a thin postical band. *elegantula.*
- Elytra finely shagreened, each with a median supra-marginal dot and a narrow postical band. *brevipennis.*
- Elytra deeply pitted from the base to the middle, less so in the postical part, each with a small median yellowish supra-marginal dot and a postical narrow line. *variolata.*
- B.* Elytra closely pitted, no lateral supra-marginal spot or band. *gilvipes.*
- C* Elytra with a continuous lateral white or yellowish-white band.
- Elytra finely shagreened, each with the suture and also the postical outer-margin produced on an acute spine, the male with a humeral dot and a narrow supra-marginal white band, the female without the humeral dot. *lepida.*
- Elytra closely pitted, the supra-marginal, narrow, white band reaching from the shoulder to the apex. *marginella.*
- Elytra broadly pitted, supra-marginal white band reaching from the shoulder to the apex. *connexa.*
- Elytra broadly pitted, supra-marginal white band reaching from the shoulder to the apex and slightly toothed inwardly past the middle. *lateralis.*
- D.* Elytra with a lateral white band throwing a longer or shorter ramus past the middle.
- Elytra closely and narrowly pitted, the supra-marginal, moderately narrow, white band with an inward, short ramus. *coarctata.*
- Elytra closely pitted with the supra-marginal broad band reaching from the base to past the middle, emitting a short, broad ramus inwardly and continued, without being disconnected, a little nearer the margin. *vittata.*
- Elytra closely and narrowly pitted, the supra-marginal, moderately narrow, white band directed inwardly, past the middle, and disconnected with the postical band. *hamata.*
- Elytra deeply pitted, the supra-marginal band emitting past the middle a very long narrow ramus directed backwards. *furcata.*
- Elytra deeply pitted, the supra-marginal band broad and disconnected behind with the postical lateral band. *ramigera.*

Elytra closely, but not deeply, punctured, each with a narrow, apical white band.

*simplex.*

*E.* Elytra with a supra-marginal band or spot.

Elytra strongly granulated, each with a narrow, elongated, white apical patch.

*granulata.*

### C. TRI-NOTATA, Klug.

Jahrb. I, p. 40.

C. INTERRUPTA. Klug, loc. cit. p. 40.

Brassy, shining on the upper part, cyaneous-black underneath; head strigose, labrum of the male pale-yellow edged with a very narrow black line, that of the female also edged with black, but having two infuscated patches in the centre; prothorax quadrate, finely shagreened, impressed transversely at the base and apex, grooved in the centre and with the two sides of the disk slightly gibbose; elytra elongated, depressed, acuminate behind, those of the female not much amplified past the middle, suture not produced into spines at the apex in either sex, regularly shagreened, and having on each side, above the outer margin, an elongated humeral patch, a narrow line in the middle, and a postical one reaching the apex, the humeral patch is wanting in the female; femora cyaneous, tibiae and tarsi reddish.

Length, 15; width, 5<sup>m.m.</sup>

The shape of the prothorax is much more quadrate than in the other species of the genus, not so much, however, as in *Dromica*.

Cape Colony. Exact locality unknown.

### C. AMBITIOSA. new spec.

Bluish-black, little shining on the upper part, dark metallic-blue underneath; head finely strigose, labrum of male yellow, narrowly edged with black; prothorax sub-cylindrical, finely plicated, transversely impressed in front and behind, grooved in the centre and with the two sides of the disk slightly raised; elytra convex, narrow, deeply and closely pitted, with the suture produced at the apex in two

acute spines ; they have on each side, above the outer margin, a moderately broad, humeral, yellowish-white band coalescing with a median one, and also a third and disconnected band, of the same colour which reaches the apex ; tibiæ reddish.

Length, 13 ; width, 3<sup>m.m.</sup>

I only know the male (one example) and it is quite possible that the junction of the humeral band with the median one is accidental.

Closely allied to *C. sex-maculata*, Chaud., but a little more deeply pitted ; the prothorax is narrower, and the lateral yellow patches are longer and narrower.

Transvaal (Barberton).

**C. SEX-MACULATA. Chaud.**

pl. II, fig. 8.

Bull. Mosc., 1860, IV. p. 306.

Bluish-black, shining but little on the upper part, dark metallic-blue underneath, and very shining ; head strigose, labrum of the male yellow, edged with black ; that of the female black and yellow in the centre ; prothorax sub-quadrate, finely plicated, impressed transversely in front and behind, grooved in the centre, the two sides of the disk slightly raised ; elytra narrow in the male, amplified at about the middle in the female, deeply and closely pitted, the suture ending in two apical acute spines, those of the male longer than the female's ; they have on each side, above the outer margin, a humeral elongated spot, a short one at about the middle, and a third one near the apex which it does not reach ; the knees and tibiæ are sometimes reddish.

Length, 14-15 ; width, 4-5<sup>m.m.</sup>

Transvaal (Lydenburg, Potchefstroom), Delagoa Bay (teste Chaud.).

**C. CITREO-GUTTATA. Chaud.**

Rev. Zool., 1864, p. 41.

Bluish-black, but little shining on the upper part, dark metallic-blue, very shining underneath ; head strigose, labrum of the male

yellowish, finely edged with black, that of the female black and yellow in the centre; prothorax sub-quadrate, finely plicated, impressed transversely in front and behind, grooved in the centre, with the two sides of the disk slightly raised; elytra narrow in the male, much amplified, a little past the middle in the female, deeply and closely pitted, the suture ending in two long, sharp spines in the male, much shorter in the female; they have on each side, above the outer margin, a very broad, humeral, yellow patch, an ovate one in the middle, and a third one, as broad as the humeral one, near the apex.

Length, 14-16; width, 4-6<sup>m.m.</sup>

Differentiated from *C. sex-maculata* by the size of the lateral patches of the elytra which are considerably larger and more yellow.

Zululand. ? Transvaal (Potchefstroom).

#### C. GRUTI. Chaud.

Catal. Collect., 1865, p. 52.

C. CORDICOLLIS. Chaud., loc. cit., p. 53.

Bluish-black, very little shining on the upper part; dark metallic blue, very shining underneath; head and prothorax as in *C. sex-maculata*, but the prothorax is a little longer and the elytra not quite so deeply pitted; they have on each side, above the outer margin, a very narrow white humeral line, a small dot in the middle and another white line not broader than the humeral one, near the apex, knees and basal part of tibiæ often reddish.

Length, 13-15; width, 3-5<sup>m.m.</sup>

*C. cordicollis*. Chaud., is a female example of *C. Gruti*, lacking the humeral white line; one of my female specimens has no median white spots; another has only the apical band left. In the British Museum, I have seen four female examples, two of which had no humeral white line; two had dark-blue legs, while the legs of the other two were reddish.

Port Natal (teste Chaud.), Delagoa Bay (Rikatla).

## C. ELEGANTULA. Bohem.

Insect. Caffr. 1, 1848, p. 24.

Brassy-black, shining but little on the upper part, metallic-blue, very shining underneath; base of antennæ reddish; head strigose, labrum yellow, very narrowly edged with black; prothorax subquadrate, plicated, impressed transversely in front and behind, grooved in the centre, with the two sides of the disk very slightly raised; elytra elongated, shagreened, brassy black, but with the outer sides dark-blue, and having on each side, above the outer margin a humeral round yellowish-dot, a sub-ovate one in the middle and a narrow line of the same colour at the apex; tibiæ reddish at the base and apex.

Length, 11; width,  $3-3\frac{1}{2}^{\text{m.m.}}$ .

Natal (D'Urban, Frere).

## C. BREVIPENNIS. new spec.

Colouring and facies of *C. elegantula*; the elytra are much more rugose owing to the punctures being very small, deeper and confluent; they have no supra-marginal, humeral yellowish dot; the median dot and also the apical line are slightly narrower.

Length, 11; width,  $3^{\text{m.m.}}$ .

Natal (Pietermaritzburg).

I have retained for this species the manuscript name given by De Chaudoir.

## C. VARIOLATA. Chaud.

Catal. Collect., 1865, p. 51.

Brassy-black, very little shining on the upper part; bright metallic blue underneath; head strigose, labrum of male yellow, edged with black, antennæ short and thicker than in the other species of the genus; prothorax strongly impressed in front and behind, grooved in the centre, with the two sides of the disk convex; elytra very convex,

deeply pitted from the base to about the middle, and much more narrowly and less deeply from the middle towards the apex, the suture produced in two long spines; they have on each side, above the outer margin, a small median whitish dot and a narrow white line near the apex; legs metallic green with the apex of the femora and the tibiæ reddish.

Length,  $13\frac{1}{2}$ ; width,  $4^{m.m.}$

Allied to *C. brevipennis*, but larger; the shape of the antennæ and of the prothorax is different, and the elytra are much more rugose.

Delagoa Bay (teste Chaudoir).

#### C. GILVIPES. Bohem.

Insect Caffr. 1, p. 25.

Greenish-black on the upper part, with the outer sides of the prothorax and elytra violaceous; antennæ and legs red; head strigose with the labrum of the male yellow, that of the female either totally black, or with a narrow, median, obscure yellow band; prothorax finely plicated, sub-cylindrical, with the sides of the disk but little raised; elytra elongated, hardly amplified past the middle in the female, the apical spines short in both sexes, although a little longer in the male, finely and regularly punctured, and with no supra-marginal markings.

Length, 9; width,  $2\frac{1}{2}$ - $3^{m.m.}$

Natal (Maritzburg).

#### C. LEPIDA. Bohem.

Insect. Caffr. 1, p. 23.

Brassy-green, shining, the elytra with a bright golden, greenish tinge, underside and legs bluish-black; head finely strigose, labrum yellowish, very narrowly edged with black in both sexes; prothorax short, nearly cylindrical, impressed transversely in front and behind,

slightly grooved in the centre and finely plicated; elytra elongated, narrow, slightly amplified past the middle in the female, acuminate behind with the outer margin ending apically in a short spine, and the suture also produced in two sharp spines, longer in the male; they are covered with closely set, deep, punctures which make them look finely shagreened, and have on each side, above the outer margin, an uninterrupted white band, beginning at a little distance from the base; the male has also a small humeral spot of the same colour, always wanting in the female.

Length, 9-10; width,  $2\frac{1}{2}$ -3<sup>m.m.</sup>

This is the only *Cosmema* known to me, in which the outer margin (as well as the suture) is produced behind in an acute spine.

Transvaal (Potchefstroom).

C. MARGINELLA. Bohem.

Insect, Caffr. 1, p. 22.

C. ALBICINTELLA. Bates. Cistula. Entomolog. 1882, p. 334.

C. ALBOCLAVATA. Dokht. Rev. Mens. d'Ent. p. 4.

Elongated, brassy, moderately shining on the upper part, underside and legs bright bluish-black; head strigose, labrum broadly infuscated at the base and apex in both sexes, and sometimes entirely black in the female; prothorax short, sub-cylindrical, deeply impressed in front and behind, slightly grooved in the centre, the sides of the disk very little raised; elytra elongated, nearly parallel in the male, slightly amplified past the middle in the female, convex, closely covered with narrow punctures, with the suture ending in two long, sharp spines, shorter in the female; they have on each side, above the outer margin an uninterrupted, narrow, yellowish-white band, reaching from base to apex.

Length, 11-13; width,  $3-4\frac{1}{2}$ <sup>m.m.</sup>

Transvaal (Potchefstroom, Boksburg.)

In my examples, the labrum of the female, although more infuscated on the sides than the male's, is not black in the centre.<sup>1</sup>

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<sup>1</sup>It is the *C. albicinctella* of Bates.

## C. CONNEXA. new species.

Size and shape of *marginella*; labrum of the male yellow narrowly edged with black, that of the female very broadly infuscated at the apex; elytra elongated, nearly parallel in the male, amplified past the middle in the female, deeply and broadly punctured with the punctures confluent, these punctures much more narrow behind, the suture ending in two long spines, longer in the male, shining bronze, with a broad, dorsal green band, and a narrow white supra-marginal band reaching from the shoulder to the apex; this white line is very narrow from the shoulder to about the middle, and nearly twice as broad from the median to the apical part, underside and legs bluish-black.

Length, 12-13; width, 3-4<sup>m.m.</sup>

Very closely allied to *marginella*, differs mostly by the punctuation of the elytra, which is much broader and deeper, and intermediate between that of *marginella* and *lateralis*, the bronze sheen of the prothorax and elytra is also brighter, and the supra-marginal white band is also broader in the posterior part; from *lateralis* it differs in the punctuation of the elytra not being so broad, and in the shape of the elytra of the female, which are much less amplified in the middle.

Natal (Frere).

## C. LATERALIS. Bohem.

Ofvers. Vet. Ac. Förhand. 1860, p. 6.

Brassy, with a golden tinge, shining on the upper part, underside bright cyaneous-black; head strigose, labrum (female) black with the outer sides narrowly yellowish; prothorax sub-cylindrical, finely plicated, not deeply impressed transversely in front and behind, slightly grooved in the centre, with the discoidal part very little raised on each side; elytra broadly pitted from the base to about the median part, the punctures narrower and less deep from the middle to the apex, with a series of deeper punctures with a golden tinge on each side; they are convex, much amplified (female) past the middle, and have on each side, above the outer margin, a yellowish-white band

increasing in width from the middle towards the apex, and with a very slight inward spur about the third part of the length.

Length,  $10\frac{1}{2}$ ; width,  $5^{m.m.}$

Allied to *C. marginella*, but larger; the punctuation of the elytra is broader and deeper, and the lateral white band is much broader. This species, which I have seen in De Chaudoir's collection, under the manuscript name of *C. aspera*, is evidently a form of transition between *marginella* and *coarctata*.

Bechuanaland, Lake N'Gami (teste Boheman), Cape Colony (Kimberley).

#### C. COARCTATA. Dej.

Spec. II, p. 435. Iconogr. 1, p. 37, t. 1, f. 5.

Brassy, shining on the upper part, underside bright bluish-black, with the antennæ and tibiæ rufescent: head strigose, labrum yellow and very narrowly edged with black in both sexes; prothorax finely plicated, sub-cylindrical with the sides of the disk very little raised; elytra finely shagreened, convex, with the suture produced in two sharp spines, moderately long in the male, short in the female; they have on each side, above the outer margin a yellowish band reaching from the shoulder to the apex and emitting a short spur, directed inwardly, at about two-thirds of the length of the elytra; this marginal band from the spur to the apex is broader in the female.

Length, 12-13; width,  $3\frac{1}{2}$ - $4\frac{1}{2}^{m.m.}$

Cape Colony (Port Elizabeth, Bathurst, Graham's Town, Sunday River).

#### C. VITTATA. Dej.,

Spec. V., p. 269.

Brassy shining on the upper part, underside and legs bright bluish-black; head strigose, labrum narrowly edged with black in the

anterior part (female); prothorax finely plicated, with the sides of the disk slightly raised; elytra convex, amplified past the middle, obtusely spinose at the apex, and finely shagreened; they have on each side, above the outer margin a broad yellowish band running from the base to past the middle where it is produced into a short, obtuse, inward spur, and continues from there to the apex, but nearer to the outer margin than from the base to past the middle.

Length, 13; width,  $4\frac{1}{2}$ <sup>m.m.</sup>

It is closely allied to *C. coarctata*, but the lateral band is broader and not straight as in that species.

Cape Colony (exact locality unknown).

#### C. HAMATA. new species.

Brassy, shining on the upper part, underside bright bluish-black; head strigose, labrum yellow, narrowly edged with black in both sexes; prothorax finely plicated, sub-cylindrical with the sides of the disk very little raised; elytra finely shagreened, convex, the suture ending in two sharp spines, long in the male, very short in the female; they have on each side, above the outer margin, a yellowish-white band reaching from the base to past the middle where it is produced in a diagonal inward spur, and a second one, disconnected with the first, and nearer to the outer margin, beginning a little below the diagonal spur and reaching the apex.

Length, 12-13; width, 3-4<sup>m.m.</sup>

Cape Colony (Sunday River).

#### C. FURCATA. Bohem.

*Insect. Caffr. I.*, p. 21, t. 1, f.A, 1-6.

*C. TRANSVAALENSIS. Dokht. Rev. mens. d'Ent. p. 6.*

Brassy, very shining on the upper part, underside bright cyaneous, legs with the tibiæ reddish; head strigose, labrum yellow, infuscated at the base and narrowly edged with black at the apex in both sexes;

prothorax sub-cylindrical with the sides of the disk slightly raised, finely plicated transversely; elytra elongated nearly parallel in the male, the suture with two long spines, those of the female much amplified past the middle, with the sutural spines sharp and moderately long, very closely and equally punctured; they have on each side, above the outer margin, a broad, yellowish-white band, broader towards the apex than near the base where it begins and sends at about the third part of the length of the elytra a long, diagonal spur directed towards the suture, which it does not reach.

Length, 15-16; width, 4-5<sup>m.m.</sup>

A very distinct species.

Transvaal (Potchefstroom); Orange Free State (Parys).

C. RAMIGERA. new spec.

Bronze, shining on the upper part, underside bright cyaneous, legs metallic blue, with a greenish sheen, head strigose, labrum pale-yellow, very narrowly edged with black in front, and with a triangular black patch at the apex, prothorax conspicuously plicated transversely; elytra elongated, slightly amplified past the middle, the suture with two long acute spines hardly diverging (male), very broadly punctured, with a dorsal row of deeper, shining foveæ on each side and a very broad supra-marginal yellow band straight from the shoulder to about the middle and directed from there diagonally on the disk, and a narrower one nearer to the outer margin, beginning below the slanting part of the supra-humeral one and reaching the apex.

Length, 16; width, 4½<sup>m.m.</sup>

Allied to *furcata* in the same manner as *hamata* is allied to *coarctata*; it is, however, a little longer than *furcata*, the plication of the prothorax is much more pronounced, the sutural spines of the male, (I have not seen any female example), do not diverge so much, and the lateral margin is disconnected behind. This species, collected by De Wylder in Damaraland, was kindly lent me for description by Professor C. Aurivilius of the Stockholm Museum. I believe I have also seen a

male example in Chaudoir's collection under the name *ramigera*, Kraatz, and also from N'Gami or Damaraland.

<sup>1</sup>C. SIMPLEX. Bates.

Cistul. Entomol. 1882, p. 333.

Black on the upper part, with the sides dark-blue, and margined with bronze; head strigose, labrum (female) black with a whitish median spot; prothorax cylindrical, plicated transversely, elytra elongated, ovate, with the suture strongly spinose at the apex, closely but not deeply punctured, and with a very narrow white band near the apex; legs dark-blue.

Length, 16<sup>m.m.</sup>

The elytra are less densely punctured, narrower and more attenuated anteriorly than in *C. citreoguttata* (Bates).

Mozambique.

<sup>2</sup>C. GRANULATA. Dokht.

Mater. p. Cicindel. 1883, p. 5.

Rev. mens. d'Ent.

Brassy black on the upper part, black underneath, shining; labrum brownish with a black patch at the base; prothorax twice as long as wide, sub-cylindrical, with the median groove and the transverse plication nearly obsolete; elytra ovate, amplified past the middle, narrowed behind, the suture produced in a fine and very acute spine, strongly granulated, the granulation less pronounced behind, suture granulated, slightly raised, very distinct, and on each side of the elytra a small, narrow, elongated supra apical pale-yellow marginal patch.

Length, 12-13; width, 3-3 $\frac{1}{2}$ <sup>m.m.</sup>

? Caffraria.

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<sup>1</sup> & <sup>2</sup> These two species are unknown to me.

## ADDENDA AND CORRIGENDA.

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### Gen. CICINDELA.

*C. jucunda*, mihi., p. 48, must be considered as identical with *C. vicina*, Dej., the Ovampoland examples of which are a little more robust in general facies than those from Senegal.

Herr W. Horn has described in the *Deutsche Entom. Zeit.*, for 1889, two new *Cicindela*, one *Dromica*, and one *Cosmema* from South-Africa.

It is perhaps to be regretted that these four descriptions have been made from one example only, a proceeding which alone the publication of a Monograph can justify.

The species of *Cicindela*, to which the two insects described by Herr Horn are referred as being most closely allied, i.e. *marginella*, varies so much in the same locality that I would have had no difficulty in selecting 30 examples slightly differing from one another.

### C. LAPHYRICORNIS, Horn.

*Deuts. Ent. Zeit.*, 1892, p. 84.

Similar to *marginella*, Dej.; differs in the shape of the last joints of the antennæ which are amplified, the antennæ are shorter.

Length,  $11\frac{1}{4}$  m.m.

Habit. Caffr. Zululand.

“This species is related most closely to *marginella*. Head and prothorax dull metallic, and a little more finely sculptured; labrum straight at the apex; elytra somewhat broader and more amplified from the median part towards the apex; the markings consist of a broad margin without any rami or dorsal macula, while such markings are to be found in the typical *marginella* of Dejean which I have examined, but the humeral and also the median rami are represented

in the present species by a small, black-edged tooth, there is also along the suture a hardly defined series of green punctures."

Will very likely prove to be identical with *C. inanis*, Wallengr.

#### C. SECURICORNIS. Horn.

loc. cit. p. 85.

Similar to *C. marginella*, Dej. ; the antennæ are shorter and the last joints more amplified ; more similar still to *C. laphyricornis*, but the elytra are narrower, more rounded at the apex, and marked differently.

Length, 9<sup>m.m.</sup> Cap. Bon. Sp.

"Although the shape of the antennæ of this species, a male, is like that of *laphyricornis*, it differs much from it, the labrum is more produced apically, the head and thorax are as in *C. marginella*, but more shining ; the wing-covers are narrower than in *laphyricornis*, even narrower than in *marginella*, the markings consist of a narrow margin emitting a tolerably long humeral ramus, the median ramus begins somewhat nearer the base than in *marginella*, and slants further downwards, and the hind lunule is produced only as a small rounded protuberance."

#### DROMICA.

Dr. C. A. Dohrn has described in the Stett. Ent. Zeit. for 1891, p. 384, a new *Dromica*, which judging from the description will probably be found very closely allied, if not identical with *D. albivittis*, Chd.

#### D. BERTINÆ. Dohrn.

Stett. Ent. Zeit., 1891, p. 384.

"Female : Bronze on the upper part, violaceous-black underneath, antennæ brown with the basal joints brassy-green, labrum testaceous, mandibles very acute, very black, palpi testaceous, blackish at the tip, eyes brown, moderately prominent ; prothorax sub-

elongated, unequally pilose ; elytra more than twice as long as the prothorax, dehiscent behind, brassy, shining, margined with red and having four longitudinal, interrupted black costæ ; abdomen and legs violaceous-black."

Length, 13<sup>m.m.</sup>

Transvaal.

D. QUINQUE-COSTATA. Horn.

Deuts. Entom. Zeit., 1892, p. 67.

Allied to *D. clathrata*, Klug., but the intermediate joints of the elytra are much less compressed, the thorax is more smooth, and the elytra not so roughly punctured.

Length, 17 $\frac{1}{2}$ <sup>m.m.</sup>

Natal.

"This species is closely allied to *D. clathrata*, the antennæ are not much longer or thicker than in *D. carinulata*, etc. ; the head is smaller than in *clathrata*, the prothorax more smooth on the upper part, the sculpture of the elytra is finer, particularly behind, where the costæ disappear, and the background is densely and finely punctured, the fine costæ are sharper, the sutural spines are smaller, the shape of the elytra is about the same, but a little broader and more depressed behind, the colouring is the same, and there is an oblong white patch on each side of the posterior margin."

### COSMEMA.

C. INTERMEDIA. Horn.

Deut. Ent. Zeit., 1892, p. 68.

Belongs to the group of *C. elegantula* and *C. cordicollis*, but the sculpture of the elytra is less rugose, very fine behind, and the shape of the prothorax is less cordiform.

Length, 11 $\frac{2}{3}$ <sup>m.m.</sup>

Caffraria.

“Labrum shining, infuscated in the centre and on the sides, head much broader, prothorax only slightly broader than in *C. elegantula*, the longitudinal plications of the first part, and the transverse ones of the second, more distinctly separated, the sculpture is also more distinct, the impressions in the upper part are also deeper; the punctures on the elytra are smaller from the median part of the elytra towards the apex, the outer margins and legs are as in *elegantula*, the upper part of the disk being a little duller and darker, there is no sub-humeral spot, the median supra-marginal one is smaller and rounder, and the four basal joints of the antennæ are brown, the second, third and fourth brighter at the tip.”

The author goes on to compare this species with *C. cordicollis*, which he apparently knows from description only, always a dangerous proceeding.



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TRANSACTIONS  
OF THE  
SOUTH AFRICAN PHILOSOPHICAL SOCIETY.

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DESCRIPTIVE CATALOGUE OF THE COLEOPTERA  
OF SOUTH AFRICA.

BY L. PÉRINGUEY, F.E.S., F.Z.S., &c.,  
*Assistant Curator South African Museum.*

FAMILY CICINDELIDÆ.

SUPPLEMENT.

SINCE the publication, two years ago, of the Catalogue of the South African *Cicindelidæ*, the discovery of several very remarkable species, hitherto undescribed, and discovered mainly in Zambezia (now called Rhodesia), makes it necessary for me to publish a Supplement.

Most of the novelties have been obtained from the neighbourhood of Salisbury, where my valued correspondent, G. A. K. Marshall, Esq., has captured no less than thirteen new species, besides recording the habitat of several other known ones.

Zambezia seems indeed to be the home of the apterous genera *Cosmema* and *Myrmecoptera*, for I now know of no less than eighteen species—and all extremely typical—collected in that part of South Africa.

The low lands of Zambezia and Mozambique have not yet been explored by competent entomological collectors, nor has the northern part of N'Gami and Ovampoland, and it can be expected that new species will be discovered in these localities, but as they appear for a very short time only their capture will still remain a matter of difficulty.

Dr. Walter Horn, of Berlin, has very kindly communicated to me the types of the South African species described by him, and has thus enabled me to ascertain the synonymy of several species; his critical remarks have been instrumental in the correction of some errors on my part.

The number of new species included in this Supplement is twenty-six, divided as follows:

MANTICA	1
STYPHLODERMA	1
BOSTRICOPHORUS	2
CICINDELA	7
COSMEMA	5
MYRMECOPTERA	10

Three species which were thought to be valid have been sunk in synonymy.

The corrections are:

*Cicindela chrysographa*, Dej. = *C. barbifrons*, Bohem., is not a variety of *C. capensis*, but a distinct species.

*Cicindela tereticollis*, Bohem., does not belong to the sub-genus *Euryoda* (p. 57), but is a true *Cicindela*.

*Megalomma limbifera* must also be included in the genus *Cicindela*.

*Cicindela centropunctata* is synonymous with *C. Dregei* and not with *C. disjuncta*.

*Cicindela securicornis*, Horn, is synonymous with *C. longula*.

*Cosmema brevipennis*, Pér., and *C. intermedia*, Horn = *C. elegantula*, Bohem.

*Myrmecoptera tenella* is a *Cosmema*.

*Myrmecoptera limbata* and *M. Saundersi* are the same species.

The number of genera is now fourteen, but that of the species and varieties recorded is now 144, a number which can bear comparison with any part of the globe of an area equal to that of South Africa.

## TRIBE MANTICHORIDES.

### GEN. MANTICHORA, Fabric.

#### MANTICHORA FEROX, Pér.,

#### Descriptive Catalogue, p. 17.

I was not aware at the time I described *M. ferox*, and had it figured (pl. 1, fig. 1), of Boucard's description of *M. Gruti* in the 'Humming Bird,' June, 1892, p. 45. Although I have not seen the original example now in the Tring Museum, I also agree with Dr. Horn \* that *M. Gruti* and *M. ferox* are probably the same species.

\* Deutsch. Entom. Zeitung, 1894, p. 307.

GEN. MANTICA, Kolbe,  
Ent. Nachrichten, 1896, p. 5.

“Allied to the genus *Mantichora*, but the body is slender; the head hardly ampliate; the prothorax somewhat narrow and without any lobe; the elytra are not ampliate; antennæ long, setaceous; eyes small; labrum truncate, slightly sinuate near the angles and obtusely denticulate; mandibles rather small, similar to those of the female *Mantichora*, and tridentate inwardly; the two frontal carinæ near the eyes are indistinct; the median tooth in the mentum is short, plane, not projecting, and with the tip sinuate; prothorax convex, narrowed in front and behind, with the sides a little rounded, slightly narrow behind, with the posterior part of the disk not lobate and the posterior margin little sinuate; elytra convex, scabrous, moderately plane and smooth on the disk; epipleuræ moderately smooth in the anterior part, well defined, scabrous behind, and not separated from the dorsal part; legs slender; tarsi thin, elongated, longer than the tibiæ in the posterior legs, the anterior ones not dilated in the male; the four basal segments of the abdomen convex and separated deeply from one another by a sulcus.

This remarkable genus connects the isolated genus *Mantichora* with the other genera of the family; it has not the extraordinary shape of the former, but its close relationship is clearly noticeable. The head, mandibles, and prothorax are of the *Cicindela* type, with some approach to *Mantichora*, with which it has in common small eyes, otherwise the head is comparatively much smaller; the mandibles are shorter and both of equal length in the male—the only sex known—instead of being bent almost at right angles, as in *Mantichora*, in which the right one is also the longest; the prothorax does not show the aberrant shape with the two posterior projecting lobes on the upper side; the elytra are considerably narrower, and the sides are less distinctly marginate.

*Mantica* has a more slender facies than *Mantichora*; the head and prothorax are narrower and smaller; the elytra longer, narrower, and more convex; the mandibles of the male are shaped like those of the female *Mantichora*, and are of moderate length, less curved, armed inwardly with three sharp, large teeth, and without smaller ones; the labrum is nearly edentate, emarginate, with the anterior angles bluntly acuminate; the eyes are small and moderately convex, as in *Mantichora*, deviating, therefore, from the usual type; antennæ as long and as filiform as in *Mantichora*. The median tooth in the mentum is, however, quite aberrant in shape; it does not project strong and sharp, but is weak, flat, emarginate at end, shorter than the lateral lobes, and shaped as in the majority of the *Cicindelidæ*.”

MANTICA HORNI, Kolbe,  
Ent. Nach., 1896, p. 7.

“Slender, deep black, shining; body and legs with erect, scattered hairs; elytra moderately broad; head glabrous, smooth, hardly punctured; prothorax punctate in front and laterally; elytra very rough and with carinate tubercles larger than in the species of the genus *Mantichora*; the anterior median part of the disk and also the anterior part of the epipleuræ are moderately smooth, the former here and there with sparse, minute tubercles, the latter with scattered, nearly obliterated punctures; on each side of the apical part there is a single longitudinal serrate ridge, slightly oblique, and reaching the apex. Length 29 mm.”

*Hab.* Great Namaqualand (Han-ami Plateau).

TRIBE MEGACEPHALIDES.

GEN. STYPHLODERMA, Waterh.,  
Ann. and Mag. Nat. Hist., 1877, xx., p. 424.

“General characters of *Tetracha*; apical joint of the palpi much more securiform than in *Tetracha*; elytra rather depressed, elongato-ovate; shoulders completely effaced; wings none; anterior tarsi of male with the first three joints only slightly dilated; posterior tibiæ with two or three slight grooves above; abdomen with seven segments in the male, the penultimate segment emarginate.

The anterior tarsi in the male of this insect resemble those of *Megacephala*, with which it agrees also in being apterous; but in its other characters it agrees more nearly with *Tetracha*. From this latter it differs in the form of anterior tarsi, in being apterous, and in having the apical joint of the palpi much more securiform.”

STYPHLODERMA ASPERATUM, Waterh.,  
*Loc. cit.*, p. 424.

“Head nearly smooth, with a shallow metallic impression at the base of each antenna; cheeks green; thorax rather narrower than the width of the head across the eyes, convex, narrowed at base; the anterior and posterior borders metallic, sprinkled with roundish tubercles; the disk gibbous. There is an obtuse tooth at the side, just before each posterior angle; the base is gently arcuate, not lobed in the middle; elytra narrower at their base, dull black, slightly tinged with blue, the surface densely covered with conical tubercles which are directed backwards; each elytron has a small rusty or white spot near the base, and another near the apex; the elytra are connate. Length  $10\frac{1}{2}$  lin.; width 4 lin.”

“A female example has the elytra more ample, immaculate, and the sutural angle blunted.”

I have given Mr. Waterhouse's description of this very interesting genus, which, recorded from Lake Nyassa and Mpwapwa in Eastern Africa, has been met with in Zambezia, fifteen miles from Salisbury, near the Hangani River. I have not had the specimens sent yet for identification, but the clear and careful description sent by my correspondent leaves no doubt about the identity of both genus and species.

### TRIBE CICINDELIDES.

#### GEN. BOSTRICOPHORUS.

##### BOSTRICOPHORUS LIEUGMEI.

Shape, size, and colour of *B. Bianconi*; labrum, antennæ, head and prothorax similar; elytra with a basal, comma-shaped bright yellow patch on each side of the scutellum, and a sutural band connected at the base with the juxta-scutellary one and reaching to one-third of the length; in the median part, and close to the suture, a small, round dot, and in the posterior part a moderately broad marginal band reaching from the suture to the outer margin. Length 15 mm.; width  $5\frac{1}{4}$  mm.

This species is easily distinguished from *B. Bianconi* by the apical marginal yellow band of the elytra, which is totally absent in *Bianconi*; the median, or rather slightly post-median dot, is identical, but the two basal comma-shaped spots have coalesced at the base, and the juxta-sutural has become a long band reaching a little short of the median part; the antennæ are similarly compressed, the fifth and sixth joints dilated in the same manner, and the fascicle of hairs under the fourth joint in the male is identical with that of *Bianconi*.

*Hab.* Captured at Mandlakas, on the Lower Limpopo (Mozambique), by Dr. Lieugme.

##### BOSTRICOPHORUS EGREGIUS.

Very dark bronze on the upper part; under side and legs violaceous-blue; palpi yellow, with the apical joint green; labrum convex, yellow, with three setigerous punctures; head strigose, with a few decumbent hairs; antennæ with the four basal joints filiform, the others slightly compressed and subfoliate, the fourth one with two setæ underneath; prothorax cylindrical, shagreened, impressed transversely at base and apex, grooved in the centre, and with a few scattered white hairs; elytra parallel, somewhat convex, spinose at the apex of the suture, opaque with irregular series of punctures, and with the following yellow markings on each side: a yellow infra humeral spot, a comma-shaped one under the scutellum, a post-median sinuated discoidal patch, an apical supra-marginal band, and two minute dots on the disk at equal distance from the base and the post-median discoidal patch. Length 13 mm.; width 4 mm.

*Hab.* Zambezia (Salisbury, Buluwayo).

Shape and size of *B. notatus*, Bohem., with the joints of the antennæ not broader, and the tuft of hairs under the fourth joint similar; markings of the elytra very different.

This species should follow *B. notatus* in the systematic arrangement. Although, strictly speaking, *B. Bianconi* and *B. Lieugmei* should solely be included in the genus *Bostricophorus*, I feel myself quite justified in including in this genus such species the males of which have a fascicle of hairs under the fourth joint of the antennæ, and which said joints, with the exception of the four basal ones, are more or less subfoliate and compressed. These characters are certainly more developed in *Bianconi* and *Lieugmei* than in other species from South or West Africa, but there could be no excuse in ignoring the affinity of the other species I include in this genus.

OPHRYODERA COMPRESSICORNIS, Bohem.,  
Catal., p. 24.

Having now been able to examine both sexes of *B. compressicornis*, Bohem., I find that this species belongs to the genus *Ophryodera*, Chaud., and not to *Bostricophorus*, Thoms., as I stated.

In some examples the background of the elytra has many, very short, pale yellowish lines in both sexes, more marked in the male, while in others these small lines, or, rather, narrow elongate spots, are almost absent.

*Hab.* Zambezia (Mazoe, Salisbury, Buluwayo).

GEN. CICINDELA.

SECTION A.

Mandibles moderately long; elytra much amplified from below the humeral angle, with a narrow longitudinal dorsal line, and four narrow, short bronze maculæ . . . . . *alba*.

Mandibles short; elytra not much amplified, with a bronze suture, and three small maculæ placed longitudinally on each side . . . . . *barbifrons*.

Elytra with no bronze markings, the suture coppery . . . . . *marqueza*.

CICINDELA ALBA, Horn,  
Deuts. Ent. Zeit., 1894, p. 112.

Head and prothorax coppery, covered with very thick, decumbent white hairs; labrum yellowish-white, with three punctures on each side, two close to one another in the median part, and one near the outer angle; the four basal joints of the antennæ coppery, the others flavescent; mandibles rather long, but not so much as in *C. capensis*; elytra much amplified from below the shoulder to the apical part,

hardly convex, almost cretaceous-white, with a narrow juxta-sutural longitudinal bronze line reaching on each side from the base to four-fifths of the length, and four elongate, narrow maculæ running parallel to the dorsal line, and totally disconnected with it; the suture is brassy, and the under side and legs are entirely clothed with dense white hairs, leaving no denuded space on the abdomen. Length 13–14½ mm.; width 5 mm.

CICINDELA CHRYSOGRAPHA, Dej.,

Spec. Coleop., 1831, v., p. 254.

*C. barbifrons*, Bohem., Insect. Caffr., i., 1848, p. 12.

Head and prothorax coppery-green, glowing red underneath; head nearly denuded in the centre, with two fascicles of white hairs on each side of the anterior part; the three first joints of the antennæ brassy and with a long white pubescence, the other flavescent; labrum yellowish-white, convex in the centre, with two punctures on each side of the median part, and one in the outer angle; prothorax covered with white decumbent hairs, thicker laterally than on the disk; elytra moderately amplified in the female, less so in the male, hardly punctulate, whitish opaque, and having on each side three small discoidal maculæ arranged longitudinally, the anterior one elongate, the median slender and short, the third one placed at some distance from the apex is subovate; the suture and the extreme margin are coppery; under side and legs coppery-green, sides of pectus and abdomen with a dense white pubescence. Length 10 mm.; width 5 mm.

*Hab.* Natal (D'Urban, Tsipongo).

CICINDELA CHRYSOGRAPHA.

Var. MARQUEZA.

Head and prothorax coppery, glowing red underneath, the former with two fascicles of white hairs on each side; the three first joints of the antennæ greenish and with a long white pubescence, the others very flavescent; labrum yellowish red, convex in the centre, with two punctures on each side of the median part and one in the outer angle; prothorax covered with scattered white decumbent hairs; elytra moderately amplified below the shoulder in the female, creamy white with a tinge of very light brown admixed and without any trace of bronze markings; the suture, however, is bronzy; under side bronze, shining, the lateral parts thickly covered with white hairs. Length 11½–12 mm.; width 4¾–5 mm.

*Hab.* Mozambique (Delagoa Bay).

In Natal only males without any trace of bronze markings on the elytra have been met with, congregating with the typical *C. chrysographa*, but in Delagoa Bay both males and females have the elytra creamy white and without markings. Both species and variety do not occur far from the seashore.

This species may prove to be only a variety of *C. chrysographa* without any markings on the elytra.

## SECTION D.

CICINDELA PUDICA, Bohem.,

Catal., p. 43.

Var. SUFFUSA.

Labrum, head and prothorax as in the type; elytra elongated and with the marginal band and rami coalescing, invading all the disk from the shoulder, leaving in the anterior part only a semicircular patch of the bronze background on which the basal elongated spot is discernible, as is also the anterior one along the suture, while the second is much longer than in the type and separated from the yellowish white of the elytra by a very slender bronze line. Length 13 mm.; width 5 mm.

*Hab.* Orange Free State (Hoopstad).

It is worthy of notice that the examples of *C. pudica* var. *hypocrita* found in that district have the outer marginal band and dorsal rami broader than in specimens from other localities.

## SECTION H.

CICINDELA CENTROPUNCTATA, Dej.,

Catal., p. 49.

*C. Dregei*, Mannerh., Bull. d. Mosc., 1837, p. 16.

Having received a typical example (female) from Dr. Horn, I find I was wrong in considering *C. centropunctata* as identical with *C. disjuncta*. It is, however, the same species as *C. Dregei*, Mannerh., the description of which was published six years later.

## SECTION I.

CICINDELA LONGULA, Pér.,

Catal., p. 53.

*C. securicornis*, Horn, Deuts. Ent. Zeit. 1892, p. 84.

Dr. Walter Horn having communicated me his type of *C. securicornis*, I find it to be the male of *C. longula*, the female of which alone was known to me at the time I wrote the Catalogue. Whereas in this species the three ultimate joints of the antennæ are slightly

securiform in the male, in the female they are almost normal, although slightly triangular.

*Hab.* Cape Colony (Riversdale, Fraserburg).

CICINDELA LAPHYRICORNIS, Horn,  
Catal., p. 95.

This species is most closely allied to *C. marginella* var. *inanis*, Wallengr, but the elytra are not quite so parallel even in the male, and the short spurs emitted laterally by the margin are broader, and very distinct in all the specimens I have seen; the two apical joints of the antennæ of the male are thickened, and the penultimate one triangular, whereas in the male of *inanis* they have the normal shape, but those of the female of both species are identical. In Dr. Horn's type (a male) the dilatation of the two ultimate joints of the antennæ is more marked than in the nine examples I have seen.

The habitat of var. *inanis* as given in the Catalogue must be modified, the specimens from Natal (D'Urban) and Barberton in the Transvaal being *C. laphyricornis*.

SECTION J.

Elytra elongate, each elytron with a moderately broad margin emitting three short rami, and with three round dots close to the suture, the posterior one nearly connected with the median ramus . . . . . *Mashuna.*

Elytra elongate, each elytron with a broad marginal band bluntly tridentate, a posterior discoidal spot and a dorsal longitudinal series of broad punctures; basal joint of the labial palpi much swollen . . . . . *limbigera.*

CICINDELA MASHUNA, Pér.,  
Trans. Entom. Soc. Lond., 1894, p. 448.

Obscure bronze on the upper part, with the under side of the prothorax glowing-red, and the abdomen dark blue; legs glowing-red with the tarsi green; labrum elongate, convex, tridentate at the apex, white, and with two setigerous punctures on each side, one near the median tooth, the other near the outer angle; head aciculate, with a few white decumbent hairs; prothorax short, quadrate, rugose, covered with white decumbent hairs; elytra elongate, sub-parallel, finely granulose, and having on each side a moderately broad pale-yellow marginal band, sending out three short, blunt rami, and also three round spots of the same colour on each side of the suture, the posterior one of which is nearly connected with the apex of the median marginal ramus, but the median one is not at all connected with the humeral ramus, and the basal one is placed far

above it; the marginal band and also the dorsal round spots are edged with dark bronze. Length 10 mm.; width 3 mm.

This species, which might be taken at first sight for a variety of *C. marginella*, Dej., is easily distinguished by having a sub-basal spot on each side of the suture, which could not be the interrupted end of the lateral humeral ramus, whereas the other two spots following the sub-basal one might be the continuation of the two lateral spurs.

*Hab.* Zambezia (Salisbury).

CICINDELA LIMBIGERA, Pér.,

Catal., p. 60.

I had placed among the *Megalomma* the *Cicindela limbiger*a, owing to the very swollen shape of the basal labial palpi as well as the absence or nearly so of white hairs on the lateral part of the under side. I think, however, that this species should be included in the sub-genus *Cicindela*.

I have placed this species temporarily on the same group as *C. Mashuna*.

SECTION K.

Elytra set with hairs \* . . . . . *tereticollis*.

SECTION L.

Elytra elongate, black, each one with two short transverse yellow patches, one juxta-sutural posterior spot, a comma-shaped posterior band coalescing along the margin with an apical marginal band . . . . . *Marshalli*.

CICINDELA MARSHALLI.

Head and prothorax dark greenish bronze; labrum convex carinate in the middle in the male, acutely quinque-dentate, with two setigerous punctures on each side of the median part, and one in the outer angle, black in the anterior part with a transverse moderately broad yellow basal band; prothorax very rugose, with the outer sides hardly ampliate, and one-fourth longer than broad; elytra elongate with outer sides straight, one-fourth broader behind than at the base, posterior margin not serrulate; black with a somewhat velvety sheen, with the punctures showing green in some places, and a series of greenish blue deeper punctures reaching on each side of the suture from the base to about the median part, sometimes to the apex, and a few scattered ones close to the shoulders, and having on each side a yellow discoidal spot at about the median part, an elongated transverse patch, and at the apex two spots; the outer one,

\* Dr. Horn has justly called my attention to *Cicindela tereticollis*, Bohem., not being an *Euryoda* as I stated, *loc. cit.* p. 57, but a true *Cicindela* belonging to a special African group in which the elytra are pubescent, and the antennæ subfoliated.

the longest of the two, is comma-shaped and coalesces along the margin with an apical marginal line, while the inner one is more or less ovate and moderately close to the suture; under side and legs cyaneous; lateral part of abdomen not thickly covered with hairs; anal segment rufescent. Length 12–13 mm.; width  $4\frac{1}{2}$  mm.

*Hab.* Zambezia (Salisbury).

In one of my examples the anterior yellow patch on the elytra has disappeared, and the external posterior patch does not quite coalesce with the apical yellow margin.

The livery of this species is very different from that of any other South African *Cicindela*; the facies is also slightly dissimilar.

#### SUB-GEN. PRODOTES.

##### PRODOTES MIMULA.

Shape, size, and colouring of *P. fatidica*; the labrum is more broadly infuscate at the tip, the head and prothorax are similar, the elytra are a little more ampliate and not serrulate behind, black, mottled with small round velvety patches; the diagonal dorsal band is very narrow, extends from the shoulder to two-thirds of the length, and emits in the median part a slender ramus which reaches near to the outer margin, the two juxta-sutural yellow spots on each side of the suture are very small, and the supra-marginal posterior band is very narrow and is surmounted by a narrow crescent-shaped patch; under side and legs cyaneous. Length 15–16 mm.; width 5–6 mm.

*Hab.* Zambezia (Salisbury).

#### GEN. COSMEMA,

Catal., p. 81.

My arrangement of *Myrmecoptera*, vid. Catal., p. 61, will be improved by including in this genus *Dromica clathrata*, *D. pseudo-clathrata* and *D. grandis*, leaving in *Dromica* proper only such species as have filiform antennæ and quadrate prothorax with two protuberances on each side of the disk; type *D. sculpturata* and *D. tuberculata*.

Strictly speaking, the genus *Dromica* was created for *D. coarctata*, which is a *Cosmema*, and I should have felt inclined to restrict to *Dromica* all the species I have placed in *Cosmema*, had not Dejean himself in his 'Supplément au Species Général des Coléoptères,' vol. v. pp. 269–270, included in *Dromica* another *Cosmema*, *C. vittata*, as well as *Dromica tuberculata*.\*

The species included in *Cosmema* are more closely allied to many of the *Myrmecoptera* of the slender type than to *Dromica*, and it will

\* Dejean's description appeared in 1831, while Hope's description and figure were published in 1832.

probably be better to sink the three genera in synonymy and consider them as mere sections of *Dromica*.

GEN. DROMICA, Dej.

SECTION A.—COSMEMA.

SECTION B.—MYRMECOPTERA.

SECTION C.—DROMICA.

SECTION A.—(COSMEMA.)

A., p. 82. Elytra with three oblong supra-marginal spots on each side, the posterior outer angle produced in a small spine in the female, the four median joints of antennæ subcompressed .. .. . *dolosa*.

D., p. 83. Elytra pitted and with a white marginal band sending past the middle a short slanting spur.

Dorsal part depressed, sutural part almost transversely plicate, a bright metallic sheen on each side of the suture .. *miranda*.

Dorsal part not depressed, sutural part irregularly punctured, no sheen along the suture, which is highly carinate .. .. *aspera*.

E. Elytra with the anterior part deeply pitted, each with a narrow apical supra-marginal band.. .. . *transitoria*.

F. Elytra with a dorsal, round, white spot in the posterior part, a small humeral lateral band, and another one running from the median part to the outer apical angle .. .. *gloriosa*.

COSMEMA DOLOSA, Pér.,

Trans. Entom. Soc. Lond., 1894, p. 452.

Dark bronze, with a greenish tinge; the lateral parts of the elytra cyaneous; under side and legs dark greenish blue, tibiæ rufescent; antennæ subcompressed and slightly foliate; head finely strigose diagonally; labrum black, with the apical part somewhat yellowish in the male, totally black in the female; prothorax narrow, cylindrical, constricted behind, finely transversely plicate; elytra elongated, covered with deep, closely set, moderately broad punctures, convex, with the sutural part ending in two short spines on each side, as in *C. lepida*, Bohem., but much shorter, and having on each side three ovate, supra-marginal white spots, the first one humeral and very small, the median one a little elongated, and the posterior one ovate. Length 10 mm.; width 3 mm.

This species, owing to the tendency of the antennæ to become compressed and subfoliate, connects *Cosmema* with *Myrmecoptera*; like *C. lepida*, it has two spines on each side of the suture, but these spines are not so much developed; the supra-marginal white markings are not unlike those of *C. elegantula*, Bohem., but in *C. dolosa* the posterior one is a round or ovate patch, not a white line or band.

*Hab.* Zambezia (Salisbury).

## COSMEMA MIRANDA.

Bronze, with a green sheen on the head and prothorax, dark blue-black underneath; labrum white narrowly margined with black, and slightly infuscated at the base; head strigose; prothorax short, a little broader in front than behind, where it is nearly as broad as long, deeply impressed transversely in the anterior and posterior part, each side of the disk slightly raised, plicate with the folds very irregular; elytra elongato-ovate, amplified past the middle, moderately convex, but broadly depressed on each side of the suture, closely but not deeply punctured, bronze, with the depression on each side of the suture a brilliant green sheen, and with a supra-marginal narrow white line reaching from base to apex, and emitting past the middle a short slanting spur; sutural spines short, moderately long; legs glowing red. Length 15 mm.; width 5 mm.

*Hab.* Orange Free State (Ventersburg).

The facies is that of *C. marginella* and *C. connexa*; the depression on each side of the suture is well defined, as in the last-named species; the sculpture of the elytra is the same; the spur emitted inwardly is not unlike that of *C. hamata*, but it is more slender and also a little shorter.

## COSMEMA ASPERA.

In shape, size, and sculpture this species is very closely allied to *C. miranda*, the shape and sculpture of head and prothorax is the same; the labrum is yellowish white in both sexes, but the difference between the two is found in the sculpture of the elytra of the female, which are a little more roughly punctured, and thus appear more rugose from the suture to the outer side, while in *C. miranda* the space with the green sheen on each side of the suture is so equally punctured as to give it the appearance of being closely and transversely plicate (this is probably the cause of the dorsal shining green bands); the dorsal juxta-sutural part is also more depressed in *C. miranda* than in the present species, in which the suture is also much more acutely raised; it is also more convex from the median part towards the apex; the colour is the same, but there is no greenish sutural band; the supra-marginal lateral yellowish-white band is slightly broader than in *C. miranda*, and the inward spur nearly similar, but the band is not so much in relief and is punctured instead of being smooth; the male is very narrow, the elytra being almost parallel from the humeral slope to a short distance from the apex; the punctures are equally rough at base and apex; the suture is carinate and ends at the apex in two long, parallel spines; the supra-marginal yellowish-white band is proportionately as broad as in the female, but the inward spur is

very blunt, hardly projecting; under side and legs violaceous blue. Length  $11\frac{1}{2}$ –15 mm.; width 3– $4\frac{1}{2}$  mm.

*Hab.* Cape Colony (Graaff-Reinet).

COSMEMA CITREO-GUTTATA, Chaud.,  
Catal., p. 85.

I have received from Escourt and the Tugela River (Natal) several examples of this species, in both sexes of which the humeral broad yellow patch is reduced to a mere dot, but similar in other respects to De Chaudoir's types.

COSMEMA ELEGANTULA, Bohem.,  
Catal., p. 87.

Having received lately several examples of *C. elegantula*, and from the same locality where the original types were first captured, I find that the humeral spot is missing in the female, and occasionally very small in the male. My *C. brevipennis* proves to be a female of *elegantula* without any humeral white spot, and *C. intermedia* of Horn, identical with my *C. brevipennis*; of this I have no doubt. Dr. Horn has sent me his type for comparison, and the synonymy of this species is thus:

COSMEMA ELEGANTULA, Bohem.,  
Insect. Caffr., i., 1848, p. 84.

*C. intermedia*, Horn, Deuts. Ent. Zeit., 1892, p. 68.

*C. brevipennis*, Pér., Catal., p. 87.

COSMEMA COARCTATA, Dej.,  
Catal., p. 91.

In the example which I compared to Dejean's type, and which was absolutely similar, according to my notes, the lateral yellowish band of the elytra was not interrupted and emitted a short spur directed inwardly at about two-thirds of the length, but I have seen since several examples in which this band is interrupted, agreeing in this respect with the original figure (Iconogr. Coleop. d'Europe, pl. i., fig. 5), and the inner spur is longer and more curved, whether the band is interrupted or not.

*C. coarctata* is closely allied to *C. vittata*, Dej., and differs from it merely by the lateral band, which is narrower and reaches nearer to the margin than in *C. coarctata*, but it is as closely allied to *C. hamata*, which is, however, smaller, the elytra are more ovate, and the lateral band, which is also uninterrupted occasionally, is much narrower than in *C. coarctata*.

COSMEMA TRANSITORIA.

Black, opaque, or nearly so on the upper part, dark blue under-

neath; labrum (male) yellowish, apical margin narrowly infusate; neck and prothorax closely and finely plicate transversely, the latter slender, cylindrical, hardly grooved longitudinally in the middle; anterior and posterior transverse impressions not deep; elytra very narrow at the base and without any humeral angles, a little amplified from the middle to the apex; suture not much raised; apical part ending in a short diverging acute spine on each side, closely, deeply, and regularly pitted from the base to about the median part, and closely punctured from there to the apex; on each side of the apical part there is a short narrow supra-marginal or almost marginal yellowish band reaching nearly the base of the posterior spine; legs dark blue, knees and anterior tibiæ slightly rufescent. Female unknown. Length 13 mm.; width 3 mm.

The description of *C. granulata*, Dokt., applies to this species, but the elytra are deeply pitted in the anterior part, and not granulated.

*Hab.* Mozambique (Tembé).

#### COSMEMA GLORIOSA.

Brassy, shining on the upper part, under side bright steel-blue; legs metallic blue; head strigose; labrum yellowish, with the base and apex edged with black, but with the median part very faintly infusate longitudinally; head strigose; antennæ black, with the four basal joints cyaneous; prothorax very narrow, quite cylindrical; elytra elongate, much amplify past the middle (female) broadly punctured with the punctures closely set, and having on each side of the posterior part a small, round, discoidal whitish spot, as well as supra-marginal, humeral, short white band, and another and broader one running from a little above the median part to the outer angle of the apex.

In shape and colour this species resembles much *Myrmecoptera nobilitata*, Gerst., from Lake Jipe (Zanzibar mainland), but is distinguished by having filiform instead of foliate antennæ; the lateral white band is also somewhat different. Its nearest South African ally is *Cosmema tenella*.

Judging from the shape of the supra-marginal white band, I am inclined to believe that in some specimens the posterior part will be disunited from the median. Length 16 mm.; width 5 mm. Male unknown.

*Hab.* Zambezia (Buluwayo).

#### SECTION B.—(MYRMECOPTERA.)

##### GROUP 2. Vid. Catal., p. 62.

Neck very slender; elytra with a humeral and apical white patch and a median one uniting with a discoidal spot .. .. *angusticollis*.

## GROUP 4.

- Elytra foveate on the disk, each one with five raised lines reaching from the base to apex . . . . . *Mashuna*.
- Elytra very elongate, with a white line on the second costa and an elongate sutural apical white patch . . . . . *mima*.
- Elytra very rugose, each one with five raised lines, a long white band of the second costa and a broad, triangular, apical white patch on each side . . . . . *invicta*.
- Elytra very rugose, with the first and second costæ on each side united by wavy transverse folds, and having a long white line in the third interval and a supra-apical subtriangular white patch . . . . . *formosa*.
- Prothorax with a greyish, pubescent median band; elytra with a basal white line on the second interval, and a transverse patch of the same colour a little below the median part . . . . *Marshalli*.
- Prothorax with a median longitudinal pubescent white band; elytra sub-alveolate, shagreened behind, a long basal white line on the second costa, and a posterior marginal one reaching the suture . . . . . *umfuliana*.
- Prothorax without a median pubescent white band; elytra broadly foveate; foveæ reticulate transversely; a short basal white line on the second costa, and a posterior marginal band not reaching the suture . . . . . *dissepta*.

## MYRMECOPTERA ANGUSTICOLLIS, Pér.,

Trans. Entom. Soc. Lond., 1894, p. 448.

Dark metallic blue, moderately shining on the upper part, under side cyaneous; labrum white, narrowly edged with black in the male, broadly in the female; joints of antennæ foliate from the fifth to the apical one; head strigose; prothorax very narrow, cylindrical, nearly twice as long as broad, very slightly narrowed in front and behind, and finely plicate transversely: elytra very narrow at the base, gradually amplified from the base to two-thirds of the length, convex, with the sutural part ending on each side in a spine, longer and sharper in the male, broadly and deeply pitted, with the punctures deeper in the interior part, and having on each side a white humeral narrow band, a discoidal transverse post-median band narrowed in the centre, and reaching from the outer margin to two-thirds of the width of the disk, and a supra-marginal narrow longitudinal band of the same colour reaching from the rounding of the posterior part to the apex; legs cyaneous, with the knees slightly reddish. Length  $12\frac{1}{2}$ –13 mm.; width  $3$ – $3\frac{1}{4}$  mm.

In shape, size, colour, and sculpture this species resembles much *M. spectabilis*, Pér.; the joints of the antennæ in *M. angusticollis* are foliate from the fifth to the apical one, whereas in *M. spectabilis* only the fourth, fifth, and sixth joints are foliate; the prothorax is still narrower than in the last-named species, and the punctures on the elytra are not so broad; the humeral white band is similar, but

the posterior one is shorter, and does not unite with the transverse discoidal one.

*Hab.* Zambezia (Salisbury).

MYRMECOPTERA FOVEOLATA, Pér.,

Catal., p. 64.

Having received further specimens of this handsome *Myrmecoptera*, I am able to give a new description of both sexes; I had described the species from male examples.

Dark metallic blue-black on the upper part, cyaneous on the outer sides of prothorax, outer margin of the elytra, and underneath; labrum white in the male, with a basal infuscation broadly infuscated in the centre and laterally in the female; antennæ black, with the four basal joints cyaneous; head strigose with a brassy sheen; prothorax cylindrical, one-third longer than broad, constricted at the base and with the discoidal part hardly raised, plicated transversely, the folds moderately broad but very conspicuous; elytra elongated in the male, and ending in two sharp, long spines, amplified past the middle in the female, in which the apical spines are very short but sharp, deeply and broadly pitted from base to apex, the punctures in the posterior part a little narrower than in the anterior, and a discoidal series of small brassy alveolæ reaching on each side from the base to slightly past the middle; the male has a supra-marginal humeral white band, a small median and a posterior one reaching from the posterior angle to the apex; the humeral line reaches sometimes the median one, and I have seen one example in which the median and posterior bands had entirely disappeared, and the humeral one was very short; in the female both the humeral and median bands have disappeared, only the posterior one is left, and I have even seen an example without any supra-marginal markings whatever. There seems to be as much variation of the white supra-marginal markings in this species as in *C. Gruti*, and this apparently in examples found in the same locality; these markings in the type (from Damaraland?) are considerably narrower than in the examples from the Free State, and shorter; females will likely be found to have more than one (a postical) white band.

*Hab.* Orange Free State (Hoopstad).

If the shape of the antennæ alone was taken into consideration (the fifth, sixth, seventh, and eighth joints are merely compressed, not subfoliated), *M. foveolata*, and perhaps *M. variolata*, Chaud., should be included into the group *Cosmema*, as also *C. dolosa*, as I state further on, but the shape of the elytra connects *foveolata* with *M. bilunata* and others included in my group No. 2, whereas *dolosa* is more like *lepada*, *gilvipes*, &c.

MYRMECOPTERA LIMBATA, Bertol.,  
Catal., p. 65.

Having been able to examine several examples of this species collected in Mozambique, I am led to the conclusion that *M. Saundersi*, Chaud., is the male of *M. limbata*; in some of the males the subhumeral lateral dot on the elytra is slightly noticeable, while it has become quite obliterated in others; in the female this spot is not quite obliterated, and in many cases it is very conspicuous; the dorsal patch is also smaller and rounder in the male than in the female.

*Hab.* Mozambique (Tembé).

MYRMECOPTERA UMFULIANA.

Black, with a slight æneous tinge on the upper part; very dark blue underneath; elytra a little more opaque than the head and prothorax; labrum with a median longitudinal whitish band in the male, totally black in the female; head strigose; prothorax sub-cylindrical, longer than broad by one-fourth, deeply constricted behind, thus making the discoidal part look much raised, plicate transversely, broadly and deeply grooved longitudinally in the middle, and with the groove filled with a dense white pubescence; elytra elongate and very little ampliate past the median part in the male, and with a long sharp apical spine on each side of the suture, elongato-ovate in the female, and with the apical part of the suture nearly blunt; they have on each side five raised, very slightly wavy lines, the two discoidal ones of which reach to about two-thirds of the length, while the juxta-sutural and the two outer ones are produced a little further; the intervals are foveate, the foveæ deep but narrow, and the apical part is roughly shagreened; on each side there is a narrow yellowish band running on the second costa from the base to about fifth of the total length of the elytra, and an apical marginal one, not broader than the dorsal one, and ascending from the suture to about one-third of the length.

In the female the alveolæ of the intervals of the elytra are not so deep as in the male.

Allied to *M. costata* and *M. Bertolonii*; it differs from the former in the shape of the prothorax, which is much broader and also more roughly plicate, while the intervals of the elytra are much less deeply foveate than in the latter; it is easily differentiated from both by the basal dorsal white line. Length 20–21 mm.; width 5–7 mm.

*Hab.* Zambezia (Umfuli River).

MYRMECOPTERA DISSEPTA.

Black with a faint æneous tinge; elytra shining; under side and legs very dark blue; labrum entirely black in the female; head

strigose; prothorax subcylindrical, broad, plicate transversely, and having a median longitudinal glabrous groove more brassy than the sides; elytra elongato-ovate, convex, and ending in a short apical sutural tooth on each side (female); they have on each side five slightly wavy raised lines reaching from the base to three-fourths of the length; the intervals are deeply foveate, the foveæ transverse and reticulate; the apical part is roughly shagreened; on each side there is on the basal part of the third interval a short, narrow, yellowish band, and a posterior marginal white line running parallel to the apical shagreened part, but not reaching the suture.

Less elongate than *M. Bertolonii*, and with the prothorax a little broader and more roughly plicate; it is distinguished from it by the reticulate foveæ in the intervals of the elytra; the posterior marginal white band is similar, but *M. Bertolonii* has no trace of the basal dorsal yellowish white band, which is not, however, very distinctly defined in *M. dissepta*. Male unknown. Length 21 mm.; width 6 mm.

*Hab.* Zambezia (Umfuli River).

MYRMECOPTERA MASHUNA, Pér.,

Trans. Entom. Soc. Lond., 1894, p. 449.

Black, moderately shining, with a bluish tinge on the head and prothorax, elytra dark bronze; labrum black, with a median yellowish white patch in the male, this patch being hardly distinct in the female; head conspicuously plicate; prothorax cylindrical, longer than broad, distinctly constricted in front and behind, and transversely plicate; elytra elongated, gradually amplified from the base to about two-thirds of the length, convex, the male with two long sutural spines, the female without any and having on each side five long raised lines, the outer two reaching from the base to about three-fourths of the length, the three discoidal ones somewhat shorter, apical part shagreened, intervals broadly foveate, the foveæ with a golden sheen, no supra-marginal white spot or band; as a rule under side and legs very dark blue. Length 17–19 mm.; width  $4\frac{1}{2}$ –6 mm.

Very closely allied to *M. polyhirmoides*, Bates; the shape and size are similar, but the elytra have no white markings. I have seen a male caught in copulâ with a female of *polyhirmoides*, which my correspondent informs me is very much rarer, but is found in the same locality; it is, however, possible that the said female may have been a *polyhirmoides* without any white markings, for I have seen a male of that species without the apical sutural patch, and with the dorsal white line partly obliterated.

*Hab.* Zambezia (Salisbury).

## MYRMECOPTERA MIMA.

Black, moderately shining with a bluish tinge on the head and prothorax, dark blue underneath; labrum with a median pale longitudinal yellow band in the centre, broad in the male, narrow and not reaching the apex in the female, prothorax cylindrical, slightly constricted in front and behind and transversely plicate; elytra very elongate, slightly ampliate in the female, but a little attenuate behind in both sexes; they have on each side five costæ, the four dorsal ones of which act as lateral walls to three series of broadly reticulate foveæ having often a brassy sheen; on the second costa runs a white line reaching from the base to one-third of the length in the male, and considerably less in the female, and there is a narrow, elongate sutural white patch at the apex. Length 20–22 mm.; width 5–6½ mm.

Allied also to *M. polyhirmoides*, but different in the shape of the elytra, which are longer, more ovate from the median part to the apex in the male and less ampliate in the middle in the female; the sculpture is the same and the apical sutural patch is narrower.

*Hab.* It is by mistake that I have given the habitat of Fort Tuli in Zambezia to *M. polyhirmoides*; it should be Salisbury; but *M. mima* was captured near Fort Tuli.

## MYRMECOPTERA INVICTA, Pér.,

Trans. Entom. Soc. Lond., 1894, p. 450.

Bronze black, moderately shining on the upper side, under side and legs cyaneous black; head strigose; labrum black, with a median yellowish white longitudinal band in both sexes; prothorax quadrate, narrowed in front and behind, with the disk raised on each side and plicate; elytra gradually amplified from the base to about two-thirds of the length, convex, ending in two acute spines, long in the male, short in the female; each elytron with five costæ reaching from the base to two-thirds of the length, with the first and second a little shorter than the other three, and the intervals reticulate; on the second costa a narrow white line runs from near the base to about one-third of the length, and behind, edging the dorsal costæ and extending more or less diagonally from the outer margin to the inner costa, is a sinuate silvery patch; this patch is generally broader in the male than in the female, and I have seen a male example where it had disappeared altogether. Length 15–20 mm.; width 5–6 mm.

A near ally to *M. marchi*, Bates, but half the size; the sculpture of the elytra is identical, but the costæ are better defined; the inner one is shorter than the others, the fourth and fifth unite towards the apex in the male, but seldom in the female, while in the female of

*M. mauchi* the first and fifth costæ are the longest, and unite below the others, and the posterior patch in the last-named species is triangular, short, not transverse, nearer the apex, and below the fifth costa.

*Hab.* Zambezia (Salisbury).

MYRMECOPTERA FORMOSA, Pér.,

Trans. Entom. Soc. Lond., 1894, p. 451.

Bronze black, moderately shining on the upper part, dark metallic blue underneath; head conspicuously strigose; labrum black, with a median whitish longitudinal band on both sexes; prothorax nearly quadrate, narrowed in front and behind, with the disk raised on each side and plicate; elytra gradually amplified from the base to about two-thirds of the length, convex, ending in two moderately long apical spines, longer and sharper in the male than in the female, each elytron with five costæ, the first and second near the suture very wavy, and reaching from the base to two-thirds of the length, the third costa equally long, while the fourth and fifth extend further, reaching to three-fourths of the length; the intervals between the suture and the first costa and those between the second and fifth costæ are broadly plicate, that between the first and second costæ divided into six or seven broad, deep foveæ, and the space between the fifth costa and the outer margin also broadly foveate in the male, less so in the female; in the fourth interval runs a basal yellowish-white band reaching about the median part of the disk, and there is a supra-apical, more or less triangular, broad patch of the same colour placed below the fourth and fifth costæ; legs very dark blue. Length 18–20 mm.; width 5–7 mm.

Allied to *M. mauchi*, Bates, but differentiated by the broad and deep foveæ in the second interval on the elytra; the dorsal longitudinal white band is longer in proportion, and the apical one more broadly triangular.

*Hab.* Zambezia (Salisbury).

MYRMECOPTERA MARSHALLI, Pér.,

Trans. Entom. Soc. Lond., 1894, p. 450.

Black with a bronze tinge; elytra brassy, moderately shining; under side and legs black, with a bluish tinge; labrum black, with a broad median yellowish-white patch in the male, and a narrow one in the female, head very obliquely plicate between the eyes, and transversely so behind; prothorax subcylindrical, only a little longer than broad, with the discoidal part somewhat raised on each side, narrowed in front and behind, transversely plicate, and with a median band of white hairs reaching from

apex to base; elytra elongated, gradually amplified from the base to about two-thirds of the length, ending in two sharp; long, sutural spines in the male, short and blunt in the female, convex, with five costæ reaching from the base to two-thirds of the length, but the first and fifth longer than the three discoidal ones, intervals foveato-reticulate, apical part shagreened, on each side a white line running on the second costa from the base to about one-fourth of the length, a more or less sublunar or rounded patch of the same colour placed at the apex of the three discoidal raised lines, and a narrow supra-marginal posterior band extending from the same height as the discoidal patch to the apex. Length 19 mm.; width 5-7 mm.

In general facies this species approximates to *M. polyhirmoides* or *M. Mashuna*, but the markings on the elytra are very different.

*Hab.* Zambezia (Salisbury).

#### MYRMECOPTERA SPECIOSA.

Very similar at first sight to *M. bilunata*, but it is a little larger and the foveæ of the elytra are deeper and broader; the elytra are more broadly amplified past the middle in both sexes, and have a very distinct juxta-sutural costa running from the base to about the median part, and much better defined than in *M. bilunata*, and instead of an anterior supra-marginal white band there is an ill-defined white dot close to the juxta-sutural costa; the post-median discoidal spot is much larger and round, and the apical supra-marginal band is broader and very much shorter; in the male the basal white spot is either entirely wanting or hardly noticeable. Length 17-19 mm.; width 5-6 mm.

*Hab.* Zambezia (Buluwayo).

#### SECTION C.—(DROMICA.)

DROMICA QUINQUE-COSTATA, Horn,

Catal., p. 97.

Dr. Horn has sent me his type; I possess also a male of this species, which, however, I considered at the time to be only a slight variety of *D. clathrata*, from which it differs by a more slender shape and by the more ovate form of the elytra, which are not depressed at the base; the five costæ on each side are shorter, and the apical yellowish spot is ovate, not elongate as in *clathrata*, and situated at a greater distance from the margin.

It is this species which de Chaudoir in his collection has identified as the *D. clathrata* of Klug.

*Hab.* The locality of my example is not known to me.

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THE COLEOPTERA OF SOUTH AFRICA.

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PART II.

*CARABIDÆ.*



# THE COLEOPTERA OF SOUTH AFRICA.

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## PART II.—CARABIDÆ.

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### DISTRIBUTION IN SOUTH AFRICA.

THE distribution of *Carabidæ* in Central Africa is not yet sufficiently known to enable one to decide where the points of contact of the South African fauna are to be found, but in this family, as in all others, the influence of the Ethiopian region is unmistakable. Most of the genera found in Abyssinia, Somaliland, and the Galla country are also represented in the eastern part of South Africa, and I doubt not that most of the species, as well as genera recorded from the Zanzibar mainland, will also be found in Zambezia. The affinity between the Senegambian and South African fauna is also indubitable, but it is of a much less distinct type than the Ethiopian one, and a few West Coast African forms are also met with on the boundary, so to speak, of the eastern part of the Cape fauna.

The influence of the Ethiopian region seems to end at Port Alfred, at about 17° E. Long., along a narrow sea belt, having a sub-tropical fauna and flora. This South African eastern fauna spreads over the Gaza country, Mozambique, Zambezia (which includes Mashuna and Matabele lands, with part of Manica), the whole Transvaal, Zulu and Amatonga lands, Natal, and that part of the Orange Free State west of 27° E. Long.

Western South Africa, as divided by that line, has a peculiar fauna of its own extending over the Cape Colony, Great Namaqua and Damara lands, and the Kalahari or southern part of N'Gamiland. It is in these parts that most of the genera, strikingly peculiar to South Africa, are found; and throughout the same area representatives of the Ethiopian region are scarce.

North of 23° S. Lat. the swampy region of Lake N'Gami makes its influence felt, and there the two South African faunas unite across the continent.

It is worthy of note that this defined area applies not only to the carabidous fauna, but also to the whole of the South African Coleoptera, as I hope to be able to show when treating of the other families.

On the whole the carabidous fauna is an African one, out of 466 genera, 55 only are South African, but of these 24 may be said to be very distinct and typical, and 22 of these belong to the western fauna. This seems to lead to the conclusion that the Cape fauna has not been the centre of distribution from which the African species have sprung.

Lacordaire has divided the family into 39 tribes, and Horn in 38; 31 of those have representatives in South Africa.

The *Carabides* are represented by one genus only—*Calosoma*. The caraboid form of that genus, met with in Eastern Africa and Abyssinia, has not yet been recorded from the South African region.

The *Hiletides*, which include one genus only (*Hiletus*), have one representative.

The *Promecognathides* are represented by *Axinidium*, a very curious Western South African form, the only congener of which inhabits California.

The distribution of *Carabidæ*, inhabiting marshy places or damp, herbaceous localities, is difficult to define; but they are, of course, rarer in the dry plains of the Karoo and Little Namaqualand.

The *Omophonides* have 4 representatives, 2 of which seem restricted to the western fauna.

The *Lachnophorides*, *Galeritides*, *Brachinides*, *Odontocanthides*, and *Helluonides* number 64 genera and 279 species. Their occurrence in the western part is only occasional, but representatives of these tribes are met with along the seaboard as far as 19° E. Long.

The *Lebiides* are widely spread, but 4 genera of the group *Cyminidæ* are of a purely western type. The great number of species of the genus *Phlæozetus* (21) and *Lebia* (26), in the group *Lebiidæ*, is very remarkable; they appear to be divided between the two faunas; this is surprising, because wood and underwood is comparatively scarce in the western part; but it may be that they are more easily distinguished and captured on account of that scarcity of wood.\* The *Arsinoë* and *Coptoptera* are fairly numerous (8 and 7 respectively) and a *Pentagonica* has also been discovered lately. The group *Dromiidæ* includes 16 genera and 39 species, which cannot be said to have a restricted distribution.

The typical feature of the South African fauna is the great number of *Graphipterus* and *Piezia* included in the tribe *Graphipterides*. They abound in all parts of South Africa, but are numerous in the Karoo, and still more so in the Kalahari region. It is worthy of note that the species with dilated and compressed antennæ have not been found south of 27° S. Lat., and the genus *Piezia*, which has similar dilated and compressed antennæ, does also not occur south of

\* It is well known that the *Lebiidæ* are generally captured by beating boughs or branches of trees, or are met with under decayed bark.

that region. The number of *Graphipterus* recorded is 86, and that of *Piezia* 15.

Next to the *Graphipterides*, the *Anthiades* are also a conspicuous feature of the South African fauna. They include 8 genera and 81 species. Two of the genera belong to the western fauna only, but the facies of a group of the genus *Anthia*, restricted to this western part, is very different from that of some of the eastern forms. The genus *Polyhirma* is essentially eastern, not having yet been met with beyond 28° S. Lat.; but north of that limit it occurs on both the western and eastern sides, the habitat of some species being very limited, while others range from Damaraland to the Victoria Falls on the Zambezi, and even Mashunaland.

The *Morionides* are represented by 2 genera; one, *Morio*, a well-known West African form; the other, *Stereostoma*, originally described from specimens collected in Zululand, and found also in Central Western Africa.

The *Scaritides* are very numerous. They are represented by 14 genera and 57 species. They include several species found in Africa, and one blind species of the genus *Reicheia* has been found near Cape Town; 6 of the genera are purely South African, and 5 of them are restricted to the western area.

The *Siagonides* are represented by the genus *Siagona*, with 3 species, all belonging to the eastern fauna.

The tribe *Apotomides* is represented in South Africa by the European genus *Apotomus*. In this tribe I have included, not without some misgivings, the South African genus *Bascanus*, with 2 species.

The *Harpalides*, numbering 17 genera and 110 species, are evenly distributed; 4 genera seem to be peculiar to South Africa. I think myself justified in establishing a tribe for the genus *Geobænus*, on account of the clothing of the under part of the tarsi. This genus is represented in South Africa by 3 species.

The *Panagæides* include 6 genera and 23 species. They all belong to the eastern fauna. Some species are found on shrubs, but they are generally met with under stones or in damp localities.

The *Chlænides*' range is a very wide one, and this accounts probably for the great number of species found in South Africa, *i.e.*, 100 included in 8 genera. Of this number 15 species only occur in both the western and eastern parts, and several Senegambian species are also met with in South Africa. The genus *Collistomimus* has 8 representatives.

The *Licinides* are represented by 2 genera, each with one species. Both genera *Rhembus* and *Badister* have a very wide range, being met with near Cape Town and Rikatla (Mozambique), and Cape Town and Salisbury (Mashunaland) respectively.

The *Stomides* have one genus as representative, *i.e.*, *Sphæricus*.

But the 2 South African species have a different facies from their congeners from Senegambia and Central Africa.

The *Masoreides*' range is very wide. Three genera are represented in South Africa, but none is indigenous.

The *Pterostichides* have very typical South African representatives. Of the 8 genera, including 48 species, 1 is typically western and 3 eastern, but 17 species are restricted to the western fauna; 1 genus, *Teratotarsa*, with 1 species, and also *Pterostichus Severini*, have as yet been met with on Table Mountain only. This is so much more singular that there is at the Cape neither an Alpine nor a sub-Alpine fauna, yet I know of several Coleoptera which are found on Table Mountain only or on the Table Mountain range, and which are quite unknown elsewhere, among them being a most typical Scaritid—*Pachyodontus languidus*. I did hope at one time that the Drakensberg range might have such an Alpine or sub-Alpine fauna, but I have now good reasons to believe that such is not the case. In fact the high plateaux of the central part of South Africa are reached by terraces, and the climatic conditions prevailing are a bar to the possibility of an isolated fauna holding its own against newcomers from the surrounding parts.

The *Platynides* are fairly numerous, 8 genera and 27 species. One genus, *Læmosthenus*, is very probably an importation of recent date, and so far as I have been able to ascertain *L. complanatus* is restricted to the neighbourhood of the coast ports. The tribe includes the genus *Euleptus*, originally described from Madagascar and also met with in the Himalayan range.

The *Pogonides*, represented by 3 genera—one South African—and 10 species, do not call for special remark.

The *Bembiides*, which number 4 genera and 22 species, have a very wide distribution; certain species occur also on the Zanzibar mainland. One of them is reported to be found in New Caledonia. A species of the absolutely eyeless genus *Scotodipnus*, recorded only from Europe, occurs also near Cape Town. This species, *S. capensis*, is, with the exception of *Reicheia Promontorii*, the only anophthalmous beetle as yet recorded from South Africa. But while in *Scotodipnus* the eye has completely disappeared, in *Reicheia capensis* the eye has become rudimentary, being reduced to one facet only. I have ascertained, however, that this insect is completely blind.\*

To some it may seem premature, with our present knowledge, to tabulate the distribution of the Coleoptera in South Africa, yet after 15 years' work specially directed to a consideration of the occurrence of Coleoptera in that part of the world, I feel almost certain that future researches will not show reason for much alteration being made in the tables now presented, except that some of the South

\* In the genus *Heterillus* the eyes have only a few facets.

African genera will probably be found to extend further than the South African limit, and this mainly in the eastern side.

At present the *Carabidæ* found in South Africa number 899, included in 166 genera, and of these 31 genera and 341 species are described for the first time.

The genera known to occur in South Africa only are :—

Tribe PROMECOGNATHIDES	Tribe SCARITIDES
Genus AXINIDIUM	Genus MACROMORPHUS
Tribe EGIDES	„ PACHYDONTUS
Genus AMŒBÆA	„ PASSALIDIUS
Tribe LEBIIDES	„ ACANTHOSCELIS
Genus WAHLBERGIA	„ OTOPHTHALMUS
„ SELOUSIA	„ BOHEMANIA
„ METAXYMORPHUS	Tribe APOTOMIDES
„ LACHANISSUS	Genus BASCANUS
„ CALLIDOMORPHUS	Tribe HARPALIDES
„ PERIPHOBUS	Genus ENCEPHALUS
„ HYSTRICHOPUS	„ AGRIODUS
„ ANARMOSTA	„ PSEUDOSELENOPHORUS
„ HAPLOPEZA	„ OMOSTROPUS
„ SYNDETUS	„ HARPALOMORPHUS
„ XENITENUS	Tribe GEOBÆNIDES
„ COPTOPTERA	Genus GEOBÆNUS
„ KLEPTERUS	Tribe CHLÆNIDES
„ KLEPSIPHUS	Genus ZELOTICUS
„ ASTASTUS	Tribe PTEROSTICHIDES
„ AUTOMAIMUS	Genus ATIMUS
„ SYNGILIOMIMUS	„ EXOCUS
„ PROMECOCHILA	„ CYRTOMOSCELIS
„ MATABELE	Tribe PLATYNIDES
„ GLYPHODACTYLA	Genus RHOPALOMELUS
„ TILIUS	„ PROCLETUS
Tribe ANTHIADES	„ TIMORETICUS
Genus ECCOPTOPTERA	„ ENOICUS
„ ATRACTONOTA	„ ANGIONYCHUS
„ MICROLESTIA	Tribe POGONIDES
„ CYCLOLOBA	Genus EXTREMUS
„ BÆOGLOSSA	„ HETERILLUS

The following table is the result of my record of localities and identification of the genera and species. It illustrates, as far as we yet know, the division between the eastern and western parts of the South African fauna, and shows the number of South African genera and species as well as their distribution, and also that of the genera represented elsewhere than in South Africa. The habitat of such genera will be found embodied in the text.

TRIBE.	GENERA.					SPECIES.			
	Western fauna.	Eastern fauna.	Eastern and Western.	Represented elsewhere.	TOTAL.	Western fauna.	Eastern fauna.	Eastern and Western.	TOTAL.
Omophronides ..	..	..	..	1	1	2	2	..	4
Carabides .. ..	..	..	..	1	1	..	2	2	4
Hiletides .. ..	..	..	..	1	1	..	1	..	1
Promecognathides	1	..	..	..	1	1	..	..	1
Lachnophorides ..	..	..	..	1	3	..	3	..	3
Egides .. .. .	..	1	..	1	2	..	1	..	1
Hexagonides ..	..	..	..	1	1	..	4	..	4
Odontocanthides	..	..	..	2	2	1	13	..	14
Galeritides .. ..	..	..	..	5	5	..	16	..	16
Helluonides ..	..	..	..	4	4	1	11	..	12
Brachinides ..	..	..	..	5	5	16	32	4	52
Lebiides .. ..	5	13	3	26	47	47	123	11	181
Tetragonoderides	..	..	..	3	3	1	5	1	7
Orthogonides ..	..	..	..	1	1	..	4	..	4
Graphipterides ..	..	..	..	2	2	30	64	7	101
Anthiades .. ..	2	1	1	4	8	27	50	4	81
Morionides .. ..	..	..	..	2	2	..	1	1	2
Scaritides .. ..	6	1	..	7	14	22	30	5	57
Siagonides .. ..	..	..	..	1	1	..	3	..	3
Apotomides ..	1	..	..	1	2	2	1	..	3
Harpalides .. ..	3	2	1	11	17	28	66	16	110
Geobænides .. ..	..	..	1	..	1	2	..	1	3
Panagæides .. ..	..	..	..	7	7	..	21	1	22
Chlænides .. ..	..	2	..	6	8	13	72	15	100
Licinides .. ..	..	..	..	2	2	..	..	2	2
Stomides .. ..	..	..	..	1	1	..	1	1	2
Masoreides .. ..	..	..	..	3	3	..	1	2	3
Pterostichides ..	1	3	..	4	8	17	28	3	48
Platynides .. ..	2	3	..	3	8	9	15	3	27
Pogonides .. ..	..	1	..	3	4	4	6	1	10
Bembidiides ..	1	..	..	3	4	3	15	3	21

## HABITS OF SOUTH AFRICAN CARABIDÆ.

The habits of the South African carabidous beetles are quite similar to those in other localities, and no new light is thrown on their peculiarities from a study of the South African forms. The smell emitted by *Rhopalomelus* and *Proclitus* when fearing capture is reported to be very nauseating. The former is found in white ants' nests, feeding on Termites. Most, if not all, the South African *Anthia* emit an acrid, very volatile fluid, producing a stinging sensation on the face and hand, and able to produce temporary blindness. The allied genera *Polyhirma* and *Microlestia* do not appear to possess that power, but the latter stridulates very audibly when captured, and one of my correspondents is quite certain that the *Graphipterus* found in Mashunaland also discharge a pungent volatile fluid. I have not, however, been able to corroborate this observation among our southern species.

## PROTECTIVE RESEMBLANCE.

One would hardly expect to find much protective resemblance or mimicry among the *Carabidæ*, the livery of which is, with some exceptions, of a very inconspicuous hue. Yet we have in South Africa cases of colour-resemblance to general surroundings extremely noticeable in the genus *Graphipterus*. These beetles are very flat and extremely agile, and the upper part of the body is covered with a thick, very short pubescence, which harmonises wonderfully well with the colour of the ground, and may vary in individuals of the same species from localities far apart, between an almost ochreous red and dark grey, according to the colour of the soil. Where the background of the elytra is not relieved by semi-denuded bands or patches, the insect is well-nigh indistinguishable from the surrounding soil.

In the genus *Ega* (tribe *Egides*) we find a most striking resemblance to an ant, and the two species of *Eccooptera* (tribe *Anthiades*) are singularly like some of the large female *Mutillæ* (a Hymenopterous insect), which occur also in the same localities. There is no proof as yet that the mimicry in this last case could be of any value to the carabidous insects, but it is not improbable that a resemblance to the armour-clad *Mutilla*, which is provided also with a most powerful stinging apparatus, may be of use to the *Eccooptera* for protection from enemies, just as much as the nauseating smell emitted by *Rhopalomelus* protects it against the white ants upon and among which it lives, and whose soldiers would make short work of it but for that means of protection.

## CLASSIFICATION.

After great consideration I have retained, almost in its entirety, Lacordaire's arrangement of the family. The affinities of several of the tribes lie in so many directions that it is not surprising that all the authors who have attempted a new arrangement of the tribes have arrived at a different conclusion. I may instance Jacquelin du Val's 'Genera des Coléoptères d'Europe,' Bedel's 'Faune des Coléoptères du Bassin de la Seine,' Horn's 'Genera of Carabidæ with special reference to the fauna of Boreal America'; Fowler's 'Coleoptera of the British Islands,' and lastly, Ganglbauer's 'Die Käfer von Mitteleuropa.'

I have not, however, blindly followed Lacordaire's arrangement, and in accord with Dr. Geo. Horn, I have in some cases removed certain genera to tribes with which they have evident affinities. After all it matters little if the family begins with inverted tribes in order of their sequence. But Lacordaire's arrangement has the great advantage of having been followed by the authors of the 'Munich Catalogue,' and also by the compilers of the 'Zoological Record' until 1889; so that until the time comes for the publication of a new Catalogue of *Carabidæ* I deem it desirable that Lacordaire's arrangement, with the few necessary corrections mentioned, should be maintained.

## GENERAL.

In very few cases, and where the type specimens were either not obtainable or no longer to be found, I have copied or translated the original descriptions of genera and species, but all the other descriptions have been made from the specimen. The number of South African *Carabidæ* contained in this volume amount to 166 genera, including 899 species against 137 genera, and 558 species previously described. That I have been able to carry on the difficult and thankless task of identifying the species is due (1) to Professor Chr. Aurivilius of the Stockholm Museum, through whose courtesy I owe communication of Boheman's types, (2) to Mons. René Oberthur, of Rennes, who allowed me to compare myself my examples with Dejean's and De Chaudoir's types now in his possession, who generously presented me with some of these very types when I did not possess the species, and who also, later on, compared at my request such species the identity of which I was in doubt of. In that manner he has enabled me to avoid the errors into which I would of necessity have fallen. Without the help afforded me by these much-valued correspondents, the task I have attempted would have been impossible.

I am also greatly indebted to many Colonial correspondents, scattered over the great South African area, who have for years collected and sent me their captures. To mention them all would necessitate a long list indeed, but I cannot sufficiently thank Messrs. A. W. Eriksson, G. A. K. Marshall, J. F. Darling, Rev. H. Junod, C. N. Barker, A. E. Haviland, F. C. Selous, Dr. F. Purcell, Rev. O'Neil, G. Warden, and G. Alston, for the invaluable assistance rendered me in procuring specimens from Ovampoland, Zambezia, Mozambique, Natal, Matabele and Manica lands, Cape Colony, and Bushman and Bechuana lands. It is to them that I am mostly indebted for the accumulation of material which has enabled me to add so much, not only to the knowledge of the South African carabidous fauna, but also to that of the other families of the Order.

The greatest number of genera and species described in this volume are kept in the cabinets of the South African Museum.



# ORDER COLEOPTERA.

## FAMILY CARABIDÆ.

Mentum notched ; ligula projecting and with paraglossæ ; maxillæ slender ; ciliate internally, not ending in an articulated claw, with an external biarticulated and palpiform lobe ; mandibles seldom greatly developed, either toothless inwardly or with few teeth ; predaceous in character ; labial palpi consisting of three visible joints ; antennæ, arising at the side of the head between the base of the mandibles and the eye, eleven jointed, slender ; tarsi pentamerous ; legs adapted generally to cursorial habits, abdominal segments, six in number, the three basal ones soldered together, but the first one "divided or hidden by the posterior coxæ in such a manner that it is entirely lateral, rarely appearing as a small triangular piece between the posterior coxæ" ; \* habits predaceous and carnivorous.

Lacordaire's following Enchson's division † has separated the family in two primary groups, based on the structure of the metathoracice pipimera, ‡ and that of the anterior legs, but the subsequent divisions, in three sub-families as given by Horn, seem to me more satisfactory.

Middle coxal cavities not entirely enclosed by the sterna, the epimeron of the mesosternum attaining the coxa . . . . *Carabini*.

Middle coxal cavities entirely enclosed by the sterna, the epimeron not attaining the coxa ; head without antennal grooves beneath, and with distinct supra-orbital setæ. Ambulatorial setæ of abdomen usually well developed . . . . *Harpalini*.

Head with distinct, usually long, antennal grooves beneath and without distinct supra-orbital setæ.

Ambulatorial setæ of abdomen feeble or wanting . . . . *Pseudomorphini*.§

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\* Dr. G. H. Horn, 'On the Genera of *Carabidæ*, with special reference to the Fauna of Boreal America,' p. 91.

† In 1885 Schiodte was led to divide the *Carabidæ* in two sections ; one in which the suture joining the epimera of the mesosternum to the episterna reaches the intermediate coxæ, and the other in which the suture stops along the outer side of the median part of the metasternum.

‡ I intend, when this Catalogue is sufficiently advanced, to give a Glossary and Introduction to the structure, external and internal, of the families treated.

§ This sub-family has no representatives in South Africa.

## SUB-FAMILY CARABINI.

## TRIBE OMOPHRONIDES.

Mesosternum covered by the prosternum; this last part quadrate behind, truncated, and fitting closely against the metasternum; body suborbicular; anterior legs with one apical and another subapical spurs.

GEN. OMOPHRON, Latreille,  
Hist. Nat. Ins., 1804, p. 278.

Mentum with a sharp median tooth at the base; inner part of the lateral lobes nearly straight, the outer one rounded; ligula narrow, triangular, a little convex, and with two long setæ at the tip; paraglossæ broader than the ligula, very little shorter than the ligula and adhering to it, truncated with the outer angle, angular; last joint of maxillary and labial palpi long, fusiform; maxillæ slender, with a short apical hook and a few very rigid hook-like ciliæ, and a few more slender intervening ones inwardly; mandibles short, sharp, without any tooth in the inner part; labrum a little incised in front; head broad, separated from the epistome by an arcuated impression; eyes large, projecting; prothorax broader at the base than at the apex, with the outer sides regularly curved, fitting against the elytra; the latter ovate, a little convex, striated; legs moderately long, slender; the first joint of the anterior tarsi of the male much dilated and spongy underneath, that of the intermediate ones also dilated, although in a lesser degree, but bristly underneath.

Found always in the neighbourhood of water, where they hide under the wet sand. The genus is represented in Europe, Africa, India, Madagascar, and North and South America.

*Synopsis of Species.*

Elytra with a very broad sutural green band emitting two short fasciæ .. .. .	<i>suturalis.</i>
Elytra with a very broad sutural band emitting three short fasciæ .. .. .	<i>picturatus.</i>
Elytra with a narrow sutural green band emitting a short fascia behind and with three spots on each side .. .. .	<i>capicola.</i>
Elytra with a narrow sutural green band, with eight maculæ and ree longitudinal green bands on each side .. .. .	<i>depressus.</i>

OMOPHRON SUTURALIS, Guér.,  
Iconogr., p. 24, pl. 6, fig. 15a.\*

Labrum, epistome, antennæ, and legs flavescent; head metallic green, with a triangular anterior flavescent margin, the punctures

\* An extremely bad figure.

not closely set; prothorax deeply punctured, metallic green in the centre, and with a broad anterior and lateral yellowish margin; elytra with fourteen striæ on each side, with the punctures less deep behind, yellowish, with the outer margin somewhat silvery, and having a broad sutural metallic green band extending on each side as far as the sixth stria, past the middle a short fascia reaching to the eleventh and sometimes the thirteenth stria, dilated above the apex as far as the seventh interval, and reduced from there to a narrow sutural line which does not reach the apical part; under side lightly infuscated. Length 6 mm.; width 4 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Worcester).

OMOPHRON PICTURATUS, Bohem.,

Plate VII., fig. 2.

Vet. Acad. Förh., p. 6.

*O. hottentotum*, Pér., Trans. S. Afric. Phil. Soc., 1885, p. 75.

Labrum, antennæ, and legs flavescent; head metallic green, with a triangular flavescent patch, punctures deep and closely set; prothorax very deeply punctured, dark green, with a very narrow flavescent outer margin; elytra with fifteen striæ, the striæ with deep punctures and the intervals convex, ferruginous, with a broad sutural bronze band reaching from the base to the apex, much narrowed in the posterior part, and emitting three transverse bands on each side; the first one—a basal one—reaches the twelfth interval and is broadly incised in the median part; the middle one, much narrowed on the sixth, seventh, and eighth interval, reaches the thirteenth interval; and the third one—a slanting one—reaches the fourteenth; under side pale yellow, with the median part ferruginous. Length 7 mm.; width 4 mm.

*Hab.* Cape Colony (Fraserburg, Carnarvon), Bechuanaland (Ramoutsa). Originally described from Damaraland (Kuisip River).

OMOPHRON CAPICOLA, Chaud.,

Plate VII., fig. 1.

Rev. et Mag. Zool., 1868, p. 1.

*O. australe*, Pér., Trans. S. Afric. Phil. Soc., 1885, p. 74; *ibid.*, 1888, pl. i., fig. 1.

Light yellow; head with a lateral triangular green patch on each side; prothorax with a broad basal green band in the centre; elytra with fifteen striæ, with the punctures moderately deep, very pale yellow, with a median green basal band, a narrow sutural one broadening in the middle in a quadrate patch reaching the fourth interval, and emitting below it a transverse fascia, somewhat sinuose, reaching the ninth interval, one basal spot on the ninth

interval, and two small elongated patches in the median part, one—the smaller of the two—on the sixth, the other on the tenth and eleventh; under side pale yellow, subinfuscated in the centre. Length 7 mm.; width 4 mm.

*Hab.* Cape Colony (Cape Town).

OMOPHRON DEPRESSUS, Klug,\*

Monatsb. Berl. Ac., 1853, p. 237; Peters' Reise, 1862, p. 163, pl. 9, fig. 9.

Light brick-red; antennæ, palpi, and legs flavescent; prothorax with a narrow median longitudinal band and a broader transverse one above the base metallic green; elytra with thirteen striæ deeply punctate; the suture has a narrow green band narrowed behind, and on each side three short basal lines of the same colour, a long one on the tenth interval with two quadrate spots on each side, and on the sixth interval another line beginning at about the median part, connected there transversely with the sutural part, and near the apex a small quadrate spot between the suture and the first line. Length 9 mm.

*Hab.* Mozambique (Tette).

TRIBE CARABIDES.

Mesosternum cuneiform in the anterior part; prosternum produced behind; spurs of tibiæ terminal.

GEN. CALOSOMA, Weber,

Observ. Ent., p. 20.

Mentum broad, with a short median sharp tooth in the middle; inner part of the lobes of the mentum slightly slanting, the outer part rounded; ligula very short, broadly triangular at the apex, having a fringe of setæ; paraglossæ fused with the ligula, the latter narrow at the tip and projecting slightly; last joint of palpi short, somewhat securiform; mandibles long, sharp, striated on the upper part, without any inner tooth; labrum short, incised in the centre; antennæ subfiliform, the third joint longer than the others and compressed into a sharp ridge on the upper part; prothorax subhexagonal; elytra subelongato-quadrate, moderately convex; legs long, intermediate tibiæ curving inside; the three basal joints of the anterior tarsi dilated.

*Hab.* The genus has representatives in Europe, Asia Minor, China, India, the Canary, St. Helena, and Vancouver Islands, North and South America, Tasmania, and Australia.

\* This description is made from the figure in Peters' Reise n. Moz.

*Synopsis of Species.*

Elytra with the intervals equal, and three series of brassy shining spots on each side .. .. .	<i>rugosum.</i>
The brassy spots on the dorsal series close to one another .. ..	<i>hottentotum.</i>
Elytra with the alternate intervals raised and three series of brassy spots on each side .. .. .	<i>senegalense.</i>
Elytra with the alternate intervals much raised and without any brassy punctures .. .. .	<i>planicolle.</i>

## CALOSOMA RUGOSUM, De Geer,

Mem. Hist. Ins., vii., p. 627, pl. 47, fig. 2.

*C. chlorosticum*, Klug, Symb. Phys., iii., pl. 23, fig. 10.

Greenish bronze, more or less shining on the upper part, shining; palpi piceous; antennæ with the four basal joints piceous, the others rufescent; head closely but not deeply punctured; prothorax one-third broader than long, with the outer sides rounded and carinate, and the median part inflated, finely shagreened, depressed on each side near the base, and with a short median longitudinal very narrow groove; scutellum smooth, triangular; elytra twice as broad at the base as the hind part of the prothorax, gradually ampliate from the shoulder to three-fourths of the length, but with the outer sides linear, diagonally rounded behind, not very convex; narrowly punctato-striate, with the intervals convex and regularly and deeply creased transversely, and with three regular series of equidistant shining brassy round dots on each side; legs and under side piceous. Length 18–26 mm.; width 9–11½ mm.

Varies much in size, is generally smaller in such localities where droughts are of common occurrence, such as the north-western part of the Cape Colony. I own a male example from the neighbourhood of Kimberley only 15 mm. long and 7 mm. in width.

*Hab.* Cape Colony (all districts), Natal (D'Urban), Bechuana-land, Transvaal (Potchefstroom), Damaraland.

## CALOSOMA HOTTENTOTUM, Chaud.,

Bull. Mosc., 1852, i., p. 99.

Size, shape, and colouring of *C. rugosum*.

The description given by De Chaudoir is most obscure, but having been enabled to examine the type, I find that, according to my notes, the only difference between *rugosum* and *hottentotum* is that the brassy spots on the elytra are much more closely set in the second than in the first-named species. Chaudoir says that that species was labelled in Dupont's collection as coming from the Cape of Good Hope. I have good reason to believe that Dupont's collection included Delegorgue's captures, was made not in the present colony of the Cape of Good Hope, but in what is now the Transvaal,

Matabeleland, and Natal. It is certainly strange that among the numerous examples of *Calosoma* received from these localities I should not have been able to identify *C. hottentotum*; and thus, without absolutely saying that this species is only a sport (*C. rugosum* varies considerably in shape, size, and coloration), I am inclined to believe that either it is not a South African species or that it is a very rare and much localised species.

*CALOSOMA SENEGALENSE*, Dej.,

Spec. Col., v., p. 562.

*C. mossambicense*, Klug, Monatsb. Berl. Ac., 1853, p. 247, Peters' Reise, 1862, p. 162.

More or less shining bronze colour on the upper part; the four basal joints of the antennæ black, shining, the others pubescent and slightly rufescent; head shagreened; prothorax amplified in the middle, with the outer sides carinated; plane impressed laterally near the base, with a fine median longitudinal groove and finely shagreened; elytra twice broader at the base than the posterior part of the prothorax, a little ampliate behind with the outer sides linear, obliquely rounded in the posterior part, plane in the anterior part but convex in the posterior, narrowly but deeply punctato-striate, with the alternating intervals much raised, but all of them regularly and deeply creased transversely, and having on each side three series of regular shining brassy round spots, and an irregular one on the outer margin; under side and legs piceous. Length 23–27 mm.; width 10–13 mm.

*Hab.* Damaraland, Mozambique (Tette, teste Klug).

*CALOSOMA PLANICOLLE*, Chaud.,

Plate III., fig. 1.

Ann. Soc. Ent. France, 1869, p. 369.

Black, shining on the upper side and also underneath; palpi piceous; four basal joints of antennæ also piceous, the others black, pubescent; head finely shagreened, the lateral impressions in the anterior part very deep; prothorax hexagonal through the median part of the outer sides, being much amplified and aculeate, roughly shagreened; the longitudinal median groove very narrow; scutellum very short, triangular; elytra twice broader at the base than the posterior part of the prothorax, ampliate behind, where they are three times as broad, plane in the anterior part, convex in the posterior, narrowly punctato-striate, with the intervals deeply and regularly creased transversely, and the alternate ones much more raised than the others; no series of shining brassy spots.

Much larger than *C. senegalense*, this species is distinguished by

the more hexagonal form of the prothorax, and also by the absence on the elytra of the series of glittering brassy spots. Length 33–36 mm. ; width 13–16 mm.

*Hab.* Delagoa Bay (Lourenço - Marquez), Zambezia (Victoria Falls). Gestro records this species from the Galla country, in North-Eastern Africa.

## TRIBE HILETIDES.

### GEN. HILETUS.

Mentum broadly incised, concave in the centre ; the two lateral lobes convex ; the median tooth short quadrifid ; ligula very long ; subspatuliform, ciliate, but truncate at the tip ; paraglossæ filiform, detached from the ligula and nearly as long ; ciliate inwardly at the tip ; maxillæ in the shape of a broadly concave horny process under the short claw, consisting according to Lacordaire of fused and arched ciliæ ; last joint of palpi fusiform and acute\* ; jaws very broad, convex, and deeply serrate ; labrum broader than long, with only one seliger puncture in the angular part of the apex ; head broad, thick ; eyes projecting ; antennæ inserted under a small process on a line with the base of the mandibles, fractate, the first joint very long and with a groove below the eyes to receive it ; prothorax broad, subquadrate, but a little attenuated behind ; elytra subparallel, a little rounded behind, moderately convex ; legs moderately long ; the three basal joints of the anterior and median tarsi of the male slightly enlarged in the shape of an elongated square, and spongy underneath, those of the female subfiliform, the two spurs on the tibiæ terminal ; prosternum produced behind in a long obtusely triangular process fitting in a depression of the mesosternum.

The insects included in this genus have the general facies of a Pterostichid, but the shape of the antennæ is that of a Scaritid ; the shape of the ligula and paraglossæ as well as that of the mandibles is most anomalous ; it is for that reason that Lacordaire in his 'Genera' has created a special tribe, including only the genus *Hiletus*, which now contains five species from Senegal, Guinea, Abyssinia, Zanzibar, besides the South African one, and also one from South America (Brazil).

HILETUS OXYGONUS, Chaud.,

Bull. Mosc., 1861, ii., p. 507.

Black, shining ; head smooth, with two longitudinal parallel grooves on each side ; apical part of the joints of the palpi rufes-

\* Lacordaire says that in the male the ultimate joint is very securiform ; this is not the case in the five examples in my possession, but they might prove to be all females.

cent; prothorax one-fourth broader than long, a little narrowed from the median part towards the base, which is truncate with outer sides carinate, depressed on the upper part with a faintly arcuate anterior transverse impression, a very fine medium groove and two depressions on each side of the base, smooth, shining, with the exception of the depressions, which are very slightly punctulate; no scutellum; elytra bismuate at the base, with the humeral angles a little rounded, the outer sides straight, the posterior part gradually rounded, moderately convex, narrowly striate with the intervals convex very smooth, two punctures on the third stria, the one before the other behind the median part, the outer margin with a series of regular, closely set, deep punctures; under side and legs black, shining; the two apical joints of the tarsi and claws rufescent. Length 10 mm.; width 3 mm.

*Hab.* Mozambique (Rikatla).

### TRIBE PROMECOGNATHIDES.

Mandibles very long, falciform; maxillæ very slender and very long; the four basal joints of antennæ glabrous, the first one very long; eyes with two supra-orbital setæ; prothorax and elytra elongato-ovate; anterior and intermediate tarsi dilated at the tip; tarsi not dilated.

The creation of this tribe is due to Horn, who has justly included in it the American genus *Promecognathus* and *Axinidium*.

GEN. AXINIDIUM, Sturm.,  
Catal., 1843, p. 327, pl. 1, fig. 4.

Mentum short, emarginate, with a median tooth; ligula very short, broad, horny, transverse; paraglossæ indistinct\*; mandibles longer than the head; falcate; maxillæ very long, extremely slender, sub-falcate at the tip, the outer lobes also very long, slender, and biarticulate; labial palpi almost filiform, the last joint truncate at the tip, the second joint of the maxillary ones, swollen, the third very small, the last one broadly securiform; labrum deeply emarginate, and with a very long seta on each side; basal joint of antennæ very long, stout, glabrous, as are also the three following, the basal and the second one with a long lateral seta, apical in the basal one, median and much longer in the second one; eyes prominent, with two supra-orbital setæ; head elongato-quadrate; prothorax truncate at the base and apex, elongato-ovate, and with two lateral setæ near the anterior angle, and one in the median part; elytra ovate; body

\* I have not been able to dissect the buccal organs of the only specimen that I have seen.

pedunculate; anterior tibiæ much dilated at the apex, and without any external spur; tarsi not dilated, short, decreasing in size.

AXINIDIUM AFRICANUM, Sturm.,  
Catal., 1843, p. 327, pl. 1, fig. 4.

Piceous red, a little darker on the head and prothorax than on the elytra; palpi, antennæ, and legs rufescent; head smooth; clypeus and labrum short; the basal suture of the clypeus indistinct; antennæ briefly pubescent, with the exception of the four basal joints, which are glabrous; the last joint is long and ovate, the basal one much elongate and club-like; prothorax convex, smooth, truncate at apex and base, carinate laterally and basally, ovate laterally, much constricted behind, with a short sharp posterior angle, the median longitudinal groove reaching from the base towards the apex, but stopping short at about two-thirds of the length; body pedunculate; elytra elongato-ovate, with the outer angles slightly rounded, the outer margin carinate, convex, a little depressed in the anterior part, smooth laterally, and with four faint striæ on each side of the suture showing a faint trace of punctuation, and with three broad setigerous punctures—basal, median, and apical—on the third stria. Length 7 mm.; width 2 mm.

*Hab.* Cape Colony (Oudtshoorn).

## SUB-FAMILY HARPALINI.

### TRIBE LACHNOPHORIDES.

Body subpedunculate; antennæ slender, with three or four glabrous joints; mentum with a median tooth a little shorter than the lateral lobes; last joint of palpi ovoid, suddenly acuminate at tip, and pubescent or subfusiform, broadly truncate at the apex and glabrous; head narrowed behind; two supra-orbital setæ; prothorax ovate; elytra elongate, moderately plane, sinuate apically; legs slender; anterior tarsi of the male not dilated; claws not pectinate.

#### *Synopsis of Genera.*

Last joint of palpi ovoid, suddenly acuminate at tip; the surface pubescent; ligula shorter than the paraglossæ .. .. *Lachnophorus*.\*

Last joint of palpi fusiform, truncate at tip, and glabrous; paraglossæ hardly longer than the ligula .. .. . *Lasiocera*.

#### GEN. LASIOCERA, Dej.,

Spec. Col., v., p. 283.

Mentum short, slightly notched, trilobate, the median lobe nearly as long as the lateral ones; ligula gradually amplified from

\* This genus does not occur in Africa.

the base to the apex and truncated at the tip, the paraglossæ adhering to it and hardly projecting beyond; last joint of labial palpi fusiform and very sharp at the tip, that of the maxillary truncate; mandibles nearly covered by the labrum, which is narrowed in front and slightly incised at the tip; head triangular, suddenly narrowed behind in a short neck; eyes large and very prominent; antennæ filiform, slender, the joints, with the exception of the three basal ones, with four or five long bristles; prothorax very convex, inflated in the median part; elytra more than twice as broad at the base than the basal part of the prothorax, parallel with the shoulders, rounded, truncated posteriorly, with the outer angle sharp, depressed, or slightly convex, more or less deeply punctato-striate, third interval with three distinct punctures; legs slender; tarsi narrow, subfiliform, the fourth one small and slightly incised; claws not pectinate.

*Hab.* Two representatives of this genus are recorded from Senegal and Zanzibar, and one from India.

#### *Synopsis of Species.*

- Elytra punctato-striate, with the intervals plain; ten small yellow dots on each elytron .. .. . *tessellata.*  
 Elytra broadly and deeply punctato-striate; intervals narrow, convex.  
 Longitudinal yellow band, notched in the middle on each side, and an uneven transverse post-median moderately broad macula .. *gracilis.*  
 Three yellowish indistinct patches on each elytron .. .. . *jucunda.*

#### LASIOCERA TESSELLATA, Klug,

Monatsb. Berl. Ac., 1853, p. 249; Peters' Reise, 1862, p. 174, pl. 9,  
fig. 3.

Dark greenish bronze on the head and prothorax; head finely and closely punctured; antennæ flavescent; palpi also flavescent, with the apical part of the ultimate joints slightly infuscated; prothorax oblongo-ovate, very closely and deeply punctured; elytra elongated, very slightly amplified towards the apical part, truncated obliquely behind, with the posterior angles acute and the humeral angles a little rounded, depressed, finely punctato-striate with the intervals plane, the third one with three punctures, bronze, and having on each side an elongated sub-basal patch on the fifth interval, a small dot below it on the fourth, three adjoining one another at about the median part on the fifth, sixth, and seventh respectively, two in the posterior part on the third and fourth, and two more a little lower down on the fifth and sixth, also a supra-apical one close to the

suture; under side piceous; legs yellowish red.\* Length 6 mm.; width 2 mm.

*Hab.* Mozambique (Tette, teste Klug), Damaraland.

LASIOCERA GRACILIS, Bohem.,

Insect. Caffr., i., p. 26.

Head and prothorax greenish bronze, the former brassy in the centre; antennæ and palpi very pale yellow, almost transparent; prothorax oblongo-ovate, with a hardly noticeable median longitudinal ridge, and closely and deeply punctured; elytra rounded at the shoulders, with the outer sides straight, truncated obliquely behind, with the outer angle acute, depressed, deeply and closely punctato-striate with the intervals narrow, sub-convex, transversely rugose, bronze, moderately shining, and having on each side, before the median part and nearer to the outer margin, an elongated longitudinal pale-yellow patch slightly notched in the middle on both sides, and another post-median, moderately large, transverse, and uneven one of the same colour; legs almost transparent, with the knees and the apical part of the joints of the tarsi slightly infuscated. Length 5 mm.; width 2 mm.

*Hab.* Interior of Caffraria (Boheman).

LASIOCERA EGREGIA,

Plate X., fig. 9.

Head and prothorax greenish bronze, with a brassy tinge in the middle, both roughly shagreened; antennæ and palpi almost transparent; prothorax almost fusiform; elytra with the shoulders rounded and the outer sides parallel, truncated obliquely behind, with the posterior angle produced in a very short spine, a little convex, very broadly and deeply punctato-striate, with the intervals very narrow and convex, bronze, with a slight greenish tinge, and four round, rather indistinct, more or less rounded, yellowish patches, a sub-basal median and post-median one in a longitudinal line, and a nearly juxta-sutural round dot close to the post-median patch but a little lower down; legs very pale yellow, almost transparent, with the knees and the tarsi slightly infuscated. Length 6 mm.; width  $1\frac{1}{2}$  mm.

*Hab.* Zambezia (Salisbury).

TRIBE EGIDES.

Body pedunculate; head constricted behind in a very slender and long neck; two long supra-orbital setæ; antennæ long, subfiliform,

\* These patches do occasionally coalesce so as to form three lateral patches, as figured in Peters, pl. 9, fig. 3.

or with the four apical joints thickened, the three basal joints pubescent; last joint of labial palpi very swollen at the base and acutely subulate at the tip, or fusiform and pubescent; prothorax and elytra subgibbose, the latter not sinuate at the apex; legs long, slender; anterior tarsi not dilated; claws not pectinate.

*Hab.* The tribe has representatives in North and South America, New Caledonia, and India.

*Synopsis of Genera.*

Last joint of labial palpi very swollen at base and subulate at tip, antennæ filiform, joints of equal thickness . . . . . *Ega.*

Last joint of labial palpi fusiform and very sharp, the four apical joints of the antennæ very much thickened . . . . . *Amœbaea.*

GEN. EGA, Castelnau,  
Etudes Entom., 1835, p. 93.

Mentum emarginate, with a short median tooth; ligula long, truncate at the tip, which is slightly ampliate, paraglossæ connected with it, but a little longer; last joint of palpi ovate, pubescent, and produced at the tip in a long subulate process; mandibles slender, incurved at tip; labrum transverse, plurisetose in the anterior part; head gradually narrowed behind in a long neck; eyes prominent; antennæ very long; joints thick; prothorax subgibbose, very much attenuated in front and behind, and with a long lateral median seta; body with a long peduncle; elytra very convex, rounded at the apex; legs slender, long; tarsi pubescent on the upper part; first joint very long, as long as the two following; claws not pectinate.

EGA NATALENSIS,  
Plate X., fig. 10.

Black, shining; the three basal joints of antennæ flavescent, with the exception of the basal part of the first, which, like the palpi, is infusate; the other joints are black, but the eighth and ninth, and occasionally the basal part of the tenth, are white; legs infusate, with the basal part of femora and median part of tibiæ whitish; head and neck smooth, the former pilose underneath; prothorax gibbose in the centre, much attenuated in front and behind, smooth; elytra very convex, depressed in the anterior part; the suture subcarinate, not striate, very finely pubescent, and with three rows of long bristles placed at some distance from one another; posterior margin not sinuate, and with a subangular very long seta; under side piceous black. Length  $3\frac{1}{4}$ –5 mm.; width  $1$ – $1\frac{1}{2}$  mm.

*Hab.* Natal (D'Urban?); Zambezia (Salisbury).

## GEN. AMCEBÆA.

Mentum and ligula as in *Ega*; penultimate joints of palpi bristling with long hairs, ultimate ones very sharp, the labial one somewhat fusiform; mandibles long, sharp; labrum short, transverse; head and neck of *Ega*, the latter part not so long; antennæ with the five basal joints slender, and the four apical ones gradually thickened and nearly twice as thick as the basal ones; the four basal joints are glabrous and the others densely pubescent, but the seven basal joints bear inwardly only four or five long setæ at the tip, as in *Lasiocera*; prothorax as in *Casnonia*; body pedunculate; elytra convex, sinuate laterally below the humeral part, truncate and slightly sinuate behind; legs very long and slender; claws not pectinate.

The facies is that of *Ega*, but it is easily distinguished by the fusiform shape of the labial palpi, by the basal joints of antennæ ciliated inwardly, and by the thickening of the four apical joints.

## AMCEBÆA MASHUNA.

Black, subopaque; palpi black; the four basal joints of antennæ slightly infuscate, the other three albescent, and the four apical ones black; basal part of the femora and the tibiæ whitish; head closely plicate, pilose underneath, narrowed behind into a long neck, and having on each side a long seta in a line with the supra-orbital ones; prothorax narrow, elongated, attenuated in front and less so behind, convex and a little swollen in the median part, plicate transversely, the folds rugose and closely set, faintly grooved in the centre and with a lateral series of long, stiff black bristles; elytra with the humeral part sloping diagonally, convex, sinuate below the humeral angle, slightly ampliate at the median part, and not much attenuate from there to the apex, which is truncate and a little sinuate; they are deeply striate, with the intervals very finely shagreened and with a series of long, stiff, black bristles in the alternate striæ; are dull black with a transverse, sub-basal, narrow, yellowish band extending from the second stria to the outer margin, a line of the same colour extending longitudinally on the second interval from the median part to the top of the posterior declivity, a shorter one on the fourth interval, and two supra-apical spots on the fifth and sixth intervals respectively: these two last spots are missing sometimes, but when they exist they coalesce with the apical part of the yellowish line on the fourth interval. Length  $5\frac{1}{2}$ –6 mm.; width 2 mm.

*Hab.* Zambezia (Gadzima).

## TRIBE HEXAGONIDES.

Body subpedunculate; antennæ slender; three basal joints glabrous; head narrowed behind into a neck; mentum with a

median tooth, tip of maxillæ not articulate; eyes large, two supra-orbital setæ; prothorax elongate; elytra oblongo-ovate, plane not truncate behind; legs slender; tarsi alike in both sexes; claws not pectinate.

GEN. HEXAGONIA, Kirby.

TRIGONODACTYLA, Dej.

Mentum trilobate, the median lobe shorter than the lateral ones; ligula horny, projecting; the paraglossæ linear, not much longer than the ligula and fused with it; palpi slender, last joints subcylindrical, acuminate at the tip; mandibles long, arcuated, and sharp; head triangular, with a short narrow neck; antennæ reaching the base of the elytra, first joint cylindrical, second very short; prothorax cordiform; elytra parallel, rounded behind and very flat; legs short; tarsi broad, triangular, the fourth one much broader, bilobate; claws not pectinate.

*Hab.* Representatives of this genus occur in India, Burmah, the Malayan Archipelago, and Africa (Zanzibar, Guinea, Senegal).

*Synopsis of Species.*

Elytra light testaceous .. .. .	<i>immaculata.</i>
Elytra with a triangular posterior black patch; head black, postical patch short .. .. .	<i>terminata.</i>
Head red, postical patch longer.. .. .	<i>præusta.</i>
Elytra with an ovate black patch on each side .. .. .	<i>natalensis.</i>

HEXAGONIA IMMACULATA, Chaud.,

Bull. Mosc., 1861, ii., p. 533.

Pale ferruginous; head and prothorax dark brown; antennæ and legs light testaceous; head with moderately deep but not closely set punctures in the anterior part, and with a deep longitudinal depression on each side; prothorax cordate, with the outer margins slightly recurved and with an inner row of punctures, the longitudinal discoidal groove also broadly punctured; elytra broader than the prothorax, very depressed, parallel, punctato-striate, with the intervals plane, and having some irregular broad punctures on the third, fifth, and seventh. Length  $11\frac{1}{2}$  mm.; width  $3\frac{1}{4}$  mm.

*Hab.* Natal (D'Urban).

HEXAGONIA PRÆUSTA, Chaud.,

Bull. Mosc., 1861, ii., p. 533.

Light rusty red, with the head darker; head slightly punctulated, the longitudinal impressions on each side distinct, but not very deep; prothorax cordiform, with the outer margins slightly recurved, and

with an inner row of punctures, the longitudinal discoidal groove also broadly punctured; elytra broader than the prothorax, parallel, but slightly more amplified behind than in *H. immaculata*, punctato-striate, with the intervals plane, and four punctures on the third interval and three on the fifth, the two posterior ones close together, light testaceous, with a posterior triangular black patch, the apex of which reaches along the suture to nearly half of the length. Length  $7\frac{1}{2}$  mm.; width 3 mm.

*Hab.* Port Natal, teste Chaud.; Caffraria (no exact locality).

#### HEXAGONIA TERMINALIS, Gemm.,

*H. terminata*, Dej., Spec. Col., v., p. 289; Lacord., Gen. Atlas, pl. 3, fig. 1.

Head very dark brown, deeply punctured laterally and behind, with a smooth central spot; antennæ dark testaceous; prothorax brick-red, cordiform, deeply grooved in the centre, with a few scattered, sometimes confluent punctures; elytra hardly broader than the prothorax at its widest, parallel, punctato-striate, the intervals convex, three punctures on the third and one on the apical part of the fifth, brick-red, shining, with a posterior triangular black patch, the apex of which reaches to about one-fourth of the length; under side and legs testaceous. Length  $10\frac{1}{2}$  mm.; width  $3\frac{1}{4}$  mm.

*Hab.* Mozambique (Rikatla); occurs also in Senegal.

#### HEXAGONIA NATALENSIS, Chaud.,

Bull. Mosc., 1861, ii., p. 534.

Rusty red, with the head darker; smaller and more parallel than *præusta*; head a little more quadrate, anterior part of head more punctured; prothorax similar, and with small distant punctures; elytra narrower and quite parallel, striated, the third interval with three indistinct punctures, and below the median part an ovate sutural black patch extending as far as the third stria on each side; legs of the same colour as the elytra. Length  $7\frac{1}{2}$  mm.

*Hab.* Port Natal, teste Chaud.

### TRIBE ODONTOCANTHIDES.

Ligula adhering partly to the paraglossæ, the latter free in the apical part, as long, or longer than the ligula; head narrowed behind into a distinct neck; first joint of antennæ not longer than the second and third together; prothorax elongated, subfusiform; elytra subtruncated or incised at the apex; tarsi slender, similar in both sexes; claws not pectinate.

Two genera alone in that tribe are represented in South Africa.



shape impression, smooth, very shining; palpi, apical part of mandibles and the four basal joints of the antennæ pale yellow; prothorax dark metallic green, deeply and closely punctured from base to apex, not much narrowed in the anterior part; elytra deeply striated, with the striæ broadly punctured from the base to two-thirds of the length, the punctures very faint from there to the apex, and the third interval with three punctures, dark metallic green, with the outer margins and the apical part pale yellowish red; legs yellowish, under side very dark green. Length  $7\frac{1}{2}$ –8 mm.; width  $2$ – $2\frac{1}{4}$  mm.

*Hab.* Mozambique (Rikatla).

#### CASNONIA DORSALIS.

Head black, with a metallic green tinge, deeply depressed longitudinally on each side of the epistome, and with a median crescent-shaped impression, smooth, very shining; palpi, apical part of mandibles and the four basal joints of the antennæ pale yellow; prothorax very slightly punctured in the anterior part, and more closely and deeply from about the middle towards the base; elytra deeply striated, with the striæ broadly punctured from the base to two-thirds of the length, but distinct, although smaller, from there to the apex, pale yellow, with a broad dorsal green metallic band extending on each side of the suture to the fifth interval as far as two-thirds of the length, and narrowed from there into a sutural band reaching the third interval, but stopping short of the apex; legs pale yellow; pectus dark brown; abdominal segments yellowish red. Length 7 mm.; width 2 mm.

*Hab.* Mozambique (Rikatla).

#### CASNONIA SUTURALIS.

Head, palpi, apical part of mandibles, and four basal joints of antennæ as in the two preceding species; prothorax very slightly punctured in the anterior part, and more closely from about the middle to the base, dark metallic green; elytra deeply striated, with the striæ broadly punctured from the base to two-thirds of the length, brownish, with a green sutural band extending from base to apex, a little broader near the base, and extending from the suture to the second interval; pectus dark brown, abdominal segments of a lighter colour; legs pale yellow. Length 6 mm.; width 2 mm.

*Hab.* Mozambique (Rikatla).

#### CASNONIA AMŒNULA.

Head smooth, black, the first three joints of the antennæ and part of the fourth pale yellow, the other joints as well as the last one of the palpi infuscated; prothorax closely and deeply punctured from

apex to base; elytra deeply striated, with the striæ punctured from apex to base, yellowish brown, with the basal part dark green to about one-eighth of the length, a sutural patch of the same colour extending as far as the second interval and reaching the apex, also a lateral greenish infuscation on each side, darker in the anterior part, and somewhat evanescent beyond the median part; pectus dark green; abdominal segments fuscous red; legs pale yellow. Length 6 mm.; width  $1\frac{3}{4}$ -2 mm.

*Hab.* Natal (Frere).

#### CASNONIA DISTINCTA.

Head black, shining, with a few faint punctures, pilose behind the eyes; antennæ black, with the three first joints and also the basal part of the fourth pale yellow, apical joint of the palpi black; prothorax black, with a greenish tinge, very deeply and closely punctured, and with a long erect pubescence; elytra subparallel, twice as broad as the prothorax at its broadest part, moderately convex, pubescent, striate, with the striæ deeply punctured from base to apex, greenish black, shining, and with a small ovate yellow spot on each side, extending on the fourth and fifth intervals above the apical part; legs pilose, the base of the femora and tibiæ flavescens; tarsi, knees, and apical part of the femora infuscate. Length  $6\frac{1}{2}$  mm.; width 2 mm.

*Hab.* Zambezia (Salisbury), Bechuanaland (Ramoutsa).

#### CASNONIA NATALENSIS, Chaud., Bull. Mosc., 1862, iv., p. 290.

Head black, shining, punctulated from the epistome to behind the eyes; palpi and four basal joints of antennæ pale yellow, the other joints very slightly infuscated; prothorax very dark green, deeply and closely punctured from base to apex; elytra deeply striate, with the striæ broadly punctured from the base to about two-thirds of the length, dark metallic green, with a yellowish subovate macula on each side of the apical suture, which sometimes invades the whole of the posterior margin; legs pale yellow, with the apical part of the femora infuscated. Length 7 mm.; width 2 mm.

*Hab.* Natal (no exact locality recorded).

#### CASNONIA CAPICOLA.

Very closely allied to *C. amœnula*; the colouring of the head, prothorax, and elytra is alike; the three basal joints of the antennæ are infuscated at the tip, the second one often entirely black instead of being pale yellow, and the other joints quite black; the knees are

infuscated, but the most distinctive character is found in the prothorax, which is a little more robust and covered with moderately closely set punctures, not abundant on the anterior part, while in *C. amœnula* these punctures are very closely set as well in the anterior as on the discoidal or posterior part. Length 6 mm. width 2 mm.

*Hab.* Cape Colony (Stellenbosch).

CASNONIA RUFOPICEA, Chaud.,  
Bull. Mosc., 1862, iv., p. 289.

Head black, smooth, with a subovate impression in the centre; palpi, apical part of mandibles, antennæ, and legs pale yellow; prothorax light reddish brown; elytra light reddish brown, deeply striate, with the striæ broadly punctured from the base to two-thirds of the length. Length  $6\frac{1}{2}$  mm.

*Hab.* Natal (D'Urban), teste Chaud.

GEN. STENIDIA, Brullé,  
Hist. Nat. Ins., iv., 1835, p. 151.

Mentum broadly incised, with the median tooth nearly as long as the lateral lobes; ligula slender, deeply notched at the tip, and with a long seta on each side of the tip; paraglossæ nearly pellucid, and a little longer than the ligula; last joint of labial and maxillary palpi fusiform, and truncated at the tip; mandibles slender, projecting; labrum quadrate; head ovate, with a distinct neck; antennæ reaching the base of the elytra, the first joint thickened, long, the second short, the third one as long as the first but slender, the fourth tapering at the base, and the others about equal; prothorax subcylindrical; elytra broader than the prothorax, elongated, parallel with the anterior angles rounded, truncated obliquely behind, and slightly convex on the upper part, punctato-striate, with three punctures on the third interval; legs slender; joints of tarsi long, identical in both sexes, hairy underneath, with the fourth one slightly incised; claws not pectinate.

Like *Casnonia*, *Stenidia* are found in South Africa in damp, marshy places under tufts of grass. They seem to be restricted to Africa. The species known outside the South African limit are found in Senegambia, the Congo, Angola, Zanzibar, Mombassa.

*Synopsis of Species.*

Head black; prothorax red.

Elytra totally green; the four basal joints of antennæ reddish *elegantula*.

Elytra totally green, very narrow; the two basal joints of antennæ reddish .. .. . *angusta*.

Elytra green, reddish at the tip .. .. .	<i>abdominalis.</i>
Elytra green in the anterior part, purplish behind .. .. .	<i>jucunda.</i>
Head, prothorax, and elytra reddish brown.	
Posterior part of the head much narrowed .. .. .	<i>fraterna.</i>
Posterior part of the head straight.. .. .	<i>quadricollis.</i>

## STENIDIA ELEGANTULA.

Head black, deeply and closely punctured in the anterior part, smooth in the posterior, with the neck and apex of mandibles red, the two last joints of the palpi and the three basal, and also part of the fourth of the antennæ reddish, the others black; prothorax red, deeply and closely punctured and without any trace of median longitudinal groove; elytra elongated, parallel, slightly convex, bright metallic green, deeply punctato-striate, with the intervals narrow and slightly convex in the central part of the disk; legs red, infuscate at the apex of the femora; abdomen greenish black. Length  $7\frac{1}{2}$ –8 mm.; width  $2$ – $2\frac{1}{4}$  mm.

*Hab.* Mozambique (Rikatla).

Allied to *S. corrusca*, Laf., but less shiny, and with the prothorax less deeply punctured.

## STENIDIA ANGUSTA.

The description of *S. corrusca* applies also to the present species; the head, however, has a more cyaneous tinge, and is very much more deeply and closely punctured; the two basal joints only of the antennæ are red; the palpi are black; the prothorax is more cylindrical; and the elytra much narrower; legs and abdomen as in *S. corrusca*. Length  $6\frac{1}{2}$ –7 mm.; width  $1\frac{1}{4}$  mm.

*Hab.* Zambezia (Salisbury).

## STENIDIA ABDOMINALIS, Chaud.,

Bull. Mosc., 1862, iv., p. 299.

Closely allied to *S. corrusca*; it is, however, of a larger size, 9 mm. instead of  $7\frac{1}{2}$  mm.; the facies is more robust; the prothorax is less narrowed in the anterior part; the elytra are longer, more parallel, and narrowly metallic red at the apex; the abdomen is rusty-red instead of greenish black. Length 9 mm.

*Hab.* Natal (D'Urban), teste Chaud.

## STENIDIA JUCUNDA, Pér.,

Plate VII., fig. 3.

Head black, deeply and closely punctured from the apex to the neck, which is red; apex of mandibles also red; palpi, the three basal joints of the antennæ, and part of the fourth pale red, the other joints infuscated with the base reddish; prothorax hardly

narrowed in the anterior part, red, shining, punctured, and with a faint, narrow, longitudinal groove in the centre; elytra elongated, parallel, depressed, deeply punctato-striate, with the intervals plane, dark metallic green from the base to one-fourth of the length, lighter green from there to the median part, and reddish with a violaceous tinge from the middle to the apex; abdomen greenish black; legs and tarsi red, with the apical part of the femora black. Length 9 mm.; width  $2\frac{1}{4}$  mm.

*Hab.* Mozambique (Rikatla).

#### STENIDIA FRATERNA.

Light ferruginous-red, with a metallic sheen; head nearly smooth, bi-impressed in the anterior part; palpi, the three basal joints of the antennæ and one-half of the fourth light red, the other joints slightly infuscated; prothorax attenuated at the apex, not constricted at the base, closely and deeply punctured, and with a narrow, median, longitudinal groove; elytra elongated, parallel, deeply punctato-striate, with the intervals slightly convex. Length 10 mm.; width  $2\frac{3}{4}$ –3 mm.

This species is very closely allied to *S. unicolor*, Brull., and may prove to be only a slight variety of that species. *S. unicolor* is recorded from Senegal.

*Hab.* Mozambique (Rikatla).

#### STENIDIA QUADRICOLLIS, Chaud.,

Bull. Mosc., 1872, p. 410.

Light ferruginous-red; head more quadrate than in *S. unicolor*, a little broader, longer than broad, flatter and nearly straight in the lateral posterior part, with moderately deep and close punctures and without any impression in the anterior part; the eyes are not very protuberant; the prothorax is moderately thick, convex, and has a median longitudinal impression; elytra elongated, very parallel, abruptly truncate at the apex, plane, with the intervals between the striae a little convex. Length  $7\frac{1}{2}$  mm.; width 2 mm.

*Hab.* N'Gamiland.

### TRIBE GALERITIDES.

Ligula horny; paraglossæ sometimes free, sometimes adhering to the ligula, and seldom longer; head produced behind in a distinct neck, two supra-orbital setæ; first joint of antennæ as long or longer than the head; elytra truncate at apex; legs long or moderately long; tarsi slightly dilated in male; claws simple, but pectinate in *Dendrocellus*. Of the thirteen genera included in that tribe by Lacordaire, five are represented in South Africa.

Mentum without any median tooth.	
Fourth joint of anterior tarsi bilobate.	
Claws not pectinate .. .. .	<i>Drypta.</i>
Claws pectinate .. .. .	<i>Dendrocellus.</i>
Fourth joint of anterior tarsi not lobated .. .. .	<i>Eunostus.</i>
Mentum with a median tooth.	
Tooth of the mentum bifid; paraglossæ quite free .. .. .	<i>Galerita.</i>
Tooth of the mentum short, bifid; paraglossæ slender, much longer than the ligula .. .. .	<i>Zuphium.</i>

DRYPTA, Fabric.,

Syst. Eleuth., i., 1801, p. 230.

Mentum with a moderately broad incision and without any median tooth; ligula slender, slightly dilated at the tip; the paraglossæ shorter than the ligula and not adhering to it; mandibles long, straight and incurved at right angles at the tip; last joint of maxillary and labial palpi more or less diagonallo-securiform; labrum tuberculated in the outer angles, projecting in the central part, and with two long setæ on each tubercle and two in the central part; head elongated, with the sides nearly parallel, but narrowed behind into a short neck; prothorax as long as the head and mandibles together, more or less cylindrical, narrowed at the base; elytra subparallel or a little amplified past the middle, slightly convex, truncated behind, but with the outer angles rounded, striated and briefly pubescent; legs moderately long; tarsi pubescent, with the three basal joints triangular, and the fourth divided in two long slender lobes; claws not pectinate; the three basal joints of the anterior tarsi slightly dilated in the male.

*Hab.* Representatives of the genus are found in Europe, Africa (Morocco, Senegambia, Zanzibar, Malange, and Abyssinia), Madagascar, India, Burmah, South America, and Australia; they are met with in wet or damp localities.

*Synopsis of Species.*

Head and prothorax pale red; elytra pale yellowish red, with a sutural and a lateral dark-green band .. .. .	<i>distincta.</i>
Elytra dark green, with a narrow marginal pale-yellow band and a subtransverse fascia above the apex .. .. .	<i>sobrina.</i>
Elytra dark green, with a narrow marginal pale-yellow band .. .. .	<i>nigripennis.</i>
Elytra blue or dark blue; legs pale red; elytra costate, deeply punctured .. .. .	<i>dentata.</i>
Elytra hardly costate, finely shagreened .. .. .	<i>capicola.</i>
Totally dark green; legs pale yellow, infuscate at the knees .. .. .	<i>melanarthra.</i>
Neck and prothorax red, the latter shorter .. .. .	<i>collaris.</i>
Prothorax only red, very short .. .. .	<i>brevis.</i>
Head and elytra green or blue; prothorax red; neck and prothorax purple, the latter very long and narrow .. .. .	<i>ruficollis.</i>

## DRYPTA DISTINCTA, Rossi,

Mant., i., p. 83.

*D. plagiata*, Klug, Jahrb., i., p. 52, 1834.*D. africana*, Bohem., Insect. Caffr., i., p. 28, 1848.

Head, mandibles, palpi, and prothorax yellowish red; antennæ flavescens, with the apical part of the first and third joints black; head and prothorax briefly pubescent, closely punctured, the latter amplified in the middle, constricted behind, and with a median, narrow, longitudinal groove in the centre, and often a depression in the anterior part of the disk; elytra twice as broad as the prothorax at the base, amplified behind from about the middle, very slightly convex, deeply punctato-striate, with the intervals convex and finely punctulated, briefly pubescent, pale yellowish red, with a sutural dark green band somewhat dilated at the base, narrowed at about the median part, and broadening behind in a triangular patch, also a lateral supra-marginal narrow band of the same colour, broadening a little past the middle and reaching as often as not the posterior angle; pectus and abdomen dark green; legs pale yellowish red. Length  $8\frac{1}{2}$ –9 mm.; width  $3\frac{1}{4}$ – $3\frac{1}{2}$  mm.

*Hab.* This species has a very wide range, being recorded from Senegal, Abyssinia, Morocco, Spain, and Sicily. In South Africa it has been captured in the Cape Colony (Constantia), Natal (Frere) Transvaal (Pretoria), and Mozambique (Rikatla).

## DRYPTA SOBRINA.

Head, mandibles, palpi, and prothorax yellowish red; antennæ rufescent, with the apical part of the first and third joints infuscated; head and prothorax briefly pubescent, closely punctured, the latter a little amplified in the middle, constricted behind, and with a median, narrow, longitudinal groove in the centre; elytra twice as broad as the prothorax at the base, amplified behind from about the middle, very slightly convex, deeply punctato-striate, with the intervals convex and finely punctulated, briefly pubescent, dark green, with a narrow, pale red, supra-marginal band, and a diagonal band of the same colour running at a little distance from the apical margin, uniting with the supra-marginal lateral band at the suture but not in the lateral margin; metasternum and abdomen dark green, pubescent; legs pale red; tibiæ and basal joints of tarsi black. Length 10 mm.; width 4 mm.

*Hab.* Cape Colony (Cape Town).

This species forms a link between *distincta* and *nigripennis*; while nearer in colouring to the latter, it still retains trace of the pale yellowish colour of the former, overrun by the spreading on each side of the sutural and lateral green margin.

## DRYPTA NIGRIPENNIS, Chaud.,

Bull. Mosc., 1877, p. 262.

*D. plagiata*, var. *nigripennis*, Chaud., *l.c.*

Head, palpi, and prothorax pale red; antennæ rufescent, with the apical part of the first and third joints infuscated; head and prothorax briefly pubescent, closely punctured, the latter a little amplified in the middle, constricted behind, and with a median narrow groove and a depression in the anterior part of the disk; elytra twice as broad as the prothorax at the base, amplified behind from about the middle, very slightly convex, deeply punctato-striate, with the intervals convex and finely punctulated, briefly pubescent, dark green, with a narrow pale-red margin running on each side from the base to the apex of the suture; metasternum and abdomen dark green, pubescent; legs yellowish red, and occasionally with the tibiæ infuscated. Length 9 mm.; width 4 mm.

*Hab.* Cape Colony (Constantia).

## DRYPTA DENTATA, Rossi,

Mant. i., p. 83, i., fig. E; Jacq. Duval Genera, i., pl. 21, fig. 104.

*D. jucunda*, Bohem., Insect. Caffr., part i., p. 27.

Dark green or yellowish blue; mandibles, palpi, legs, and labrum yellowish red; antennæ rufescent, with the basal joint infuscate at the tip, but occasionally rufescent also; head and prothorax pubescent, deeply punctured, the latter part a little amplified in the anterior part, broadly narrowed near the base, and with a distinct longitudinal median groove; elytra briefly pubescent, twice as broad as the prothorax at the base, a little amplified behind, but not to such a degree as in *distincta* from about the middle, slightly convex, deeply punctato-striate, with the punctures of the striæ broad and deep and the intervals convex; under side dark blue, pubescent. Length 8–8½ mm.; width 3 mm.

Like *D. distincta*, this species has a very large range. It is found in Europe, probably in Senegal, and in South Africa.

One example has been received from Natal, in which the elytra are a little darker and the basal joint of antennæ immaculate, it is *D. jucunda*, Bohem.; the difference is, however, too small to separate it from *D. dentata*.

*Hab.* Cape Colony (Cape Town, Stellenbosch), Natal (Maritzburg).

## DRYPTA CAPICOLA.

Cærulean blue, with the palpi, apex of mandibles, antennæ, and legs red; head and prothorax very briefly pubescent, very deeply

and closely punctured, the latter a little more amplified in the anterior part than in *D. dentata*, more roughly punctured, and with the longitudinal median groove deeper and broader; elytra briefly pubescent, twice as broad as the prothorax at the base, a little amplified behind from about the middle, slightly convex, striated, with the intervals hardly raised and finely shagreened, and the striæ hardly punctured; under side dark blue. Length 8 mm.; width 3 mm.

Allied to *D. dentata*, but the shape of the prothorax is slightly different and the punctuation rougher, the striæ of the elytra are hardly punctured, and the intervals almost plane and finely shagreened.

*Hab.* Cape Colony (Cape Town).

DRYPTA MELANARTHRA, Chaud.,

Bull. Mosc., 1861, ii., p. 548.

*D. dilutipes*, Motsch., Bull. Mosc., 1864, iii., p. 217.

Dark metallic green, briefly pubescent; mandibles and palpi reddish; antennæ rufescent, with the apical part of the first and third joints black; head and prothorax deeply and roughly punctured, the latter very slightly amplified in the anterior part, and with a very distinct, median, longitudinal groove; elytra twice as broad as the prothorax at the base, very slightly amplified past the middle, moderately convex, narrowly punctato-striate with the intervals convex and closely and deeply punctured; under side dark green, pubescent; legs pale yellow, with the apical part of the femora infuscated, and the tarsi slightly darker than the legs. Length 10 mm.; width 3 mm.

*Hab.* Natal (Frere), Zambezia (Salisbury).

DRYPTA RUFICOLLIS, Dej.,

Plate III., fig. 2.

Spec. Col., v., p. 92.

? *D. thoracica*, Bohem., Insect. Caffr., i., p. 30.

Head dark blue, rugose with the neck and mandibles; palpi and antennæ, with the exception of the infuscated apical part of the first and third joints, red; prothorax subcylindrical from the apex to two-thirds of its length, narrowed above the basal part, closely punctured, without trace of a median longitudinal groove, bright red with a purplish tinge; elytra elongated, nearly parallel, moderately convex, punctato-striate with the intervals very little convex and broadly punctured, metallic green, briefly pubescent with the scutellum and the basal part round it reddish; under side red;

abdominal segments dark green; legs yellowish red, with the apical part of the femora broadly infusate. Length 10–11 mm.; width  $2\frac{3}{4}$ –5 mm.

*Hab.* Natal (D'Urban, Frere), Mozambique (Likatla), Zambezia (Salisbury).

#### DRYPTA BREVIS.

Differs from *D. collaris* in the general facies, which is short and proportionally broader; the head is more broadly punctured, dark green, and has no red neck; the prothorax is more amplified in the anterior part, and has a distinct longitudinal groove altogether wanting in *D. collaris*; the elytra are nearly parallel, short, moderately convex, briefly pubescent, punctato-striate, with the intervals a little convex and deeply punctured; under side and legs as in *D. collaris*. Length 7 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Natal (Frere).

#### DRYPTA COLLARIS, Klug,

Jahrb., i., 1834, p. 33.

Head roughly punctured, bright metallic bluish green, with the neck, labrum, mandibles, and palpi red; antennæ, with the exception of the apical part of the first joint, which is infusate, rufescent; prothorax cylindrical from the apex to two-thirds of the length, narrowed above the base, briefly pubescent, deeply punctured with an extremely narrow, hardly defined groove, and red with a deep purple tinge; elytra elongated, very slightly amplified past the middle, moderately convex, punctato-striate, with the intervals very convex and rugose, bright greenish blue and very briefly pubescent; under side red; abdomen dark blue; legs red with the apical part of femora infusate. Length 14 mm.; width 4 mm.

Closely allied to *D. ruficollis*, and mainly distinguished from it through the more cylindrical, narrower, and longer shape of the prothorax, which is also more deeply purplish red; the intervals of the elytra are also more convex.

*Hab.* Natal (no exact locality).

#### GEN. DENDROCELLUS, Schm.-Goeb.

This genus differs from *Drypta* mainly through the claws being pectinated; the facies is more slender, and the basal joint of the antennæ longer.

#### DENDROCELLUS AUSTRALIS.

Head roughly punctured, bright metallic bluish green, with the mandibles, labrum, neck, and palpi red; antennæ rufescent with the

exception of the apical part of the basal joint, nearly the whole of the second and third are infuscated; prothorax slender, cylindrical from the apex to two-thirds of the length, narrowed above the base, briefly pubescent, deeply punctured with an extremely narrow, hardly discernible median groove, red with a purplish tinge; elytra elongated, very slightly amplified from the middle, moderately convex, punctato-striate with the intervals plane and closely punctured, almost shagreened, very briefly pubescent, and bright green; under side red, abdomen dark blue, base of femora red, the remainder and the tibiæ black, with the tarsi infuscate. Length 12–13 mm.; width  $3\frac{1}{4}$ –4 mm.

*D. australis* is probably a slight variety of *D. Bocandei*, Laf., from Senegal and Old Calabar. Its likeness to *Drypta ruficollis* is so great that but for the pectination of the claws of the tarsi it would be difficult to distinguish between them.

*Hab.* Natal (Maritzburg), Mozambique (Lourenço-Marquez).

#### GEN. EUNOSTUS, Castelnau,

Etudes Entom., 1835, p. 142.

Mentum with the lateral lobes amplified at the base, narrowing towards the apex, the tips very sharp and without a median tooth; ligula rounded at the apex, plurisetose; paraglossæ membranaceous, very long and narrow, much longer than the ligula and detached from it; palpi long, with the last joints in the shape of an elongated triangle, that of the labial as long and the maxillary one twice the length of the penultimate one; mandibles short, broad, straight; labrum transverse; head triangular, with a narrow short neck; antennæ half the length of the body, the first joint long; prothorax as broad as long, narrowed behind, the anterior angles rounded, the posterior ones not much pronounced; elytra elongato-quadrate, truncate behind; legs moderately long; tarsi triangular, closely set, pubescent underneath, the basal joint longer than the others, the fourth one short, not incised; claws not pectinate.

This genus includes two species only, one of which is a native of Madagascar.

#### EUNOSTUS GUIENZII, Chaud.,

Bull. Mosc., 1862, p. 307.

Light rusty brown; head rugose, and with two deep impressions in the anterior part; prothorax somewhat angular a little before the median part, rugose on the upper part, grooved in the centre with a deep anterior transverse impression; elytra plane, punctato-striate, with the intervals flat and rugose, posterior femora thickened and dented underneath. Length 10 mm.

*Hab.* Natal (D'Urban), teste Chaud.

GEN. GALERITA, Fabric.,  
Syst. Eleuth., i., 1801, p. 214.

Mentum broad, deeply incised with a short, broad, sub-bifid median tooth; ligula rhomboid, with a long seta on each side of the apex; paraglossæ membranaceous, very slender, nearly as long as the ligula and detached from it; palpi moderately long, the last joint of both maxillary and labial securiform and truncated obliquely; mandibles short; labrum transverse, not incised; antennæ long, moderately slender, the first joint broader and nearly as long as the second and third; head with a distinct neck; prothorax more or less narrowed in front and behind, truncated at the base, with the outer angles acute; elytra oblong, truncated a little obliquely behind, depressed; legs long; tarsi triangular, densely hairy underneath, the fourth one incised; male with the anterior tarsi broader inwardly.

*Hab.* The genus is represented in Africa (Senegambia, Kordofan, Sierra Leone, Old Calabar, Ashanti, Quango Rio, Uzangara, Kili-manjaro and the Zanzibar mainland), India, North and South America, and Haiti.

GALERITA LEPTODERA, Chaud.,  
Plate VII., fig. 4.

Bull. Mosc., 1861, part ii., p. 559.

Black, moderately shining; head deeply bi-impressed in the anterior part, roughly scrobiculated behind; neck smooth; antennæ with the five basal joints black and hirtose, the others somewhat rufescent and pubescent; prothorax narrow, long, with the apical angles rounded, a little amplified at about the median part, narrowed behind, with the outer margins acute, recurved, very roughly shagreened and with very short not thickly set hairs, longer and rufescent in the posterior margin; elytra subparallel, a little broader at the apex than at the base, plane, costate, with the costæ very sharp and the intervals finely shagreened, and with three or sometimes four series of punctures from which spring short greyish-black hairs; under side punctulated and with short greyish hairs; legs pilose; claws reddish. Length 21 mm.; width 7 mm.

*Hab.* Mozambique (Rikatla), Zambezia (Manicaland); also recorded from Guinea and Bagamoyo, that is to say from the West and East Coast of Africa.

There can be little doubt about the identity of *G. leptodeura*, Chaud., with *G. angustipennis*, Gerst.

GEN. ZUPHIUM, Latreille,  
Gen. Crust., i., 1806, p. 198.

Mentum broad, with a short, median bifid tooth; ligula square,

truncated at the tip; paraglossæ slender and longer than the ligula; last joint of palpi long, triangular; the penultimate maxillary joint very long; mandibles short, sharp; labrum transverse, with a series of short bristles; head subtriangular with a very distinct neck; antennæ shorter than the body, the first joint very long, thickened at the top, and with a long inner seta; prothorax flattened, elongated, subcordiform, with the anterior margin straight, and the posterior angles protruding and very acute; elytra elongated, parallel, plane, truncated behind and briefly pubescent; legs moderately long; femora thickened in the centre, tarsi long, filiform; the basal joints of the anterior pair slightly dilated in the male.

*Hab.* The genus is represented in Southern Europe, Africa (Algeria, Egypt, Senegambia), Asia Minor, India, Burmah, Australia, Celebes Island, and North and South America.

#### *Synopsis of Species.*

Head black.

Elytra brownish black, with a very narrow marginal band and an ovate reddish dorsal patch in the anterior part . . . . . *Bohemani.*

Elytra with a narrow lateral red margin broadening at the apical part, and an ovate reddish dorsal patch in the anterior part . . . . . *caffrum.*

Elytra uniformly brick-red . . . . . *brunneum.*

Head pale red.

Elytra light brown, with the suture and a broad transverse posterior band infuscated . . . . . *ustum.*

ZUPHIUM BOHEMANI, Chaud.,

Bull. Mosc., 1862, iv., p. 315.

*Z. bimaculatum*, Bohem., Insect. Caffr., i., p. 31.

Head black, a little shining, punctulated, bi-impressed in the centre; labrum, neck, palpi, legs, and under side testaceous red; prothorax also red, very finely and closely punctured, grooved in the centre; subcordiform, with the posterior angles sharp and protruding; elytra elongated, parallel, plane, very briefly pubescent, striated, black, with a very narrow lateral and posterior reddish margin, and also an elongated reddish patch on each side extending from the third to the fifth interval at equal distance from the base and median part. Length 13 mm.; width 5 mm.

*Hab.* Interior of Caffraria, teste Bohem.

ZUPHIUM CAFFRUM, Bohem.,

Insect. Caffr., i., p. 31.

Head very shining, punctulated, black, with the anterior part, neck, palpi, antennæ, prothorax, legs and under side testaceous red; prothorax very closely and finely punctured, subcordiform, with the

posterior angles very acute and projecting; elytra elongated, plane, very slightly striated, briefly pubescent, black, with a narrow marginal red band, broader behind, and dilated triangularly at the apical part of the suture, also a discoidal patch of the same colour on each side a little below the base, and reaching from the third interval to almost the outer marginal band. Length 9 mm.; width  $3\frac{1}{2}$  mm.

Closely allied to *Z. Bohemani*, but the red marginal band is wider, and broadens in the shape of a triangle near the apex of the suture.

*Hab.* Interior of Caffraria.

ZUPHIUM BRUNNEUM, Bohem.,

Insect. Caffr., i., p. 33.

Totally testaceous red, with the exception of the head, which is black or very dark brown; prothorax very closely but not deeply punctured, subcordiform, hardly grooved in the centre and briefly pubescent; elytra subparallel, slightly striated and finely shagreened. Length  $7\frac{1}{2}$  mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Interior of Caffraria.

ZUPHIUM USTUM, Klug,

Jahrb., 1834, p. 67.

Yellowish red; head and prothorax slightly punctulated, very briefly pubescent; elytra parallel, plane, with well-defined striæ and intervals, slightly shagreened and briefly pubescent, with three long setæ at the humeral angle, two on the posterior part of the lateral margin and two or three in the posterior one, yellowish red, with a sutural narrow band a little dilated at the base, and coalescing at about the median part of the length, with a very broad, transverse fascia extending from one outer margin to the other, but not reaching the apical margin, and obliquely incised on each side of the suture. Length  $7\frac{1}{2}$  mm.; width 3 mm.

*Hab.* Interior of Caffraria.

TRIBE HELLUONIDES.

Ligula thick, broad, horny; paraglossæ\* very short or very long, slender, detached from the ligula; labrum very long, covering the

\* Lacordaire states that in the *Helluonides* there is no paraglossæ. In the genera *Meladroma* and *Tricenogenius* the paraglossæ exist, and their shape is very singular. In *Macrocheilus dorsalis* the paraglossæ are also found, but they are almost transparent and very minute. I have not been able to dissect the unique example of *M. biplagiatus*, which I have seen, as it belongs to the Stockholm Museum. In *Planetes* the paraglossæ are considerably longer than the ligula.

mandibles ; palpi thick ; labial palpi projecting from a basal excavation on each side of the ligula ; mentum with the lateral lobes very long, nearly straight, and a median tooth nearly as long as the lateral lobes ; head with two supra-orbital setæ ; antennæ massive ; the apical joints a little compressed ; prothorax short, more or less cordiform ; elytra hardly convex, truncate behind ; no wings except in *Planetes* ; \* tarsi thick, triangular ; claws not pectinate.

This tribe is represented in South Africa by four genera, three of which have very close affinity ; in fact the differences are more in general facies than in generic characters, and perhaps it would be well if the genus *Macrochilus* were made to include *Meladroma* and *Triæno-genius*. *Planetes*, however, is very different.

### Synopsis of Genera.

Mentum with a long, acute, median tooth.	
Prothorax narrowed behind.	
Posterior angle projecting above the base tarsi, hairy underneath.. . . . .	<i>Macrochilus</i> .
Prothorax cordiform, posterior angle not projecting above the base.	
Tarsi hairy underneath . . . . .	<i>Meladroma</i> .
Tarsi not hairy underneath . . . . .	<i>Triæno-genius</i> .
Mentum without any median tooth.	
Prothorax a little broader near the apex than at the base, with the anterior sides rounded.. . . . .	<i>Planetes</i> .

### GEN. MACROCHILUS, Hope, Coleopt. Man., ii., 1838, p. 166.

Ligula long, broad, horny ; the anterior margin slightly sinuated with two setæ near the centre and the outer angles rounded, not very concave on the anterior part, the basal part hollowed on each side, paraglossæ very small and almost pellucid, last joint of labial palpi thickened and truncated obliquely, that of the maxillary nearly twice as thick as the labial, labrum very long, convex ; prothorax broader in the anterior part, with the sides rounded, not much attenuated towards the basal part, where the outer angle projects above the base ; elytra parallel, plane, striato-punctate, truncate behind ; tarsi triangular, hairy underneath.

The genus is represented in Africa (Senegal, Abyssinia, Guinea), India, Java, and China.

### Synopsis of Species.

Elytra black, with an ovate reddish spot on each side ; legs testaceous red . . . . .	<i>bilpagiatus</i>
Tibiæ and tarsi infusate . . . . .	<i>hybridus</i> .

\* This applies to the South African species only.

Elytra yellowish red, with a broad, sutural black patch.

Patch narrow .. .. . *dorsalis*.  
 Patch very broad .. .. . *proximus*.

MACROCHILUS BIPLAGIATUS, Bohem.,

Insect. Caffr., i., p. 66.

Brick-red; the elytra black, with a round yellow patch in the centre of each; antennæ with the first basal joint redder than the others; head with a deep transverse impression above the epistome, deeply and broadly punctured and dotted with a few short, scattered hairs; prothorax slightly pubescent, truncate at the apex; cordiform, plane on the disk with the margins sharp, deeply impressed on each side of the base, slightly grooved in the centre, and covered with broad punctures; elytra parallel, plane, briefly pubescent; the outer margin with a series of long, distant, fine bristles, deeply striate with the intervals more carinated from the base to the median part than from the median part to the apex where they are convex, and each with two series of punctures, the outer ones broader than the inner ones in the anterior part, but both of equal size and depth in the posterior part; they are black, shining, and have on each side between the base and the median part a round, yellowish-red patch extending from the second to the eighth interval. Length 13 mm.; width 5 mm.

*Hab.* Caffraria.

MACROCHILUS HYBRIDUS.

Piceous black, moderately shining, thickly pubescent; terminal joints of antennæ dark ferruginous, four basal ones piceous; tibiæ and tarsi piceous; femora flavescens; palpi piceous, reddish at apex; head with deep, not closely set punctures; prothorax cordate, a little sinuate at apex, truncate at base, deeply and irregularly punctured, thickly pubescent; elytra a little broader than the prothorax at base, parallel, depressed, striate with the intervals nearly plane but with a double series of punctures, very thickly pubescent, piceous black like the rest of the body and with a median ovate yellow patch extending in width from the second to the seventh stria, but with the apical part a little nearer the base than the basal one to the apex. Length 11 mm.; width 3 mm.

Smaller and much narrower than *M. biplagiatus*; the legs are also of a different colour.

*Hab.* Natal (Eis court).

MACROCHILUS DORSALIS, Klug,

Jahrb., i., p. 77.

Brick-red; elytra yellowish red, and with a black sutural band

covering two intervals on each side from the base to about one-third of the length, expanding there as far as the fifth interval, and produced backwards in an elongated obtuse triangle, the apex of which does not reach quite the posterior margin; antennæ red, briefly pubescent; labrum smooth; head deeply punctulated; prothorax truncate at the apex, with the anterior angles rounded, a little amplified for about two-thirds of the length, the remaining third part straight with the posterior angle projecting above the base, broadly impressed in the centre with a fine median groove, a transverse impression in the anterior part and two slight depressions on the base, with the outer margins sharp, deeply and closely punctured, and very briefly setulose; elytra a little broader than the prothorax, parallel, flat, deeply punctato-striate with the intervals nearly plane, equal, and having each two series of punctures. Length 10 mm.; width 4 mm.

*Hab.* Cape Town, found under a stone in marshy ground.

My example of this species corresponds exactly with the one I have seen in De Chaudoir's collection, under the name *M. dorsalis*, Klug.

It is thus most probable that the habitat "India orientalis," as given in the Munich Catalogue, is erroneous.

#### MACROCHILUS PROXIMUS.

Shape and colour of *M. dorsalis*; the punctures on the head and prothorax are slightly deeper; the intervals of the elytra are more raised, the punctures are deeper, the sutural black patch has become a discoidal one, reaching on each side the fourth stria from the base to about one-fourth of the length, and amplified obliquely from there to near both the lateral and posterior margins, the yellow background being thus reduced to a lateral humeral band, united to a diagonal posterior one by a narrow margin; abdomen slightly infuscate. Length 11 mm.; width 3 mm.

*Hab.* Natal (D'Urban).

#### GEN. MELADROMA, Chaud.,

Bull. Mosc., 1877, i., p. 247.

Ligula broad, long, horny, deeply sinuated in the anterior margin, with two setæ near the centre, and the outer angles either very sharp (*lugubris*) or moderately rounded (*consobrinus*), very concave in the anterior part, and with the basal part deeply hollowed on each side; paraglossæ membranaceous, narrowly triangular, disconnected with the ligula and nearly one-third as long, long lateral lobes, rounded outwardly, straight inwards, and with a slender, acute median tooth nearly as long as the lateral lobes, the last joint of the

palpi thickened and truncate at the tip, labrum long; convex oblong; prothorax cordiform, narrowed at the base; elytra punctato-striate with the intervals raised; legs moderately long, tarsi thick, clothed with bristles underneath, the three\* basal joints of the anterior tarsi of the male with a narrow median series of lamellæ.

This genus is represented in Senegambia and West Africa.

*Synopsis of Species.*

Elytra parallel, intervals equal .. .. .	<i>lugubris.</i>
Elytra ampliata, intervals equal .. .. .	<i>Gerstaekeri.</i>
Elytra ampliata, alternate intervals higher than the others ..	<i>agnatus.</i>

MELADROMA LUGUBRIS, Schaum.,

Pl. 3, fig. 4, Berl. Ent. Zeit., 1863, p. 79.

*Helluo grandis*, Bohem., Insect. Caffr., i., p. 66.

Totally black, shining; labrum smooth; head covered with broad, closely set punctures; prothorax deeply and closely punctured, broader than long, gradually narrowed from the apex to two-thirds of the length, the lateral basal part straight and with an angular projection above the outer angle, which is also sharp, depressed, and having a deep impression on each side of the base, a transverse one in the anterior part, and a fine narrow longitudinal groove; elytra parallel, narrowly punctato-striate, with the intervals carinated from the base to about the middle with the exception of the seventh interval which is sharp from base to apex, more convex from the median part, and each interval with one series of deep briefly setigerous punctures in the anterior and two in the posterior part, outer margin with a double series of broad punctures; under side and legs black, shining, briefly pilose. Length 24–29 mm.; width 7–9 mm.

*Hab.* Transvaal (Potchefstroom), Zambezia (Victoria Falls, Buluwayo), Ovampoland.

MELADROMA GERSTAEKERI, Chaud.,

Bull. Mosc., 1877, i., p. 248.

This species, according to De Chaudoir, *loc. cit.*, agrees in nearly all particulars with *M. lugubris*; but the elytra are shorter, ampliata behind, with the outer sides somewhat rounded, and the striæ are not so deeply punctured.

*Hab.* South Africa, teste Chaud.

\* Chaudoir says that these lamellæ are found on the four joints. Such is no the case in the four males which I have examined.

## MELADROMA AGNATUS.

Black, shining; apical part of the palpi and last joint of antennæ reddish brown; labrum smooth; head coarsely and deeply punctured; prothorax cordiform, truncate at the base with the posterior angle sharp, very roughly punctured, and with a broad median depression reaching from the apex to nearly the base, and without any transverse impression in the anterior part, nor lateral ones near the base; elytra a little amplified from the base to two-thirds of the length, and from there slightly narrowed towards the apex, very little convex, costate with the alternate costæ very sharp, smooth, and with one series of small punctures on each side, the others more convex, and with a double series of broad punctures; under side and legs black, punctulate. Length 18–22 mm.; width 7–10 mm.

*Hab.* Ovampoland (Okovango River).

## GEN. TRIÆNOGENIUS, Chaud.,

Bull. Mosc., 1877, i., p. 249.

Ligula broad, horny, sinuated in the central part, with the angles rounded, not concave anteriorly, and with the basal part deeply hollowed on each side; paraglossæ small, not quite half as long as the ligula, with the tip lanciform and projecting a little, mentum and palpi of *Meladroma*; antennæ massive; labrum elongated, but shorter than in *Meladroma* and *Macrochilus*, and more rounded at the tip; prothorax cordiform; elytra gradually amplified from the base to long past the middle, costate; legs moderately long, tarsi triangular, not bristly underneath, but the median part of the three basal joints of the anterior tarsi of the male with lamellæ.

The partial absence of bristles under the tarsi is really the most important characteristic of this genus.

Two more species of this genus are recorded—one from Benguela (Angola), and the other from Uzagara (Eastern Africa).

*Synopsis of Species.*

Intervals of elytra plane, and with one series of punctures on each side . . . . .	<i>corpulentus.</i>
Intervals alternatively convex and carinate . . . . .	<i>vicinus.</i>
Intervals plane, and with three series of punctures each . . . . .	<i>lugubrinus.</i>

## TRIÆNOGENIUS CORPULENTUS, Chaud.

Plate III., fig. 3.

Bull. Mosc., 1877, i., p. 249.

Black, shining; labrum smooth; apical part of palpi slightly

reddish; head very closely and deeply punctured; prothorax one-third broader than long, amplified in the anterior part for about two-thirds of the length, and with the lateral remaining part straight, slightly impressed transversely in the anterior part, with a broad, central, longitudinal depression including a narrow, median groove, a depression on each side of the base and the outer angle nearly rounded, roughly punctured, the punctures very briefly setigerous; elytra moderately convex, rounded in the anterior angles, gradually amplified to a short distance from the apex, with the outer sides moderately rounded, narrowly punctato-striate with the intervals broad, equal, convex, and having one series of punctures on each side, outer margin rugose and with a double series of broad punctures; under side and legs black, rugose and briefly pilose. Length 24–26 mm.; width 9–12 mm.

*Hab.* Orange Free State (Parys), Transvaal (Klerksdorp, Middelburg, Potchefstroom, Zoutpansberg), Zambezia (Victoria Falls), Ovampoland.

#### TRIÆNOGENIUS VICINUS.

Head shining; labrum smooth; apical part of palpi slightly reddish; head very closely and deeply punctured; prothorax one-third longer than broad, amplified in the anterior part and narrowed behind as in *T. corpulentus*; elytra elongated, not much convex, rounded in the anterior angles, gradually amplified to a short distance from the apex, but with the outer sides not hardly rounded, narrowly striato-punctate with the third, fifth, and seventh intervals narrow, smooth, carinate from the base to past the middle and with one series of punctures on each side, the alternate intervals convex, and with several series each of closely set, deep punctures. Length 19 mm.; width 7 mm.

Closely allied to *T. anthioides*, Chaud., from which it differs mostly on account of the alternate carinated intervals.

*Hab.* Transvaal (Middelburg), Zambezia.

#### TRIÆNOGENIUS LUGUBRINUS, Bohem.

*Polyhirma lugubrina*, Bohem., Vet. Acad. Förh., 1860, p. 9.

Black, shining; apical part of the palpi and four ultimate joints of antennæ reddish; head very closely and deeply punctured, labrum smooth; prothorax cordiform, but the basal part more elongated than in either *T. corpulentus* or *T. vicinus*, the transverse anterior impression, as well as the posterior lateral ones, hardly pronounced; elytra gradually broadening from the base to long past the middle, and also narrowed from there, the anterior angles rounded, a little convex, narrowly punctato-striate, with the intervals convex, equal, and each one with three series of closely set, more or

less confluent, deep punctures; under side black, with a rusty tinge; tarsi dark brown. Length 14 mm.; width 5 mm.

*Hab.* Damaraland (Svakoop); northern part of Great Namaqualand.

GEN. PLANETES, McLeay,  
Annul. Javan., p. 28.

Ligula moderately long, horny, gradually narrowed from the base to the apex, where it is about one-third narrower, sinuate, with a long stiff bristle on each side at the tip and four more on each lateral side; paraglossæ filiform, twice as long as the ligula, curving above it at the tip, but entirely separated from it from the very base, membranaceous, but horny towards the tip, palpi moderately long, thick, with the last joint moderately swollen and abruptly truncate; head ovate, labrum broader than long, with the anterior part slightly sinuose, joints of antennæ compressed; prothorax more quadrate than cordiform; elytra elongated, parallel, wings under the elytra depressed, subtruncate behind, and shorter than the anal segment; legs moderately long, joints of anterior tarsi short, triangular, those of the median and posterior ones more elongated.

In the male the joints of the anterior tarsi are broader, and the three basal ones have underneath, on the inner side only, a row of lamellæ.

*Hab.* The genus is represented in Hongkong, Ceylon, Java, and the Malacca peninsula, and also on the Zanzibar mainland.

*Synopsis of Species.*

Head, prothorax, and elytra pitchy black, the latter with a submedian discoidal reddish patch .. .. . *quadricollis*.  
Head and prothorax brick-red; elytra black, with a narrow testaceous outer margin .. .. . *limbatus*.

PLANETES QUADRICOLLIS, Chaud.,  
Rev. et Mag. Zool., 1878, p. 191.

Head piceous, black, shining, punctulated, with the apical part, labrum, mandibles, palpi, antennæ, and legs brick-red; prothorax very closely punctured, covered with a short, thick pubescence, piceous, with the outer margin reddish; elytra elongate, depressed, subparallel, slightly broader at the base than the prothorax at its widest part, each elytron with six moderately raised costæ with two smaller ones in the intervals, and all the costæ with yellowish-brown short hairs, black with a brown tinge, and with a subquadrate, discoidal reddish patch placed a little above the median part and reaching from the second to the fifth costa; under side black, punc-

tulate; the last abdominal segment red on the upper and under part. Length 11–12 mm.; width  $3\frac{1}{4}$ – $3\frac{1}{2}$  mm.

*Hab.* Mozambique (Rikatla).

This species was originally described from an example captured in the island of Pemba (Zanzibar coast).

#### PLANETES LIMBATUS.

Head, prothorax, antennæ, and legs brick-red; head nearly smooth; prothorax closely and finely punctulate, very briefly pubescent; elytra elongate, depressed, subparallel, slightly broader at the base than the prothorax at its widest part, each elytron with seven costæ and two smaller ones in the intervals, and all the costæ briefly pubescent, black, with a narrow marginal brick-red band reaching from near the scutellum to the apical suture; under side brownish red, with the three apical abdominal segments infuscate and the superior part of the last one brick red. Length 9 mm.; width 3 mm.

*Hab.* Mozambique (Rikatla).

### TRIBE BRACHINIDES.

Ligula long, membranaceous, horny in the centre, fused with the paraglossæ; palpi more or less thick; mandibulæ sharp at the tip, not much bent inwardly; antennæ filiform, setulose, with the joints more or less elongated; head gradually narrowed behind the eyes, and with one supra-orbital seta; prothorax heart-shaped; elytra truncated at the apex and, with the exception of some *Crepidogaster*, more or less costate.

All the South African *Brachinides*, the genus *Harpax* excepted, have on each side of the head a long bristle above the labrum, which is fringed with six hairs, another one above the eye, and a third one on the outer margin of the prothorax at its broadest part. The first joint of the antennæ has also two setæ, the inner one longer than the outer. The male has eight abdominal segments, and the female seven. The penultimate abdominal segment is short and very broadly incised in the middle in the male, and the three basal joints of the anterior tarsi are more dilated than in the female, although in a very slight degree in some cases, and they have underneath two longitudinal rows of transverse lamellæ.

The facies of *Brachinides* is very distinct from that of all other *Carabidæ*, and they form a very homogeneous group. They are generally gregarious and found in damp, marshy places, often under stones, like the *Ozenides* and *Paussidæ*. They emit by the anal

opening, when alarmed, a caustic fluid, the emission of which is accompanied by a very audible report which has caused them to be nicknamed "Bombardiers."

The tribe is divided into five genera, but the affinities of these insects to one another are so great that many of the characters relied upon to incorporate them in these divisions vary in different species included in the same genus. It is, however, generally agreed to accept five genera, *i.e.*, *Aptinus*, *Pheropsophus*, *Brachinus*, *Mastax*, and *Crepidogaster*. De Chaudoir, in his monograph of the tribe (*Annales Soc. Entom. de Belgique*, 1876), has added another genus, the characters of which, so far as the African species he includes in it is concerned, seem to me, beyond the general facies, hardly of sufficient importance. Of these six genera, five are represented in South Africa.

#### *Synopsis of Genera.*

Mentum without any median tooth; last points of maxillary and labial palpi broadly truncate at the tip .. .. .	<i>Pheropsophus</i> .
Last joints of palpi fusiform or subcylindrical, slightly truncate at the tip .. .. .	<i>Brachinus</i> .
A median, not much developed tooth in the mentum .. ..	<i>Styphromerus</i> .
Last joints of the palpi ovate, acuminate at the tip.. .. .	<i>Mastax</i> .
Palpi short, the last joints large—that of the labial broadly securiform, of the maxillary ovate, transversely truncate at tip	<i>Crepidogaster</i> .

#### GEN. PHEROPSOPHUS, Solier,

*Ann. Soc. Ent. France*, 1833, p. 461, and 1834, pl. xvi. figs. 5 & 7.

Mentum without any median tooth; paraglossæ membranaceous, a little longer than the ligula; palpi thick, with the last of both maxillary and labial truncated, the penultimate one of the maxillary shorter than the ultimate one; labrum flat, obtusely rounded at the apex, and with six setæ; antennæ long, briefly setose, the second joint short, the third one as long as the first two, the other equal; head and prothorax red or yellowish red, smooth, the latter part subquadrate, a little narrowed behind and with a faint median longitudinal groove; elytra broader than the prothorax, nearly always one-third broader at the apex than at the base, truncated more or less obliquely behind, costate, and either black or with yellowish spots or bands.

*Hab.* The genus is represented in Europe, Africa (Egypt, Senegal, Guinea, Angola, Abyssinia, Zanzibar), Madagascar, India, Java, Philippine Islands, China, Japan, Australia, and South America.

*Synopsis of Species.*

Elytra black, without any discoidal yellow patch.	
A narrow postical yellow margin .. .. .	<i>fastigiatus, Halteri damara.</i>
A humeral yellow patch on each side, and a narrow yellowish outer margin .. .. .	<i>Dregei.</i>
Elytra with basal and discoidal yellow patches.	
No yellow outer margin; thorax marginated with black .. .. .	<i>Bohemani.</i>
Thorax not marginated with black .. .. .	<i>Planti.</i>
Thorax not marginated with black; patch very small .. .. .	<i>angolensis.</i>
A yellow outer margin; basal and discoidal patches very small, the latter disconnected from the outer margin .. .. .	<i>capensis, laetus.</i>
Discoidal patch broad, and connected with the outer margin .. .. .	<i>transvaalensis.</i>
Elytra with a discoidal yellow patch, but no basal one, costæ much raised and very narrow ..	<i>mashunus.</i>

## PHEROPSOPHUS FASTIGIATUS, Linn.,

Mus. Ludov. Ulr., 1764, p. 97; Oliv., Entom., iii., 35, p. 63,  
pl. 8, fig. 93.

*P. nigripennis*, Fabric., Syst. Eleut., i., p. 218.

Head, prothorax, antennæ, and legs brick-red; elytra black; head slightly punctulated at the base, with a few strigæ on each side of the eyes; prothorax very smooth, broader in front than behind; scutellum reddish at the base, infuscated at the apex; elytra a little broader than the prothorax at the base, gradually amplified from the shoulder to the apex, where they are nearly twice as broad, costate, with the costæ smooth and much raised and the intervals very closely aciculate, black, shining, with the apical margin very slightly marginate with pale yellow, the yellowish band ascending a little the sutural part; under side black, with the pectus more or less reddish. Length\* 16–18 mm.; width 6½–8 mm.

*Hab.* Cape Colony (Cape Town, Ceres, Worcester).

Var. *Halteri*.

*Aptinus Halteri*, Chaud., Bull. Mosc., 1837, iii., p. 214.

Size and colouring of the *P. fastigiatus*, but the red of head and prothorax is a little lighter; the prothorax has sometimes a very narrow black outer margin; the elytra are a little less amplified behind, and the postical yellow margin is better defined. Length 17–18 mm.; width 7 mm.

Very closely allied, if not identical with the preceding species.

*Hab.* Transvaal (Rustenburg), Mozambique, teste Chaud.

\* The measurement of specimens of that tribe is taken from the apical part of the head to the apical part of the suture.

Var. *P. damara*.

Smaller than *P. fastigiatus*; head, prothorax, and legs very pale red; elytra much more narrow, with the outer sides nearly parallel, and also less convex on the upper part; the postical yellow margin is broader and ascends the sutural part. Length 12–14 mm.; width 5–6 mm.

*Hab.* Southern Damaraland.

PHEROPSOPHUS DREGEI, Chaud.,

Monogr. Brach., Ann. Soc. Ent. Belg., 1876, p. 29.

Head, prothorax, and antennæ brick-red; legs brick-red, sometimes flavescent; head with a small infusate frontal patch, often indistinct; prothorax edged with black all round, and with a subtriangular marginal patch at the apex; elytra elongate, more parallel than in the other South African species, black, costate, the costæ shining, the intervals opaque, and having on each side a small humeral yellowish patch connected with the basal margin, the outer margin is narrowly edged with pale yellow from the humeral angle to four-fifths of the length, and the posterior one is also edged with a still narrower band, while the extreme apical part of the costæ is flavescent; under side black; pectus yellow or brick-red. Length 18–20 mm.; width 7–8 mm.

*Hab.* Mozambique (Rikatla, Lourenço-Marquez).

In some examples the humeral yellowish or brick-red patch is sometimes very indistinct.

PHEROPSOPHUS BOHEMANI, Chaud.,

Plate III., fig. 4.

Monogr. Brach., Ann. Soc. Ent. Belg., 1876, p. 26.

*P. insignis*, Bohem., Insect. Caffr., i., p. 71.

Head, prothorax, antennæ, and legs brick-red; prothorax narrowly margined with black on the outer sides, and with a subtriangular patch of the same colour at the apex and base; elytra a little broader than the prothorax at the base, gradually amplified from the shoulders to the apex, where they are nearly twice as broad, black, shining, with the costæ raised, and having on each side a basal yellowish patch varying in size but nearly always covering three costæ, a median discoidal patch also varying in size, bisinuated, and reaching from the second to the sixth costa, but not reaching the outer margin, and a narrow apical margin of the same colour ascending a little along the tip of the costæ; under side black, with the pectus more or less yellowish. Length 16–18 mm.; width  $6\frac{1}{2}$ –8 mm.

*Hab.* Cape Colony (Griqualand East), Natal (Maritzburg), Transvaal (Rustenburg).

The median discoidal patch varies in width, being at times very narrow.

Var. *P. fraudiger*.

Size and colouring of *P. Bohemani*; the head has a conspicuous black patch on the vertex; the prothorax is also edged with black; the elytra have a very small basal yellowish patch near the shoulders, no median discoidal patch, and the yellow apical margin is hardly noticeable. Length 17 mm.; width 7 mm.

*Hab.* D'Urban (Frere).

#### PHEROPSOPHUS PLANTI, Chaud.

Monogr. Brach., Ann. Soc. Ent. Belg., 1876, p. 22.

Colouring of *P. Bohemani*, and in size a little broader; prothorax without any black margin; elytra of the same shape, but the basal yellow patch is much smaller; instead of a discoidal patch, there are two very small yellowish dots on the sixth and eighth costæ, and the apex is narrowly edged with pale yellow. Length 12–13½ mm.

This variety seems to be subject to great variation. In De Chaudoir's collection there is an example of *P. Planti* in which the basal patch and the discoidal dots are entirely absent.

*Hab.* Mozambique (Delagoa Bay, teste Chaud.), Transvaal (Rustenburg).

#### PHEROPSOPHUS ANGOLENSIS, Erichs.,

Wieg., Arch., 1843, i., p. 212.

Head, prothorax, and legs light red; elytra elongated, very little amplified past the middle, black, shining, with the costæ raised, and having each a small yellow supra-humeral patch, a moderately broad slightly sinuated discoidal patch reaching from the third costa to the interval next to the outer margin, and a narrow apical margin of the same colour invading the tip of the costæ; under side pale yellow abdomen black. Length 12–16 mm.; width 5–7 mm.

*Hab.* Damaraland (River Svakop, and southern part of Damaraland) Angola, teste Erichson.

#### PHEROPSOPHUS CAPENSIS, Chaud.,

Monogr. Brach., Ann. Soc. Ent. Belg., 1876, p. 25.

Head, prothorax, and legs light red; elytra elongated, very narrow, the outer sides nearly parallel, black, shining, with the costæ raised, and having on each side a yellow outer margin reaching from the shoulder to the apex of the suture, a supra-humeral patch

and a discoidal lacerated patch of the same colour extending from the third costa to close to the outer margin, but not connected with it; under side pale yellow, abdomen black. Length 15 mm.; width  $5\frac{1}{2}$  mm.

*Hab.* N'Gamiland.

Var. *lætus*, Pér.

*P. lætus*, Pér., Trans. S. Afric. Phil. Soc., 1888, p. 73.

Shape and colouring of *capensis*, but smaller; the discoidal lacerated patch on each elytron is reduced to four dots situated in the fourth, fifth, sixth, and seventh intervals, without invading the intermediate costæ. Length 12 mm.; width 5 mm.

*Hab.* Damaraland.

#### PHEROPSOPHUS TRANSVAALENSIS, n. sp.

Head, prothorax, and legs pale yellow; prothorax very little amplified in the anterior part; elytra elongated, one-third broader at the apex than at the base, black, with the scutellum yellow and having on each side a yellow marginal band reaching from the humeral angle to the suture and ascending each costa to about one-fifth of the length, a small supra-humeral patch, and a broad discoidal one reaching from the third costa to the outer margin, with which it is connected; this discoidal patch is twice as broad on the fourth, fifth, and sixth costæ than on the third, seventh, and eighth, and distinctly punctulated; under side pale yellow; abdomen black, with the centre yellowish. Length 15 mm.; width 6 mm.

*Hab.* Transvaal (Marico).

#### PHEROPSOPHUS MASHUNUS, n. sp.

Head, prothorax, and legs very light red or yellowish; elytra hardly broader than the prothorax at the base, gradually amplified behind, where they are nearly twice as broad at the apex than at the base, broadly striate, with the costæ very narrow and much raised, black, and having on each side, in the median part of the disk, a subquadrate slanting yellow patch extending from the fourth to the eighth costæ; pectus pale yellow; abdomen infuscate. Length 16 mm.; width  $6\frac{1}{2}$  mm.

In shape this species resembles *P. nigriventris*, Chaud.; but the colouring of the elytra is different, and the costæ are much more narrow, and stand more in relief than in the other South African species.

*Hab.* Zambezia (Salisbury).

GEN. BRACHINUS, Weber,  
 Observ. Ent., 1801, p. 22.

Mentum nearly straight in the centre, with the lobes diverging, or sometimes with a small median projection; paraglossæ membranaceous, as long as the ligula; palpi slender, long, fusiform and truncated at the tip, the penultimate of the maxillary ones a little shorter than the last one; antennæ as in *Pheropsophus*; labrum truncate at tip; head aciculate; prothorax always more or less cordiform, distinctly grooved in the centre, with a depression on each side of the basal part and with the outer margins sharp; elytra sub-elongated, always broader at the apex than at the base, subcostate; legs of *Pheropsophus*.

*Synopsis of Species.*

- Elytra short, quadrate, pale yellow, a sutural black band, one lateral spot and a transverse fascia on each elytron .. .. . *nobilis*.
- Elytra very elongated; head and prothorax red; elytra black with a basal supra-humeral reddish spot and a red outer margin .. .. . *algoensis*.
- Head yellowish red; elytra black, pubescent .. .. . *obtusus*.
- Head and prothorax red; elytra black, pubescent .. .. . *longulus*.
- Elytra short, very broad in proportion to the length; elytra black, costate, slightly pubescent .. .. . *fuscipennis*.
- Elytra dark green, costate, third and fourth articulation of the antennæ partly black .. .. . *subcostatus*.
- Elytra black with a reddish margin .. .. . *Promontorii*.
- Elytra black with a reddish margin and a supra-apical reddish spot on each side .. .. . *simulans*.
- Elytra with yellow maculæ and a reddish-yellow outer margin; elytra subquadrate with three maculæ, of which the apical is bifid on each side, the outer margin dilated in the middle .. .. . *distinctus*.
- Three maculæ on each side, the supra-humeral one reaching the base and connected with the outer margin .. .. . *caffer*.
- Elytra elongated, three maculæ on each side, the supra-humeral one not reaching the base .. .. . *armiger*.
- Supra-humeral patch extending to half the length of the elytron .. .. . *diffusus*.
- Supra-humeral patch reaching the base .. .. . *Natalicus*.
- Supra-humeral patch connected with the base and outer margin; two postical, diagonal, coalescing patches on each side .. .. . *Rikatla*.
- Each elytron with a supra-humeral and a discoidal indistinct patches, no apical one .. .. . *inconditus*.
- Each elytron with a supra-humeral patch only .. .. . *axillaris*.
- Each elytron with a supra-humeral and postical patch .. .. . *quadrinotatus*.
- No markings on the elytra, only a reddish margin .. .. . *nigritus*.
- Elytra with yellow maculæ, but without red outer margin .. .. . *fallax*.
- Head and prothorax with a black band; a triangular red patch below the scutellum, two red bands on the anterior part, and a transverse sinuate one above the apex on each elytron .. .. . *vittaticollis*.
- Head and prothorax without black band, a triangular red patch below the scutellum, one humeral and one postical red patch on each side .. .. . *placidus*.

## BRACHINUS NOBILIS, Dej.,

Spec. Col., v., p. 415 ; Klug, Symb. Phys., iii., t. 22, fig. 4.

*Pherops. Alstoni*, Pér., Trans. S. Afric. Phil. Soc., vol. iv., 1888, p. 72.

Very pale yellow on the upper and under side ; prothorax short ; elytra broad, nearly twice as broad as long, with the outer sides nearly straight, costate, with the intervals slightly and briefly pubescent, of the same colour as the head and prothorax, and with a broad, black, sutural band, beginning from the base, round the scutellum, reaching to about one-third of the length, and on each side a lateral round spot, a little before the middle, extending from the fifth to the eighth interval, and a postical, broad, sinuated band, extending from the suture to close to the outer margin, but not reaching it ; this postical band is a very irregular one, often trisinuated, and extends nearer to the apex on the first and second interval, and also on the seventh and eighth, than in the median ones, where, on the contrary, the band is directed towards the base ; upper part of the three last abdominal segments infuscated ; legs, antennæ, and palpi very pale yellow. Length 12–13 mm. ; width 6 mm.

*Hab.* This species has a very wide range. It is recorded from Algeria, Nubia, Abyssinia, Senegal, Ovampoland (Cunene River), and Cape Colony (Van Wyk's Vley, Modder River).

## BRACHINUS ALGOENSIS.

Head, prothorax, legs, palpi, and basal parts of antennæ brick-red ; elytra elongated, subparallel, highly costate, with the intervals slightly and briefly pubescent ; black, shining, with a small, basal, supra-humeral yellowish-red patch, and a moderately broad marginal band of the same colour rounding the apex and ascending a little the apical part of the suture ; pectus yellowish red ; sides of abdomen infuscate. Length 11–14 mm. ; width 5–6 mm.

*Hab.* Mozambique (Lourenço-Marquez, Rikatla).

## BRACHINUS OBTUSUS, Thunb.,

Nov. Insect. Sp., 1784, p. 74.

*B. ruficeps*, Fabric., Syst. Eleuth, i., p. 219.

Head, antennæ, and legs yellowish red ; prothorax nearly always black, but also sometimes somewhat rufescent in the anterior part ; elytra elongated, gradually amplified from the shoulder to the apex, where they are one-third broader than at the base, covered with a very short yellowish pubescence, costate, but the costæ not much raised and the intervals punctulated ; under side black, punctulated ;

central part of the pectus slightly reddish. Length 11–14 mm.; width  $4\frac{1}{2}$ –6 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Worcester, Ceres).

BRACHINUS LONGULUS, Chaud.,

Monogr. Brach., Ann. Soc. Ent. Belg., 1876, p. 72.

Head, antennæ, legs, and prothorax brick-red; elytra elongated, but not as much as in *B. obtusus*, gradually amplified from the shoulder to the apex, covered with a short greyish pubescence, costate, with the costæ moderately raised, black, with the apical margin very slightly yellowish.

Closely allied to the preceding species, from which it differs mainly by the colour of the prothorax. Length 11–12 mm.; width  $4\frac{1}{2}$ –5 mm.

*Hab.* Cape Colony (Caledon, Riversdale).

BRACHINUS FUSCIPENNIS, Dej.,

Spec. Col., i., 1825, p. 318.

Head, prothorax, and legs deep red; the apical part of the third and fourth joints of the antennæ, and the apical part of the tibiæ, black or infuscate; elytra black, moderately shining, very faintly pubescent, with the costæ raised, and the intervals very obsoletely aciculate; under side black; central part of the pectus with a triangular reddish patch. Length 6–10 mm.; width  $4\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town, Worcester, Ceres).

BRACHINUS SUBCOSTATUS, Dej.,

Spec. Col., i., 1825, p. 315.

Head, prothorax, antennæ, and legs red; elytra dark green, moderately shining, costate with the intervals punctulate, the apical margin very finely margined with yellow; pectus and central part of the three basal abdominal segments reddish. Length 8–9 mm.; width 4– $4\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town, Worcester, Stellenbosch, Ceres), Damaraland (Walfish Bay).

BRACHINUS PROMONTORII, Pér.,

Trans. S. Afric. Phil. Soc., vol. iv., 1888, p. 74.

Head, antennæ, prothorax, and legs red or deep red; elytra costate, the costæ carinate and the intervals very slightly pubescent, black, shining, and with a marginal reddish band beginning at the humeral angle, rounding the posterior part and ascending the suture to about one-third of its length; sides of the pectus and abdomen infuscate. Length 9–11 mm.; width 4– $5\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town, Ceres).

## BRACHINUS SIMULANS.

Head, prothorax, antennæ, and legs deep red, sometimes testaceous; elytra costate, the costæ moderately acute, intervals slightly pubescent, black, moderately shining, with a narrow reddish marginal band reaching from the shoulder to the apical part of the suture, which is also slightly reddish from the median part to the apex, and with a supra-apical yellowish dot or small patch reaching on each side from the second to the fourth intervals, or occasionally from the second to the third; under side red; sides of the pectus and abdomen infusate. Length 9 mm.; width 4 mm.

*Hab.* Mozambique (Rikatla).

Smaller and more elongated than *B. Promontorii*, and having besides a postical yellow patch on each side, entirely wanting in the latter.

## BRACHINUS DISTINCTUS.

Head, prothorax, legs, and antennæ pale red; elytra with the humeral angles prominent, amplified behind, but somewhat subquadrate, very briefly pubescent, costate with the intervals punctulated, moderately shining, black, with a pale yellow supra-humeral patch reaching the base, a round one in the centre of the disk and an arcuated apical patch of the same colour very nearly divided in two and extending from the outer angle to the second interval; the outer margin is very narrow in the anterior part, but broadens very much in the median, where it extends as far as the eighth costa, and is narrowed again in the posterior part; pectus, sides of the abdomen and also the last abdominal segment infusate. Length 10 mm.; width 5 mm.

This species, although belonging to the same group as *B. caffer* and *B. armiger*, will be easily distinguished.

*Hab.* Mozambique (Rikatla).

## BRACHINUS CAFFER, Bohem.,

Insect. Caffr., i., 1848, p. 72.

Head, prothorax, legs, and antennæ red; head finely setulose; prothorax short; elytra elongated, one-third broader at the apex than at the base, slightly convex, costate, the costæ acute, shining, the intervals with two series of a short decumbent pubescence, black, with a broad red outer margin reaching from the base to the apex, and having on each side a broad patch of the same colour extending from the fourth interval to the outer margin, merging with it and leaving a visible small humeral spot of the black background, and connected with the humeral part of the base by a narrow line, a discoidal one, round or semi-arcuated below the middle, reaching from the second to the fourth intervals, and a very small elongated

patch on the outer part of the apical margin; under side pale red, with the lateral parts black. Length 11–15 mm.; width 5–6 mm.

*Hab.* Natal (D'Urban?), Mozambique (Rikatla), Matabeleland.

*B. caffer* might at first sight be mistaken for *B. connectus*, Dej., but it is not so broad; the lateral yellowish-red patch on the elytra is much longer, although of equal width, and the posterior discoidal one is also more elongate.

BRACHINUS ARMIGER, Dej.,

Spec. Col., v., 1831, p. 418.

*B. parvulus*, Chaud., Bull. Mosc., 1843, iv., p. 713.

*B. venator*, Klug, Monatsb. Berl. Ac., 1853, p. 245, Peters' Reise, 1862, p. 149, pl. 10, fig. 1.

Head, prothorax, antennæ, and legs reddish, sometimes reddish yellow; elytra elongated, costate with the intervals punctulate, black, covered with a fine, decumbent, brief, yellowish pubescence, each one with a yellowish-red marginal band reaching from the shoulder to the apex, where it ascends a little along the suture and also in the anterior part, a broad lateral band extending from the fourth to the sixth intervals, connected for half its length with the outer margin but not with the base, below the middle a discoidal more or less oblong patch extending from the third to the fourth intervals, and at the apex a more or less rounded spot of the same colour in the outer part of the apical margin; under side pale yellow; lateral part of the abdomen slightly infuscate. Length 6–9 mm.; width 3–4 mm.

*Hab.* Cape Colony (Kimberley, East London), Natal (Maritzburg, D'Urban, Frere), Transvaal (Potchefstroom, Pretoria, Marico).

BRACHINUS DIFFUSUS, Chaud.,

Monogr. Brach., Ann. Soc. Ent. Belg., 1876, p. 58.

Shape and colouring of *B. armiger*, the only difference consisting in the size of the anterior dorsal band which is longer in proportion to the size than in *B. armiger*, and reaches to about one-half of the length instead of one-third; the discoidal patch is also rather larger in proportion. Length 6 mm.; width  $2\frac{3}{4}$  mm.

De Chaudoir's type is an immature insect. My examples were sent to me with a lot of *B. armiger*.

*Hab.* Natal (Maritzburg), Transvaal.

BRACHINUS NATALICUS.

Size and colouring of *B. armiger*; the elytra are less tomentose, the anterior dorsal band reaches the base, and is produced more diagonally towards the suture, and the discoidal patch is arcuated

behind in the form of a blunt crescent; under side pale yellow. Length 8 mm.; lat.  $3\frac{1}{2}$  mm.

I have seen one example from Delagoa Bay (Rikatla) in which the circa-scutellary region of the elytra is reddish.

*Hab.* Natal (D'Urban), Mozambique (Rikatla).

#### BRACHINUS RIKATLÆ.

Head, prothorax, and legs yellowish red; antennæ with the three basal joints yellowish, the others deeply infuscate; elytra briefly pubescent, slightly costate with the costæ rounded, black, narrowly marginated with yellowish red, and having on each side a long patch of the same colour extending outwardly from the base to about one-third of the length of the fourth dorsal costa, produced diagonally to the second dorsal costa in the median part, and enclosing an elongated humeral black patch (part of the background) and two diagonal coalescing patches covering a little above the apex the space between the second and fourth costæ, the second patch extends from the fourth costa to the outer edge of the apex, and the suture is edged with a red line running from the apex to about one-fifth of the length; abdomen infuscated. Length 4– $5\frac{1}{2}$  mm.; width 2– $2\frac{1}{4}$  mm.

This pretty little species has been captured near the Rikatla marsh (Mozambique) by the Rev. H. Junod.

#### BRACHINUS INCONDITUS.

Head, prothorax, and legs dark red; antennæ black, with the three basal joints reddish; elytra elongated, costate, black, very pubescent, each one with a very narrow reddish margin broader round the apex, an anterior lateral band extending from the fourth interval to the outer margin, with which it joins, but does not reach the base, and an ovate, discoidal, subpostical band; under side pale red; abdomen black. Length 11 mm.; width 4 mm.

Allied to *B. quadrinotatus*, but larger; the head, thorax, and legs are darker red, the pubescence on the elytra is denser, and the coloured patches very indistinct.

*Hab.* Cape Colony (? Kimberley).

May prove to be a large example of *B. quadrinotatus*.

#### BRACHINUS AXILLARIS, Chaud.,

Monogr. Brach., Ann. Soc. Ent. Belg., 1876, p. 64.

*B. instabilis*, Pér., Trans. S. Afric. Phil. Soc., 1888, p. 74.

Head, prothorax, and legs reddish; elytra elongated, costate, very pubescent, finely marginated with dusky red, and having on each side a lateral, anterior, reddish patch slightly connected with the outer margin but not reaching the base, and sometimes, although

seldom, a very indistinct spot on the apical outer angle. Length  $6\frac{1}{2}$ –7 mm. ; width 3 mm.

*Hab.* Cape Colony (Oudtshoorn, Stellenbosch).

Var. *B. quadrinotatus*, Pér., Trans. S. Afric. Phil. Soc., 1888, p. 75.

Shape, size, and colouring of type, and elytra with a similar outer margin and anterior patch, but having also a discoidal more or less rounded subpostical patch, and a very indistinct apical spot on the posterior angle. Length 6–7 mm. ; width 3 mm.

This variety is not unlike small examples of *B. armiger*, but the elytra are more pubescent and the dorsal markings narrower and not so well defined.

Var. *nigritus*, Pér., Trans. S. Afric. Phil. Soc., 1888, p. 75.

Shape, size, and colouring of the type ; the elytra have only a reddish outer margin, and the dorsal markings have disappeared entirely. Length 7 mm. ; width 3 mm.

*Hab.* Cape Colony (Stellenbosch, Constantia, Oudtshoorn).

#### BRACHINUS FALLAX.

Head and prothorax red ; antennæ reddish, with the second, third and fourth joints black ; head and prothorax very broadly punctured ; elytra elongated, subparallel, black, covered with a long yellowish pubescence, costate, with the costæ narrow and sharp and the intervals deeply punctured, black, with a lateral elongated patch in the anterior part disconnected with the base and extending on the sixth and seventh intervals, and a postical one situated on the fifth, sixth and seventh intervals—both these patches are not always very distinct ; under side and legs pale yellow ; abdomen infusate. Length 8–9 mm. ; width 4 mm.

*Hab.* Natal (Frere).

#### BRACHINUS VITTATICOLLIS, Pér.,

Trans. S. Afric. Phil. Soc., vol. iii., 1885, p. 75.

Head, prothorax, and legs pale yellow ; head finely punctulate, slightly pubescent with a postical, median, black patch ; prothorax punctulate and with a broad, median, black band ; elytra subparallel, very little convex, finely pubescent and very slightly costate, black, with a triangular, yellowish red basal patch round the scutellum, which is also yellowish red, and on each side a lateral band of the same colour reaching from below the shoulder to about one-third of the length and extending from the fifth costa to the outer margin, a small dot on the third interval parallel with the lateral band, and a sinuated supra-apical patch extending from close

to the suture to near the outer margin and produced there in a narrow band that reaches the postical outer angle only; there are also a series of deep impressions in the interval above the outer margin; under side pale yellow, with the lateral sides of the abdomen occasionally infuscate. Length  $5\frac{1}{2}$ –7 mm.; width  $2\frac{1}{2}$ –3 mm.

*Hab.* Cape Colony (Cape Town), Mozambique (Rikatla.)

#### BRACHINUS PLACIDUS.

Head, prothorax, palpi, and legs pale yellow; antennæ with the two basal joints reddish, the others black; head and prothorax finely punctulate; elytra subparallel, faintly costate, very briefly pubescent, black with the scutellum red, and on each side a very narrow reddish line in the anterior part of the suture, an elongated subquadrate patch reaching almost from the shoulder to about one-fourth of the length, and a transverse patch of the same colour above the apical part—this patch, a slightly sinuated one, reaches nearer to the outer margin than to the suture; the outer margin is also slightly and narrowly diffused with yellow; under side pale yellow; slightly fuscous on the abdominal sides. Length 5 mm.; width 2 mm.

Closely allied to *B. vittaticollis*, from which it differs in not having any median black patch on the head and prothorax; the circa-scutellary patch on the elytra is reduced to a narrow line along the basal part of the suture, the small dorsal dot parallel to the lateral anterior band is missing, and the postical patch is not so sinuated, nor does it reach so near to the suture, and the interval next to the outer margin has no punctures.

*Hab.* Damaraland.

#### GEN. STYPHROMERUS, Chaud.,

Ann. Soc. Ent. Belg., vol. xix., 1876, p. 88.

Mentum with a median moderately prominent tooth; last joint of the maxillary fusiform, that of the labial truncate; antennæ with the joints more closely set together than in *Brachinus*; the other characters as in that genus.

The importance of the characters which have led De Chaudoir to create this genus is very slight; had he been able to examine *Brachinus vittaticollis*, *placidus*, and *fallax*, he would have found most, if not all, the characteristics of *S. equestris*, a species which occurs also in South Africa.

#### STYPHROMERUS EQUESTRIS, Dej.,

Spec. Col., v., p. 421.

*S. rusticorum*, Pér., Trans. S. Afric. Phil. Soc., vol. iv., 1888, p. 75.

Yellowish red, pubescent; antennæ with the four basal joints

pale yellow, the others infusate; head and prothorax closely punctured, the latter shagreened, and with a small round spot on the disk on each side of the median groove; elytra moderately costate, elongated, each one with a broad, slightly diagonal, yellow humeral band reaching from the base to about the median part, and a more or less rounded postical patch of the same colour above the apical part, both band and patch connected by a broad marginal lateral band which reaches from the base to the apex, the apical margin is also narrowly edged with yellow; owing to the suffusion of the yellow markings, the black background assumes almost the shape of a Maltese cross; under side pale yellow, with the abdomen slightly infuscated. Length 9 mm.; width 4 mm.

*Hab.* Transvaal (Marico Distr.); occurs also in Senegal and Kordofan.

GEN. MASTAX, Fischer,  
Ent. Russ., iii., 1825, p. 111.

Mentum moderately emarginate and provided with a median tooth, broad at the base and acute at the tip; ligula narrow; paraglossæ longer than the ligula; palpi inflated and much acuminate at the tip; mandibles long, acute, with a sharp median tooth in the inner side; antennæ pubescent, the third joint not much longer than the fourth; head rugose; prothorax cordiform, much narrowed behind, and with a median very broad and deep longitudinal groove running from base to apex; elytra subovate, costate, the costæ raised and sharp; legs as in *Brachinus*.

*Hab.* The genus is represented in Europe (Caucasus), India, Burmah, China, and Africa (Abyssinia).

*Synopsis of Species.*

Head and prothorax red; legs pale yellow, with the knees infusate.

Elytra with two quadrate white patches on each side .. .. *ornatellus*.

Elytra with a crescent-shape anterior band, and a quadrate patch on each side .. .. *extremus*.

Head, prothorax, and legs entirely black .. .. *albonotatus*.

MASTAX ORNATELLUS, Bohem.,

Plate VII., fig. 6.

Insect. Caffr., i., 1848, p. 74.

Head red, with the labrum infusate; antennæ with the two first joints pale yellow, the others infusate; prothorax red, rugulose; elytra much broader than the prothorax at the base, slightly amplified in the middle, subconvex, striate, with the costæ raised, black, with a small more or less well-defined whitish basal band on the

second costa, two transverse patches extending from the second to the eighth costa—the first one is between the basal and median part, the posterior one between the median and apical part; the outer margin and also the suture are faintly reddish; under side pale yellow; tip and base of abdomen infuscate; legs pale yellow, with the knees infuscate.

*Hab.* Natal (D'Urban, Frere), Zambezia (Salisbury).

#### MASTAX EXTREMUS.

Head, prothorax, and the three basal joints of antennæ bright red; prothorax rugose, hardly grooved in the centre; elytra slightly costate on each side of the suture only, black, opaque, and having on each side a semicircular white band reaching from the scutellum to the outer margin, and a post-median patch of the same colour reaching from the median part of the disk to very near the outer margin; legs infuscate, with the median part of the tibiæ flavescens.

Size and colouring of *M. ornatellus*, but the prothorax is more shagreened, and hardly grooved behind, while it is distinctly and broadly so in *M. ornatellus*; the elytra are hardly costate, and this along the suture only, and the anterior white patch reaches from the scutellum to the outer margin, forming almost a half-moon. Length 4 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Cape Colony (Grahamstown, Uitenhage).

#### MASTAX ALBONOTATUS, Pér.,

Trans. S. Afric. Phil. Soc., vol. iv., 1885, p. 76.

Totally black, moderately shining; head and prothorax shagreened; elytra much broader at the base than the prothorax, slightly amplified in the centre, with two raised costæ on each side along the suture, which is also costate, the outer part of the disk covered with a velvety black tomentum, leaving the basal part of the third, fourth, and fifth costæ uncovered, and two transverse, rounded, white spots at the basal edge of the velvety patch, and a transverse band between the median and apical parts, extending from near the margin to about the centre of the disk; in some examples there is a short reddish line on the basal part of the first and second costæ on each side, and the transverse postical white band is sometimes interrupted in the centre; under side infuscate. Length 4– $4\frac{1}{2}$  mm.; width 2 mm.

Differs from the preceding species mostly in colouring; the velvety dorsal patch on the elytra is wanting in *M. ornatellus*, but I have seen a faint trace of it in an example from D'Urban, Natal.

*Hab.* Cape Colony (Cape Town).

GEN. CREPIDOGASTER, Bohem.,  
Insect. Caffr., i., 1843, p. 68.

Mentum without any median tooth and with the lateral lobes much developed; ligula short, broad, truncate at the tip; paraglossæ a little longer than the ligula; palpi short and very thick, the ultimate one of the maxillary obliquely truncate, that of the labial much inflated and broadly securiform; antennæ thick, the joints closely set, the third one as long as the basal one; head ovate; prothorax cordiform, shagreened; elytra short, with or without costæ; and obliquely truncate from the suture to the outer posterior angle; legs massive.

*Hab.* This genus is represented in the Zanzibar mainland by one species.

*Synopsis of Species.*

Elytra with an apical yellowish red patch on each side.	
A broad apical patch on each side.. .. .	<i>insignis.</i>
A basal band, and an apical patch on each side.. .. .	<i>bimaculatus.</i>
A narrow scutellary yellow band, and an apical patch on each side .. .. .	<i>scutellaris.</i>
A dorsal black patch on the posterior part .. .. .	<i>infuscatus.</i>
A discoidal fuscous patch, and a round apical yellowish patch on each side .. .. .	<i>fusco-plagosus.</i>
A basal narrow triangular patch, with part of the suture yellowish, and a round apical spot on each side .. .. .	<i>consobrinus.</i>
A faint round apical yellowish spot on each side .. .. .	<i>nonstriatus.</i>
Elytra without any yellowish red patches.	
Elytra very short, subovate, black, non-striate .. .. .	<i>ovicollis.</i>
Brown, with a black basal band .. .. .	<i>pusillus.</i>
Brown, without any black band .. .. .	<i>damarensis.</i>
Elytra elongated, subcostate or costate .. .. .	<i>Natalensis.</i>
Elytra ovate, shagreened, distinctly costate; head, prothorax, and elytra black .. .. .	<i>natalicus.</i>
Elytra black, slightly striated .. .. .	<i>caffer.</i>
Elytra black; costæ equal .. .. .	<i>picipennis.</i>
Elytra pale brown; costæ equal .. .. .	<i>montanus.</i>
Elytra pale yellow; three costate on each side .. .. .	<i>pallidus.</i>
Elytra pale brown; five costæ on each side, the alternate ones higher than the others .. .. .	<i>costatus.</i>
Elytra dark brown, with the suture and outer margins reddish; six costæ on each side, the outer one very much raised ..	<i>rufescens.</i>
Elytra yellowish red, with a broad postical black patch extending from one side to the other; six costæ on each side, with the outer one more raised than the others .. .. .	<i>posticalis.</i>

CREPIDOGASTER INSIGNIS, Pér.,

Plate VII., fig. 5.

Head, prothorax, palpi, antennæ, and legs brick-red; elytra elongated, amplified behind, finely shagreened, costate, the costæ narrow and sharp, very briefly pubescent, black or deeply infuscate,

with a broad, more or less ovate, reddish spot extending above the apex from the fourth to the seventh striæ, but disconnected with the outer and also the apical margin; abdomen black, with the central part slightly reddish underneath. Length 6–9 mm.; width 3–4 mm.

In one example from the Transvaal the colour of the head is light brownish red instead of brick-red, and the elytra are fuscous instead of being black.

*Hab.* Orange Free State (Parys), Transvaal (Potchefstroom, Zoutpansberg).

CREPIDOGASTER BIMACULATUS, Bohem.,

Insect. Caffr., i., 1848, p. 69, pl. i., fig. D.

Head, prothorax, palpi, antennæ, and legs pale brick-red; elytra fuscous black, finely shagreened, broadly but not deeply striated, with a basal yellowish red triangular band, and on each side a large, ovate, subapical macula of the same colour, nearer to the outer margin than to the suture; epipleuræ yellowish; abdomen black above, infuscate underneath, with the central part yellowish red. Length 7 mm.; width 4 mm.

*Hab.* Natal (? D'Urban).

Closely allied to the preceding species, but has a basal triangular yellowish patch on the elytra.

CREPIDOGASTER SCUTELLARIS.

Size, shape, and sculpture of *C. insignis*; colour of head, prothorax, abdomen, and legs light yellow instead of dark brick-red; the ovate apical yellow patch on the elytra is the same as in *C. insignis* and *C. bimaculatus*, but the black colour of the elytra is darker, and there is round the scutellum a narrow yellow band hardly reaching the sutural part; in *C. bimaculatus* the whole of the base is yellowish red. Length 6 mm.; width 3 mm.

*Hab.* Transvaal (Pretoria).

CREPIDOGASTER INFUSCATUS, Dej.,

Spec. Col., vol. i., p. 296.

Head, prothorax, antennæ, and legs yellowish red; elytra finely shagreened and very slightly striated, with the intervals plane, of the same colour as the head and prothorax, but with a fuscous discoidal patch covering the whole of the postical part of the disk without reaching the apex, and leaving an oval yellowish apical lateral patch. Length 4–5 mm.; width 3–4 mm.

*Hab.* Cape Colony (?), Transvaal (Pretoria).

CREPIDOGASTER FUSCO-PLAGOSUS, Pér.,  
Trans. S. Afric. Phil. Soc., vol. iii., 1885, p. 76.

Head, prothorax, antennæ, and legs light yellow; elytra elongated, striate, with the striæ punctured and the intervals plane, of the same colour than the head and prothorax, and with a broad dorsal brownish patch produced behind in a broad line alongside the suture to the apex, and also narrowly along the outer margin; owing to the configuration of that dorsal band, each elytron has an oval pale-yellow apical patch; lateral sides of the abdomen underneath infuscate. Length 5-5½ mm.; width 2 mm.

*Hab.* Cape Colony (Cape Town).

Differs mostly from the preceding species in having the elytra distinctly striate and the striæ punctured.

CREPIDOGASTER CONSOBRINUS.

Head, prothorax, antennæ, and legs pale yellow; elytra short, faintly striate near the suture, briefly pubescent, very dark brown, with a triangular pale yellowish red triangular patch round the scutellum and following each side of the suture to about two-thirds of the length, and an oval patch of the same colour reaching from the outer posterior angle to about half the width of each elytron; abdomen infuscated laterally underneath. Length 4½ mm.; width 2¼ mm.

*Hab.* Cape Colony (Grahamstown).

Resembles *C. infuscatus*, but the elytra are more distinctly striate and the infuscation rounds the humeral angle.

CREPIDOGASTER NONSTRIATUS, Chaud.,  
Monogr. Brach., Ann. Soc. Ent. Belg., 1876, p. 95.

Head, prothorax, antennæ, and legs reddish brown, the two former parts somewhat darker than the rest; elytra short, very faintly striated and very briefly pubescent, black, with an apical pale yellow oval patch reaching from the outer posterior angle to about half the width of each elytron; abdomen infuscated laterally underneath. Length 4 mm.; width 2 mm.

*Hab.* Cape Colony (Oudtshoorn).

CREPIDOGASTER OVICOLLIS, Chaud.,  
Monogr. Brach., Ann. Soc. Ent. Belg., 1876, p. 86.

Head, prothorax, antennæ, and legs pale red; prothorax with the median longitudinal groove hardly discernible; elytra short, finely shagreened, and very briefly pubescent, black, without any trace of striation; abdomen infuscated laterally underneath.

Shape of the preceding species, to which it approximates nearly,

but the elytra are not striated and have no apical yellowish patch. Length 4 mm.; width 2 mm.

*Hab.* Natal (Frere), Zululand, teste Chaud.

#### CREPIDOGASTER DAMARENSIS.

Head, prothorax, antennæ, and legs light brown; elytra moderately elongated, of a deeper brown than the prothorax and head, very finely shagreened, without any trace of striation and briefly pubescent; abdomen somewhat infusate. Length  $5\frac{1}{2}$  mm.; width  $2\frac{1}{2}$  mm.

An intermediate form between *C. ovicollis* and *C. pusillus*; the elytra are less ovate than on the first-named species, and brown instead of black; it is also differentiated from *C. pusillus*, the colouring of which is nearly similar, in having a well-defined median longitudinal groove on the prothorax; the elytra are also longer, reaching to the penultimate abdominal segment, whereas in *C. pusillus* the three last abdominal segments are uncovered.

*Hab.* Damaraland.

#### CREPIDOGASTER PUSILLUS, Pér.,

Trans. S. Afric. Phil. Soc., vol. iv., part ii., 1888, p. 76.

Head, prothorax, antennæ, and legs reddish brown; prothorax with no apparent median groove; elytra very short, a little amplified, hardly emarginated behind, finely shagreened, without any visible striation or costæ, very briefly pubescent, reddish brown, although of a lighter hue than the head and prothorax, and with a narrow basal infusate band; abdomen black; apical part of the femora slightly infusate. Length 3 mm.; width 2 mm.

*Hab.* Cape Colony (Namaqualand).

#### CREPIDOGASTER NATALICUS.

Head, with the exception of the labrum, prothorax, and elytra black; antennæ, palpi, apex of the head, and legs pale yellow; elytra ovate, very distinctly shagreened, striated, with the intervals broad and convex; abdomen infusate. Length 9 mm.; width 4 mm.

The sculpture and shape of the head and prothorax are like *C. insignis*; the elytra are more ovate, and the intervals between the striæ are more convex and better defined. It is the only South African species of the genus having a black head and prothorax.

*Hab.* Natal (Frere).

#### CREPIDOGASTER CAFFER.

Head, prothorax, antennæ, and legs varying between pale and brick-red; elytra elongated, shagreened, briefly pubescent, black,

distinctly striate, with the intervals between the striæ slightly convex; abdomen black underneath or infusate. Length 6–7 mm.; width 3 mm.

*Hab.* Cape Colony (Port Elizabeth, Grahamstown, Somerset East).

CREPIDOGASTER MONTANUS.

Head, prothorax, antennæ, legs, and elytra pale brown; elytra elongated, with the apical margin nearly straight and subacute at the sutural part, hardly pubescent, and deeply striato-punctate, with the intervals slightly rounded; abdomen light brown. Length  $6\frac{1}{2}$  mm.; width 3 mm.

*Hab.* Cape Colony (Cape Town).

CREPIDOGASTER PICIPENNIS, Chaud.,

Monogr. Brach., Ann. Soc. Ent. Belg., 1876, p. 94.

Head, prothorax, antennæ, and legs pale red; elytra elongated, shagreened, briefly pubescent, black, costate, with the costæ of the same height. Length  $7\frac{1}{2}$  mm.

*Hab.* Cape Colony.

CREPIDOGASTER PALLIDUS.

Totally pale yellow; elytra elongated, very slightly emarginated diagonally behind, shagreened, briefly pubescent, and three costate on each side, with the intervals very slightly rounded. Length 6 mm.; width 3 mm.

This species may prove to be only an immature insect. I have, however, seen several examples.

*Hab.* Cape Colony (Cape Town).

CREPIDOGASTER COSTATUS, Dej.

*Aptinus costatus*, Dej., Spec. Col., v., p. 411.

Head, prothorax, antennæ, and legs reddish brown; elytra elongated, of a darker brown than the prothorax, finely shagreened, hardly pubescent, each elytron with five much raised costæ, the first, third, and fifth more raised than the other two, and the fifth the highest of all; abdomen deeply infusate. Length 5–6 mm.; width 2 mm.

*Hab.* Cape Colony (Cape Town).

CREPIDOGASTER RUFESCENS, Motsch.,

Plate III., fig. 5.

Etud. Entom., 1862, p. 54; Bull. Mosc., 1864, part iii., p. 214, pl. i., fig. 12.

Head, prothorax, antennæ, and legs dark red; head and prothorax

very roughly shagreened, the latter narrowly edged with black; elytra moderately elongated, brownish black, edged with reddish brown all round, the suture also reddish; each one with six sharp costæ, the outer one much higher than the others and running from base to apex, the intervals very finely granulated; abdomen infuscate. Length 9 mm.; width 4 mm.

*Hab.* Namaqualand (O'okiep).

#### CREPIDOGASTER POSTICALIS.

Pale yellow, with a broad postical black patch extending from one side to the other from about the median part and reaching the apical margin; head and prothorax roughly shagreened; elytra dilated behind, each one with six sharp raised costæ, the outer one slightly higher than the others and reaching to a little short of the apex, intervals finely shagreened and very briefly pubescent. Length 6 mm.; width 3 mm.

Allied in shape to the preceding species, but differentiated by the black patch on the elytra; the costæ also are not so much raised.

*Hab.* Damaraland (Kookarra).

#### TRIBE LEBIIDES.

Head oval, narrowed into a neck or not, having two supra-orbital setæ; eyes prominent; antennæ with the three basal joints glabrous\*; paraglossæ united with the ligula, either as long or slightly longer, but rounded laterally, always more or less densely pilose; labrum transverse, short (*Dromius*), moderately long (*Callida*, *Cymindoidea*, *Lebia*), or greatly developed (*Thyreopterus*, &c.); palpi variable, but with the ultimate joints not swollen; prothorax more or less slender, cordate, or elongato-cordate, with the base truncate and the posterior angles sharp, type *Calleida*, *Cylindrocranius*, *Demetrius*, nearly parallel, or not sinuate laterally above the basal part, type *Hystrihopus*, *Dromius*, &c., or short and with the median part of the base produced beyond the outer angles, type *Lebia*, *Phlæozetus*, and with two lateral setæ, one in the anterior part and the other at the basal angle, while in *Pentagonica* the first one is exactly in the middle of the lateral part; elytra depressed, seldom convex (*Cylindrocranius*, *Lebistina*), truncate or very deeply sinuate behind; legs slender, moderately long, intermediate ones notched in the male (*Lebiidæ*, some *Pericalidæ*), fourth joint of tarsi narrow or broad, incised, lobate, cordiform, or truncate; claws simple, serrulate, or pectinate.

I have tried in vain to find characters that would lead to a division

\* *Catascopus* excepted.

of the tribe into five groups, *i.e.*, *Callidæ*, *Cymindidæ*, *Dromiidæ*, *Lebiidæ*, and *Pericalidæ*.

De Chaudoir, when creating the group *Callidides*—Monogr. des Callidides, in the 'Annales de la Société Entomologique de Belgique,' vol. xv., 1872—thought that he had found a very distinctive character in the shape of the ligula, which is edged by a transverse membrane uniting the paraglossæ. That character, however, is not constant, and, although very distinct in the South African species, is entirely absent in *Callida punctata*, Lecom., a North American species.\* Dr. Horn says also that in *Dromius* this membrane is absent, and I can corroborate his statement so far as the South African species are concerned.

De Chaudoir says, *loc. cit.*, speaking of the *Dromiidæ* in relation to the *Callididæ*, that the fourth joint of the tarsi is never bilobate, nor the last joint of labial palpi securiform; but he has, unfortunately, not given any definition of the group *Cymindidæ*, which is intermediate between the *Callididæ* and the *Dromiidæ*, and this to such an extent that it is almost impossible to assign to some of the genera a place in either the one group or the other.

The shape of the prothorax may, however, lead to a grouping of the South African genera of *Lebiides* in the following manner:—

Prothorax narrow, cordiform, deeply sinuate laterally behind, base truncate, angles acute; elytra with two punctures on the third interval . . . . .	<i>Callididæ</i> .
Prothorax seldom subcordiform, oftener elongate, not sinuated laterally behind, base truncate; posterior angles not projecting—exception <i>Cymindoidea</i> , <i>Lyonichus</i> , <i>Apristus</i> . . . . .	{ <i>Cymindidæ</i> . <i>Dromiidæ</i> .
Prothorax broad, short, sinuate laterally behind; median part of the base mostly produced beyond the posterior angles, which are sharp and projecting . . . . .	<i>Lebiidæ</i> .

GROUP CALLIDIDÆ.

*Synopsis of Genera.*

Mentum with a median tooth.	
Fourth joint of tarsi bilobate, twelve teeth on each claw; elytra narrow . . . . .	<i>Callida</i> .
Fourth joint of tarsi deeply notched; elytra narrow . . . . .	<i>Lipostratia</i> .
Fourth joint of tarsi notched; elytra moderately broad . . . . .	<i>Selousia</i> .
Fourth joint of tarsi bilobate; six teeth in each claw . . . . .	<i>Wahlbergia</i> .
Fourth joint emarginate; three teeth in each claw . . . . .	<i>Polyaulacus</i> .
Mentum without a median tooth . . . . .	<i>Metallica</i> .

\* Dr. Horn gives a very correct illustration of the ligula and paraglossæ of this species in his 'Genera of Carabidæ,' &c., pl. viii., fig. 94.

GEN. CALLIDA, Dej.,  
Spec. Col., vol. i., p. 220.

Ligula horny, truncate at the apex, fused with the paraglossæ, which are longer; palpi moderately long; the penultimate joint of the maxillary short, conical, the last one fusiform but truncate at the tip, the last joint of the labial securiform; labrum quadrate, plane, and with six setæ at the tip; mentum deeply emarginate, with a trigone median tooth; antennæ slender, filiform; the first four basal joints hairless (with the exception of a long seta on the tip of the first joint), the others pubescent; head narrowed behind, with a seta on each side of the epistome, another in front of the eye and one behind; prothorax more or less elongated, more or less heart-shaped, deeply grooved in the centre, with the outer sides depressed and the margins acute, truncate at apex and base, and with two setæ on each side, the first one at about the widest part of the disk, and the second one at the basal angle; elytra broader than the prothorax at the base, slightly sinuate below the humeral angle, but nearly always parallel, hardly convex, striate, with the striæ punctured and the intervals plane; legs moderately long; the tibiæ setulose; tarsi bristly underneath, sometimes spongy, those of the male with two rows of lamellæ, and the three basal joints a little more dilated in the male, short, nearly equal, the fourth lobated, with the lobes very long; claws pectinate, the teeth twelve in number, long and sharp; under side smooth, shining, each abdominal segment with two setæ in the median part, and segment of the male with two setæ, that of the female with four.

Representatives of this genus are found in Africa, North and South America, Java, the South Sea Islands, and Australia.

*Synopsis of Species.*

Abdomen violaceous.	
Thorax with a narrow black margin .. .. .	<i>marginicollis.</i>
Thorax without a black margin; anal segment red .. .. .	<i>ruficollis.</i>
Anal segment black; knees infuscated .. .. .	<i>angusticollis.</i>
Anal segment black; knees and tibiæ black .. .. .	<i>grata.</i>
Abdomen and pectus red.	
Elytra totally green .. .. .	<i>affinis.</i>
Elytra green only in the anterior part, and red behind .. .. .	<i>distincta.</i>
Elytra green, with a broad post-median reddish band .. .. .	<i>fasciata.</i>
Elytra green, marginate with a narrow reddish band .. .. .	<i>rufiventris.</i>
Elytra green, marginate with red, and with a sutural red line expanding at the base .. .. .	<i>capensis.</i>
Elytra green, marginate with red, and with a sutural red band narrow throughout .. .. .	<i>silvicola.</i>
Abdomen infuscate.	
Elytra green, with a narrow red margin .. .. .	<i>rufocincta.</i>

## CALLIDA MARGINICOLLIS, Chaud.,

Bull. Mosc., 1844, p. 365.

*C. cordicollis*, Bohem., Insect. Caffr., i., p. 36.

Narrow, elongated, shining; the three basal joints of the antennæ red; head red, deeply punctured; prothorax nearly as broad as long, punctured, red, with the outer margins edged with dark green or violaceous blue; elytra bright green or blue, very finely striate, the intervals closely and deeply punctured; under side and legs red; pectus and abdomen violaceous. Length 9 mm.; width 3 mm.

*Hab.* Cape Colony (Knysna), Transvaal (Potchefstroom).

## CALLIDA RUFICOLLIS, Fabric.,

Syst. Eleuth., vol. i., p. 185.

*C. erythropyga*, Chaud., Monogr. d. Callid., Ann. Belg., vol. xv., p. 105.

Very narrow, elongated; antennæ rufescent, with the tip of the joints infuscated and the two basal ones red; head black, deeply punctured, the extreme end of the neck reddish; prothorax elongated, slightly ampliate in the middle, closely punctured; elytra subconvex, green, shining, the striæ closely and deeply punctured, the intervals irregularly and deeply punctured; under side red; abdomen dark blue, with the anal segment red; legs yellowish red, with the tarsi and half the tibiæ and femora deeply infuscate. Length 10 mm.; width 3 mm.

I cannot differentiate *C. erythropyga*, Chaud., from this species.

*Hab.* Natal (D'Urban?), West Coast of Africa (Sierra Leone).

## CALLIDA ANGUSTICOLLIS, Bohem.,

Insect. Caffr., vol. i., p. 38.

Very narrow, elongated; antennæ rufescent, with the apical parts of the joints infuscate, the three first joints totally red; head black, only the basal part of the neck reddish; prothorax very narrow, and but slightly ampliate in the median part; elytra metallic green, finely striate, the striæ closely punctured, intervals very faintly punctulate; under side red; abdomen blue; legs yellowish red, with the tarsi, the apical part of the femora and the apex of the tibiæ black, anal segment black. Length 10 mm.; width 3 mm.

*Hab.* Cape Colony, Natal (teste Chaud.), neighbourhood of Lake N'Gami, Damaraland. Occurs also in the island of Zanzibar.

Allied to the preceding species, but the prothorax is longer, less ampliate in the middle, the punctures of the striæ are not so deep, nor are the intervals so deeply punctured.

## CALLIDA GRATA.

Elongated; antennæ black, the two basal joints red; head black, with the extreme apical part red, shining, with a lateral plication, and the median part hardly punctured; prothorax elongated, nearly as broad in the anterior part as in the middle, much narrowed behind and very slightly punctured; elytra parallel, subconvex, finely striate, with the intervals broad and finely but not deeply punctured, dark green from the base to the middle, and turning to cerulean from the middle to the apex; under side red; abdomen dark blue, and segment also dark blue; legs and tarsi black, with the basal part of the femora red. Length 10 mm.; width  $3\frac{1}{4}$  mm.

Not unlike *C. ruficollis*; the prothorax is broader, less attenuated in the anterior part, the striation of the elytra is less deep, and the intervals broader and less deeply punctured; the colour of the legs and also of the anal segment is different.

*Hab.* Mozambique (Rikatla), Zambezia (Salisbury).

## CALLIDA AFFINIS, Chaud.,

Bull. Mosc., 1837, iii., p. 4; 1844, iii., p. 463,

*C. amabilis*, Bohem., Insect. Caffr., vol. i., p. 39.

Elongated; antennæ black, with the three first joints and the basal part of the fourth brick-red; head and prothorax brick-red, deeply punctured; the prothorax short, not much longer than broad; elytra bright green in the anterior part, darker green behind, narrowly striate, with the striæ closely punctured, and the intervals nearly smooth; under side totally brick-red; legs reddish, with the knees infuscate. Length 11 mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Cape Colony (teste Chaud.), Natal (Malvern), Zambezia (Salisbury).

## CALLIDA DISTINCTA, n. sp.

Elongated; the three basal joints of the antennæ red, the others reddish and infuscate at the tip; head and prothorax rusty red; the prothorax short, one-third longer than broad; elytra ferruginous, with a basal broad green band extending diagonally to the outer sides, punctato-striate, with the intervals punctulate; under side and legs reddish, the knees infuscate. Length 10 mm.; width 3 mm.

*Hab.* Cape Colony (King William's Town), Transvaal (Pretoria).

## CALLIDA FASCIATA, Dej.,

Spec. Col., vol. v., p. 337; Icon. Col., vol. i., pl. ii., fig. 7.

Very narrow, elongated; the three basal joints of the antennæ

red, the others reddish and slightly infuscate at the tip; head punctulate, black, with the basal part of the neck reddish; prothorax long, very narrow; elytra deeply sulcate, the intervals narrow and moderately punctured, bright metallic green, with a broad transverse post-median band extending from side to side and edged with violaceous green; under side red; legs red, with the apical half of the femora infuscate. Length  $9\frac{1}{2}$  mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Natal, Mozambique (Rikatla). Occurs also in Senegal and Abyssinia.

CALLIDA RUFIVENTRIS, Chaud.,

Bull. Mosc., 1877, p. 229.

Allied to *C. affinis*, but the punctures on the head and prothorax are finer and not so numerous in the median part of the head and on the discoidal part of the prothorax; the angles of the prothorax are less straightened; the antennæ, with the exception of the basal joint, are fuscous; the outer margin of the elytra, also the epipleuræ, the whole of the under side, legs as well, are testaceous red, and the apex of the femora is not infuscate; it is also allied to *C. ruficeps*, but in this species the elytra are narrowed towards the basal part, and the apex of the femora is infuscate. Length  $9\frac{1}{2}$  mm.

*Hab.* Transvaal, teste Chaud.

CALLIDA CAPENSIS, Chaud.,

Observ. Mém. Kieff., 1847, p. 11.

*C. jucunda*, Bohem., Insect. Caffr., vol. i., p. 35.

? *C. ruficeps*, Chaud., Ann. Soc. Ent. Belg., vol. xv., p. 108.

Elongated; antennæ infuscate, with the basal parts more or less reddish, the first two joints entirely red; head and prothorax red, the latter short, broad; elytra elongated, deeply striate, the intervals with moderately deep scattered punctures, bright metallic green or greenish blue, marginate all round with red, and with a narrow red line on the suture, broadly dilated triangularly at the base; under side and legs red; the three apical abdominal segments sometimes slightly infuscate. Length  $9\frac{1}{2}$  mm.; width 3 mm.

The distinctive characters of *C. ruficeps* do not seem to me to have sufficient importance to entitle it to be considered a different species from *C. capensis*.

In one example from the Transvaal the sutural red line is narrower than on specimens from the Cape Colony, and is slightly less amplicate at the base. Length  $9\frac{1}{2}$ –10 mm.; width 3 mm.

*Hab.* Cape Colony (Grahamstown), Transvaal (Potchefstroom), Bechuanaland (Vryburg).



## LIPOSTRATIA ELONGATA, Bohem.,

Insect. Caffr., vol. i., p. 37.

*L. cribripennis*, Chaud., Ann. Soc. Ent. Belg., vol. xv., p. 102.*L. Mouffleti*, Chaud., *loc. cit.*, p. 103.

Narrow, elongated, shining; palpi and antennæ black, with the two basal joints of the latter red; head punctulate, black from the apex to behind the eyes, the remainder and neck red; prothorax cordiform, one-third longer than broad, punctulate here and there; elytra brilliant metallic green, finely striate, with the intervals irregularly punctured, the punctures closely set and deep; under side red, with the abdomen cyaneous; tibiæ, tarsi, and apical part of the femora black. Length  $9\frac{1}{2}$ –11 mm.; width 3–4 mm.

*Hab.* Cape Colony (Kimberley), Limpopo, Mozambique (Rikatla), Great Namaqualand, Damaraland (Kookarrah), Ovampoland (Omrramba), Transvaal (Marico).

There can be no doubt as to the identity of *C. elongata* and *C. cribripennis*, as I have been able to compare the types.

The only difference between *C. Mouffleti* and *C. elongata* is that in the former the head is red and slightly infuscate on the epistome only.

## LIPOSTRATIA CYANIVENTRIS, Fairm.,

Ann. Soc. Ent. France, 1888, p. 176.

Narrow, elongated, shining; palpi reddish; antennæ black, with the three basal joints red; head and prothorax red, prothorax cordiform, one-third longer than broad; elytra brilliant metallic green, sometimes diffused with blue, striato-punctulate, the intervals broad, plane, with two irregular series of shallow punctures; under side shining red; abdomen cyaneous; legs red, with the apex of the femora, the base of the tibiæ, and the tarsi black. Length 8–9 mm.; width  $3\text{--}3\frac{1}{2}$  mm.

*Hab.* Cape Colony (Wyk's Vley, Kimberley), Damaraland.

## LIPOSTRATIA PICEA, Bohem.,

Insect. Caffr., vol. i., p. 40.

Narrow, elongated, reddish brown; antennæ with the three basal joints redder than the others; head and prothorax deeply punctured, the latter one-third broader than long, not much narrowed behind; elytra dark rusty red, very deeply striate, the intervals a little more convex than in the two preceding species and slightly punctulate; under side reddish brown, with the abdomen darker; legs and tarsi reddish brown. Length 10 mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Natal (Escourt), Lake N'Gami.

Four more species of *Callida* have been described :—

*C. castanea*, Bohem., Insect. Caffr., i., p. 41, which belongs to the genus *Cylindrocranius*, Chaud., as this author justly surmised.

*C. ? angulicollis*, Motsch., Bull. Mosc., 1864, iii., p. 239, which, from the description, appears also not to belong to the genus.

*C. nigropicea* and *C. rufolimbata*, of the same author are probably slight varieties of one species, and, like De Chaudoir, *l.c.* p. 110, I believe that they will prove to belong to the genus *Lipostratia*, and, moreover, be identical with *L. picea*, Bohem.

CALLIDA NIGROPICEA, Motsch.,

Bull. Mosc., 1864, iii., p. 235.

Rusty brown, elongated, subovate, depressed, punctate, moderately shining; elytra darker brown, deeply crenato-striate, with the intervals raised and moderately rugose; prothorax a little broader than the head, cordiform, deeply punctured. Length  $8\frac{1}{2}$  mm.

*Hab.* Cape of Good Hope.

CALLIDA RUFOLIMBATA, Motsch.,

Bull. Mosc., 1864, iii., p. 237.

Elytra dark rusty brown; prothorax punctulate, elongated, narrow, moderately depressed, shining and red; elytra with the outer margins and the suture red; head like an elongated triangle, sparsely punctured; prothorax hardly broader than the head, subcordiform, sparsely punctured, impressed longitudinally in the centre, the outer margins reflexed, rugulose, with the posterior angles almost straight and hardly projecting; elytra broader than the thorax by one-half, deeply striate, with the intervals raised and moderately punctulated. Length  $7\frac{1}{2}$  mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Cape of Good Hope.

CALLIDA ? ANGULICOLLIS, Motsch.,

Bull. Mosc., 1864, p. 239.

Facies and colour of *Dromius linearis*, but a little broader across the elytra, elongate, parallel, depressed, shining, pale testaceous; head and prothorax rufescent; apex of the elytra as well as the suture slightly infusate; head oblong, impunctate, attenuate and lengthened behind; eyes hardly prominent; prothorax of the same width as the head, quadrato-cordate, marginate, impunctate, with the posterior angles acute, and projecting much laterally; elytra twice as broad as the prothorax, deeply striate, striæ subpunctate, intervals moderately convex, a little uneven and unifoveate apically; antennæ half the length of the body. Length 5 mm.; width 2 mm.

## GEN. SELOUSIA.

Mentum, palpi, antennæ, and tarsi of *Lipostratia*; ligula longer, narrower, paraglossæ not so long and with the tips slightly oblique; labrum transverse, slightly incised in the centre; prothorax and elytra broader than in *Lipostratia*, the former less cordiform; elytra parallel, deeply striato-punctate, with the intervals highly raised and convex; legs grooved; claws pectinate.

Allied to *Glycia*.

## SELOUSIA NOBILIS.

Head and prothorax very dark metallic green, almost black; elytra violaceous; labrum and epistome smooth and slightly rufescent; head bi-impressed and covered with deep irregular punctures; antennæ black, with the basal joint reddish; prothorax ampliate in the anterior part, gradually narrowed behind for two-thirds of the length, with the posterior angles acute, moderately convex on the disk, deplanated on the sides with the margins recurved, sharp and rufescent, broadly and closely punctured, and deeply grooved longitudinally in the centre; elytra parallel, with the anterior angles very slightly rounded, depressed, narrowly striate, with the intervals raised, convex and punctulate, the ninth interval with a series of equidistant, broad, moderately deep punctures. Length 12 mm.; width 4 mm.

This pretty insect was captured by Mr. F. C. Selous in the Manica country, Zambezia.

## GEN. WAHLBERGIA.

Mentum, ligula, palpi, and tarsi of *Callida*; the claws with six inner teeth instead of twelve; prothorax very elongate, subcordiform; elytra hardly broader than the prothorax at the base, gradually ampliatted behind, and one-third broader at the apex than at the base, strongly sinuated behind, with the sutural part projecting.

## WAHLBERGIA AMENULA, Bohem.,

Insect. Caffr., vol. i., p. 42.

Slender; antennæ black, with the three first joints and the basal part of the fourth red; head and prothorax dark blue, very roughly, deeply, and closely punctured; prothorax slender, nearly twice as long as broad in its widest part, subcordiform, with a narrow, deep, longitudinal median groove; elytra emerald green, elongated, hardly wider at the base than that of the prothorax, gradually ampliatted backwards where they are widest at the apex, the posterior part much sinuate on each side with the sutural part projecting, moderately convex, narrowly striate with the intervals roughly shagreened;

under side and legs dark blue; tarsi black. Length 7 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Caffraria (Wahlberg), Stockholm Museum.

GEN. METALLICA, Chaud.,

Ann. Soc. Ent. Belg., 1872, p. 175.

Ligula of *Callida*, quadrisetose at the tip; paraglossæ without apical setæ; palpi hairless with the exception of the apical joint of the labial, which are slightly pilose, and both labial and maxillary obtuse and subovate; labrum emarginate in front; mentum quadrate, with the lateral lobes obtusely rounded at the tip and without any median tooth; mandibles much rounded outwardly, sharp and slightly concave; tarsi short, somewhat thick, not compressed on the upper part, glabrous, briefly trigone, the fourth one bilobate, with the lobes moderately long, the three basal anterior ones of the male dilated with a double series of squamose lamellæ underneath, all thickly ciliate; claws pectinate.

Out of the three African species included in this genus, one only is recorded from South Africa.

METALLICA PURPURIPENNIS, Chaud.,

Ann. Soc. Ent. Belg., 1872, p. 177.

Head, prothorax, under side, and legs brown; elytra metallic purple, with the outer margins green; antennæ, legs, labrum, mandibles, and trochanters reddish; head plicate lengthways, but smooth near the epistome, the plication is punctured, but not the vertex; prothorax a little broader than the head, broadest in the centre, transverse, slightly convex and not much punctured; elytra elongated and broader than the prothorax by one-third, rectangular, with moderately deep striæ, the striæ slightly punctured, with the intervals convex and finely shagreened, with four piliferous punctures on the third interval, two or three on the fifth, more on the seventh, and also a supra-marginal series. Length  $9\frac{1}{2}$ –10 mm.

*Hab.* Natal (D'Urban), teste Chaud.

GEN. POLYAULACUS, Chaud.,

Rev. et Mag. Zool., 1878, p. 156.

Mentum with a small median tooth; ligula as in *Callida*; palpi long, fusiform, with the apical part very sharp; tarsi glabrous on the upper side, fourth joint emarginate; claws three pectinate; head plurisculcate longitudinally, the rest as in *Callida*. An intermediate form between *Callididæ* and *Dromiidæ*.

## POLYLAULACUS BRUNNEUS, Chaud.,

*Loc. cit.*, p. 157.

Pale testaceous red, with the head darker; head depressed anteriorly, with closely set plicæ running longitudinally from the epistome to the neck; prothorax hardly broader than the head, nearly parallel laterally, but with the outer posterior angle recurved, the base truncate without any sinuation, plane and closely set with deep punctures; elytra parallel, depressed, nearly twice as broad as the prothorax and four times as long, punctato-striate, with the intervals slightly convex and very slightly shagreened, third interval with two evanescent punctures; under side, antennæ, and legs flavescent. Length  $4\frac{3}{4}$  mm.; width  $1\frac{1}{4}$  mm.

*Hab.* Zambezia (Salisbury).

My example from Salisbury is not so dark as the type of De Chaudoir, and the suture as well as the posterior margin are slightly infusate. I have no doubt, however, that the two are identical. The original species came from Zanzibar.

## GROUP CYMINDIDÆ.

*Synopsis of Genera.*

- Mentum with a long, sharp median tooth; labrum slightly sinuate; prothorax crescent shape and with the median part of the base projecting a little beyond the posterior angles; head closely plicate longitudinally; elytra oblong and without any puncture on the third interval; claws pectinate .. .. *Cymindoidea.*
- Mentum with a slightly rounded or sometimes nearly bifid median tooth; prothorax rounded laterally, and not sinuate behind; elytra ovate, nearly impunctate on the third interval, almost transparent; claws pectinate or serrate .. .. *Metaxymorphus.*
- Claws neither pectinate nor serrate .. .. .. *Lachanissus.*
- Elytra parallel, impunctate; intermediate joints of anterior tarsi cordiform, the fourth incised, those of the male densely squamose underneath; claws pectinate .. .. .. *Callidomorphus.*
- Labrum very deeply incised; head very broad in the male, and mandibles very long; elytra oblong; intermediate joints of anterior tarsi cordiform, hairy underneath, but not squamose; claws pectinate .. .. .. *Periphobus.*
- Elytra elongated, subparallel, with four or more punctures on the third interval; tarsi very long and hairy underneath, those of the male with a double series of lamellæ; claws pectinate; labrum truncate .. .. .. *Hystriehopus.*
- Labrum deeply incised .. .. .. *Leptosarcus.*
- Elytra parallel, with three punctures on the third interval; tarsi moderately long, the fourth joint of the anterior ones not incised; claws not pectinate .. .. .. *Plagyopyga.*
- Elytra subquadrate, with three punctures on the third interval, the fourth joint of anterior tarsi lobate; claws not pectinate .. .. .. *Haplopeza.*
- Elytra subrectangular, alternating intervals subpunctuate; claws sharply pectinate .. .. .. *Syndetus.*

GEN. CYMINDOIDEA, Casteln.,  
Ann. Soc. Ent. France, vol. i., p. 390, 1832.

Mentum with the lateral lobes long, acute at the tip, with a median tooth filling the whole of the base, narrow, very slightly rounded at the apex, and shorter by one-half than the lateral lobes; ligula very strong, subtruncate at the apex, the paraglossæ fused with it, but hardly longer; maxillary palpi slender, the last joint much longer than the penultimate, and the third one slightly bent, the last joint of labial palpi very securiform; jaws arcuate at the tip, with a bifid tooth at the base; labrum truncate at the apex; prothorax in the shape of a very broad crescent with a small projecting angle above the basal part; elytra depressed, elongated, with the outer sides straight; claws very slightly pectinate.

This genus is represented in Africa from Algeria to the Transvaal and Damaraland (Senegal, Abyssinia, Algeria, Morocco); it is found also in Palestine (Nazareth), India (Bengal, Northern Hindustan, and Coromandel).

CYMINDOIDEA DEPLANATA, Bohem.,  
Insect. Caffr., vol. i., p. 33.

Black, subopaque, antennæ, palpi, and legs testaceous; head closely plicate longitudinally; prothorax with closely set punctures, finely grooved longitudinally in the centre, a little convex, broader at the apex, where it is slightly sinuate, than in any other part, and with the sides gradually rounded towards the base, but with a small projecting angle above the lateral part of the base, the median part of which is produced behind beyond the posterior angles; elytra plane, black, with lateral margins narrowly edged with brown and having a series of distant punctures, finely punctato-striate, with the intervals smooth and very slightly convex; under side black; abdomen rufescent. Length 8 mm.; width 4 mm.

*Hab.* Transvaal (Middelburg), Damaraland (Walfish Bay).

If the elytra are wetted, they show broad, transverse bands more opaque than the background.

GEN. METAXYMORPHUS, Chaud.,  
Bull. Mosc., 1850, ii., p. 370.

Mentum broad, with the outer lobes moderately long, acute at the tip, and having a median tooth shorter by one-half than the lateral lobes and slightly rounded at the apex; ligula long, the paraglossæ fused with it and longer, broadening towards the apex, and singly rounded; palpi slender, the last joint of both maxillary and labial a little inflated in the centre and subacuminate at the tip; labrum long, truncate in front; antennæ pubescent, with the exception of the

three basal joints, which are smooth; prothorax slightly inflated in the anterior part and truncate at the base; elytra fused together, always more or less transparent, subovate or oblongo-ovate, seldom parallel, narrowly striate with the intervals plane, lateral margins with a series of deep punctures interrupted in the median part; the tarsi of the male a little more setulose underneath than those of the female, and the anal segment has one bristle on each side, and two in the female.

Owing to the transparency of the elytra, the teguments show more or less through the wing cases; it is therefore necessary to detach them to be able to detect the deeper or lesser infuscate markings.

The wingless insects included in this genus are found under stones or decaying vegetation. They are crepuscular, if not nocturnal, and have not been recorded outside the limits of South Africa.

*Synopsis of Species.*

Elytra oblongo-ovate; prothorax with two fuscous bands.	
Each elytron with a broad, sutural, fuscous band emitting two spurs .. .. .	<i>frenatus.</i>
Each elytron with a broad, sutural, fuscous band and two diagonal ones .. .. .	<i>pictus.</i>
Each elytron with a median, bifid, longitudinal, fuscous band	<i>agilis.</i>
Each elytron with three longitudinal bands .. .. .	<i>cursor.</i>
Each elytron slightly tessellate .. .. .	<i>pusillus.</i>
Each elytron with a broad, dorsal, dark patch, a supra-marginal testaceous band and a humeral patch of the same colour connected with it .. .. .	<i>Goryi.</i>
The supra-marginal band disconnected from the humeral patch	<i>affinis.</i>
Prothorax without any fuscous band.	
Each elytron with a few irregular, elongated, fuscous maculæ	<i>stigmatellus.</i>
Each elytron slightly infuscate in the posterior part.. .. .	<i>cycloderus.</i>
No markings on the elytra .. .. .	<i>modestus.</i>
Elytra not ampliate in the middle, but broader at apex than at base; prothorax without fuscous patches.	
Each elytron with a very slight apical infuscation .. .. .	<i>Namaquensis.</i>
Each elytron with three infuscate lines .. .. .	<i>lineellus.</i>
Prothorax with two fuscous patches.	
Elytra without infuscate markings .. .. .	<i>vicinus.</i>

METAXYMORPHUS FRENATUS, Dej.,

Plate V., fig. 1.

Spec. Col., vol. v., 1831, p. 351.

Light testaceous, shining; antennæ and palpi pale yellow; head smooth, black, with the labrum testaceous; prothorax with some faint transverse very narrow folds, a narrow median longitudinal groove, and two dorsal infuscate broad bands reaching from apex to base; elytra finely striate, semi-transparent, with a broad sutural infuscate band reaching from the base to nearly the

apex, where it becomes bifid, extending from the suture to the fifth stria, and emitting at about the middle of the discoidal part a sub-quadrate or elongated patch of the same colour, reaching from the fifth stria to the sixth, with a fainter one below it, and occasionally an infusate line on the seventh interval; under side pale yellow; abdomen somewhat infusate. Length  $6\frac{1}{2}$ –8 mm.; width  $3$ – $3\frac{1}{2}$  mm.

In some male examples the whole of the markings on the elytra coalesce, making a single dorsal patch.

*Hab.* Cape Colony (Cape Town, Ceres, Worcester).

METAXYMORPHUS PICTUS, n. sp.,

Plate V., fig. 2.

Light testaceous, shining; head and labrum black; antennæ and palpi rufescent; prothorax reddish, with two longitudinal infusate patches on the disk; elytra finely striate, semi-transparent, with a sutural infuscated band reaching from the suture to the fifth stria, and emitting one median and another supra-postical parallel diagonal irregular bands directed towards the base, and united by an ill-defined perpendicular line running on the sixth interval; under side pale yellow; abdomen deeply infusate. Length  $6\frac{1}{2}$  mm.; width 3 mm.

*Hab.* Cape Colony (Oudtshoorn).

METAXYMORPHUS AGILIS, n. sp.,

Plate V., fig. 3.

Light testaceous; head black; labrum and antennæ yellowish red; prothorax testaceous, with two broad black patches on the disk; elytra elongated, not quite so much amplified in the centre as in the other two species, finely striate, semi-transparent, with a sutural, narrow, infusate band covering the first interval on each side, and two narrow bands of the same colour on the sixth and eighth intervals; the band on the sixth interval reaches nearer the apex than the second one, which is produced nearer to the base; these two bands coalesce occasionally on the seventh interval. Length 8 mm.; width 3 mm.

*Hab.* Cape Colony (Oudtshoorn).

METAXYMORPHUS CURSOR, n. sp.,

Plate V., fig. 4.

Light testaceous; head black; labrum pale red; prothorax with two broad black bands extending from base to apex; elytra finely striate, semi-transparent, with the first and fourth intervals slightly infusate from base to apex, the sixth interval from the middle to the apex, and having a blackish line of the seventh stria; under side testaceous. Length 7 mm.; width  $2\frac{1}{2}$ –3 mm.

*Hab.* Cape Colony (Cape Town?).

## METAXYMORPHUS PUSILLUS, n. sp.

Light testaceous; head reddish; prothorax with two fuscous bands reaching from base to apex; elytra deeply striate, semi-transparent, with the striæ a little darker behind than the background. Length 5 mm.; width 2 mm.

*Hab.* Cape Colony (Kimberley, Burghesdorp).

## METAXYMORPHUS GORYI, Chaud.,

Plate V., fig. 5.

Bull. Mosc., 1850, ii., p. 371.

Reddish brown; head deeply infusate; prothorax reddish brown, with two broad darker bands on the disk, hardly distinct from the background; elytra finely striate, with a well-defined puncture at about the median part of the third interval, the intervals finely aciculate, dark brown, with a broad lateral marginal testaceous band coalescing at the base, with a subquadrate patch of the same colour under the shoulder; abdomen infusate. Length  $10\frac{1}{2}$  mm.; width 4 mm.

*Hab.* Cape Colony (Grahamstown).

## METAXYMORPHUS AFFINIS,

Plate V., fig. 6.

Light testaceous; head deeply infusate; prothorax testaceous, with two well-defined black bands reaching from the apex to the base; elytra finely striate with an infusate dorsal patch reaching from base to apex and extending on each side from the suture to the eighth interval, with the eighth interval, the outer margin, and the anterior part of the fifth and sixth intervals light testaceous.

Closely allied to *M. Goryi*, but whereas in *M. Goryi* the subhumeral light testaceous band is connected with the outer margin, it is separated in *M. affinis* by the seventh interval, which is infusate from base to apex. Length 7–9 mm.; width 3–4 mm.

*Hab.* Cape Colony (Constantia), Bredasdorp.

## METAXYMORPHUS STIGMATELLUS,

Plate V., fig. 7.

Light testaceous, with the head redder; prothorax without any fuscous bands; elytra striate, with the striæ finely punctured, semi-transparent, and with a few irregular elongated fuscous maculæ in the median part of the disk on the fifth, sixth, and seventh intervals, and also on the apical part of the first interval; under side very pale yellow. Length 8 mm.; width 3 mm.

*Hab.* Cape Colony (Cape Town).

## METAXYMORPHUS CYCLODERUS, Chaud.,

Plate V., fig. 9.

Testaceous; prothorax without any dorsal markings; elytra more ovate than in the preceding species, finely striate, not much transparent, and slightly infusate at the apex; last abdominal segment black. Length  $9\frac{1}{2}$  mm.; width 4 mm.

*Hab.* Cape Colony (Grahamstown).

Allied to the preceding species but larger; the elytra are more ovate, less transparent and infusate at the tip, while in *M. modestus* they are of a uniform colour.

## METAXYMORPHUS MODESTUS,

Plate V., fig. 8.

Light testaceous on the upper and lower parts; prothorax with a darker testaceous median band very ill-defined; elytra distinctly striate, semi-transparent. Length 6 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town).

## METAXYMORPHUS NAMAQUENSIS,

Plate V., fig. 10.

Very light testaceous; prothorax nearly smooth; elytra finely striate, transparent, with a diagonal very faintly infusate band beginning on each side at about the median part of the disk and stopping at a short distance from the apex, where it is a little more conspicuous; lateral margins with a few rigid bristles, often wanting. Length 7 mm.; width 3 mm.

*Hab.* Cape Colony (Namaqualand, O'okiep).

## METAXYMORPHUS LINEELLUS, Bohem.

*Cymindis lineella*, Bohem., Insect. Caffr., vol. i., p. 34.

Head and prothorax testaceous, the latter with two very inconspicuous darker patches, as often wanting as not; elytra almost transparent, very finely striate, with the second, fourth, sixth, and eighth intervals slightly infusate from the median part towards the apex; the first interval is also sometimes infusate. Length 5 mm.; width  $2-2\frac{1}{4}$  mm.

*Hab.* Caffraria.

Kindly communicated by Prof. C. Aurivilius, of the Stockholm Museum.

## METAXYMORPHUS VICINUS, n. sp.

Light testaceous; head and labrum deeply infusate; prothorax with two broad dark patches reaching nearly from base to apex; elytra finely striate, neither opaque nor semi-transparent, and without any infusate markings. Length  $4\frac{1}{2}$  mm.; width 2 mm.

*Hab.* Cape Colony (Grahamstown).

## GEN. LACHANISSUS.

The generic character are those of *Metaxymorphus*, the difference between the two consisting in the absence of serration or pectination of the claws; the under part of the tarsi is also less setulose, and there is no trace of punctures on the third interval.

The facies of these insects is not unlike that of some *Olisthopus*, but they are differentiated, not only by the shape of the ligula and paraglossæ, but also by the truncate elytra.

*Synopsis of Species.*

- Pale testaceous; elytra with an infusate patch .. .. *deceptor*.  
 Pale testaceous; elytra without any infusate marking .. .. *inconspicuus*.

## LACHANISSUS DECEPTOR.

Pale testaceous, with the prothorax yellowish red; elytra very finely punctato-striate, semi-transparent, and having on each side an infusate patch extending from the second to the sixth intervals, ascending from the apex to above the median part on the fourth, fifth, and sixth intervals, and only on the median part on the second and third. Length 6 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Cape Colony (Worcester).

Has the general appearance of *Metaxymorphus namaquensis*; the prothorax is redder and less transparent; the elytra are broader, and the infusate patch more apparent.

## LACHANISSUS INCONSPICUUS.

Pale testaceous, with the prothorax yellowish red; elytra very finely punctato-striate, semi-transparent, and without any infusate marking. Length 6 mm.; width  $2\frac{1}{4}$  mm.

*Hab.* Cape Colony (Oudtshoorn).

## GEN. CALLIDOMORPHUS.

Mentum, ligula, and paraglossa, antennæ and palpi as in *Metaxymorphus*; mandibles not projecting so much, but head and prothorax similar; elytra parallel, plane, truncate behind; joints of the anterior tarsi cordiform, the fourth one incised, all of them bristly and very densely squamulose underneath, intermediate and posterior ones squamulose, but in less degree; claws serrulate.

The characters of the present genus, distinguishing it from its ally *Metaxymorphus*, consists mostly in the more cordiform joints of anterior and intermediate tarsi, which are also more squamulose underneath, and in the male the anterior ones have a double series of closely set squamæ in "chevron"; the general facies is that of a *Callida*, but the shape of the prothorax is that of *Metaxymorphus*.

CALLIDOMORPHUS VITTIGER, Chaud.,

Plate V., fig. 12.

*Metaxymorphus vittiger*, Bull. Mosc., 1877, part i., p. 234.

Light testaceous, subopaque, the three basal joints of antennæ and the head redder than the rest of the body; head and prothorax smooth, the latter slightly broader in the anterior than in the posterior part, not sinuate laterally, very slightly convex along the central groove on the disk; elytra a little sloping laterally at the base, parallel, not much broader than the prothorax, plane, narrowly striate, with the intervals moderately broad and impunctate, the third interval with two punctures, they are dull pale testaceous, with the three first alternating intervals infusate from a short distance from the base to the apex, and the fourth one from the median part only; legs flavescens. Length 8 mm.; width 2 mm.

*Hab.* Cape Colony (Grahamstown, Bedford).

De Chaudoir records this species as found in Natal.

#### GEN. PERIPHOBUS.

Mentum broad, with the internal part of the lateral lobes similar to that of *Metaxymorphus*, and a sharp, median tooth; ligula long; the paraglossæ membranaceous, much longer than the ligula, sub-acuminate at the tip; palpi long and slender, the apical joints of both labial and maxillary subfusiform; labrum long, deeply and broadly notched in the anterior part, with two long setæ on each angle and two in the centre of the notch; antennæ slender, pubescent, with the exception of the four basal joints; prothorax broader at the apex than at the base, with the outer sides gradually rounded; elytra oblong; tarsi of *Metaxymorphus*; claws with four short inner teeth on each side, and two bristles on each side of the anal segment in both sexes. The head of the male is twice as broad as that of the female, and provided with two falciform jaws as long as the head, the right one is bifid at the tip, and the left one has a small inner tooth in the middle; in the female the jaws are of normal length, the prothorax is not so broad, and the labrum is hardly incised.

#### PERIPHOBUS FEROX.

Testaceous, shining; head black, smooth; antennæ slightly rufescent; prothorax broader than long in the male, and as broad as long in the female, straight at the apex, with the base narrower by one-half than the apex and with the outer sides gradually rounded with the margin sharp, slightly convex on the disk, but not depressed on the outer sides, testaceous with two dorsal black patches; elytra truncate at the base, with the humeral angles slightly rounded and the outer sides parallel, plane, a little broader

at the apex than at the base, finely striate with the intervals plane, light testaceous, with a broad infusate sutural band reaching from base to apex and extending on each side from the suture to the fifth interval, and also on the sixth interval from about the median part to the apex, third stria with a deep puncture at about the median part of the disk; abdomen with the apical parts of the segments infusate. In the female the mandibles are short, the labrum is long, but not incised, the head has a very deep and broad median impression, the prothorax is not so broad in the anterior part, the basal part is also broader, and the elytra have irregular infusate patches. Length 8-10 mm.; width  $2\frac{1}{3}$ -3 mm.

*Hab.* Cape Colony (Oudtshoorn).

GEN. HYSTRICHOPUS, Bohem.,

Insect. Caffr., i., p. 42.

CTENONCUS, Chaud.

Mentum broadly notched, with the lateral lobes generally acute and having a broad median tooth about one-third the length of the lateral lobes, either more or less rounded at the top or slightly bifid; ligula horny, long, narrow, convex, bi-setose at the tip; the paraglossæ membranaceous, setulose at the apex, a little longer than the ligula and subacuminate at the tip, or a little shorter than the ligula, which is itself not so much elongated; labrum subquadrate, slightly sinuate; last joint of the labial and maxillary palpi, subfusiform and rounded at the tip or subtruncate; prothorax generally elongated or subcordiform; elytra plane, more parallel in the male than in the female; tarsi very bristly underneath, those of the male with two series of laminiform scales; claws pectinate; anal segment of the male with one seta on each side, that of the female with two.

These insects are found under stones or heaps of rubbish or manure. Dr. F. Purcell informs me that *H. sulcatus* burrows in sand. They are very quick in their movements. The facies is not the same for all species; some are winged, others are not; yet their relationship is indubitable. One species only is recorded from Abyssinia.

The shape of the paraglossæ, of the last joint of the palpi, and also of the median tooth in the mentum varies slightly, and the species may perhaps, for the sake of easier identification, be arranged as follows:—

*Synopsis of Genera.*

Ligula very long; paraglossæ longer than the ligula; last joint of palpi obtusely rounded at the tip; median tooth of the mentum long, rounded at the tip; wings under the elytra .. .. . Sub-genus *Hystrichopus*.

Ligula long; paraglossæ not quite so long as the ligula; last joint of palpi rounded at the tip, or very slightly truncate; median tooth of the mentum rounded at the tip .. .. .	Sub-genus <i>Assotatus</i> .
Ligula a little longer than the paraglossæ; ultimate joint of the labial and maxillary palpi truncated at the tip; median tooth of the mentum bifid .. .. .	„ <i>Assoterus</i> .
Ligula a little longer than the paraglossæ; ultimate joints of the labial and maxillary palpi inflated or fusiform and broadly truncate; median tooth of the mentum rounded at the tip.. .. .	„ <i>Astus</i> .
Ligula very short; paraglossæ broad, rounded from the outer side, with the tip slightly projecting above the ligula; last joint of palpi elongated, nearly rounded at the tip; mentum with the lobes short, and the median tooth very broad at base, rounded at the apex and a little shorter than the lateral lobes .. .. .	„ <i>Aspastus</i> .

### *Synopsis of Species.*

Elytra subrectangular, broad, with the intervals plane, black ..	<i>vigilans</i> .
Elytra with the intervals red, slightly infuscated at the apex ..	<i>dorsalis</i> .
Elytra with the intervals carinate, red, broadly infuscate at the apex and slightly at the base .. .. .	<i>similis</i> .
Elytra with the intervals carinate, red, with the lateral and postical margins infuscate .. .. .	<i>rufipennis</i> .
Prothorax broad, somewhat rounded; elytra short, black; legs and antennæ red .. .. .	<i>rufipes</i> .
Prothorax very long, shaped like a truncated cone; elytra gradually ampliate towards the apex, black .. .. .	<i>angusticollis</i> .
Prothorax long, narrow, with the outer sides narrowing slightly towards the base; elytra very narrow, black .. .. .	<i>gracilis</i> .
Prothorax long, nearly as broad at the apex as at the base, broadly grooved in the centre; elytra red .. .. .	<i>sulcatus</i> .
Prothorax long, nearly as broad at the apex as at the base, broadly grooved in the centre; elytra black .. .. .	<i>Mniszeczki</i> .
Prothorax elongate, subcordiform, very slightly impressed on the outer sides; elytra black; legs and antennæ red .. .. .	<i>agilis</i> .
Prothorax narrow, very long, with a deep impression on each lateral side .. .. .	<i>tenuicollis</i> .
Prothorax elongate, subcordiform, last joint of palpi thickened and truncate .. .. .	<i>prædator</i> .
Prothorax nearly straight laterally, last joint of palpi fusiform, truncate .. .. .	<i>recticollis</i> .
Prothorax broad, more or less rounded on the outer sides; elytra gradually ampliate towards the apex .. .. .	<i>atratus</i> .

### HYSTRICHOPUS VIGILANS, Sturm,

Insect.-Cab., vol. v., p. 161, pl. 129, fig. O.

*H. caffer*, Dej., Spec. Col., vol. iii., p. 40.

Black, with the antennæ, palpi, and tibiæ rufescent; head smooth; prothorax much sinuated in front and broader than at the base,

truncate behind, slightly broader than long, with the sides recurved and rufescent, faintly plicate transversely, and with a median narrow longitudinal groove; elytra truncate at the base, with the humeral angles slightly rounded, broad, parallel, finely striate, with the intervals plane and five conspicuous punctures on the third; under side black; claws pectinate, with seven teeth moderately long on each side, the two inner ones very small; wings under the elytra. Length 14–15 mm.; width 5–6 mm.

*Hab.* Cape Colony (Cape Town, Malmesbury, Hopefield, Worcester, Touw's River).

HYSTRICHOPUS DORSALIS, Thunb.,

Nov. Spec. Ins., 1784, p. 73.

*H. badius*, Germ., Mag. Ent., iv., p. 114.

Head, prothorax, antennæ, palpi, under side, and legs black; elytra rufous, with the apical margin infusate; head smooth; prothorax as broad as long, sinuate in front, truncate behind, broader than long, with the outer sides rounded and the margin much recurved; elytra truncate at the base, with the humeral angles slightly rounded, broad, parallel, finely striate, with the intervals a little convex, and with four punctures on the third interval; claws pectinate, with eight moderately long teeth on each side, the two inner ones very short; wings under the elytra.

Allied to the preceding species; but not only are the elytra dull red instead of black, but the prothorax is also longer and wider. Length 15–16 mm.; width 6 mm.

*Hab.* Cape Colony (Cape Town).

HYSTRICHOPUS SIMILIS.

*H. rufipennis*, Bohem., Insect. Caffr., i., p. 45.

Head, prothorax, antennæ, legs, and under part of the body black; elytra dull red, with the base, the outer margin, and the posterior part from the apex to about one-fourth of the length black; head smooth, antennæ with the four basal joints black, the others slightly rufescent; prothorax cordiform, grooved in the centre, the sides deplanate and the outer margin recurved; elytra broader than the prothorax, gradually ampliate towards the apex, where they are about one-third broader than at the base, punctato-striate with the intervals carinate in the centre and with five punctures on the third; claws pectinate, with six moderately long teeth on each side.

Allied to *H. dorsalis*, which it much resembles; the prothorax is more cordiform, that is to say, narrower from the median part to the base; the elytra are narrower at the base and the intervals more

carinate, the last joint of the maxillary and labial palpi is more abruptly truncate. Length 15–16 mm. ; width  $5\frac{1}{4}$ –6 mm.

*Hab.* Natal (Frere, D'Urban), Transvaal (Leydenburg).

HYSTRICHOPUS RUFIPENNIS, Dej.,

Spec. Col., vol. v., p. 706.

Head, prothorax, and legs black ; elytra dull rusty red, with the outer and apical margins narrowly infuscate ; palpi and the three basal joints of antennæ infuscate, the other joints of the antennæ rufescent ; head smooth ; prothorax much broader at the apex than at the base, with the lateral margins recurved and narrowing gradually towards the base ; elytra elongated, broader by one-fourth at the apex than at the base, narrowly striate, with the intervals carinate and with five punctures on the third ; under side reddish black ; claws with six short teeth on each side, the basal two very small. Length 15 mm. ; width 5 mm.

One of my female examples has the second and third interval depressed and plane. This is accidental, I believe.

More slender than *H. dorsalis*, intervals of elytra more carinate.

*Hab.* Cape Colony (Cape Town).

HYSTRICHOPUS RUFIPES, Dej.,

Spec. Col., vol. iii., p. 41.

Head, prothorax, and elytra black ; palpi, antennæ, and legs reddish ; head smooth ; prothorax a little sinuate in front, broader in the middle than at the apex, the outer sides rounded and the lateral margins recurved in the posterior part only ; elytra short, with the shoulders slightly rounded, a little ampliate towards the median part ; opaque black or little shining, narrowly but deeply striate, with the intervals slightly convex, and with three often undiscernible punctures on the third ; under side black ; claws with five short teeth on each side, the basal one very minute. Length 12–14 mm. ; width 4–5 mm.

*Hab.* Cape Colony (Grahamstown, Somerset East).

SUB-GEN. ASSOTATUS.

HYSTRICHOPUS ANGUSTICOLLIS, Bohem.,

Insect. Caffr., vol. i., p. 44, pl. i., fig. B, 1–7.

Elongated, black, shining ; palpi reddish at the tip ; antennæ black, with the five ultimate joints slightly flavescent ; head punctulate ; prothorax long, in the shape of a truncated cone, hardly sinuate in front, one-third narrower at the base than at the apex, with the sides almost linear, convex in the centre, deplanate on the outer sides, with the outer margins recurved from the median part to

the base, distinctly plicate transversely; elytra narrow at the base, gradually ampliate behind, one-third broader above the apex than at the base, with the lateral sides linear, deeply punctato-striate, with the intervals narrow, convex, and the third one with five punctures; under side black, shining; tarsi long; claws with six long teeth on each side. Length 18 mm.; width 6 mm.

*Hab.* Caffraria, teste Bohem.

Kindly communicated by Prof. C. Aurivilius.

#### HYSTRICHOPUS GRACILIS.

Elongated, black, shining; head smooth; prothorax long, broad at the apex, narrow at the base, the outer sides deplanate and separated from the disk by a deep depression, narrowly grooved in the centre and finely plicate transversely; elytra elongated, narrow, one-fourth broader at the apex than at the base, with the lateral sides nearly straight, deeply striate with the intervals carinate, the third with four punctures; under side black; tarsi long; claws with five long, nearly equal, teeth on each side. Length 17 mm.; width  $4\frac{1}{2}$  mm.

*Hab.* Transvaal (Leydenburg).

Female unknown.

#### HYSTRICHOPUS SULCATUS, Dej.,

Spec. Col., vol. iii., p. 41.

Black, shining, with the elytra dark red; head smooth in the centre; prothorax elongate, one-fourth longer than broad, sinuate in front, the lateral sides a little curved inwardly, and the basal part nearly as broad as the apical one, broadly grooved in the centre, with a deep depression on each side of the disk, the outer sides slightly depressed and deeply punctured, lateral margins acute and recurved from the median part to the apex; base of elytra hardly broader than that of the prothorax, gradually ampliate behind with the outer sides nearly straight, nearly one-third broader a little above the apex than at the base, deeply but narrowly punctato-striate, with the intervals very convex, the third one with five punctures, the punctures on the lateral sides very broad, closely set and sometimes confluent; under side black, shining; claws with five very short teeth on each side.

The shape of the prothorax gives this species a very distinct facies.

Length 18 mm.; width 6-7 mm.

*Hab.* Cape Colony (Cape Town).

#### HYSTRICHOPUS MNISZECHI.

Entirely similar to *H. sulcatus*, but a little longer; the elytra are black and moderately shining.

*Hab.* Cape Colony (Chaudoir's Collection).

## SUB-GEN. ASSOTERUS.

## HYSTRICHOPUS AGILIS, Pér.,

Plate III., fig. 6,

Trans. S. Afric. Phil. Soc., vol. vi., pt. ii., 1892, p. 97.

*H. altecostatus*, Pér., *loc. cit.*, p. 97.

Black, shining; antennæ, palpi, and legs red; prothorax sub-elongated, almost cordiform, a little convex in the centre, with a narrow longitudinal groove, the sides but little depressed, with the outer margin raised but recurved in the posterior part; elytra elongated, suboblongo-ovate, narrowly striate with the intervals carinate, the third one with five punctures—that number of punctures is, however, irregular; under side black, shining; tarsi long; claws with six long teeth on each side. Length 16–17 mm.; width 5–6 mm.

*Hab.* Cape Colony (Cape Town, Grahamstown).

The example which I have described under the name of *altecostatus* seems to me to be an aberrant specimen in which the alternate intervals of the elytra are more raised and acute than the intervening ones.

## HYSTRICHOPUS TENUICOLLIS.

Black, moderately shining; antennæ black, pubescent; head smooth; prothorax ampliate below the apex, elongate, narrowing gradually from past the anterior part to the base, which is one-third narrower than in the anterior inflated part, closely and conspicuously plicate transversely, narrowly grooved in the centre, and with a lateral depression on each side, reaching from a little above the middle to near the base, outer sides hardly depressed, margin acute, recurved posteriorly; elytra a little broader than the prothorax at the base, gradually ampliate to a very short distance from the apex, deeply striate with the intervals narrower and carinate, the third one with four punctures; under side shining; tarsi very long, the under part covered with thick bristles in both sexes; claws with five moderately long teeth on each side. Length 16–18 mm.; width  $5\frac{1}{2}$ –7 mm.

*Hab.* Natal, Zululand (Eshowe).

## SUB-GEN. ASTUS.

## HYSTRICHOPUS PRÆDATOR.

Black, shining; antennæ and palpi black; head punctulate on the sides, smooth in the centre; prothorax elongate, cordiform, grooved in the centre, with a small impression on each side at the base, the outer margins acute but not recurved; elytra broader than the prothorax at the base, gradually ampliate behind, where they are nearly twice as broad as at the apex; deeply punctuato-striate with the intervals carinate, the third one with five deep punctures; under

side very shining; claws of tarsi with five long teeth. Length 14 mm.; width 5 mm.

*Hab.* Natal (D'Urban, Frere, Escourt).

#### HYSTRICHOPUS RECTICOLLIS.

Black, shining; antennæ and palpi black, with the basal joint and the apical part of the palpi reddish brown; head smooth, slightly punctulate along the eyes; prothorax nearly twice longer than broad, very slightly narrower at the base than at the apex, with the outer sides straight, visibly plicate transversely and punctured in the basal part; elytra elongate, broader than the prothorax at the base, a little broader from the median part to the apex than in the anterior part; black subopaque, punctato-striate, with the intervals moderately convex, the third one with four punctures.

Allied to *H. prædator*, but easily distinguished by the nearly parallel shape of the prothorax, which resembles much that of *Leptosarcus*. Length 16 mm.; width 6 mm.

*Hab.* Zambezia (Salisbury, Mazoe).

#### SUB-GEN. ASPASTUS.

HYSTRICHOPUS ATRATUS, Chaud.,  
Bull. Mosc., 1850, vol. ii., p. 368.

*Otenoncus rotundicollis*, Chaud., *l.c.*, p. 369.

Black, moderately shining; apical joints of the palpi and antennæ with the exception of the four basal joints rufescent; head smooth; prothorax subcordiform in the male, more rounded and broader in the female; elytra subopaque, deeply striato-punctate, with the intervals slightly carinate in the male, plane in the female, the third interval with four punctures; under side shining; tarsi moderately long, claws with six moderately long teeth on each side. Length 14–15 mm.; width 5–6 mm.

*Hab.* Natal (D'Urban, Escourt, Frere), Transvaal (Pretoria, Potchefstroom, Middelburg).

#### GEN. LEPTOSARCUS.

Mentum broad, similar to that of *Cymindoidea*, lobes long, acute, nearly straight internally, median tooth narrow, acute, triangular, ligula not filling the base of the notch of the mentum, long, with three hairs at the tip, paraglossæ much longer than the ligula, broadening towards the apex, and obovate at the tip; mandibles moderately long, the left one with a median inner tooth; ultimate joints of the maxillary and labial palpi subcylindrical and truncate at the tip; labrum moderately long, broadly and deeply notched;

prothorax very little broader in the anterior part than in the posterior, with the outer sides nearly straight; elytra nearly parallel; tarsi very bristly, the three basal joints of the male with two series of laminiform scales; anal segment with two bristles on each side.

LEPTOSARCUS PORRECTUS, Pér.

*Hystrihopus porrectus*, Trans. S. Afric. Phil. Soc., 1892, p. 98.

Elongated, black, shining; labrum a little infuscate; antennæ with the exception of the basal joints slightly rufescent; head smooth; prothorax with the outer sides nearly parallel and the margin slightly recurved, a little convex in the discoidal, part with a narrow median longitudinal groove, and a lateral depression on each side reaching from the base to past the median part; elytra a little broader than the prothorax at the base, with the lateral angles sloping a little and the sides nearly parallel, narrowly punctato-striate, with the intervals carinate in the centre, finely aciculate and with a series of six irregular punctures on the third, fifth, and seventh, lateral margin without any puncture; tarsi long, slender; claws pectinate, with six long teeth on each side.

The female is a little broader than the male.

Length 13 mm.; width 4 mm.

*Hab.* Cape Colony (Constantia), ? Transvaal (Rustenburg).

GEN. PLAGYOPYGA, Bohem.,

Insect. Caffr., i., p. 76, pl. i., fig. E, 1, 7.

*Diaphoroncus*, Chaud., Bull. Mosc., 1850.

Mentum with a sharp median tooth; ligula narrow, convex; paraglossæ longer and acuminate; last joint of maxillary palpi elongated, rounded at the tip, the labial ones more obtuse at the apex; mandibles strong; labrum short, transverse, slightly emarginate in the centre; antennæ slender, filiform, the second basal joint oblong, shorter than the third by one-half; prothorax small, subcordiform with the anterior angles long and acute; elytra oblongo-quadrate, hardly convex, striate; tarsi setulose underneath, the anterior ones a little dilated, with the fourth joint slightly emarginate; claws divaricating, not at all pectinate or very faintly so.

One is surprised at Boheman's mistake in stating that in *Plagyopyga* the mentum has no median tooth: "Mentum sinu simplici, absque dente." It is probably owing to that oversight—for I have ascertained that in *P. ferruginea* there is a distinct median tooth—that De Chaudoir has created a little later the genus *Diaphoroncus*.

The main distinctive character between *Plagyopyga* and *Hystrihopus* consists in the absence of pectination in the claws.

*Synopsis of Species.*

Reddish brown on the upper side.

Claws not pectinate .. .. .	}	<i>rufa.</i>
		<i>ferruginea.</i>
Claws very slightly serrate.. .. .		<i>cymindoides.</i>
		<i>cyclogona.</i>

A species belonging to this genus is found in West Africa (Sierra Leone).

PLAGYOPYGA RUFA, Gory,\*

Ann. Soc. Ent. France, 1833, p. 231.

Red, with the elytra, abdomen and coxæ a little lighter than the rest of the body; head smooth; antennæ pubescent; prothorax short, almost cordiform, narrowed behind, the anterior margin broadly notched with the angles long, the outer margins recurved, posterior angles sharp, base truncate, narrowly grooved in the centre, with a moderately deep impression on each side of the basal part, smooth, with some few transverse folds; elytra finely striate, rounded at the basal angle, otherwise almost rectangular, finely striate; intervals slightly carinate in the centre, the third one with two punctures, the outer margin with an uninterrupted series of punctures. Length 15 mm.

*Hab.* Cape of Good Hope, teste Gory.

PLAGYOPYGA FERUGINEA, Bohem.,

Insect. Caffr., i., p. 76.

Rusty red, somewhat shining; mandibles black; last joint of palpi black at the base only; head smooth in the centre; prothorax nearly as broad as long, truncate at the apex, with the anterior angles very prominent, slightly rounded and ampliate immediately after the apex and gradually narrowed towards the apex, a little convex on the disk, finely plicate transversely, narrowly grooved in the centre and impressed longitudinally on each side near the base; elytra oblongo-quadrate, hardly convex, finely striate with the intervals plane, the outer margin with a series of distinct punctures: legs rusty red. Length 15 mm.; width 6 mm.

*Hab.* Eastern Caffraria, teste Bohem.

PLAGYOPYGA CYCLOGONA, Chaud.,

Bull. Mosc., 1850, ii., p. 374.

Rusty red, not much shining; head somewhat infusate, smooth; antennæ rufescent; prothorax short, nearly as broad as long, a

\* This description is only the reproduction of the original one.

little narrower at the base than at the apex, grooved in the centre, with the outer sides narrow and a little depressed, the margin sharp, much recurved in the anterior part, finely plicate transversely; elytra once and a half as broad as the prothorax, rectangular, slightly rounded at the humeral angle, plane, very finely punctato-striate, with the intervals plane and very faintly aciculate, the third one with two punctures, the first on the anterior part, the second above the apex, the outer margins with a series of deep punctures; under side and legs shining; claws pectinate, the teeth, however, very short, and to be seen under a high magnifying power only. Length 10-12 mm.; width 4 mm.

*Hab.* Cape Colony (Peddie), Natal (D'Urban), Transvaal (Potchefstroom, Johannesburg), Zambezia (Tati).

#### PLAGYOPYGA CYMINDOIDES.

Rusty red, moderately shining; mandibles black. Resembles much *P. cyclogona* and the sculpture of head, prothorax, and elytra is similar, but the elytra have a more ovate form owing to the humeral part being more rounded, and the apical part a little less deeply sinuate; the claws of the legs are simple, and the joints of the anterior tarsi of the male dilated. In this species the paraglossæ are fused with the ligula, broader, not longer, and slightly diagonal laterally at tip. Length 9 mm.; width 3 mm.

*Hab.* Cape Colony (Oudtshoorn).

This species has only been met with, as yet, in the depth of the Cango caves.

#### GEN. ANARMOSTA.

Mentum with a moderately broad median notch, with the inner part of the lateral lobes a little slanting, in the centre a long acute triangular tooth; ligula long, a little convex, of equal width, truncate at the apex, having a long bristle at each angle; paraglossæ narrow, hardly longer than the ligula; last joint of palpi fusiform, a little truncated at the tip; labrum short, nearly transversal, emarginate in front; antennæ subfiliform; head elongato-quadrate, with eyes prominent; prothorax a little broader at the apex than at the base, with the outer sides a little ampliate in the anterior part, the anterior angles rounded, the posterior acute and a little recurved, the base straight from one angle to another; elytra one-third broader than the prothorax at the base, plane, with the outer sides slanting behind; legs moderately long, tibiæ grooved inwardly, tarsi thickly ciliate underneath, the three first joints of the tarsi of the anterior pair short, triangular, the fourth shorter still and lobate, those of the intermediate pair a little longer, and the posterior ones very long and

slender ; all the joints grooved uppermost, the anterior tarsi of the male with a double row of laminiform scales underneath ; claws slender, widely opened, and not pectinate.

#### ANARMOSTA DISPAR.

Head, mandibles, antennæ, prothorax, and legs pale red ; head shining, faintly punctured ; labrum emarginate ; prothorax truncate at the base, rounder and a little ampliate on the anterior part, with the base also truncate, but with the angles slightly diagonal, grooved in the centre, faintly strigose across, and slightly punctulate on the outer sides ; scutellum small, red ; elytra elongato-quadrate, gradually rounded behind, slightly sinuose at the base, plane, narrowly but deeply striate, with the intervals plane and with three punctures on the third, piceous and a very narrow red margin running round the base and sides ; under side pale red ; abdomen infusate. Length 9 mm. ; width 4 mm.

*Hab.* Zambezia (Salisbury).

#### GEN. SYNDETUS.

Mentum as in *Plagyopyga* ; median tooth short, narrow, very sharp, articulate ; ligula as long as the paraglossæ, all three truncate at the tip ; palpi acuminate at the tip ; labrum moderately long, slightly emarginate in the centre at the apex ; prothorax not longer than broad, with the sides sharp and a little attenuated towards the base ; elytra subrectangular, a little broader at the apex than at the base, truncate behind, but with the posterior margin hardly sinuate ; tarsi narrow, the basal one long, the other two subtriangular, decreasing in size, the fourth small, very little incised ; claws strongly pectinate.

#### SYNDETUS SIMPLEX.

Very dark reddish brown, moderately shining ; antennæ, palpi, and legs of a lighter brown ; head nearly smooth ; prothorax as broad as long, with the outer sides slightly narrowed towards the base, sinuate in the centre of the apical margin, somewhat convex in the disk, with the outer sides a little recurved, and the margin sharp, deeply grooved in the central part, and finely plicate transversely ; elytra twice as broad as the prothorax at the base, and more than twice as long, a little ampliate behind, plane on the upper part, narrowly punctato-striate, with the intervals carinate, and the third, fifth, and seventh with a series of distant moderately deep punctures, those on the outer margins hardly defined ; intermediate and posterior tibiæ slightly incurved. Length 8 mm. ; width 3 mm.

*Hab.* Transvaal (Lydenburg).

*Syndetus* belongs as much to the group *Dromiidæ* as to the *Cymindidæ*, and is a good form of transition between the two.

### GROUP DROMIIDÆ.

#### *Synopsis of Genera.*

Fourth joint of tarsi bilobate.	
Mentum with a median tooth.	
Tarsi pectinate.	
Paraglossæ a little longer than the ligula; head not narrowed behind .. .. .	<i>Cylindrocranius.</i>
Head narrowed behind .. .. .	<i>Demetrias.</i>
Paraglossæ much longer than the ligula .. .. .	<i>Peliocypas.</i>
Fourth joint of tarsi not lobate.	
Mentum with a median tooth.	
Tarsi pectinate.	
Ligula longer than the paraglossæ .. .. .	<i>Xenitenus.</i>
Ligula shorter than the paraglossæ .. .. .	<i>Coptoptera.</i>
Ligula and paraglossæ of equal length .. .. .	<i>Metabletus.</i>
Mentum without a median tooth.	
Tarsi pectinate.	
Ligula and paraglossæ fused, the latter surrounding the ligula in front .. .. .	<i>Dromius.</i>
Ligula and paraglossæ of equal length, the latter straight outwardly .. .. .	<i>Klepterus.</i>
Mentum slightly sinuate in the centre, paraglossæ rounded outwardly .. .. .	<i>Klepsiphrus.</i>
Tarsi not pectinate.	
Joints of antennæ very short .. .. .	<i>Astastus.</i>
Joints of antennæ slender; back part of the head constricted	<i>Automaimus.</i>
Mentum with a small median tooth.	
Tarsi not pectinate.	
Prothorax much amplified on the anterior part, with the median part of the base produced beyond the posterior angles	<i>Lionychus.</i>
Prothorax cordiform .. .. .	<i>Apristus.</i>

### GEN. CYLINDROCRANIUS, Chaud.,

Rev. et Mag. Zool., 1878, p. 153.

Mentum broadly notched, with a median sharp tooth, the lateral lobes trigone, rounded outwardly, diverging inwardly at the top and acute; ligula horny, moderately long, slightly incised at the tip, and with two long setæ, paraglossæ membranaceous, soldered with the ligula and a little longer, with the tip lanceolate; mandibles long, sharp, plane above and a little concave underneath; labrum quadrate, with six setæ at the apex; antennæ filiform; head cylindrical, not narrowed into a neck behind the eyes, which are very prominent; prothorax subcordiform, not much narrowed near the base, and with the postical angles projecting; elytra nearly parallel,

neither plane nor convex, with the posterior margin subobliquely truncate, punctato-striate, with the intervals deeply punctured; legs moderately long, tarsi very setulose on the upper part, almost spongy underneath, the three basal joints triangular, the fourth one very deeply incised and broadly bilobate; the claws slender, arcuate, each side with five teeth, the two basal ones smaller than the other three.

This genus includes three South African species, and another from the Zanzibar mainland.

*Synopsis of Species.*

Head and prothorax red; elytra black.. .. .	<i>ruficollis.</i>
Head, prothorax, and elytra rusty red.. .. .	<i>castaneus.</i>
Head and prothorax pale testaceous; elytra pale yellow, with a discoidal infuscated band .. .. .	<i>errans.</i>

CYLINDROCRANIUS RUFICOLLIS.

Head, prothorax, mandibles, and palpi red, shining, the four basal joints of the antennæ red, the others black or deeply infuscate; head closely and deeply punctured; prothorax very closely punctured, not much longer than broad, subcordiform, truncate at the apex and at the base, with the posterior angles sharp and projecting, a very faint, longitudinal median groove; elytra moderately plane, elongated, the outer sides slightly produced diagonally outward from the humeral angle to about one-third of the length, compressed slightly and for a very short distance above the median part, and very slightly amplified from there to the outer posterior angle, narrowly and deeply punctato-striate, with the intervals narrow, convex, deeply and irregularly punctured, black, shining, and narrowly margined with reddish brown; under side and legs yellowish brown, abdomen black. Length 6 mm.; width 3 mm.

*Hab.* Natal (Maritzburg, Frere).

Captured on the blossoms of *Acacia horrida* (G. A. K. Marshall).

CYLINDROCRANIUS CASTANEUS, Bohem.

*Calleida castanea*, Bohem., *Insect. Caffr.*, i., p. 41.

Rusty red, with the joints of the antennæ, with the exception of the two basal ones, and also the abdominal segments, deeply infuscate; head deeply and closely punctured; prothorax subcordiform, but not much narrowed near the base and hardly longer than broad, closely and deeply punctured, and with a very faint, narrow, longitudinal median groove; elytra moderately plane, elongated, the outer sides slightly produced diagonally outward from the humeral angle to about one-third of the length, slightly compressed for a very short distance above the median part, and very slightly amplified from there to the outer posterior angle, narrowly and deeply punc-

tato-striate, with the intervals convex and closely punctured, darker red than the head and prothorax, the three basal joints of tarsi somewhat infusate. Length 7 mm. ; width 3 mm.

*Hab.* Caffraria, teste Bohem.

Kindly communicated by Prof. C. Aurivilius, of the Stockholm Museum.

De Chaudoir was right in his conjecture that Boheman's *Callida castanea* was referable to this genus.

#### CYLINDROCRANIUS ERRANS,

Plate V., fig. 13.

Head and prothorax pale testaceous red ; mandibles black internally ; antennæ with the four basal joints pale yellow, the others rufescent ; head deeply punctured ; prothorax hardly longer than broad, subcordiform although not much narrowed at the base, deeply and closely punctured, faintly grooved longitudinally in the centre and very briefly pubescent ; elytra elongated, somewhat convex, nearly straight, but slightly compressed for a very short distance above the median part, and without any projection from the humeral angle to the third of the length, deeply punctato-striate with the intervals convex and every alternate one with a regular series of deep punctures, pale yellow, but not transparent, with a light infusate discoidal band reaching from below the basal part to some distance from the apex, extending from the suture to and including the fifth interval, produced a little below the median part in a subquadrate patch reaching almost to the eighth interval, enclosing an ovate part of the paler background, but stopping short of the postical part ; under side and legs pale yellow ; abdomen somewhat infusate on the sides. Length 9 mm. ; width 3 mm.

*Hab.* Damaraland (Walfish Bay, Kalahari Desert).

#### GEN. DEMETRIAS, Bonelli,

Observ. Entom., part i.

Mentum broadly notched, with an acute median tooth ; ligula moderately long, slightly notched at the tip ; paraglossæ membranaceous, soldered with the ligula and slightly longer and rounded at the top ; last joint of the labial palpi inflated and sharply acuminate at the tip, that of the maxillary subcylindrical and truncate at the apex ; mandibles not very long ; labrum subquadrate, slightly sinuated at the apex ; eyes moderately prominent ; antennæ filiform ; head narrowed behind the eyes ; prothorax longer than broad, subcordiform, with the posterior angles very acute and projecting much ; elytra elongated, moderately plane, slightly enlarged gradually behind, costate, truncate apically ; tarsi with the three basal joints

trigone, the fourth one deeply incised and broadly bilobate; claws slender, finely pectinate.

*Hab.* This genus is represented in Europe, Africa, and Australia.

*Synopsis of Species.*

Elytra with the suture darker than the disk .. .. . *natalensis*.  
Elytra with the suture as pale as the disk .. .. . *fragilis*.

DEMETRIAS NATALENSIS, Chaud.,  
Rev. et Mag. Zool., 1876, p. 372.

Head and prothorax slightly testaceous; antennæ with the apical joints a little rufescent; head almost smooth; prothorax elongated, subcordiform, with the posterior part narrowed and the outer angles projecting, narrowly grooved in the centre and very finely plicate transversely; elytra gradually amplified backward, about one-fourth broader above the apex than at the base, striate, the striæ with broad punctures, the intervals slightly convex, smooth, the third one with three broad punctures, the anterior one at about one-third of the length, the second in the centre,\* the third far above the apex, transparent with the suture a little darker than the disk. Length  $4\frac{1}{2}$ –5 mm.; width  $1\frac{1}{2}$  mm.

*Hab.* Natal (D'Urban, Frere). *D. natalensis* is taken in wet sand, by *spruits* under tufts of grass and *débris*, September to November. It seems to disappear when the rains come and fill the "spruits," *i.e.*, streams. (G. A. K. Marshall.)

DEMETRIAS FRAGILIS.

Very light pale yellow, with the head and prothorax a little darker; head almost smooth; prothorax elongated, subcordiform, with the posterior angles very acute, narrowly grooved in the centre and very finely plicate transversely; elytra nearly parallel, finely striate with the intervals plane, and two deep punctures on the third, one near the base, the other above the apex, very pale yellow, moderately shining and almost transparent. Length 4 mm.; width  $1\frac{1}{4}$  mm.

Prothorax narrower than in *D. natalensis*, the colour is more pallid, the elytra are more parallel and narrower, the striæ are finer and hardly punctured, and the suture is of the same colour as the disk.

*Hab.* Zambezia (Salisbury).

GEN. PELIOCYPAS, Schm.-Goeb.,  
Coleopt. Birm., 1846, p. 33.

All the generic characters are those of *Demetrias*; the ligula, how-

\* This median puncture is wanting in some examples or is hardly distinguishable.

ever, is much shorter than the paraglossæ; the facies is slightly different.

In the diagnosis of that genus, as given by Lacordaire (Gen. d. Coleopt., vol. i., p. 116), the ultimate joint of the labial palpi is said to be truncate at the tip; but in the example of *P. natalensis* (Chaud. *in litt.*; *ex mus.* Chaud.) generously given me by Mons. R. Oberthur, this ultimate joint is distinctly and very sharply acuminate.

*Hab.* This genus was hitherto represented in Burmah only.

PELIOCYPAS NATALENSIS (Chaud. *in litt.*)

Pale testaceous yellow; antennæ a little lighter in colour; head much elongated behind the eyes, nearly smooth; prothorax one-third longer than broad, the apical margin a little emarginate, slightly broader in the anterior part than at the base, with the outer sides curving a little towards the base, but with the posterior angle projecting, smooth, faintly plicate, and grooved in the centre; elytra twice as broad as the prothorax at the base, gradually amplified towards the apex, where they are about one-fourth broader past the median part than at the base, slightly convex, punctato-striate, with the punctures broad and the intervals smooth, the third one with two punctures, one below the base, the other one above the apex. Length 6 mm.; width 2 mm.

*Hab.* Natal.

GEN. XENITENUS.

Mentum with the lateral lobes slightly diverging at the tip and very sharp; basal part with a small, articulated, sharp tooth in the centre; ligula horny, slightly enlarged in the anterior part and oblong at the tip; paraglossæ as broad as the ligula but not quite as long, rounded at the apex; last joint of maxillary and labial palpi subcylindrical and not much acuminate; antennæ pubescent, each joint setulose at the apex; labrum moderately long, quadrate; head elongato-ovate, slightly narrowed at the base; prothorax a little emarginate in the anterior part, with the angles rounded, narrower at the base than at the apex, the posterior angles prominent; elytra elongated, with the outer sides parallel, truncate at the apex with the posterior margin slightly sinuate; claws pectinate.

*Hab.* The five species enclosed in this genus are found under dead bark, dried or decayed plants, and sometimes under stones.

*Synopsis of Species.*

Prothorax subquadrate; two infusate patches on the disk; lateral band of the elytra well defined and posterior patch reaching the apex *plagiatus.*  
 Lateral band of elytra, as well as the posterior patch, not well defined . . . . . *modestus.*

- No infuscated patch on the disk; lateral band of elytra narrow .. *inornatus*.  
 Lateral band short, produced into a transverse band below the middle .. .. .. .. .. *debilis*.  
 Prothorax moderately broad; elytra with a lateral infuscate band reaching on one side from near the base to the apex and invading the whole of the postical part .. .. .. .. .. *dilucidus*.  
 Prothorax very narrow; lateral infuscate band beginning at a great distance from the shoulder .. .. .. .. .. *limbatus*.  
 Elytra with three brown costæ, with the intervals tessellated with brown .. .. .. .. .. *tessellatus*.

XENITENUS PLAGIATUS, Bohem.

*Dromius plagiatus*, Insect. Caffr., i., p. 48.

Head, prothorax, palpi, and antennæ light testaceous; head nearly smooth; prothorax short, subquadrate, very slightly convex on the disk, the outer margins acute, grooved longitudinally in the centre, finely plicate transversely, sometimes of a lighter hue than the head, and with two black or infuscate bands on the disk; elytra very finely aciculate, parallel, plane, narrowly punctato-striate with the intervals plane, very pale yellow, almost transparent, with a triangular infuscate patch in the centre of the base, and on each side a black band curving round the shoulder, running on the fifth, sixth, and seventh intervals at a certain distance from the base to about two-thirds of the length of the elytra, when it spreads over the whole posterior part; on the postical patch and on the lateral band are more or less regular series of quadrate shallow punctures of the colour of the background, that is to say pale yellow, forming thus a kind of tessellated spots; there are three such punctures on the third interval, four or five on the fifth, and five or six on the seventh; under side and legs pale yellow; abdomen slightly infuscate. Length  $6\frac{1}{2}$ –7 mm.; width 2 mm.

*Hab.* Cape Colony (Stellenbosch). Found under dead bark.

XENITENUS MODESTUS.

Size, shape, and colouring as in *X. plagiatus*; prothorax with two infuscate patches; elytra very finely aciculate, parallel, plane, narrowly punctato-striate with the intervals plane, very pale yellow, almost transparent, the triangular basal patch is very faint, the lateral band on each side is not well defined and often reduced to an infuscated line on each of the fifth, sixth, and seventh intervals which often disappear altogether, the transverse postical patch is made of irregular lines or dots, and the punctures on the posterior part of the third interval, and those on the fifth, sixth, and seventh intervals are discernible, but there is no tessellation. Length  $6\frac{1}{2}$ –7 mm.; width 2 mm.

*Hab.* Cape Colony (Carnarvon, Hope Town). Found under stones.

## XENITENUS INORNATUS.

Pale testaceous; the head and prothorax a little redder than the elytra; prothorax shaped as that of *X. plagiatus*, but the discoidal patches are not discernible; elytra nearly transparent, plane, finely punctato-striate with the intervals plane, and having a short, narrow, slightly infuscated line on each side of the suture at the base, and a moderately black band curving round the shoulder, running from below the base to some distance from the apex, broadening from about the median part and produced transversely at the end towards the suture, the seventh interval on which the lateral band runs has nine tessellated impressions; under side and legs almost transparent; abdomen infuscate at the apex. Length 6–7 mm.; width 2–2¼ mm.

*Hab.* Cape Colony (Little Namaqualand, Klipfontein, O'okiep).

## XENITENUS DEBILIS.

Pale testaceous; prothorax shaped as in the preceding species and without any discoidal patches; elytra parallel, finely punctato-striate the intervals plane, almost transparent, and with a deeply infuscate triangular patch in the centre of the base, and a lateral black band running on the fifth, sixth, and seventh intervals from a certain distance from the base to below the median part, where it is produced transversely towards the suture, which it reaches; the seventh interval is tessellated, and there are four punctures on the sixth interval and two or three on the fifth; under side pale yellow, the two apical segments black on the upper and under part. Length 5 mm.; width 1¾ mm.

*Hab.* Cape Colony (Carnarvon).

## XENITENUS DILUCIDUS.

Head, palpi, antennæ, prothorax, and legs pale yellowish red; head smooth, shining; prothorax shaped as in *A. singularis*, although slightly broader; elytra elongated, a little broader behind than in front with the sides straight, striate, with the striæ shallow, black, with an elongated yellowish-red patch reaching from the base, which it invades entirely, to a very short distance from the apex, and about one-half narrower there than at the base, outer margins narrowly edged with yellowish red; legs and pectus yellowish; abdomen infuscate. Length 6 mm.; width 2 mm.

*Hab.* Bechuanaland (Vryburg), Zambezia (Salisbury).

## XENITENUS LIMBATUS.

Testaceous red; prothorax narrow, longer than broad, slightly attenuated gradually towards the base; elytra elongated, parallel, plane, narrowly punctato-striate with the intervals plane, the seventh

interval with six hardly defined punctures, testaceous, with a lateral black band beginning at about one-third of the length, extending from the fifth interval to the outer margin and running behind along the posterior margin as far as the suture; abdomen infuscate. Length 6-7 mm.; width  $1\frac{3}{4}$ - $2\frac{1}{4}$  mm.

*Hab.* Cape Colony (exact locality unknown).

Closely allied to *X. dilucidus*; the prothorax is much narrower, and the lateral band on the elytra does not reach so near the shoulder.

#### XENITENUS TESSELLATUS.

Pale testaceous; head and prothorax a little redder than the elytra; prothorax longer than broad, with the outer sides nearly parallel, and a slightly infuscated longitudinal band on each side of the median groove; elytra subparallel, a little broader past the middle than at the base, plane, narrowly punctato-striate with the intervals slightly convex, the second, fourth, and sixth on each side with broad, deep punctures, testaceous, with three bronze costæ on each side, and the intervals tessellated with brown; in some examples the brown tessellation has nearly disappeared in the median part of the disk; abdomen infuscated. Length 7 mm.; width  $2\frac{1}{4}$  mm.

*Hab.* Cape Colony (Stellenbosch), Zambesia (Salisbury).

#### GEN. COPTOPTERA, Chaud.,

Bull. Mosc., 1837, iii., p. 5.

Mentum with a long, sharp tooth in the middle, lateral lobes long, sharp; ligula narrow, setose at the tip, not emarginate, paraglossæ lanciform at the apex and slightly longer than the ligula; last joint of labial and maxillary palpi fusiform, truncate at the very tip; labrum long, bluntly triangular, incised at the tip; head very long behind the eyes; prothorax longer than broad, with the outer sides nearly straight; elytra elongated, either parallel or slightly amplified behind, plane, truncated subdiagonally behind; tarsi subfiliform, fourth joint incised; claws strongly pectinate, with four or five teeth on each side.

#### *Synopsis of Species.*

Head, prothorax, and elytra totally brown .. .. .	<i>brunnea.</i>
Head and prothorax pale red; elytra with an infuscated suture and three faint, tessellated lines on each side .. ..	<i>angusticollis.</i>
Prothorax with two fuscous bands; elytra with the suture, three continuous and three tessellated bands on each side infuscated .. .. .	<i>capicola.</i>
Head, prothorax, and elytra pale yellow; a short triangular black patch under the scutellum .. .. .	<i>scutellaris.</i>

Head, prothorax, and elytra very pale yellow; elytra slightly punctato-striate; anal segment black .. .. . *tenella*.  
 Elytra deeply punctato-striate .. .. . *punctato-striata*.

## COPTOPTERA BRUNNEA, Chaud.,

Bull. Mosc., 1837, iii., p. 5.

Head elongato-ovate, smooth, with two longitudinal impressions between the eyes, which are not prominent; prothorax a little broader than the head, as long as broad, hardly rounded laterally, slightly emarginate at the apex and with the posterior angles rounded and with a hardly defined depression on each side of the base; elytra elongated, slightly narrowed in the basal part, plane, striate, with the striæ crenulate, truncate, and slightly diagonal behind.

*Hab.* Cape, teste Chaud.

## COPTOPTERA ANGUSTICOLLIS, Bohem.,

Plate III., fig. 7.

Insect. Caffr., i., p. 47.

Head and prothorax pale yellowish red; head smooth, bi-impressed, narrowed behind, smooth, shining; prothorax twice as long as broad, narrower than the head, a little broader at the apex than at the base, very finely plicate transversely and with a median narrow groove; elytra twice as broad at the base as the basal part of the prothorax, slender, but gradually amplified from the base to near the apex, pale yellow, with the first two intervals slightly infusate, finely punctato-striate, with the intervals plane, and with a series of brown tessellated patches on the hind part of the third, fifth, and seventh intervals; under side and legs pale yellow. Length 7 mm.; width  $2\frac{1}{4}$  mm.

*Hab.* Caffraria, teste Bohem.

## COPTOPTERA CAPICOLA.

Head and prothorax pale brown; head smooth, bi-impressed, narrowed behind, shining; prothorax twice as long as broad, narrower than the head, broader at the apex than at the base, and somewhat although slightly rounded in the anterior part, very finely plicate and with an ill-defined median narrow groove, and two fuscous bands; elytra twice as broad at the base as the base of the prothorax, gradually amplified from the base to near the apex where they are nearly twice as broad as at the base, not quite plane, striate, with the intervals as broad as the striæ, slightly convex, second, fourth, and sixth brown or slightly infuscated, and the three intervening ones with a series of tessellated

brown patches; suture and first interval slightly infusate; under side and legs pale yellow. Length 7–8 mm.; width  $2\frac{1}{4}$  mm.

Closely allied to *C. angusticollis*, Bohem., and mainly distinguished by the infuscated thoracic bands. The tessellation of the intervals of the elytra are much better defined and more complete.

*Hab.* Cape Colony (Cape Town, Piquetberg).

#### COPTOPTERA SCUTELLARIS.

Pale yellow; head nearly smooth, somewhat darker in the anterior and posterior part than the prothorax, smooth; prothorax nearly twice as broad as long, truncate at base and apex, with the outer sides straight, very slightly deplanated behind on the sides, finely grooved in the centre, and nearly smooth; elytra linear, one-third broader than the prothorax, with the shoulders slightly diagonal, plane, striate, with the intervals slightly raised, pale yellow like the prothorax, with a short triangular black basal patch, extending below the scutellum from the fourth interval to the other; suture slightly infusate; under side and legs pale yellow; abdomen fuscous. Length 6 mm.; width  $1\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town).

#### COPTOPTERA TENELLA, Bohem., Insect. Caffr., i., 1848, p. 48.

Very pale yellow, with the head and pygidium a little infusate; head smooth, shining; prothorax about one-fourth longer than broad, a little broader at the apex than at the base, with the anterior part of the outer margin slightly rounded, shining, slightly aciculate, and with a fine groove in the centre; elytra almost linear, with the humeral angles slightly rounded, plane, slightly punctato-striate, with the punctures very shallow and the intervals very narrow; legs pale yellow; abdomen very slightly infusate. Length  $5\frac{1}{2}$  mm.; width  $1\frac{1}{4}$  mm.

*Hab.* Natal (D'Urban, Frere).

#### COPTOPTERA PUNCTATO-STRIATA.

Pale yellow, with the head, labrum, and the antennæ, with the exception of the four basal joints, darker; head smooth, shining, elongated behind the eyes; prothorax one-third longer than broad, hardly attenuate laterally behind, faintly plicate on each side of the median groove; elytra parallel, but with the humeral angles sloping, plane, deeply punctato-striate, the alternating intervals with a series of punctures; pygidium slightly infusate; legs flavescent. Length 7 mm.; width  $1\frac{1}{2}$  mm.

Larger than *C. tenella*, Boh. ; the head is more elongated behind the eyes, the prothorax more parallel, and the punctures on the elytra, which are very shallow in *C. tenella*, are deep and closely set.

*Hab.* Cape Colony (Stellenbosch).

GEN. METABLETUS, Schm.-Goeb.,

Coleopt. Birm., 1846, p. 38.

CHAROPTERUS, Motsch.

DROMOCERYX, Schm.-Goeb.

Mentum with a small median tooth, sometimes incised in the centre. Other generic characters as in *Dromius*.

*Hab.* *Metabletus* is represented in Europe, Asia, Egypt, India, Burmah, Canary Islands, and North America.

METABLETUS DISCIPENNIS, Motsch.,\*

Bull. Mosc., 1864, p. 232.

Shape of *M. pallipes*, Dej., but twice larger ; testaceous red, maculated with black, elongato-ovate, moderately depressed, shining ; head, antennæ, abdomen, and a broad part of the elytra piceous ; palpi, base of antennæ, tibiæ and femora pale testaceous ; prothorax subtransverse, narrowed behind in a curve, and with the posterior angles blunt ; elytra a little broader than the thorax, elliptic, distinctly striate, and truncated in a curve at the apex. Length 4 mm. ; width  $1\frac{1}{2}$  mm.

*Hab.* Cape of Good Hope.

METABLETUS FLAVICEPS, Motsch.,

Bull. Mosc., 1864, p. 232.

Shape of *M. pallipes*, but four times larger ; testaceous red, elongato-ovate, moderately depressed, shining ; eyes, abdomen, and a triangular posterior patch on each side of the elytra piceous ; base of antennæ and femora pale brick-red ; head elongated ; eyes hardly prominent ; prothorax ovate, a little broader in front than the head, with the posterior angles very obtuse ; elytra nearly elliptic, distinctly striate, truncated, with a curve at the apex. Length 6 mm. ; width  $1\frac{3}{4}$  mm.

*Hab.* Cape of Good Hope.

\* These two species, which are unknown to me, are in all probability identical with some of the species of *Dromius*. *M. discipennis* might prove to be the same species as *D. flavosignatus*.

## GEN. DROMIUS, Bonelli,

Observ. Entom., i., 1809, tabl. synopt.

Mentum broadly excavated, without any median tooth; ligula used with the paraglossæ, which, like the ligula, are rounded at the apex; last joint of palpi fusiform and acuminate at the tip; labrum transverse, truncate at the apex; antennæ filiform; prothorax more or less truncate at the apex, and more or less slightly sinuate above the base, which is always straight, with the angles acute; elytra subparallel, elongated, plane; legs slender; tarsi narrow, fourth joint not incised; claws pectinate.

*Hab.* This genus has representatives in Europe, the Canary Islands, North and South America, India, Ceylon, Australia, and New Zealand.

*Synopsis of Species.*

- Elytra with a scutellary black patch, an elongated one on the disk incised behind, and a postical one on each side .. .. *flavosignatus.*  
 Elytra with a scutellary black patch, and the disk slightly infuscate on each side .. .. *affinis.*  
 Elytra infuscated, with the exception of a diagonal humeral patch and a narrow streak on each side along the suture .. .. *fuscus.*  
 Head, prothorax, and elytra metallic black; legs black .. .. *capensis.*  
 Head, prothorax, and elytra metallic black; tibiæ flavescens .. .. *tibialis.*

## DROMIUS FLAVOSIGNATUS, Bohem.,

Insect. Caffr., i., 1848, p. 49.

Antennæ, palpi, and legs light testaceous; head pitchy black, nearly smooth; prothorax subquadrate, being slightly narrower at the base than at the apex, with the apical and basal margins almost straight and the posterior angle acute, pitchy black, turning sometimes to brown, obsoletely aciculate, and grooved in the centre; elytra elongated, subparallel, with the shoulders moderately rounded, broader by one-third than the prothorax, a little amplified behind, plane, faintly striate in the median part of the disk only, pale yellow, with a basal subquadrate infuscate patch below the scutellum, an arrowhead-shaped discoidal one, and an extreme apical one reaching from near the suture to the outer margin, the yellow black ground consists thus of a lateral large anterior patch and a subtriangular undulate one past the middle; abdomen slightly infuscate. Length 3-4 mm.; width  $1\frac{1}{2}$ - $1\frac{3}{4}$  mm.

*Hab.* Cape Colony (Cape Town, Oudtshoorn), Natal (Frere, Maritzburg), Transvaal (Zoutpansberg).

## DROMIUS AFFINIS.

Antennæ slightly rufescent; palpi and legs very pale yellow; head black, nearly smooth; prothorax pale yellowish red, faintly

aciculate, of the shape and size of that of *D. flavosignatus*, but with a very narrow, almost invisible longitudinal groove; elytra elongate, subparallel, with the shoulders slightly rounded and a little broader past the middle than at the base, plane, faintly striate, the intervals a little more defined in the median part of the disk, pale yellow, with a black triangular patch below the scutellum and a cloudy slight infuscation in the dorsal part; lateral sides of abdomen darker than the centre. Length 4 mm.; width  $1\frac{3}{4}$  mm.

*Hab.* Natal (D'Urban).

#### DROMIUS FUSCULUS.

Antennæ, palpi, and legs flavescens; head black, nearly smooth; prothorax identical in shape to that of the two preceding species, piceous black or very dark brown, hardly aciculate, and with a conspicuous longitudinal median groove; elytra elongate, with the shoulders slightly rounded, gradually amplified to long past the median part, where they are about one-third broader than at the base, plane, faintly striate, with four intervals in the median part of the disk raised, shining, infuscate, with a yellowish diagonal humeral patch directed from near the scutellum towards the outer margin, and a streak of the same colour at about the median part extending on each side on the two intervals near the suture; under side infuscate. Length 3 mm.; width  $1\frac{1}{2}$  mm.

*Hab.* Natal (Frere).

#### DROMIUS CAPENSIS, Motsch., Bull. Mosc., 1864, iii., p. 232.

Black, with a metallic sheen; antennæ and palpi black; head nearly smooth; prothorax a little sinuate in front, with the angles projecting, broader in the anterior part than at the base, the median part of which is slightly prolonged beyond the posterior angles, smooth, shining, with a narrow longitudinal median groove; elytra elongate, nearly parallel, with the anterior angles slightly rounded, plane, very faintly striate on the median dorsal part; under side and legs black; claws bipectinate on each side. Length  $2\frac{3}{4}$ – $3\frac{1}{4}$  mm.; width  $1\frac{1}{4}$ – $1\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape, Stellenbosch, Paarl, Worcester, Albany, East London), Natal (Frere, Escourt), Transvaal (Pretoria).

This insect resembles so much *Blechnus glabratus* of Europe that it is almost impossible to distinguish the two.

#### DROMIUS TIBIALIS.

Black, with a metallic sheen; antennæ and palpi dark brown; head smooth; prothorax short, a little sinuate in front, with the

angles projecting, broader in front than behind, lateral sides straight, posterior angles slightly recurved, smooth, shining, with a narrow longitudinal median groove; elytra elongate, nearly parallel, with the anterior angles slightly rounded and very faintly striate; femora black, with the knees, tibiæ, and tarsi flavescent. Length 3 mm.; width  $1\frac{1}{4}$  mm.

Very closely allied to the preceding species.

*Hab.* Zambezia (Salisbury).

#### GEN. KLEPTERUS.

Mentum broadly excavated, without any median tooth, lateral lobes short; ligula very short, quadrate, the paraglossæ very narrow, truncate at the apex, in line with the ligula; labrum very short, rounded in the anterior angles, and very slightly emarginate in the centre; last joint of maxillary palpi fusiform, the labial one much swollen and truncate obliquely; prothorax hardly sinuated in the anterior part, with the anterior angles much rounded, truncate at the base with the outer sides straight, and the posterior angles sharp but not projecting; elytra parallel, aciculated, deeply punctato-striate; claws pectinate.

#### *Synopsis of Species.*

Head, thorax, and elytra dark brown .. .. . *consobrinus*.  
 Head and elytra dark brown; prothorax reddish .. .. . *pallidicollis*.

#### KLEPTERUS CONSOBRINUS.

Head dark brown, deeply punctulate in the anterior part; the posterior smooth; antennæ and palpi slightly rufescent; prothorax dark reddish brown with the outer sides lighter in hue, plicate transversely, hardly sinuate at the base with the anterior angles much rounded, somewhat convex, deeply grooved in the disk with the outer sides much depressed behind, the outer margin very sharp and slightly recurved; elytra nearly parallel, truncate behind with the posterior margin sinuate on each side, very deeply and closely punctato-striate, the intervals very convex and finely aciculate; under side and legs pale brown, with the abdomen infusate. Length 7-8 mm.; width 3 mm.

#### KLEPTERUS PALLIDICOLLIS.

Head reddish brown, closely punctulate in the anterior part, with the apical part, the antennæ, and palpi rufescent; prothorax as in the preceding species, but entirely pale red; elytra nearly parallel, truncate behind, with the posterior margin sinuate on each side, punctato-striate with the intervals convex and aciculate; under side and legs pale brown, with the abdomen infusate. Length 6 mm.; width  $1\frac{3}{4}$  mm.

Differs from *K. consobrinus* not only in the colouring of the head and prothorax, but in the striation of the elytra, which is not so deep, and the punctures not so broad; the intervals are also not so highly raised.

*Hab.* Natal (D'Urban).

#### GEN. KLEPSIPHRUS.

Mentum broadly notched, without any median tooth but slightly sinuate in the centre; lateral lobes short; ligula broad, horny, a little emarginate at the tip, paraglossæ as long as the ligula, and slightly rounded outwardly; labrum short, notched in the middle; last joint of maxillary palpi fusiform, the labial one less so; head narrowed behind; prothorax hardly narrowed behind, the anterior and posterior angles not rounded, but the former more acute; elytra elongate, very little amplified behind, striate; claws pectinate.

#### KLEPSIPHRUS PUGNAX.

Head piceous, depressed on each side in the anterior part, very narrowed behind, quite smooth and shining; antennæ and palpi slightly rufescent; prothorax dark brown, very slightly broader at the apex than at the base, truncate at both ends, outer sides parallel, with the anterior angles very acute and the posterior one very slightly rounded, narrowly grooved in the centre with a small depression at each end of the groove, smooth, shining with a faint transverse plication; elytra elongated, nearly parallel, dark brown, shining, depressed, deeply striate, with the intervals moderately broad, and with a series of deep punctures on the third, fifth, and seventh; femora slightly rufescent, with the tibiæ dark brown. Length 8 mm.; width 3 mm.

*Hab.* Mozambique (Lourenço-Marquez).

#### GEN. ASTASTUS.

Ligula, paraglossæ, and mentum of *Metaxymorphus*, last joint of maxillary and labial palpi fusiform, much inflated in the centre, and acuminate at the tip; labrum short; joints of antennæ short and closely set, the second and third nearly equal; head ovate, with a distinct neck; eyes prominent; prothorax one-third longer than broad, broader at the apex than at the base, and with the sides nearly straight but for a small sinuation above the outer angle; elytra plane, elongated, truncate behind with the shoulders slightly rounded, and broader at the apex than at the base; tarsi slender, the fourth joint hardly incised; claws not pectinate.

I am not sure that this genus should come in the *Dromiidæ* section or the *Cymindidæ*, much more so as I have not been able

to examine thoroughly the ligula of the unique specimen that has come under my notice.

ASTASTUS DEBILIS.

Light brick-red, shining; head bi-impressed in the anterior part, and deeply plicated longitudinally; prothorax smooth, shining, with a very narrow median groove; elytra elongated, gradually amplified from the shoulder to the apex, where they are about one-fourth broader than at the base, nearly plane, faintly striate, with the intervals slightly costate; under side and legs pale yellow. Length 4 mm.; width 1 mm.

*Hab.* Cape Colony (Namaqualand), Klipfontein.

GEN. AUTOMAIMUS.

Mentum moderately broad, notched, with a slight sinuation in the middle of the base; ligula a little shorter than the paraglossæ, the latter slightly projecting, truncate at the tip; labrum short, sinuate in front; head subquadrate, constricted behind; ultimate joints of labial and maxillary palpi fusiform, truncate at the tip; prothorax one-fourth broader at the apex than at the base; sides straight; elytra depressed, a little broader behind than in front, striate; claws not pectinate.

AUTOMAIMUS SINGULARIS.

Head pale yellowish red, smooth, shining, infuscated laterally behind the eyes; palpi black, with the tip flavescent; antennæ black, with the two basal joints reddish; prothorax one-fourth broader at the apex than at the base, with the outer sides straight, grooved in the centre with a small depression at each end of the groove, reddish, with the outer margins infuscate and very finely plicated transversely; elytra elongated, black, subopaque, a little broader behind than in front, with the outer sides straight, plane, slightly striate, with the intervals moderately broad; legs black. Length 6 mm.; width 2 mm.

*Hab.* Cape Colony (Cape Town).

GEN. LIONYCHUS, Wissmann,  
Stett. Ent. Zeit., 1846, p. 25.

Mentum with a median tooth not bifid, but truncate at the tip; ligula and paraglossæ of *Dromius*; prothorax suborbicular on the outer sides, with the anterior angles projecting, the posterior ones acute, but the basal part sloping from the outer angle and prolonged behind; elytra obovate; legs long; joints of tarsi triangular, the three basal ones of the anterior legs broadly dilated; claws not pectinate.

*Hab.* Representatives of the genus are found in Europe, India, and Burmah.

*Synopsis of Species.*

Elytra with a black margin ; a marginal median black patch . . . . *cinctus*.  
No marginal median black patch, but with a sinuate basal black band *basalis*.

LIONYCHUS CINCTUS, Chaud.,  
Bull. Mosc., 1848, vol. i., p. 95.

Head and prothorax brassy ; antennæ pubescent, black, with the two basal joints pale yellow ; head nearly smooth ; prothorax nearly one-half broader than long, truncate at the apex, with the outer sides crescent-shaped, the posterior angle much rounded and the median part of the base produced a little beyond the outer angles, faintly plicate, and grooved in the centre ; elytra broader at the base than the prothorax at its widest, with the outer angles slightly rounded, hardly amplified behind, a little convex, smooth, with one or two faint striæ along the suture, pale yellow with a black narrow margin dilated into a round patch at about the middle and reaching the suture, the infuscation ascending a little the suture at the apical part ; under side flavescent ; legs black. Length 3 mm. ; width  $1\frac{1}{2}$  mm.

*Hab.* Cape Colony (Worcester, Stellenbosch).

LIONYCHUS BASALIS.

Shape, size, and colouring of *L. cinctus*, but the three basal joints of the antennæ and also the tibiæ are flavescent ; the sculpture of the elytra is identical, but the infusate margin is a little narrower, not dilated into a median marginal patch, and there is a basal sub-diagonal black line near the base which seems to consist of two elongated coalesced patches reaching from the suture to about the median part of the disk ; under side black. Length  $3-3\frac{1}{4}$  mm. ; width  $1\frac{1}{4}-1\frac{1}{2}$  mm.

*Hab.* Zambezia (Salisbury).

GEN. APRISTUS, Chaud.,  
Enum. Carab. Cauc., 1846, p. 62.

Mentum with a small median tooth at the base ; ligula short, broad, truncate, and sinuate at the tip, paraglossæ as long as the ligula and fused with it ; palpi short, the last joint ovate, subacuminate at the tip ; labrum transverse ; head and antennæ as in *Dromius* ; prothorax broadly cordiform, truncate at the base, posterior angles projecting, the four joints of the anterior tarsi slightly triangular ; claws not pectinate.

*Hab.* The genus has representatives in Europe and North America.

*Synopsis of Species.*

Elytra elongated, with the sides parallel .. .. .	<i>latipennis.</i>
Elytra rotund, a little convex, very dark blue .. .. .	<i>deceptor.</i>
Elytra subparallel, broad, greenish blue .. .. .	<i>cyanellus.</i>

APRISTUS LATIPENNIS, Chaud.,  
 Rev. et Mag. Zool., 1878, p. 160.

Brassy; antennæ black, with the first joint slightly reddish; head finely punctured, bi-impressed between the eyes; prothorax cordiform, nearly twice as broad at the apex as at the base, the apical part sinuate with the anterior angles projecting, the posterior ones acute, very finely aciculate, and with a median longitudinal groove; elytra one-third broader than the prothorax at its widest, parallel for the greatest part of the length, slightly rounded behind, depressed, striate with the striæ nearly obsolete, and the intervals very finely aciculate, or rather very finely shagreened; legs black. Length 3 mm.; width 1 mm.

*Hab.* Cape Colony (Stellenbosch), Natal (Frere), Zambezia (Salisbury). Occurs also in Zanzibar.

## APRISTUS DECEPTOR.

Black with a metallic tinge, or very dark cyaneous; head smooth; apical part of palpi flavescent; antennæ black, with the three basal joints and the tip of the last one slightly flavescent; prothorax cordiform, one-half broader than long, truncate at the base, a little convex on the disk, grooved in the centre; elytra gradually amplified from the base to the apex, moderately convex and faintly striate; legs flavescent. Length 3 mm.; width  $1\frac{1}{2}$  mm.

*Hab.* Transvaal (Waterberg).

## APRISTUS CYANELLUS, Bohem.

*Lebia cyanella*, Bohem., Vet. Acad. Förh., 1860, p. 7.

Bluish green on the upper side, very dark blue underneath; the antennæ black, with the two first joints testaceous red; prothorax faintly although closely punctulate, grooved in the median part, cordiform, broader than long, truncate at the base with the outer angles straight; elytra gradually amplified from the base to the apex, moderately convex and faintly striate; legs black. Length  $3\frac{3}{4}$  mm.; width  $1\frac{3}{4}$  mm.

*Hab.* Neighbourhood of Lake N'Gami.

Motschulsky has also published the diagnoses of three *Dromiida*, one which he includes with doubt in the genus *Trichis*, and two for which he creates new genera, *Drymatus* and *Pazena*. I have not

been able to identify these species. I doubt if any one can do so from the descriptions given.

GEN. TRICHIS, Klug,

Symb. Phys., iii., 1831, t. 31.

TRICHIS (?) LATERIPICTA, Motsch.,

Bull. Mosc., 1864, p. 240.

Shape of *Dromius marginellus*, but the elytra are longer and black behind, elongated, parallel, moderately convex, shining, and very pale testaceous; the eyes are black, and so is a hamate lateral band on the elytra, prolonged behind; palpi, two lines on the prothorax, and abdomen infuscated; head oblong, smooth, hardly narrowed behind, with the eyes moderately prominent; prothorax as broad as the head, subquadrate, attenuated in a curve behind, impressed in the centre, with the angles obtuse, nearly rounded with the sides hardly reflexed; elytra twice as broad as the prothorax, four times as long, deeply subpunctato-striate, intervals almost plane and without punctures. Length  $5\frac{1}{4}$  mm.; width  $1\frac{3}{4}$  mm.

*Hab.* Cape of Good Hope.

GEN. DRYMATUS, Motsch.,

Etud. Entom., 1862, p. 53.

Dromiid with a robust head, convex, ovate, a little narrowed behind, and with a transverse impression; antennæ slender, longer than half the size of the body, the second joint longer than broad and half the size of the first, a little shorter than the third, which is as long as the others; last joint of palpi conical; labrum transverse, sinuate in the centre; mandibles strong; prothorax nearly quadrate, as broad as the head, slightly narrowed behind, arcuated on the sides, and the angles as obtuse as in *Badister*; elytra a little broader and three times longer than the head, almost parallel, and very truncate behind, showing the last abdominal segment, which is broad and rounded on the sides, striæ distinct but without punctures, intervals moderately convex; legs slender, femora swollen, especially the hind ones, reminding one of *Halticidæ*; the four joints of tarsi very small, triangular, hardly incised; claws without any pectens visible to the magnifying glass; no wings.

DRYMATUS TESSELLATUS, Motsch.,

*Loc. cit.*, p. 53.

Elongated, subparallel, shining, fuscous red, with the head bronze black; the ten last joints of the antennæ, the abdomen, and the tarsi nearly black; median part of the prothorax subæneous; elytra pale

yellow, infuscated behind, striated, with the alternate intervals tessellated with dark brown. Length  $4\frac{1}{4}$  mm.; width 1 mm.

GEN. PAZENA, Motsch.,

Etud. Entom., 1859, p. 31.

Ligula elongate, slightly bilobate at apex; labrum square, covering the greatest part of the mandibles; antennæ thick, but not longer than head and prothorax together; basal joint longer than the following, moderately robust, the second one narrower and almost three times shorter than the first, third one a little longer than the second, and the two together as long as the first, fourth shorter than the second, conical and smooth like the three preceding, the fifth to the tenth hardly longer than the fourth, but broader, ovate, and pubescent, the eleventh as long as the third, ovate and acuminate at tip; eyes moderately projecting; prothorax slightly transverse and recurved laterally, cordiform with the posterior angles blunt, and obliquely arcuate, base truncate, basal part not produced behind; scutellum small, triangular; elytra broader than the prothorax, a little ampliate behind, and arcuate without any sensible sinuation, but not covering the last abdominal segment; they are regularly striate, the striæ finely punctured and the punctures very close; the intervals are convex; on the second stria is an impressed foveola situated about three-quarters of the length, and another on the third at about a third of the length from the base; the body is smooth on both sides, and in the male the joints of the anterior tarsi are dilated, triangular, the first and second are as long as broad, the third, a transverse one, is almost bilobate, the fourth bifid, and the fifth is the longest of all, with the claws divaricating and much pectinate; the last segment of the abdomen is broadly truncate, with a small carina in the median part of the posterior edge.

*Hab.* The species on which the genus is founded is an inhabitant of Java. I have not been able to identify either the genus or the South African species.

PAZENA PLAGIATA, Motsch.,

Bull. Mosc., 1864, p. 224.

Facies of *Lebia chlorocephala*, but more robust, and with the head red; subovate, depressed, shining, testaceous red, with a broad infuscate lateral band, the six terminal joints of the antennæ black; head subquadrate; eyes large, prominent; mandibles robust; prothorax almost narrower than the head, quadrate, a little narrowed behind, slightly marginate, and posterior angles straight; elytra nearly double the width and three times the length of the prothorax, slightly dilate behind, deeply striate with the striæ slightly punctured,

with the disk impressed longitudinally on each side, apical part sub-arcuate, truncate; abdomen projecting. Length  $7\frac{1}{2}$  mm.; width  $3\frac{1}{4}$  mm.

*Hab.* Cape of Good Hope.

## GROUP LEBIIDÆ.

### *Synopsis of Genera.*

#### I.

Prothorax with the median part of the base produced beyond the posterior angles; ligula longer than the paraglossæ; labrum moderately long; fourth joint of tarsi incised or lobate; last joint of labial palpi securiform.

Mentum without any median tooth; claws not pectinate .. *Singiliomimus.*

Mentum with a sharp median tooth; claws pectinate .. .. *Phlæozetus.*

Last joint of labial and maxillary palpi fusiform or slightly truncate at the tip.

Mentum with a median tooth; labrum as long as broad; paraglossæ as long as the ligula .. .. . *Lebia.*

Labrum longer than broad .. .. . *Matabele.*

Ligula longer than the paraglossæ .. .. . { *Promecochila.*  
 *Astata.*

Mentum without a median tooth; elytra somewhat convex .. *Lebistina.*

Ligula shorter than the paraglossæ; labrum long; claws not pectinate; fourth joint of tarsi not incised.

Mentum with a sharp median tooth; median part of the base of prothorax slightly produced behind; palpi abruptly truncate .. .. . *Arsinoë.*

Base of prothorax nearly truncate; palpi rounded at the tip .. *Lobodontus.*

#### II.

Prothorax with the median part of the base not produced behind beyond the posterior angles.

Mentum with a median tooth; claws not pectinate; prothorax straight laterally; elytra twice as broad as the prothorax; paraglossæ broad .. .. . *Thyreopterus.*

Labrum very long; paraglossæ narrow; prothorax cordiform .. *Catascopus.*

Mentum without any median projection; claws pectinate; paraglossæ longer than the ligula and surrounding it; prothorax broad, ampliate in the anterior part .. .. . *Coptodera.*

Paraglossæ not longer than the ligula; claws not pectinate; prothorax with the median part of the outer sides conical .. .. *Pentagonica.*

Mentum with a slight median bifid projection; paraglossæ not quite as long as the ligula; claws not pectinate; prothorax not conical laterally .. .. . *Haplopeza.*

## GEN. SINGILIOMIMUS.

Mentum without any median tooth or sinuation, the lateral lobes acute, much slanting outwardly, the inner edge straight; ligula slightly longer than the paraglossæ, which are narrower with the

tip rounded; labrum short; antennæ with the second joint shorter than the third, the others subequal; labrum short; last joint of labial palpi subcylindrical, truncate at the tip, that of the maxillary moderately securiform; jaws denticulate inwardly; head short, ovate; prothorax short, not much longer than the head, the posterior angles very acute, broader at the apex than at the base and with the anterior angles rounded; elytra ovate, somewhat convex, with three punctures on the third interval, one below the bifid basal stria and near to it, the second one in the centre of the interval at about the median part, and the third one also in the centre of the interval and at the same distance from the apex as the anterior one from the base; legs moderately long; anterior and median joints of tarsi short, much shorter than the hind ones, the fourth joint hardly incised; the claws well developed and not pectinate.

*Synopsis of Species.*

Rusty red; elytra somewhat convex, with the posterior part black .. .. . *posticalis*.  
 Pale yellow; elytra plane.. .. . *modestus*.

SINGILIOMIMUS POSTICALIS.

Rusty red, with the posterior part of the elytra black; antennæ rufescent; head closely and roughly punctured; prothorax very rugose and with a narrow median groove; elytra subovate, somewhat convex, deeply striate, with the intervals narrow and very convex, the black patch, the anterior edge of which is slightly sinuose, extends from the second third of the length to the apex; under side and legs rusty red, the two last abdominal segments are infusate. Length 5 mm.; width 3 mm.

*Hab.* Cape Colony (O'okiep).

SINGILIOMIMUS MODESTUS.

Totally light yellow; head closely but not very deeply punctured; prothorax closely punctured and with a short median groove; elytra subovate, not convex, narrowly punctato-striate, with the intervals smooth and plane. Length 6 mm.; width 3 mm.

*Hab.* Damaraland (Svakop River).

GEN. PHLŒOZETUS, Peyron,  
 Ann. Soc. Ent. France, 1856, p. 715.

Mentum moderately broad, with a short sharp median tooth; ligula very slightly projecting above the paraglossæ, which are narrower, rounded outwardly, with the tip, and also that of the ligula, with moderately long bristles; last joint of labial palpi subfusiform,

truncate at the tip, that of the maxillary broadly securiform, hollow at the tip; antennæ subfiliform, second joint shorter than the third, the others subequal; labrum broader than long, slightly rounded at the tip; head narrowed behind the eyes, which are very prominent; prothorax broader than long, rounded in the anterior part, broader there than at the base, the posterior angles very sharp and projecting; elytra plane, subparallel, truncate behind, striate or punctato-striate, with three punctures on the third interval, one below the bifid basal stria and near to it, the second one in the centre of the interval at about the median part, and the third one also in the centre of the interval and at the same distance from the apex as the anterior one from the base; legs moderately long; anterior tarsi short, the fourth one broader than the third, bilobate, the lobes not very long; claws pectinate, number of teeth on each side of the claw varying from two to five.

*Phlæozetus* is represented in Southern Europe and Syria, but I know of some species found in Senegambia, and as yet undescribed; one species is also described from the Zanzibar mainland. Found under bark, and occasionally under stones. I captured once a large number of *P. præstans* in the crevices of the bark of a wattle, *Acacia melanoxylon*, the trunk and lower branches of which were teeming with larvæ and imagines of a lady-bird, *Rodolia Iceryæ*. This lady-bird had previously completely cleared the *Acacia* from myriads of the large Coccid *Icerya Purchasi*.

### Synopsis of Species.

#### I.

- Elytra yellow with black patches or bands.
- A small sutural, post-median patch extending as far as the second interval .. .. . *stigma*.
- A triangular, sutural patch, the base of the triangle reaching the fifth interval .. .. . *virgatus*.
- The sutural black patch transverse, narrow and ascending the suture for a short distance .. .. . *transversus*.
- The sutural patch triangular, with the apex reaching the median part .. .. . *dorsalis*.
- The sutural patch not produced along the suture .. .. . *ambulans*.
- Post-median patch bisinuate in the upper edge, reaching the outer margin and sinuate on the posterior edge; suture with a narrow black band; elytra a little amplified behind .. .. . *gentilis*.
- External part of the post-median patch nearly obliterated, no sutural narrow band; elytra not amplified behind .. .. . *mashunus*.
- The sutural patch subtriangular, with the base of the triangle reaching the fifth stria on each side .. .. . *simplex*.
- The sutural patch spherical and reaching the fourth stria .. .. . *plausibilis*.
- The sutural patch subtriangular, reaching the third stria .. .. . *signatus*.
- The sutural patch cordiform, reaching the fourth stria .. .. . *cordiger*.

- A transverse, median, slightly sinuate band, projecting a little behind along the suture . . . . . *fasciatus*.
- A conical sutural band reaching the scutellum and dilated behind as far as the third stria . . . . . *præstans*.
- A transverse bisinuate fascia extending along the suture in a narrow triangle on the anterior part, and behind in a narrow line covering the first interval and reaching the apex . . . . . *blandus*.
- The transverse band very broad, produced triangularly towards the scutellum and with an ovate incision behind, near the suture. . . . . *lætus*.
- A posterior subquadrate patch reaching the fourth stria and connected behind with the outer margin by a narrow line . . . . . *venator*.
- A posterior subquadrate patch reaching the fifth stria . . . . . *incertus*.
- A posterior patch, slanting from the suture to the seventh stria, and rising a little from there to the outer margin . . . . . *posticalis*.
- The posterior patch extending from the median part to the apex and bisinuate in the anterior part . . . . . *præustus*.
- The posterior patch shaped like a truncate cone, the base of which extends as far as the sixth stria . . . . . *umbraculatus*.

## II.

- Head, prothorax, and elytra dark blue . . . . . *cyaneus*.

## PHLÆOZETUS STIGMA,

Plate V., fig. 14.

Antennæ, apical part of mandibles, and palpi flavescent; head punctulate, black with basal part slightly testaceous; prothorax pale brick-red, closely punctured, and with a deep median groove; elytra broader than the prothorax and with the anterior angles rounded, slightly ampliate below the middle, and a little convex on the upper part; finely but deeply punctato-striate, with the intervals plane, pale yellow, with a slightly infuscate basal patch on the third and fourth interval, and a sutural black submedian diamond-shaped one extending on each side as far as the third striæ\*; legs pale yellow; anal segment black or infuscate. Length 4 mm.; width  $2\frac{1}{4}$  mm.

*Hab.* Cape Colony (Cape Town).

## PHLÆOZETUS VIRGATUS,

Plate V., fig. 15.

Head and prothorax pale brick-red; antennæ, palpi, and legs flavescent, the three basal joints of the antennæ paler than the others; head and prothorax rugose; elytra broader than the prothorax, with the humeral angles rounded although projecting, and the outer sides nearly straight; broadly punctato-striate, with the intervals narrow and raised, pale yellowish red, with a slightly post-

\* The basal infuscation is sometimes wanting, and the sutural patch is also a little broader at times than in the figure.

median sutural infusate patch extending on each side in the shape of a triangle, the apex of which reaches the sixth stria; under side pale yellow, with the two apical abdominal segments infusate. Length 4-4½ mm.; width 2½ mm.

PHLÆOZETUS TRANSVERSUS, Bohem.,

Plate V., fig. 11.

Insect. Caffr., i., p. 57.

Head, prothorax, antennæ, and legs pale yellow, the joints of antennæ with long setæ; head and prothorax rugulose; elytra elongate, with the shoulders rounded and the outer sides nearly straight; narrowly punctato-striate, with the intervals plane, very pale yellow, with a transverse infusate post-median band extending as far as the sixth stria on each side and broader along the suture, where it ascends a little towards the median part; under side pale yellow. Length 5 mm.; width 2 mm.

*Hab.* Caffraria, teste Bohem.

PHLÆOZETUS DORSALIS,

Plate V., fig. 16.

Head, prothorax, antennæ, palpi, and legs brick-red, the two first-named parts rugulose; elytra elongate, parallel, deeply punctato-striate, with the intervals broad and carinate in the centre, reddish yellow, with a subtriangular transverse patch extending at its broadest part, that is to say, along the suture, a little beyond the median part, and extending as far transversely as the outer margin and broadest on the first four intervals; femora a little paler than the tibiæ; under side pale yellow. Length 5 mm.; width 2 mm.

*Hab.* Cape Colony (Cape Town).

PHLÆOZETUS AMBULANS.

Paler than *P. dorsalis*, with the elytra a little shorter, and proportionately broader; striæ on elytra slightly deeper, but the intervals equally convex; posterior black patch nearly identical, but broadly truncate in the anterior part instead of being produced triangularly along the suture, and also a little more sinuate in the sutural part of the posterior edge. Length 4¾ mm.; width 2¼ mm.

*Hab.* Zambezia (Salisbury).

PHLÆOZETUS GENTILIS.

Head, prothorax, antennæ, palpi, and legs brick-red; head and prothorax rugulose; elytra subelongate, somewhat ampliate past the middle, moderately rounded at the shoulders; narrowly punctato-striate, with the intervals plane, nearly smooth, pale yellow, with

a transverse post-median narrow black band reaching diagonally from the suture to the outer margin, bisinuate on the upper edge and once on the lower, throwing a short sharp spear along the suture in the posterior part, while in the anterior one it is connected with the scutellum by a narrow sutural black line running on the first interval; legs and under side pale yellow. Length  $4\frac{1}{2}$  mm.; width 2 mm.

The shape of the post-median transverse black band is that of *P. blandus*, but narrower and more oblique from the suture to the outer margin, and the sutural line connecting the transverse band with the base is also narrower, and does not dilate into a basal triangular patch; the striation is also deeper.

#### PHLÆOZETUS MASHUNUS.

Colour, size, and sculpture of *P. gentilis*, but the elytra are a little more parallel, the punctuation of the striæ is identical, but the bisinuated post-median patch does not ascend along the suture, and the sinuate outer part extending from the fourth to the sixth interval is almost obliterated; apical part of the abdomen infuscate. Length  $4\frac{1}{2}$  mm.; width 2 mm.

*Hab.* Zambezia (Salisbury).

#### PHLÆOZETUS SIMPLEX,

Plate V., fig. 17.

Pale brick-red, shining; head and prothorax rugulose; elytra elongate, subparallel, narrowly punctato-striate with the intervals plane, of the same colour as the head and prothorax, and with an infuscate triangular post-median patch, the apical part of which reaches a little short of the median part along the suture, and the basal part extends as far as the fifth striæ; under side and legs yellowish red. Length 5 mm.; width 2 mm.

*Hab.* Cape Colony (Cape Town).

#### PHLÆOZETUS PLAUSIBILIS.

Head light brick-red, punctulate; prothorax and elytra pale yellow, the former part rugulose on the outer sides and behind; elytra elongate, subparallel, punctato-striate, with the punctures very broad, and the intervals plane, and with an oblong transverse black patch at equal distance from the median and apical part, reaching as far as the fourth stria on each side; under side and legs pale yellow.

Distinguishable at once from the broad punctures in the striæ; the dorsal post-median black patch is not unlike that of *L. simplex*, but not so broad and more spherical. Length 5 mm.; width 2 mm.

*Hab.* Cape Colony (Fraserburg).

## PHLÆOZETUS SIGNATUS,

Plate V., fig. 18.

Antennæ, legs, head, and prothorax pale brick-red, the two last parts rugulose; elytra elongated, subparallel, narrowly punctato-striate with the intervals plane, reddish yellow, with a post-median subtriangular patch extending on each side as far as the third stria; under side reddish yellow. Length 7 mm.; width 3 mm.

*Hab.* Cape Colony (Bedford).

## PHLÆOZETUS CORDIGER.

Shape, size, colouring, and sculpture of *L. signatus*, but the post-median black dorsal patch is of a different form; it is heart-shaped, reaching at its broadest the fourth stria on each side, acuminate at the tip; but not reaching further down towards the apex than in *P. signatus*; three last abdominal segments infusate. Length 7 mm.; width 3 mm.

*Hab.* Cape Colony (De Aar).

## PHLÆOZETUS FASCIATUS,

Plate V., fig. 19.

Antennæ, palpi, and legs rufescent; head and prothorax dark brick-red, both very rugose, principally the former; elytra elongated, subparallel, deeply punctato-striate, with the intervals nearly plane, yellowish red, with a transverse almost median black band reaching from outer margin to outer margin, bisinuate on each side and broadest along the suture; under side yellowish; abdominal segments slightly infusate. Length 4 mm.; width  $1\frac{3}{4}$  mm.

*Hab.* Cape (Cape District).

## PHLÆOZETUS PRÆSTANS,

Plate V., fig. 20.

Antennæ, palpi, and legs pale yellow; head and prothorax pale testaceous red and both closely punctulate; elytra elongate, subparallel, narrowly although deeply punctato-striate, with the intervals plane, pale yellow with the exception of the scutellary region, which is pale testaceous red, and with a narrow sutural black band reaching from nearly the base to about the median part, dilated there in an elongated more or less subquadrate patch reaching the fourth stria and narrowed behind along the suture, where it covers the first interval only; under side pale yellow. Length 5–6½ mm.; width 2–3 mm.

*Hab.* Cape Colony (Stellenbosch).

## PHLŒOZETUS BLANDUS,

Plate VI., fig. 1.

Palpi, and the three basal joints of the antennæ pale yellow, the other joints infusate; head slightly plicate in front, punctulate, infusate in the anterior part, testaceous red behind; prothorax testaceous red with the outer margins yellowish, punctulate; elytra elongate, subparallel, very plane, with striated series of very shallow punctures with the intervals quite plane, pale yellow, shining, with a broad transverse black bisinuate band beginning at the median part, reaching from outer margin to outer margin, produced along the suture in an elongated triangular spur directed towards the scutellum, and behind in a narrow band covering the first interval only and very nearly reaching the suture; under side reddish yellow, with often the two apical abdominal segments more or less infusate. Length  $6\frac{1}{2}$ –7 mm.; width 3– $3\frac{1}{4}$  mm.

*Hab.* Cape Colony (Carnarvon District).

## PHLŒOZETUS LÆTUS,

Plate VI., fig. 2.

Palpi, four basal joints of antennæ, legs, head, and prothorax testaceous red; head very rugose in the anterior part, smooth behind; prothorax nearly smooth or very finely irregular; elytra elongate, subparallel, very shining, striate with a series of closely set shallow punctures, with the intervals quite plane, yellowish red, with a broad transverse band beginning at about the median part and reaching from one outer margin to the other, broader on the fifth, sixth, seventh, and eighth intervals, and sending up along the suture a triangular band, the apex of which reaches the scutellum, and behind an infusate line covering the first interval and very nearly reaching the apex—there is besides a small round more or less evanescent infusate spot at the base on the third stria, which will be most probably wanting in other examples of the same species; under side pale yellow, with the three last abdominal segments infusate. Length 6 mm.; width 3 mm.

*Hab.* Cape Colony (Stellenbosch).

## PHLŒOZETUS INCERTUS,

Plate VI., fig. 3.

Palpi, antennæ, and head pale yellowish red; prothorax a little paler than the head, rugulose; elytra elongate, subparallel, narrowly striate, with the intervals plane, pale yellow, with a quadrate post-median infusate or black patch extending on each side as far as the fifth stria, but not reaching the apical part of the elytra; under side

pale yellow, with the three last abdominal segments slightly infusate. Length 6 mm. ; width  $2\frac{1}{2}$  mm.

*Hab.* Cape Colony (Hope Town).

PHLÆOZETUS VENATOR.

Palpi, antennæ, head, and prothorax of the same colour and shape as in *L. incertus* ; elytra elongate, subparallel, punctato-striate, with the punctures very distinct and the intervals somewhat convex, paler yellow than the head and prothorax, and with a quadrate post-median black patch reaching the fourth stria on each side, and with the posterior angle of the said patch produced into a narrow transverse band reaching the outer margin ; under side and legs pale yellow. Length 6 mm. ; width 2 mm.

*Hab.* Cape Colony (? Kimberley).

PHLÆOZETUS POSTICALIS,

Plate VI., fig. 4.

Antennæ, palpi, legs, and head pale yellowish red ; prothorax a little paler than the head ; elytra elongate, subparallel, punctato-striate, with the punctures broad and the intervals plane, reddish yellow, with a posterior black patch broadly sinuate in the anterior part, reaching from the first stria to the outer margin and skirting the apical part ; under side pale yellow, the four apical segments of the abdomen infusate. Length 7 mm. ; width 3 mm.

*Hab.* Cape (Fraserburg).

PHLÆOZETUS PRÆUSTUS,

Plate VI., fig. 5.

Head, prothorax, and antennæ brick-red, the former part a little infusate in the anterior part ; prothorax rugulose ; elytra elongate, subparallel, deeply punctato-striate, with the intervals raised, reddish yellow, with a posterior black patch slightly conical in the anterior part and extending from a little below the median part to the apical margin ; legs pale yellow, with the knees darker, the four apical abdominal segments infusate. Length  $7\frac{1}{2}$  mm. ; width 3 mm.

*Hab.* Natal (Frere).

PHLÆOZETUS UMBRACULATUS, Bohem.,

Plate VI., fig. 6.

Insect. Caffr., i., p. 56.

Totally testaceous ; head and prothorax very rugose, the latter slightly infusate in front ; elytra elongate, subparallel, punctato-striate, with the intervals carinate, and with a subquadrate post-

median black patch stopping far short of the apex, and broader in the posterior part where it reaches the sixth stria instead of the fourth in the anterior part; apical part of abdominal segments, and often the two ultimate ones, infusate. Length 7-7½ mm.; width 3 mm.

*Hab.* Natal (Frere, D'Urban), Damaraland (Kookarra), Zambezia (Salisbury).

This species is closely allied to the preceding one, but the intervals of the elytra are more raised, and the post-median patch smaller and disconnected from the apical margin, whereas it invades the whole of the posterior part in *L. præustus*; I have, however, seen some examples from Salisbury in which the elytra were light brown, and darker in the posterior part where the transverse patch becomes ill-defined.

#### PHLÆOZETUS CYANEUS.

Dark steel-blue, shining; first, second, and third basal joints of antennæ partly rufescent; head slightly punctured in the anterior part; prothorax slightly aciculate; elytra elongate, subparallel, finely punctato-striate, with the intervals plane; under side, palpi, and legs blue-black. Length 5-5½ mm.; width 2 mm.

*Hab.* Cape Colony, Natal (Frere).

#### GEN. LEBIA, Latreille,

Hist. Nat. Ins., viii., 1804, p. 247.

Mentum moderately broad, with a median tooth more or less projecting and sometimes bifid; ligula and paraglossæ of equal length, setulose at the tip, soldered together, paraglossæ narrowing towards the tip with the outer side rounded and hirtose, the apical part as well as that of the ligula with long bristles; last joint of labial and maxillary palpi subfusiform and truncate at the very tip; labrum broader than long; antennæ subfiliform, second joint shorter by one-half than the third, the others subequal; head narrowed behind the eyes, which are very prominent; prothorax short, broader than long, more or less rounded in the anterior part, the posterior angles recurved slightly and projecting; elytra plane, subparallel, truncate behind, striate or punctato-striate, with two punctures on the third interval placed respectively at nearly equal distance from base and apex; legs moderately long; anterior tarsi short, the fourth joint either incised or broadly lobate; claws pectinate, the teeth not exceeding six on each side of the claw.\*

*Hab.* The genus is represented in Europe, North and South America, Africa, Asia, India, Burmah, Java, Australia, and New Zealand.

\* One of my examples of *L. insidiosa* has six well-defined teeth on each side, but in a second example the sixth basal tooth is hardly noticeable.

De Chaudoir in his 'Monographie des *Lebiides*,' Bull. Mosc., 1870-1, has divided in two sections the true *Lebiides*, i.e., *Lampriadae* and *Lebiides*. In his "true *Lebiides*" he includes only such *Lebiidae*, the palpi of which are never securiform, the antennæ never filiform, the labrum never incised, the claws never without serration or pectination, and the elytra always with two punctures on the third interval. He establishes also his two divisions, *Lampriadae* and *Lebiidae*, on the presence or absence of a process edging the inner side of the lateral lobes of the *mentum*, to which part he gives the name of "epilobe"; but the epilobes are more or less developed in different species of the same genus, and cannot thus prove to be a distinctive generic character; and I also agree with Horn, who says that he is prepared to state that there is no Carabid without epilobes.

In the group *Lampriadae* he includes two genera, *Liopeza* and *Nematopeza*, which I think, perhaps wrongly (it is a matter of opinion), might be sunk in the synonymy list; and in the *Lebiidae* he originates two new genera, *Promecochila* and *Astata*, which might be retained.

GEN. LIOPEZA, Chaud.,

*Loc. cit.*, p. 144.

Mentum with the lobes appendiculate, the central part dentate, with the tooth broadly rounded and not articulate; antennæ slender, elongate, hairless at the base; tarsi elongate, slender, glabrous on the upper part, densely pilose underneath, in fact almost spongy, the fourth joint slightly emarginate (the diagnose based on a female example); claws elongate, slender, strongly dentate inwardly with five oblique, well-developed teeth, the basal one the smallest of all.

This includes one species only, i.e., *L. thoracica*, Bohem., the type of which I have been able to examine, and which differs from *Lebia* only in having more slender anterior tarsi, which are not "fere spongiosi," *l.c.*, p. 146; although the colouring is somewhat different from the South African *Lebia*, it is approximated by *Lebia speciosa*.

GEN. NEMATOPEZA, Chaud.,

*Loc. cit.*, p. 146.

The diagnosis is almost the same as in *Liopeza*, and the author admits it and adds: "Although the generic characters of this group differ but little from those of *Liopeza*, the facies of these insects is very different: the eyes are more prominent, the prothorax is more transverse and more narrowed in the anterior part, the elytra are broader and shorter; most of the species have the same colouring of a yellow design on a brown or black background, the distinctive character is found in the length of the tarsi of *Liopeza*, and in the greater length of the median mentum tooth, which is also narrower."

While *Nematopeza* might be differentiated from *Liopeza* by attaching undue value to the distinctive characters here mentioned, I have been unable to differentiate them from *Lebia*, with the general facies of which they gradually assimilate; and although at one time I thought that the division might be made easier by the number of teeth on each side of the claws, I had to give up this arrangement when I found that *Nematopeza inconspicua* had four teeth, while *Lebia natalensis* had also four, &c.\*; we have also seen that in *Phlæozetus*, the number of teeth vary much.

The two genera, *Promecochila* and *Astata*, might, I think, be retained. The main characteristic of the former is the shape of the *labrum*, which is very much elongated; in the latter the shape of the *ligula* and *paraglossæ* differs much from that of *Lebia*, and the general facies is more that of *Arsinoë* than of *Lebia*. It is doubtful, however, if this genus ought to be considered as well established. The student must use his own discretion.

*Hab.* *Lebia* occur in Europe, Asia, Africa, North and South America, and Australia †; and in a genus the constituents of each have such a wide range, we must expect to find slight variations in the generic character; thus the tooth in the centre of the mentum is more or less developed, sometimes very sharp or blunt, and even bifid; the fourth joint of the tarsi is either incised, crescent-shaped, slightly or very lobate ‡; the number of teeth on each side of the claw varies even in the same species, owing to the presence of a basal dent, which often developes into a very perceptible claw; I have even found the number of the claws varying in the anterior, median, or posterior legs of one example.

### Synopsis of Species.

#### I.

Elytra piceous or dark brown.

Elytra with the intervals moderately raised .. .. . *immaculata*.

Elytra with the intervals very convex .. .. . *fraterna*.

#### II.

Elytra with a humeral yellow patch on each side.

Head black.

A sutural black band extending on the first and second interval, and a posterior black patch covering half the disk .. .. . *nobilis*.

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\* The teeth in the anterior claws do not seem to be as well developed as on the posterior legs; the basal one is generally shorter or sometimes hardly discernible.

† One species.

‡ In the *Nematopeza* this joint is very slightly incised, but there is a regular gradation; in the male there is always a tendency to more or less lobiform dilatation.

A narrow sutural black band, and a posterior black patch covering one-third of the disk .. .. . *invicta*.

Elytra black, with a short basal yellowish patch extending from the interval to the outer side .. .. . *Dregei*.

Head red.

Elytra black, with an elongate humeral yellow patch extending on the fourth, fifth, and sixth intervals .. .. . *modesta*.

### III.

Elytra yellow, with a more or less well-defined Maltese cross-like black marking, the anterior longitudinal arm of which is longer than the posterior.

Head black.

Anterior arm long, the lateral ones disconnected from the median part and ascending the margin; no posterior arm.. .. *insidiosa*.

Anterior and posterior arms narrow, hardly connected with the lateral ones, which broadly invade the margins .. .. . *plagiata*.

Elytra narrow, dorsal markings like *insidiosa*, but with no lateral marginal band .. .. . *transvaalensis*.

An elongate quadrate basal black patch connected by a short broad sutural band, with a transverse ante-median broad band reaching from side to side .. .. . *eximia*.

Head red or infusate.

Cross well shaped, the lateral arms not reaching the outer margins .. .. . *adamantina*.

Posterior arm wanting; the lateral ones emitting a band along the outer margin as far as the shoulder .. .. . *crucifera*.

Posterior arm wanting, no supra-marginal lateral band .. .. *natalensis*.

Anterior part of head black.

Dilated apical arm invading the posterior margin and ascending the lateral one .. .. . *congrua*.

### IV.

Elytra with a transverse post-median black band or sutural patch.

Head red.

A narrow transverse band reaching from side to side .. .. *amabilis*.

A sutural triangular patch reaching the sixth interval .. .. *peregrinator*.

The sutural patch reaching the sixth interval, but the apex of the triangle reaching much nearer to the base .. .. . *discigera*.

The sutural patch broader in the anterior part, produced diagonally towards the middle along the suture, blunter and narrower behind .. .. . *vagans*.

A post-median, subquadrate, infusate patch, hardly defined, and extending as far as the fourth stria on each side .. .. *dubia*.

A quadrate infusate patch extending as far as the fourth stria on each side, and ending close to the apical margin .. .. *debilis*.

Head black.

An elongate subtriangular black patch reaching at its base as far as the fourth interval on each side .. .. . *imitator*.

### V.

Elytra with an apical marginal black band.. .. . *inconspicua*.

## VI.

Elytra pale yellow without any markings .. .. . *fuscula*.

## VII.

Head and elytra brassy green or metallic black; prothorax red.

Elytra metallic green; tarsi long, fourth joint not lobate .. *thoracica*.

Elytra metallic black, fourth joint of tarsi lobate .. .. . *speciosa*.

## LEBIA (LIOPEZA) THORACICA, Bohem.,

Insect. Caffr., i., p. 54.

Head and elytra dark blue; the three basal joints of the antennæ, legs, and prothorax red, shining; head finely punctulate; labrum, palpi, and antennæ, with the exception of the three basal joints, black; prothorax broader than long, with the anterior angles much rounded, closely punctulate, and with a narrow, median, longitudinal groove; elytra about one-fourth broader than the prothorax and more than twice as long, with the anterior angles rounded and the outer sides nearly straight, plane, narrowly striate, with the intervals flat and very slightly punctulate; abdomen dark blue; femora brilliant red, with the tibiæ more or less infuscate; tarsi slightly bristly underneath; claws with three teeth on each side; fourth joint of the anterior tarsi almost truncate at the tip. Length 6 mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Natal (D'Urban), teste Chaud.

## LEBIA (NEMATOPEZA) IMMACULATA, Bohem.,

Insect. Caffr., i., p. 51.

*Nematopeza erythrodera*, Chaud., Bull. Mosc., 1877, p. 147.

Head black, closely punctulate, antennæ rufescent with the two basal joints redder; labrum and palpi slightly reddish; prothorax dark reddish brown, one-third broader than long, with the anterior part of the outer sides much rounded, closely punctulato-plicate and finely grooved in the centre; elytra a little lighter in colour than the prothorax, nearly twice as broad at the base and nearly four times as long, with the outer sides nearly straight, moderately flat, narrowly striate, with the median part of the intervals subcarinate; under side ferruginous-red; apical abdominal segments infuscate; legs ferruginous red, with the tibiæ darker than the femora. Length 8 mm.; width 3-4 mm.

*Hab.* Natal (D'Urban), teste Chaud.; Mashunaland (Salisbury).

## LEBIA (NEMATOPEZA) FRATERNA.

The description of *L. immaculata* applies to this species, which differs, however, from the former in size, it being much smaller, in the shape of the elytra, which, instead of being subparallel, are gradually, although slightly, amplified from the humeral angle to

about three-fourths of the length, the intervals of the striæ are much more convex, the colour of the elytra is also darker, and the edge of the lateral margins is reddish brown. Length 5–8 mm.; width 3–4 mm.

*Hab.* Cape Colony (Grahamstown, East London).

LEBIA (NEMATOPEZA) DREGEL, Chaud.,

Bull. Mosc., 1870, p. 148, pl. i., fig. 3.

? *L. biplagiata*, Motsch., Bull. Mosc., 1864, ii., p. 227.

Head black, closely punctulate; antennæ infuscate, with the three basal joints reddish; prothorax reddish yellow, finely aciculate, one-third broader than long, with the anterior part of the outer sides much rounded, and the basal angles recurved and sharp, the disk with a narrow median longitudinal groove; elytra nearly broader by one-third than the prothorax at the base and three times as long, with the outer sides ampliate, punctato-striate with the intervals moderately convex, slightly convex, black with a yellow humeral patch extending from the outer margin to the fourth interval; abdomen infuscate. Length 7 mm.; width 4 mm.

*Hab.* Cape Colony.

LEBIA (NEMATOPEZA) NOBILIS, Bohem.,

Plate VI., fig. 16.

Insect. Caffr., i., p. 52.

Head black, rugulose except behind; mandibles and three basal joints of antennæ yellowish, the other joints slightly infuscate; prothorax yellowish red, with the outer sides paler, the anterior part much rounded laterally; elytra about one-third broader than the prothorax at the base, subparallel, not at all convex, narrowly punctato-striate with the intervals plane, bright yellow or yellowish red, with a sutural black band covering the first two intervals from the base to short of the median part and merging into a black patch covering the whole posterior part; under side and legs reddish yellow; the whole abdomen black. Length 7 mm.; width 4 mm.

*Hab.* Orange Free State (Boshof), Transvaal (Klerksdorp), Zambezia (? Salisbury).

LEBIA (NEMATOPEZA) INVICTA,

Plate VI., fig. 18.

Head black, punctulate; the three basal joints of the antennæ pale yellow, the others infuscate; prothorax pale reddish yellow, and of the same shape as the four preceding species; elytra one-third broader than the prothorax at the base, subparallel, slightly convex, narrowly punctato-striate with the intervals hardly convex, yet

not so plane as in *L. nobilis*, yellow, with a sutural black band extending on the two first intervals on each side from the base to two-thirds of the length and merging there into a transverse band extending from side to side, reaching the apex and slightly jagged in the anterior part; legs and under side pale yellow; abdominal segments black. Length 8 mm.; width  $3\frac{1}{2}$  mm.

This species much resembles *L. nobilis*; the elytra are, however, slightly more convex, and the posterior black patch covers only one-third of the length instead of nearly two-thirds.

*Hab.* Natal (Frere).

LEBIA (NEMATOPEZA) MODESTA, Bohem.,

Plate VI., fig. 17.

Insect. Caffr., i., p. 51.

*Lebia mashuana*, Pér., Trans. S. Afric. Phil. Soc., 1892, vol. vi., part ii., p. 96.

Head, three basal joints of antennæ, apical part of palpi, legs, and median part of prothorax brick-red; head and prothorax punctulate, the latter is more quadrate than in the preceding species; elytra subparallel, somewhat convex, deeply punctato-striate, with the intervals very convex and carinate in the centre, black, with a narrow, reddish sutural and marginal line and a humeral yellow band on each side reaching from the base to a little more than one-third of the length, extending on the fourth, fifth, and sixth intervals at the base, and invading the third in the posterior part; under side yellowish red. Length 8 mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Zambezia (Middle Limpopo).

LEBIA (? NEMATOPEZA) INSIDIOSA.

Antennæ, labrum, and palpi rufescent; head black, closely punctured; prothorax with the anterior angles much rounded as in *L. nobilis*, finely aciculate, brick-red in the centre, with the outer sides reddish yellow; elytra subparallel, hardly convex, narrowly punctato-striate with the intervals slightly raised, yellow, with a sutural black band reaching from the base to a certain distance from the apex, covering the first two intervals on each side, dilated at base and apex in a subquadrate patch extending as far as the third interval, and a supra-marginal band running along the seventh interval from the base to about the middle, dilated triangularly from there for about one-fourth of the length as far as the fifth interval, and emitting occasionally a faint short spur towards the posterior sutural patch; legs pale yellow; abdominal segments black. Length 7-8 $\frac{1}{4}$  mm.; width 3-4 mm.

The colouring of the elytra approximates that of *L. plagiata*,

Bohem., but neither the sutural nor the supra-marginal black bands reach the apex as they do in *L. plagiata*; the head is also black instead of being red, and the general facies is more elongated.

*Hab.* Natal (Frere).

#### LEBIA TRANSVAALENSIS.

Head, antennæ, palpi, and prothorax bright brick-red; head closely punctured, and with longitudinal plications alongside the eyes; prothorax slightly rugose; elytra elongate, subparallel, not very much broader than the prothorax at the base, striate, with the intervals convex, pale yellow, with a subquadrate basal black patch reaching the third stria on each side, narrowed at the apex and prolonged along the first sutural interval to a transverse band extending on each side as far as the third stria, and bisinuate on the apical edge, and a slight infuscated band on the lateral margin, better defined opposite the extremity of the posterior transverse band; under side pale yellow, the three last abdominal joints infuscate.

The dorsal markings resemble much those of *L. insidiosa*, the basal patch is more gradually acuminate towards the suture and also narrower there, the transverse band extends further on each side, the lateral marginal band is hardly defined, and the elytra are much more narrow. Length 6 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Transvaal (Pretoria), Zambezia (Salisbury).

#### LEBIA EXIMIA.

Head, antennæ, palpi, and prothorax bright brick-red; head closely punctured, hardly plicate along the eyes; prothorax slightly rugose; elytra elongate, subparallel, one-third broader than the prothorax at the base, deeply punctato-striate, with the intervals very convex, rugose, and briefly pubescent, pale yellow, with an elongato-quadrate black patch extending as far as the fourth stria on each side, reaching from the base to one-third of the length, and connected by a short but well-defined narrower sutural band extending as far as the third stria, with a wide black post-median band reaching as far as the inner part of the outer margins, and sinuate on each side on the anterior and posterior edge; three abdominal segments deeply infuscate; under side and legs pale yellow. Length 6 mm.; width  $2\frac{3}{4}$  mm.

*Hab.* Zambezia (Salisbury).

#### LEBIA PLAGIATA, Bohem.,

Plate VI., fig. 15.

Insect. Caffr., i., p. 55.

Head, prothorax, antennæ, and legs brick-red or reddish yellow; prothorax with the anterior angles much rounded; elytra ampliate

from about the median part towards the apex, very slightly convex, narrowly punctato-striate, with the intervals a little convex, pale yellow or reddish yellow, with a sutural narrow infusate band reaching from base to apex dilated triangularly past the middle, and an infusate marginal band extending from the shoulder to the suture, and broadening at about two-thirds of the length in the direction of the sutural band so as to almost unite with it; under side and legs pale yellow, fourth joint of anterior tarsi lobate, lobes long, abdominal segments infusate or black. Length  $3\frac{1}{2}$ –6 mm.; width 2–3 mm.

Boheman's type seems to me to be an immature specimen of a very small size; in my example the colour of the head and prothorax is redder, and that of the elytra deeper yellow, the intervals seem also more raised than in the type, but there can be no doubt as to it being the same as Boheman's species.

*Hab.* Zululand (Eshowe).

LEBIA ADAMANTINA,

Plate III., fig. 8.

Head, prothorax, and antennæ red; the head is punctulate in the anterior part, and slightly plicate alongside the eyes; prothorax aciculate, the anterior angles rounded; elytra subparallel, striate, the striæ narrow and smooth, the intervals plane, pale yellow, with a sutural and slightly post-median transverse black bands forming an elongated Maltese cross, the apical part of which is reduced to a supra-marginal band, wider but much more narrow than the anterior one, and the two lateral ends stop a little short of the outer margin; under side pale yellow, with the ultimate abdominal segments infusate; fourth joint of anterior tarsi slightly incised. Length 5 mm.; width 2 mm.

*Hab.* Cape Colony (Kimberley).

LEBIA CONGRUA,

Plate VI., fig. 13.

Antennæ rufescent, with the three basal joints paler; palpi and legs pale yellow; head closely punctured, very dark red in the anterior part and lighter behind; prothorax with the anterior angles much rounded, finely aciculate, yellowish red, and more yellow on the outer sides; elytra subparallel, plane, narrowly punctato-striate with the intervals convex, pale yellow with a sutural black band dilated at the base and past the centre, and emitting on each side a transverse band reaching and ascending and descending the outer margin, the posterior part of the sutural band is linear and reaches the apex, the posterior margin is infusate; under side pale

yellow; abdomen infusate at the tip; fourth joint of anterior tarsi lobate, lobes short. Length 6 mm.; width 3 mm.

*Hab.* Natal (Frere).

LEBIA CRUCIFERA, Bohem.,

Plate VI., fig. 14.

Ofvers. Vet. Ac. Förh., 1860, p. 7.

Antennæ, palpi, legs, and head brick-red, the latter closely punctured; prothorax with the anterior angles much rounded, finely aciculate, of a lighter red than the head, with the outer sides paler; elytra subparallel, narrowly punctato-striate, with the intervals raised and subcarinate in the centre, pale yellow with a sutural black band dilated at the base, coalescing at about the median part with a broad transverse band of the same colour bisinuate on the upper and lower edge, and a lateral narrow black band covering the eighth interval and part of the outer margin from the humeral angle, until merging in the transverse fascia; under side pale yellow, apical abdominal segments infusate; fourth joint of the anterior tarsi lobate, lobes long. Length 8 mm.; width 3 mm.

*Hab.* Damaraland.

LEBIA NATALENSIS, Chaud.,

Bull. Mosc., 1870, p. 220, pl. i., fig. 32.

Antennæ, palpi, head, and prothorax reddish yellow; head finely plicate lengthway; prothorax with the anterior angles rounded, aciculate, and with a short plication in the anterior margin, a little paler than the head and with two infusate patches on the disk; elytra elongate, a little ampliate behind, striate, the striæ smooth, with the intervals convex, pale yellow, with a quadrate black basal patch extending on each side as far as the fifth stria, a narrow sutural line and a transverse post-median band bisinuate on upper and lower edges, and reaching the outer margins; under side pale yellow. Length 6 mm.; width 3 mm.

*Hab.* Natal (Maritzburg, D'Urban).

LEBIA AMABILIS,

Plate VI., fig. 10.

Head brick-red, closely punctulate except on the neck, which is smooth; prothorax yellowish red, faintly aciculate, the outer angles slightly rounded; elytra subparallel, finely punctato-striate, with the intervals plane, pale yellow with a post-median transverse band reaching from one outer margin to the other, broader near suture on the first and second intervals, and with a narrow infusate line on the first interval reaching from the posterior edge of the transverse black band to the apex; under side pale yellow, with the last

segment of the abdomen infusate; fourth joint of the anterior tarsi lobate, short, with the posterior ones incised only. Length 5 mm.; width 2 mm.

*Hab.* Cape Colony (Carnarvon).

LEBIA PEREGRINATOR,

Plate VI., fig. 7.

Head nearly smooth, yellowish red; antennæ rufescent, with the three basal joints lighter red; prothorax yellowish red, subquadrate, with the outer angle slightly rounded, nearly smooth on the disk, but with the outer margins somewhat plicate; elytra subparallel, striate, with the intervals plane, pale yellow with a post-median subtriangular sutural black patch, the base of which reaches the sixth stria and an often indistinct infusate patch on the second and third intervals a little below the base; under side and legs pale yellow; two last abdominal segments infusate; fourth joint of the anterior and posterior tarsi bilobate; lobes broad and moderately long. Length  $7\frac{1}{2}$ –8 mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Cape Colony, Namaqualand (O'okiep).

LEBIA DISCIGERA, Chaud.,

Coleopt. Novit., 1883, p. 18.

Alike in shape and colouring to *L. peregrinator*, but without the basal infusate patch on each side of the elytra, the black discoidal patch runs along the apex of the suture to about one-quarter of the length towards the base, and to about two millimetres of the apical margin, extends transversely as far as the sixth interval and gradually decreases in width up to that point; fourth joints of the anterior and posterior tarsi broadly bilobate. Length  $7\frac{2}{3}$  mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Cape Colony (Caledon, teste Chaud.).

LEBIA VAGANS,

Plate VI., fig 8.

Size, shape, and colouring of *L. discigera*, to which it is closely allied, but the dorsal median black patch is differently shaped; the anterior edge is oblique, ascending along the suture to about one-third of the length, while the other angle is also slightly produced along the fifth interval, the patch becomes more quadrate behind, where it emits on the first and second interval a band reaching to a short distance from the apex; three of my examples have a small, rounded, basal infusate patch on the third and fourth intervals. Length 8 mm.; width  $3\frac{1}{4}$  mm.

*Hab.* Cape Colony (Prieska, Carnarvon, Albert).

## LEBIA DUBIA.

Size, shape, and colouring of *L. vagans*; differs only in the shape of the post-median discoidal patch, which is infusate, ill-defined and elongato-quadrata, beginning at about the median part and extending behind on the first, second, and third intervals to a short distance from the apex; legs and under side as in *vagans*. Length 7 mm.; width 3 mm.

*Hab.* Cape Colony (Uitenhague).

I have seen one example of that species only, and might prove to be a *L. vagans* more or less immature; but I doubt it.

## LEBIA IMITATOR,

Plate VI., fig. 9.

Head and neck black, smooth, shining, with the labrum, palpi, and the three basal joints of elytra pale yellow; prothorax reddish yellow, faintly plicate laterally, smooth on the disk, slightly broader in the anterior part than behind, and with the anterior angles slightly rounded; elytra subparallel, striate, with the intervals almost plane, pale yellow, with a subtriangular elongated patch, the apex of which begins at about one-third of the length from the base, and the broadest part reaches the fourth stria, the basal part of the triangle is also produced further down on the first and second intervals; under side pale yellow, with the abdomen infusate, the fourth joint of all tarsi broad and lobate. Length 6 mm.; width 3 mm.

*Hab.* Cape Colony (Burghersdorp).

## LEBIA INCONSPICUA,

Plate VI., fig. 11.

Antennæ, head, and prothorax pale yellowish red; head closely punctured; neck smooth; prothorax much rounded in the anterior angles and closely aciculate; elytra subparallel, striate, with the striæ faintly punctured and the intervals plane, pale yellow, with a posterior transverse black band one-fifth of the length in width reaching the apex and emitting in the anterior part a short quadrata patch on the fourth, fifth, and sixth intervals; under side pale yellow; abdomen infusate; fourth joint of all tarsi bilobate, lobes short. Length 5 mm.; width 3 mm.

*Hab.* Natal (Frere).

## LEBIA DEBILIS,

Plate VI., fig. 12.

Head pale yellowish red, smooth in the centre, punctulate lengthways along the eyes; antennæ and palpi flavescent; prothorax pale yellow, a little broader in front than behind, with the anterior angles

rounded, scarcely aciculate on the disk, and with the margins rugulose; elytra subparallel, very flat, striated, with the intervals plane, pale yellow, with a discoidal, post-median, quadrate, black or infusate patch extending on the first four intervals, encroaching a little on the fifth, the posterior edge of that patch does not reach the apex; under side pale yellow; abdominal segments infusate; posterior tarsi with the fourth joint short and lobate. Length 6 mm.; width  $2\frac{1}{2}$ – $2\frac{3}{4}$  mm.

*Hab.* Cape Colony (Kimberley).

LEBIA FUSCULA, Chaud.,  
Bull. Mosc., 1871, p. 221.

Chaudoir compares this species with *L. turcica* in his description, *loc. cit.*, and adds: Head and disk of the prothorax brownish, the edges of the last-named part ferruginous yellow; elytra yellowish brown, lighter in colour towards the base and along the lateral sides; epipleuræ, under side, legs, palpi, and antennæ of a moderately light yellow; edges of the abdominal segments and also the apical one infusate. Length  $4\frac{1}{2}$  mm.

*Hab.* Natal (D'Urban), teste Chaud.

LEBIA SPECIOSA.

Head black, very closely aciculate; palpi black; antennæ fuscous, with the three basal joints slightly rufescent; prothorax brick-red, very finely and closely punctulate; elytra black, with a faint greenish tinge, striate, with the intervals plane and finely and closely punctulate; pectus and abdomen black; legs red; fourth joint of the anterior tarsi broadly bilobate. Length 5 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town).

LEBIA PICIPENNIS, Motsch.,  
Bull. Mosc., 1864, p. 226.

Facies of *Lebia cyanocephala* but larger, and with the elytra piceous, oblong, subdepressed, hardly shining, ferruginous-red; elytra piceous, black; head and prothorax roughly punctate, the latter reflexed, with the posterior angles straight; elytra broader than the prothorax by one-half, subparallel, deeply striate, the striæ punctate, and the third one bifoveolate, apical part truncate subobliquely; pygidium very prominent, testaceous red and carinate longitudinally in the middle (male). Length  $8\frac{3}{4}$  mm.; width 3 mm.

*Hab.* Cape of Good Hope.

This species might be identical with *L. immaculata* or *L. fraterna*.

GEN. ASTATA, Chaud.,  
Bull. Mosc., 1871, p. 204.

Mentum with a median not very long triangular tooth; ligula subacuminate at the tip, longer, narrower than the paraglossæ which broaden outwardly from about the median part, have long bristles and are rounded at the tip; prothorax and elytra of *Lebia*; claws pectinate, with seven or four teeth on each side, the basal one very small; fourth joint of tarsi not dilated but bilobate.

A representative of this genus is found on the Zanzibar mainland, and it is probable that another is found in Old Calabar.

*Synopsis of Species.*

- Elytra black, with a dorsal longitudinal band and a posterior round red patch on each side . . . . . *gentilis*.  
Elytra black, with a median and postical red round patch on each side . . . . . *tetragramma*.  
Elytra black, with a small reddish patch on each side of the base . . . . . *picipennis*.

ASTATA GENTILIS.

Head black; palpi, and three basal joints of antennæ reddish, the other joints black; head very closely punctured; prothorax light brick-red, a little broader in front than behind, very finely and closely punctured; elytra twice as broad as the prothorax, nearly parallel, finely punctato-striate, with the intervals plane and very briefly pubescent, black, with a yellow band running on the fifth and sixth intervals, reaching from the base to the middle and broadening towards the suture at the apex, a subquadrate juxta-sutural yellow patch on the second, third, and fourth intervals, the extreme edge of the outer margin from below the base to a short distance from the rounding of the posterior part is also yellow; abdomen black; legs pale yellow; claws with four long teeth on each side. Length  $5\frac{1}{2}$  mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Natal (Newcastle).

ASTATA TETRAGRAMMA, Chaud.,

Plate VI., fig. 20.

Bull. Mosc., 1871, p. 205, pl. i., fig. 14.

Antennæ rufescent, with the three basal joints pale red; head and prothorax brick-red, and both very rugose; prothorax a little broader in the anterior part than behind; elytra nearly twice as broad as the prothorax, subparallel, striate, with the striæ narrow and smooth and the intervals very convex, black, with two yellow, subquadrate patches on each elytron, a narrow macula at the base and the median part of the edge of the outer margin yellowish red;

the anterior dorsal patch begins at about one-fourth of the length, reaches about the median part and extends from the second to the fifth striæ, and the posterior one, slightly smaller than the anterior and close to the apex, extends on the first, second, third, and fourth intervals; under side and legs brick-red. Length 9 mm.; width 4 mm.

*Hab.* Natal (D'Urban).

Chaudoir considers *Lebia immaculata*, Bohem., to be a variety of *A. tetragramma*; it is not so, and had he seen Boheman's type he would not have made that error.

ASTATA PICIPENNIS, Motsch.,

Bull. Mosc., 1864, ii., p. 226.

Head and prothorax brick-red, the latter with two very distinct black spots; antennæ, palpi, and legs rufescent; prothorax as in *A. tetragramma*; elytra nearly twice as broad as the prothorax, elongate, but ampliate past the middle, striate with the intervals very convex and subcarinate, black, shining with a very short basal flavescent patch, the outer margin has also a narrow flavescent band reaching from the humeral angle to about the median part; under side flavescent. Length 9 mm.; width  $4\frac{1}{4}$  mm.

*Hab.* Natal (Isipingo).

Chaudoir in his Monograph., *loc. cit.*, says, when treating of *A. tetragramma*, that the two anterior yellow patches are sometimes missing, and that the elytra are often quite black, and it is to that variety that *L. immaculata*, Bohem., *L. picipennis*, Motsch., and probably *L. hypoxantha* belong. The first-named species is not what Chaudoir supposed, and the second one is distinct from *A. tetragramma* on account of the ampliation of the elytra, which are not parallel as in *A. tetragramma*; the basal yellowish patch is also a little larger.

GEN. PROMECOCHILA, Chaud.,

Bull. Mosc., 1871, p. 157.

Mentum with a broad median tooth; ligula elongato-ovate, rounded at the tip; the paraglossæ narrow, nearly as long as the ligula and rounded at the tip; mandibles projecting, slightly curving in at the apex; labrum much longer than broad and narrowed in front; antennæ with the four basal joints much more slender than the others; prothorax nearly as long as broad; elytra subparallel; fourth joint of all tarsi spongy underneath, lobate, the lobes broad; claws with three teeth on each side.

The shape of the labrum is the most distinctive feature of that genus. According to De Chaudoir, it is the only true Lebiid in which the labrum is longer than wide.

*Synopsis of Species.*

Head, prothorax, and elytra dark green .. .. .	<i>capensis.</i>
Head, prothorax, and elytra black .. .. .	<i>nigra.</i>

PROMECOCHILA CAPENSIS, Chaud.,  
Ann. Soc. Ent. France, 1835, p. 439.

Metallic green on the upper part, excepting the labrum, epistoma, antennæ and palpi, which are black; head slightly punctulate in the centre; prothorax nearly as long as broad, a little broader in the anterior part than behind and faintly plicate; elytra subparallel, deeply striate, with the intervals plane and finely aciculate; under side and legs very dark green. Length 5 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Cape Colony (East London), Transvaal (Leydenburg).

## PROMECOCHILA NIGRA.

Totally black, shining; head very slightly punctulate; prothorax with the outer sides nearly straight for three-fourths of the length, the anterior angles slightly rounded and very faintly plicate; elytra subparallel, deeply striate, with the intervals plane and very finely aciculate. Length 5 mm.; width  $2\frac{1}{2}$  mm.

Differs from the preceding species in colouring only; the elytra are, however, a little more deeply striate.

*Hab.* Natal (Frere).

## GEN. MATABELE.

Mentum broadly emarginate, with the median part subdentate, inner part of the lateral lobes nearly straight, ampliate in the middle outwardly, the apical part slightly oblique; ligula horny, subrounded at the tip and bisetose; the paraglossæ united with it, equally broad but a little shorter, the apical part plurisetose and slightly oblique; last joint of maxillary and labial palpi subcylindrical, a little attenuate at the tip, which is truncate; labrum moderately long, longer than broad; head straight, eyes very prominent; prothorax rounded in the anterior part, straight from there to the posterior angle, median part of the base produced behind; elytra elongato-quadrangle, nearly plane, deeply sinuate in the apical part, with the posterior angle very sharp and projecting; legs moderately long; tibiæ deeply grooved in the inner upper part; last joint of tarsi deeply incised; claws pectinate, with nine teeth on each side.

The shape of the mentum, ligula, and paraglossæ is almost the same as in *Lebia*; the base of the prothorax is also produced behind,

but the general facies and colouring are different; and the shape and size of the labrum are identical with that of *Arsinoë*.

MATABELE MIRANDA.

Black, shining; head closely and finely punctured; prothorax rounded in the anterior part, nearly straight from above the median part to the posterior angle, which is sharp, median part of the base produced behind, lateral outer margins recurved, disk slightly depressed laterally, the depression deeper in the posterior part and scrobiculate all over; elytra elongato-quadrate, a little broader past the middle than at the shoulders, which are very slightly rounded, deeply sinuate at the apex, with the lateral posterior angle sharp and projecting a little, almost plane, narrowly striate, with the intervals broad, the median part a little convex, and with two series of deep irregular punctures, the three usual punctures on the third interval distinct in spite of the others, black, very shining, and with two transverse bright yellow patches on each side, the anterior one, equidistant from the base and median part, reaches from the second to the ninth interval and consists of coalescing bands, the one on the second interval is very short, and that on the fourth is projecting forward more than the others, the posterior one reaches only the eighth interval and is more transverse, and the band on the third interval is very short; under side piceous, black; abdominal segments briefly pubescent. Length  $12\frac{1}{2}$  mm.; width 6 mm.

*Hab.* Zambezia (Buluwayo).

GEN. LEBISTINA, Motsch.,

Bull. Mosc., 1864, ii., p. 227.

Mentum without any median tooth or sinuation, the lobes much rounded outwardly and diverging inwardly; ligula horny, broadly rounded at the tip, which bears a few setæ; paraglossæ membranaceous, as broad as the ligula, a little shorter, with the outer sides sloping, last joint of maxillary, and labial palpi fusiform and truncate at the tip; labrum transverse, truncate, and with six setæ in front; antennæ with the three basal joints quite hairless; prothorax broader than long, rounded in the anterior angles; elytra broader than the prothorax, gradually amplified behind, more or less convex and striate, and with two punctures on the third interval; legs short; tarsi triangular, the fourth one incised, all thickly clothed with short hairs underneath; claws pectinate, the number of teeth varying in number, eight on each side in *L. caffra* and six in *L. sanguinea*.

*Hab.* *Lebistina* is represented in Senegal and the Zanzibar mainland.

*Synopsis of Species.*

- Totally red, with the legs black .. .. . *sanguinea*.  
 Prothorax and elytra pale yellow, the former with two black spots and the latter with a black sutural band and two patches on each side, the posterior one disconnected with either suture or outer margin .. .. . *caffra*.  
 Elytra with the posterior patch connected with the suture and reaching nearly the outer margin .. .. . *suberuciata*.  
 Prothorax without any black spots; elytra with a juxta-sutural black band reaching neither base nor apex .. .. . *Holubi*.

## LEBISTINA SANGUINEA, Bohem.

## LEBIA SANGUINEA, id.,

Insect. Caffr., i., p. 50.

Head very dark red, closely plicate lengthways; antennæ and palpi black; prothorax broader than long by one-third, with the outer sides straight and rounded in the anterior angles, finely plicate, dark brick-red, with the outer margins lighter; elytra brick-red, not very shining, subelongate, gradually amplified from below the humeral part to a little past three-fourths of the length where they are nearly one-fourth wider than at the base, a little convex, striate with the striæ narrow, faintly punctured, and the intervals plane, broad, and each one with one series of shallow punctures; under side pale red, legs and tarsi black, teeth of claws long. Length 9 mm.; width 5 mm.

*Hab.* Delagoa Bay (Rikatla), Zambezia (Salisbury).

## LEBISTINA CAFFRA, Chaud.,

Plate. VI., fig. 20.

Bull. Mosc., 1877, i., p. 220.

Head and labrum brick-red, closely and deeply punctured; antennæ black, with the first joint red; palpi black; prothorax one-third broader than long, very rugose, reddish in the centre, with two black discoidal patches, and the anterior and outer margins yellow; elytra subelongated, amplified gradually from the shoulder to past three-fourths of the length where they are one-third broader than at the base, convex, striate, with the striæ shallow and the intervals plane and closely punctured, pale yellow, with a sutural black band covering the first and second intervals on each side, acuminate at the apex, and expanding at the base in a subquadrate patch, reaching the fourth stria, and on each side a small humeral oblong patch, and a much larger elongate one beginning at about the medium part of the disk, ending at a short distance from the apex, and extending from the third stria to the inner edge of the outer margin; under side red, femora red, with the apical part as well as the legs and tarsi black. Length 13 mm.; width 6 mm.

*Hab.* Natal (Malvern), Zambezia (Middle Limpopo, Buluwayo).

LEBISTINA SUBCRUCIATA, Fairm.,  
Ann. Soc. Ent. Belg., 1894, p. 314.

Ovate, ampliate behind, moderately convex, hardly shining, rufous with the elytra more yellowish, and having a subquadrate scutellary black patch, and also a large transverse one past the middle, reaching nearly outer margins, and connected with the basal one by the sutural band, there is also an oblong humeral black spot on each side and the sinuation of the posterior margin is moderately well defined; the antennæ, with the exception of the first joint, the knees, tibiæ, and tarsi are black; head closely punctured with small transverse impressions between the antennæ; palpi black; prothorax transverse, short, with the sides rounded, finely and closely punctured, finely rugose, slightly striate in the middle of the disk, with the outer sides somewhat broadly depressed with the margin raised, and the posterior one oblique on each side with the angles acute and straight; scutellum ogival with the apex acute, punctulate; elytra moderately ample, broadly truncate behind, finely striate on the upper part, striæ smooth and intervals plane, with moderately close punctures; under side almost smooth, femora moderately thick, tibiæ with a moderate groove. Length 9 mm.

*Hab.* South Africa (Ovampoland).

LEBISTINA HOLUBI.

Head brick-red, closely and deeply punctured; antennæ and palpi totally black; prothorax one-third broader than long, brick-red, very rugose; elytra subelongate, gradually ampliate from the shoulder to past three-fourths of the length where they are broader by one-fourth, somewhat convex, striate, with the striæ shallow and the intervals broad and roughly punctured, brick-red with a dorsal black band beginning at a distance from the base and reaching short of the apex, covering the second, third, and fourth intervals, but acuminate in the anterior part; under side reddish brown, femora red with the apical part, the tibiæ and tarsi black.

Shape and sculpture of *L. caffra*, but a little more elongated. Length 12 mm.; width 6 mm.

*Hab.* Transvaal (Marico).

GEN. ARSINOË, Castelnau,  
Etudes Entom., 1835, p. 58.

*Axinopsophus*, Chaud., Bull. Mosc., 1837, pt. 3, p. 9.

Mentum broadly emarginate with the lateral lobes straight inwardly, median part with a long, triangular tooth; ligula short, horny, gradually amplified towards the apex, truncate at the tip

and bearing two long setæ; paraglossæ fused with the ligula, but longer, rounded externally at tip, but not bending over the apex of the ligula; last joint of palpi subfusiform but broadly truncate at the tip; labrum subquadrate, slightly sinuate in front, and with three long bristles on each side, mandibles long, sharp, and curved at the tip; antennæ filiform; head with a short neck, eyes prominent; prothorax short, broader than long, the anterior angles rounded, the median part a little amplified with the basal angles sharp and protruding, the base slightly produced backward in the middle, or straight; elytra plane, truncate at the base with the outer sides parallel, slightly rounded towards the posterior part and truncate at the apex; joints of tarsi decreasing in size from the basal one, the fourth small, not incised, posterior tarsi longer than the median ones; claws not pectinate.

Found under dead bark, or in damp or moist places in the short grass.

*Hab.* The genus is represented on the West Coast of Africa (Gaboon).

*Synopsis of Species.*

- Prothorax red, the base slightly produced backwards.  
 Elytra black.  
 Each elytron with a rounded yellow spot below the shoulder, and another above the apex, near to the suture.. .. *quadri-guttata*.  
 A yellowish red submedian spot on each side of the suture, and a patch of the same colour underneath .. .. *caffra*.  
 Elytra cyaneous.  
 Each elytron with a quadrate, yellow supra-apical patch on the suture .. .. *egregia*.  
 Elytra cyaneous, without any yellow markings .. .. *distinguenda*.  
 Prothorax black, or reddish black, the base straight.  
 Elytra black.  
 Each elytron with an ovate, subdiagonal humeral yellowish patch, and a smaller supra-postical one, also ovate, on each side of the suture .. .. *notabilis*.  
 Each elytron with a broad, humeral yellowish patch, and a moderately broad, sutural, subtriangular one on each side of the suture, and coalescing there with the one on the opposite side .. .. *plausibilis*.  
 Each elytron with a narrow, sinuated, transverse yellow band near the base, and a narrow subtriangular sutural one above the apex coalescing with the band on the opposite side.. .. *fraterna*.

ARSINOË QUADRI-GUTTATA, Castelnau,

Plate III., fig. 9.

Etudes Entom., 1835, pl. 2, fig. 6.

*Axin. quadrisignatus*, Chaud., Bull. Mosc., iii., 1837, p. 10.

Head deeply punctulated, labrum and anterior part of the head black, posterior part red; apical part of the last joint of the palpi,

and the first (sometimes the base of the second) joint of the antennæ red, the other joints infuscated; prothorax red, short, punctulated, the outer sides recurved, more deeply punctured, the margins acute; scutellum red; elytra deeply punctato-striate, with the intervals plane, punctured, the third one from the suture with three broad punctures, one below the basal part, the second one above the median part, the third one above the apex, black, moderately shining, and on each side of the anterior part a small, sub-elongated or ovate yellow patch extending from the fourth to the sixth interval, and sometimes also on the third, and a supra-apical rounded patch of the same colour extending from the second to the fourth, and sometimes to the fifth interval; under side pale yellow, femora yellowish red, with the apical part and the tibiæ deeply infuscated; apical segments of abdomen infuscated. Length 8-9 mm.; width  $3\frac{1}{2}$ -4 mm.

*Hab.* Cape Colony (Stellenbosch), Natal (D'Urban, Frere), Zambesia (Salisbury).

#### ARSINOË CAFFRA.

Head deeply punctured above the epistome, anterior part from the apex of the labrum to between the eyes black, the posterior part red; prothorax red, punctulated, the punctures broader on the outer sides which are recurved with the margins acute; scutellum red; elytra deeply punctato-striate, with the intervals plane and punctured, the third interval with two broad punctures, one in the anterior part, the other one above the apex, black with a bluish tinge, and having on each side a small, irregular, not well-defined reddish patch a little below the median part, extending from the third to the fifth interval, and a subquadrate one, also not well defined, below the first, extending from the fourth interval to the suture, where it coalesces with the patch on the opposite side; under side reddish with the abdomen black; femora red, with the apical part black; tibiæ black; tarsi reddish. Length 10 mm.; width 4 mm.

*Hab.* Transvaal (Potchefstroom).

#### ARSINOË EGREGIA, Pér.,

Plate VII., fig. 7.

Head deeply punctured, the anterior part black, the posterior red; apical part of the last joint of the palpi red; first, and sometimes second joint of antennæ red, third and fourth black, the others infuscated; prothorax red, punctulated, the punctures broader on the outer sides, which are recurved with the margins acute; elytra deeply striato-punctate with the intervals plane and punctured, the third one with one broad puncture a little above the median part, and another above the apex, bluish black, shining, and having on

each side a post-median, broad, ovate yellowish-red patch, extending from the suture to the fourth interval, and coalescing at the sutural part with the patch opposite; under side red; abdomen black; femora red, with the apical part black; tibiæ and tarsi black. Length 9 mm.; width  $3-3\frac{3}{4}$  mm.

*Hab.* Natal (D'Urban, Frere, Newcastle), Zambezia (Salisbury).

#### ARSINOË DISTINGUENDA.

Head deeply punctured, the anterior part black, the posterior red; antennæ infuscated, the two basal joints red; prothorax red, punctulated, the punctures broader on the outer sides, which are recurved with the margins acute; scutellum red; elytra short, broad, deeply punctato-striate with the intervals punctured, plane, the third one from the suture with three conspicuous, broad punctures, one below the base, another at about the median part, and the third one above the apex, cyaneous blue without any yellow markings; under side red; abdomen black; femora red, black at the apex; tibiæ black. Length 9 mm.; width 4 mm.

*Hab.* Cape Colony (Mossel Bay).

#### ARSINOË PLAUSIBILIS.

Head deeply punctulated, black, with a somewhat rufescent, indistinct patch on the vertex; antennæ rufescent, basal joint red; prothorax black, finely punctulated, the punctures broader on the outer sides which are recurved with the margin acute and reddish brown; elytra deeply striato-punctate, with the intervals finely punctulated, plane, the third one from the suture with two punctures, one at about the median part, the other above the apex, black, shining, and having on each side a broad, lateral, orange-yellow patch extending from the third to the eighth interval, slightly produced backwards on the third interval, connected with the base on the fourth and fifth, and a supra-postical, subtriangular patch, the apex of which is directed towards the base, extending from the suture to the fifth interval, and coalescing at the suture with the patch on the opposite side; under side and legs very dark brown. Length 10-11 mm.; width 4 mm.

*Hab.* Transvaal (Potchefstroom).

#### ARSINOË NOTABILIS.

Head black, with a slightly rufescent patch on the apex; antennæ rufescent; prothorax black, with the margins reddish, finely punctulated, the punctures broader on the outer sides, which are recurved; elytra elongated, deeply striato-punctate, with the intervals finely punctulated, plane, the third one from the suture with two punctures,

one at about the median part, the other one above the apex and having on each side below the base a subovate yellow patch extending from the fourth to the seventh interval, slightly invading the third, and produced nearer the base on the fifth and sixth intervals, and also an almost round patch above the apical part, extending from the second to the fourth interval; under side infusate, legs and tarsi pale red, with the knees infusate. Length 12 mm.; width 4 mm.

*Hab.* Transvaal.

#### ARSINOË FRATERNA.

Head deeply punctured, very dark brown, almost black, with a rufescent patch in the middle, antennæ rufescent; prothorax almost black, but slightly rufescent on the disk, punctulated, the punctures broader on the outer sides, which are recurved with the margins acute; elytra finely striato-punctate with the intervals plane and punctured, the third one with two punctures, one above the median part, the other above the apex and having on each side a narrow, sub-basal band reaching from the second to the eighth interval, produced nearer to the base on the sixth interval, and a semi-circular, somewhat irregular supra-postical patch nearly enclosing a round spot of the background above the postical part, with the centre of the patch produced in a short, broad line directed upwards on the third interval; under side and legs reddish brown. Length 11 mm.; width 5 mm.

*Hab.* Zambezia (Salisbury), Ovampoland (Omrromba).

Motschulsky has described another species which he says is very near *Arsinoë quadriguttata*, but smaller, more shining, with no distinct punctuation, and with three broad testaceous patches, the posterior one of which extends across the suture a little in front of the apical part. The description might answer to that of *Lobodontus gentilis*.

#### ARSINOË TRIMACULATA, Motsch.,

Etud. Entom., 1862, p. 50.

Depressed, subparallel, shining, testaceous red; abdomen and elytra piceous black, the latter with three testaceous yellow patches ( $1\frac{1}{2}$ ), margin also testaceous; head and prothorax impunctate; elytra deeply striate, striæ punctate, intervals subconvex, sparsely punctured. Length  $8\frac{3}{4}$  mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Cape of Good Hope.

#### GEN. LOBODONTUS, Chaud.,

Bull. Mosc., 1842, vol. iv., p. 841.

Mentum of *Arsinoë*; ligula moderately long, horny, gradually amplified towards the apex, truncate at the tip, bearing two setæ;

paraglossæ broader than the ligula and singly rounded at the apex ; ultimate joints of maxillary and labial palpi cylindrical ; prothorax, elytra, and legs as in *Arsinoë*.

*Hab.* The genus is represented in Senegal.

*Synopsis of Species.*

Elytra with a humeral yellowish-red patch near the base and a sutural one in the posterior part.

Head and prothorax black, posterior angle acutely recurved *trimaculatus*.

Head and prothorax red, posterior angle not much recurved *gentilis*.

LOBODONTUS TRISIGNATUS, Chaud.,

Bull. Mosc., 1842, iv., p. 121.

*L. trimaculatus*, Chaud., *l.c.*, 1848, i., p. 121.

Head punctulated, black ; labrum, palpi, and antennæ reddish, the four basal joints of the latter redder than the rest ; prothorax black, slightly rufescent on the outer margins which are sharp, posterior angle much recurved ; elytra punctato-striate, with the intervals punctured, slightly convex, the third one from the suture with a broad puncture above the apical part, black, shining, outer margin with a series of broad punctures and narrowly edged with reddish brown, and on each side an elongated subhumeral yellow patch reaching from the base to about one-third of the length, extending from the fourth to the eighth interval, and a supra-apical, subquadrate patch as long as the anterior one but not reaching quite the apex extending from the suture to the fourth interval, and coalescing at the suture with the patch on the opposite side ; legs and under side dark red ; abdomen slightly infusate. Length 7 mm. ; width 3 mm.

*Hab.* Cape Colony, Natal.

LOBODONTUS GENTILIS.

Head, prothorax, and antennæ red ; head deeply punctulated ; prothorax short, punctulated, the outer sides recurved, deeply punctured, the margins acute ; scutellum red ; elytra deeply punctato-striate with the intervals punctured, plane, the third one from the suture with two broad punctures, one in the anterior part and the second one above the apex, black, shining, with the outer margins red, and on each side a red, quadrate patch reaching the base and extending from the third to the seventh interval, also a subquadrate supra-postical one reaching from the third interval to the suture where it coalesces with the patch on the opposite side ; under side and legs red ; abdomen infusate. Length 5–7 mm. ; width 3 mm.

*Hab.* Natal (Frere), Zambezia (Salisbury).

Although closely allied in general facies and colouring to the

preceding species, the shape of the ligula differs: the paraglossæ being not longer, whereas in *L. quadrimaculatus* the paraglossæ are not longer than the ligula and singly rounded above it.

GEN. HAPLOPEZA, Bohem.,  
Insect. Caffr., i., p. 63.

Mentum articulate, median part shallow, broad, with a bifid very short tooth, lateral lobes nearly perpendicular inwardly, acute at tip, and short; ligula broad quadrate, bisetose at tip; paraglossæ narrow, adhering to the ligula, a little sloping at tip and not longer; maxillæ much falcate at tip, bristly inwardly; palpi slender, last joint sub-cylindrical, the labial one rounded at tip, the maxillary truncate; labrum short, head narrowed into a short neck, eyes very prominent, antennæ long; prothorax very short, broader than long, truncate at both ends, outer margins recurved; elytra elongato-quadrate, rounded at the shoulders, sinuate behind, and without any dorsal puncture; legs slender, tarsi long, claws simple, fourth joint of anterior tarsi not incised.

H. VIOLACEA, Bohem.,  
Insect. Caffr., i., p. 63.

Moderately dark blue, shining, elytra slightly violaceous, the three basal joints of antennæ dark blue, the other joints and also the legs black; head small, almost smooth, labrum very short, a little rufescent; prothorax nearly twice as broad as long, depressed laterally and basally, hardly raised in the median part of the disk, which is slightly plicate transversely, while the lateral and basal depressions are rugose, the outer margins are recurved, slightly sinuate above the base, with the posterior angle sharp, gradually rounded and very slightly aculeate at the first lateral setigerous puncture; elytra elongato-quadrate, but a little narrower at base than at apex, parallel, not much sinuate behind, plane striate with the intervals smooth or nearly so, plane and without any puncture. Length 8 mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Natal (D'Urban).

GEN. THYREOPTERUS, Dej.,  
Spec. Col., vol. v., 1831, p. 445.

Mentum broad, with the lateral lobes straight inwardly, and a triangular, robust, long median tooth; ligula narrow, horny, slightly amplified, almost truncate at the apex and bearing two setæ, paraglossæ broad, membranaceous, projecting far above the apex of the ligula, singly obovate at the tip, but not surrounding the ligula at the apex; last joint of maxillary and labial palpi cylindrical; pro-



THYREOPTERUS LUTEICORNIS, Chaud.,  
Ann. Soc. Ent. Belg., vol. xii., p. 144.

Closely allied to *T. flavosignatus*; the eyes are equally protruding, and the prothorax has the same shortened shape, but the outer sides as well as the posterior angles of the latter are a little more rounded, the yellow patches on the elytra extend further on, the anterior one reaching the eighth stria, the posterior one the seventh and is produced further back towards the apex, so that the incision on the suture is deeper; the antennæ are a little shorter and ferruginous yellow without any spots; the tarsi and all the inner part of the legs of the same colour as the antennæ. Length 9 mm.

*Hab.* South Africa, near Cape of Good Hope, teste Chaud.

THYREOPTERUS LIMBATUS, Bohem.,  
Insect. Caffr., vol. i., p. 77.

Head brick-red, with the labrum and the palpi yellowish red and the mandibles black; antennæ yellowish red; prothorax short, hardly longer than broad, slightly rounded on the outer sides, and moderately narrowed at the base with the outer angles rounded and obtuse, moderately convex on the disk, very slightly plicate transversely, grooved longitudinally in the centre, testaceous red, with the whole of the disk very deeply infuscated; scutellum black; elytra twice as broad as the prothorax, truncate at the base, with the shoulders rounded, the outer sides straight, very slightly convex on the upper part, narrowly and deeply striated, with the intervals plane, broad, black, with the outer margins narrowly testaceous; under side and legs yellowish red; the sides of the pectus infuscate. Length  $6\frac{1}{2}$  mm.; width  $3\frac{1}{4}$  mm.

*Hab.* Natal (Malvern).

GEN. CATASCOPUS, Kirby,  
Trans. Linn. Soc., 1825, p. 94.

Mentum broad, the lateral lobes diverging slightly, a small median, not very sharp, tooth, in the median part of the base; ligula slender, horny; the paraglossæ membranaceous, much longer than the ligula, straight inward and outward, but not surrounding the apical part of the ligula; last joint of the maxillary and labial palpi subcylindrical; labrum very long, with six long setæ at the tip; the four basal joints of the antennæ glabrous; prothorax cordiform; elytra truncate at the apex, with the shoulders slightly rounded, the lateral sides nearly parallel, sinuate towards the outer posterior angle, and the posterior margin produced diagonally towards the suture, third interval with three punctures; tarsi hairy underneath; claws not pectinate.

*Hab.* This genus, which includes species from the Malay Archipelago, New Guinea, Australia, India, Burmah, North America, and Africa, is represented in South Africa by one species only, ranging from Natal to the Zanzibar mainland.

CATASCOPUS RUFOFEMORATUS, Chaud.,

Bull. Mosc., 1837, iii., p. 9.

*C. affinis*, Bohem., Insect. Caffr., i., p. 78.

Brilliant emerald green on the upper part; labrum and mandibles black; antennæ rufescent, the first and second basal joints red; head with the anterior part finely plicate on the vertex and slightly punctulate behind; prothorax short, a little broader in the anterior than in the posterior part, rounded on the sides with the angles sharp, the disk with a sinuate, transverse impression in front and behind, and a deep, median, longitudinal groove ending at both ends in a small round impression; sides of the disk slightly raised; scutellum black; elytra truncate at the base with the humeral angles a little rounded, slightly broader in the basal than in the apical part, the lateral sides nearly straight from the shoulder to the outer posterior angle, which is very prominent, the basal margin produced diagonally from the outer angle to the suture, which is ending in a broad, blunt tooth, moderately plane, narrowly punctato-striate, with the intervals a little convex, the third one with three distinct, broad punctures, bearing a flavescens hair, the outer margin is somewhat violaceous and has three very long setæ, one below the shoulder, one at about the median part, and another above the outer posterior angle, while the posterior margin has one at about the middle, and the other close to the suture; under side black or very deeply infuscate; femora red; tibiæ dark red, sometimes black. Length  $10\frac{1}{2}$ –11 mm.; width 4 mm.

*Hab.* Natal (D'Urban, Malvern), Zululand (Eshowe), Transvaal (Potchefstroom, Middelburg), Mozambique (Rikatla).

GEN. COPTODERA, Dej.,

Genera Coleopt., i., p. 273.

Mentum broad, with no median tooth; ligula slender, very long, horny; the paraglossæ membraneous, broad, much longer than the ligula, surrounding it at the apex and notched at the tip; last joint of palpi subcylindrical, slightly acuminate at the tip; mandibles long; labrum long, narrowed at the apex and slightly incised; antennæ subfiliform; prothorax short, transversal, the base nearly straight, and the outer sides recurved with the margins acute; elytra depressed, punctato-striate, with the intervals convex, the outer sides nearly straight, the outer postical angle acute and the

posterior margin produced obliquely towards the suture which is acute at the apex; legs moderately long; tarsi setulose underneath, decreasing gradually, the fourth joint not incised; claws pectinate.

*Hab.* This genus is represented in North and South America, Australia, New Zealand, the Malay Archipelago, Africa, Madagascar, Burmah, Ceylon, and China.

*Synopsis of Species.*

Head and prothorax very dark brown, the latter broadly edged with yellow; elytra yellow, with a basal black band, a transverse median, sinuate one, and a narrow sinuate black line above the apex . . . . .	} <i>notata.</i> <i>equestris.</i>
Head and prothorax red, black bands on the elytra as in <i>notata</i> , but the posterior black line reaching the apex . . . . .	
Head and prothorax black, marginated with yellow; elytra black with the outer margins yellow, and on each side two or four small sinuate patches of the same colour in the apical part . . . . .	<i>fasciata.</i>

COPTODERA NOTATA, Bohem.,

Pl. vii., fig. 8, Insect. Caffr., i., p. 58.

Head black; palpi, antennæ, and labrum rufescent; head sub-punctulated; prothorax short, nearly twice as broad as long, black on the disk and pale yellow on the sides; elytra broader than the prothorax, rectangular, deeply punctato-striate, with the intervals carinate; pale yellow, with three transverse black bands: a basal one, produced in a blunt triangle below the scutellum, a broad median one, connected along the suture with the point of the basal one, extending from the suture to nearly the outer margin, longer and rectangular along the suture, narrowed in the median part of the third interval, broadening on the fourth, fifth, sixth, seventh, and eighth intervals, and connected along the outer margin with the basal band, and a trisinuated, narrow, supra-apical one, often disconnected and replaced by three patches on each side, one in the outer apical angle, the second a little higher on the fourth and fifth interval, and the third one on the suture; under side and legs pale yellow, the sides often infuscated. Length  $7\frac{1}{2}$ –8 mm.; width  $3$ – $3\frac{1}{2}$  mm.

*Hab.* Natal (Frere), Transvaal (Potchefstroom?), Zambezia (Salisbury).

COPTODERA EQUESTRIS, Bohem.,

Insect. Caffr., i., p. 59.

*C. spilota*, Motsch., Bull. Mosc., 1864, iii., p. 222.

Almost identical with *C. notata*, differs from it, according to Boheman, mainly in the head being more deeply aciculated, the anterior

transverse basal black band is broader, and so is the supra-apical one; the body underneath is black.

Boheman in his description, *loc. cit.*, assumes that the colour of the elytra is black with yellow patches, instead of yellow with transverse black patches, as I do, and he thus describes the difference between *C. notata* and *equestris* as follows: The yellow macula on each side of the anterior part is smaller, further removed from the base and outer margin, and the posterior fascia is also narrower.

*Hab.* Caffraria (interior).

COPTODERA AMENULA, Bohem.,

Insect. Caffr., i., p. 60.

Head and prothorax, palpi and antennæ red; head subpunctulated; prothorax short, nearly twice as broad as long; elytra broader than the prothorax, rectangular, narrowly punctato-striate, with the intervals convex, the third one from the suture with two somewhat indistinct broad punctures, one above the median part the other above the apex, pale yellow with three transverse black bands as in *C. notata*, the basal band is broader, the black line connecting the median patch with the basal one along the outer margin is broader, and the apical one is broader, strongly biemarginate on each side and reaches the apical margin; under side deeply infuscated; legs pale yellow. Length 6 mm.; width 3 mm.

*Hab.* Caffraria.

COPTODERA FASCIATA, Bohem.,

Insect. Caffr., i., p. 61.

Head, prothorax, and elytra black, with a slightly greenish tinge; antennæ and legs flavescent, the tibiæ slightly infuscate; head deeply aciculate as far as the neck; prothorax of the same shape as *C. notata*, but a little more angular laterally near the middle, and also more sinuate above the basal angle, outer margin broadly flavescent; elytra elongate, a little ampliate past the median part, punctato-striate with the intervals convex but not carinate, glabrous, and with two bisinuate yellowish fasciæ on each elytron; the anterior one is sometimes entirely wanting, or is reduced to a mere dot, but when not obliterated it reaches from the second to the eighth stria, and is longer on the third and fourth intervals. The posterior one is strongly bisinuate, reaches from margin to margin, and is produced along the suture to a short distance from the apex; under side infuscate. Length 6-7¼ mm.; width 3-3½ mm.

*Hab.* Natal (D'Urban).

Easily distinguished from *C. notata* by the less parallel elytra, the punctures of the striæ which are not so deep, and the intervals which are convex, not carinate.

Besides these four species, De Chaudoir has given the description of another species which he believes to be South African, but without being sure of it, and Motschulsky has also described two more, one of which, *C. fuscata*, is believed by Chaudoir to be allied to *C. equestris*, Bohem.

COPTODERA FUSCATA, Motsch.,

Bull. Mosc., 1864, p. 223.

Facies of *Lamprias chlorocephala*, but with a smaller head and prothorax, colour fuscous; ovate, convex, moderately shining, fuscous brown, with the mouth, palpi, antennæ, and legs lighter brown, sides of the prothorax recurved, posterior angles straight, elytra deeply striate. Length  $5\frac{2}{3}$  mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Cape of Good Hope.

I have not been able to obtain the description of *C. deplanata* of the same author, and De Chaudoir has no conception of what species it can be.

COPTODERA TETRASEMA, Chaud.,

Mem. sur les Coptodérides, Ann. Soc. Ent. Belg., 1869, vol. xii., p. 189.

Resembles the *C. crucifera* on account of the spots on the elytra, but the colour is different, and the elytra are not dentate; head and prothorax rufous, with the clypeus and the outer sides of the prothorax lighter; antennæ, palpi, and mouth rufous; labrum lighter in colour; elytra dark brown, shining, two spots on each elytron, the anterior one is a little smaller, and the posterior one not much denticulate behind; the under side is light brown, with the sternum in the middle, and the base of the abdomen yellowish; legs rufous, femora a little darker towards the median part. Length  $8\frac{1}{4}$  mm.

*Hab.* ? South Africa.

GEN. PENTAGONICA, Schm. Göeb.;

Coleopt. Birm., p. 47.

Mentum, without any median tooth, the lateral lobes sharp and diverging; ligula broadly triangular, with the apical part obtuse, bisetose; the paraglossæ very narrow, hardly longer than the lateral angle of the upper part of the ligula, fused with it and ciliated with short bristles; antennæ pubescent, as long as two-thirds of the body, the tips of the joints with moderately long bristles, first joint thick, club-shaped, second and fourth of equal length, fourth shorter than the third, the others twice as long as broad and not slender, last joint of maxillary and labial palpi fusiform, acuminate at the tip; labrum moderately long, covering the mandibles; head narrowed behind in a distinct neck; eyes large and very pro-

minent; prothorax truncate in front and behind, with the lateral sides triangular; elytra elongate, subparallel, truncated behind; legs moderately long; tarsi slender, very slightly hairy underneath, gradually decreasing in size, the fourth one very short, not incised; claws slender, not pectinate.

*Hab.* This genus occurs in North and South America, Burmah, Ceylon, and Hong Kong, and Dr. Gestro has quite lately described an African species from the Galla country.

PENTAGONICA ELEGANS, Pér.,

Plate VII., fig. 10.

Antennæ, palpi, and head black, opaque, the neck reddish; head with a very faint median groove, and smooth; prothorax pentagonal, with the outer margins recurved, finely grooved longitudinally in the centre, pale red, with a small round discoidal black spot on each side of the median groove; scutellum reddish; elytra elongate, nearly parallel, slightly ampliate behind, with the apical part truncate, nearly straight, depressed, punctato-striate, without any puncture in the third interval, pale yellow, with a sutural black band extending as far as the third stria on each side, from the base to two-thirds of the length and continuing from there along the suture only as far as the apex, the discoidal part from about the middle backwards is slightly infuscate, and the apical margin black; this sutural band is a little broader near the base, where it extends as far as the fourth stria; under side and legs pale yellow; abdomen infuscate. Length  $5\frac{1}{2}$ –6 mm.

*Hab.* Zambezia (Salisbury), Natal (Escourt).

GEN. GLYPHODACTYLA, Chaud.,

Bull. Mosc., 1837, vol. vii., p. 9, and 1850, p. 372.

Mentum broadly notched, with a robust, very sharp tooth in the middle; ligula narrow, rounded at the apex, the paraglossæ a little longer than the ligula, and bluntly triangular at the tip, last joint of maxillary and labial palpi a little longer than the penultimate one, and ovate; labrum quadrate, notched, the right mandible with a median inner tooth; prothorax nearly round, a little sinuated at the apex; elytra oblong, plane, truncate behind, twice as broad and three times as long as the prothorax; tarsi depressed, with a longitudinal, well-defined impression on the second, third, and fourth joints; claws pectinate.

This genus, which is not known to me, seems to be closely allied to *Leptosarcus*, from which it is differentiated by the shape of the last joint of the palpi, the shape of the prothorax (although this is

not a sufficiently good generic character), and the impression on the upper part of the tarsi.

GLYPHODACTYLA FEMORALIS, Chaud.,

*Loc. cit.*, p. 9.

Black, with the antennæ, palpi, legs, and tarsi rusty red; head smooth, with two longitudinal impressions between the eyes; prothorax broader than the head, nearly as broad as long, sinuate in front, with the sides rounded, truncate at the base, with the posterior angles much rounded, finely plicate transversely, slightly convex, with a median longitudinal groove and a small depression on each side of the base, the outer sides depressed, with the margins much recurved near the base; elytra plane, deeply punctato-striate, the intervals slightly raised, the third one with two punctures, the first in the anterior part, the second one at the apex, the outer margin with an interrupted series of deeper punctures. Length 11 mm.; width 5 mm.

*Hab.* Cape of Good Hope, teste Chaud.

TRIBE TETRAGONODERIDES.

Mentum with or without a median tooth; ligula broadening at the tip, truncate; paraglossæ broader than the ligula, and produced beyond it in a broadly ovate lobe; claw of the maxillæ surmounted by a moderately thick lobe; antennæ filiform; elytra ovate or elongato-ovate; anterior tarsi of the male with the three basal joints dilated; tibiæ, with two long apical spines, longer in the intermediate and posterior ones.

*Synopsis of Genera.*

- Mentum, with a median tooth.  
 Elytra suborbicular; labrum deeply emarginate in the centre *Cyclosomus*.  
 Elytra elongate, or elongato-ovate; labrum slightly emarginate at the apex; tarsi of intermediate legs dilated . . . . *Tetragonoderus*.  
 Mentum without a median tooth.  
 Elytra elongato-ovate; tarsi of intermediate legs not dilated *Tilius*.

GEN. CYCLOSOMUS, Latreille,

Régn. Anim., ii., 1829, p. 334.

Base of mentum filled with a triangular tooth, a little incised at the apex, half as long as the lateral lobes; ligula narrow, broadening at the tip; the paraglossæ longer, and produced in a globose lobe; antennæ filiform; labrum broadly emarginate at the apex; prothorax, with the apical part crescent shape, the base truncate, broader than the apex, and the outer sides curving gradually from

apex to base ; elytra one-fourth broader than the prothorax, with the lateral angles much rounded, and also the posterior part moderately convex ; legs moderately long, the three basal joints of the anterior tarsi of the male lamellate underneath, the three basal ones dilated, the angle of the first one much produced outwardly, that of the second less so ; claws not pectinate ; prosternum produced behind in a sharp lobe, which does not reach the mesosternum.

*Hab.* The genus is represented in India and Ceylon.

CYCLOSOMUS BUQUETI, Dej.,

Spec. Col., v., p. 812.

*C. equestris*, Bohem., Insect. Caffr., i., p. 189.

Head dark bronze, closely punctulate ; antennæ rufescent, with the first basal joint and also the palpi red ; prothorax metallic green, marginated with yellowish red, finely punctulate, with a median longitudinal narrow groove, and a round depression on each side a little above the base, and at equal distance from the median groove and of the outer margin ; elytra a little broader than the prothorax at the base, and somewhat rounded below the shoulders, moderately convex, narrowly striate, with the intervals broad, plane, and smooth, yellowish red, with a transverse basal band reaching the fourth stria on each side the suture and on each side three bronze green patches, the first dorsal patch, a median one, is more or less quadrate, and extends on the fourth and fifth intervals, the second one, a bisinuate one below the median one, extends on the third, second, and first intervals, and coalesces with the sutural band, the third one reduced to a dot is on the apical part of the third interval ; under side infuscate ; legs pale yellow. Length 9–10 mm. ; width 5–6 mm.

*Hab.* Natal (D'Urban), Mozambique (Pungwe River). It occurs also in Senegambia and Nubia.

GEN. TETRAGONODERUS, Dej.,

Spec. Col., iv., 1829, p. 485.

Mentum with a median triangular tooth filling the base, very sharp at the apex, half as long as the lateral lobes ; ligula and paraglossæ of *Cyclosomus* ; labrum short, broader than long, slightly sinuate in the anterior part ; antennæ filiform ; prothorax broader than long, wider at the apex than at the base, moderately plane, with the outer sides rounded ; elytra elongate or elongato-ovate, plane, truncate diagonally behind ; legs long, the three basal joints of the anterior tarsi of the male dilated, and with lamellæ underneath, the four joints of the intermediate legs also dilated, although in a lesser degree, and spongy underneath ; claws not pectinate.

*Hab.* The genus is represented in Africa (Senegal, Gaboon), Madagascar, India, Burmah, Ceylon, and North and South America.

*Synopsis of Species.*

Elytra broadly ovate.	
Elytra pale yellow, with three transverse interrupted bronze bands.. . . . .	<i>insignicollis</i>
Elytra elongate.	
Elytra sericeous, with a posterior quadrate yellow patch, the first basal joints of antennæ reddish .. .. .	<i>biguttatus.</i>
The three basal joints of antennæ yellow .. .. .	<i>sericatus.</i>
Elytra not sericeous.	
Elytra with a diagonal humeral yellow band, and a posterior one on each side .. .. .	<i>scitulus.</i>
Elytra without any yellow markings .. .. .	<i>immaculatus.</i>

TETRAGONODERUS INSIGNICOLLIS, Chaud.,

Bull. Mosc., 1876, part ii., p. 42.

Head metallic green, smooth; antennæ flavescent, with the three basal joints and also the palpi yellow; prothorax broader than long, with the outer sides straight, plane, metallic green, with the lateral edges yellow, nearly smooth, and with a median longitudinal narrow groove, and a basal impression on each side of that groove; elytra, with the anterior angles acute, and projecting beyond the base of the prothorax, gradually amplified from the shoulder to the median part, gradually narrowed from there to the outer angle, and sub-obliquely truncated from there to the suture, hardly convex, finely striate, with the intervals quite plane, pale yellow, with three, zig-zag shape, interrupted transverse bronze bands, consisting of sub-quadrate isolated patches, on each elytron, and a lighter bronze transverse basal patch reaching as far as the fourth interval on each side; under side more or less deeply infuscated; legs pale yellow. Length  $5\frac{1}{4}$  mm.; width  $3\frac{1}{4}$  mm.

*Hab.* Natal (? D'Urban, Escourt). Has also been captured at Zanzibar, and is recorded by Gestro from the Galla country.

The rotund shape of the elytra, and that of the prothorax, gives to this species a facies somewhat similar to *Cyclosomus*.

TETRAGONODERUS BIGUTTATUS, Thunb.,

Nov. Insect. Spec., p. 76.

Bronze on the upper side, black underneath; head smooth; antennæ black, with the first joint reddish yellow; prothorax broader in the anterior part than in the basal one, outer sides rounded gradually, subacute at the posterior angle, the base truncated straight, the apical part slightly sinuose, with the anterior angles projecting a little and sharp, plane, with a transverse anterior impression, a

narrow median groove and a basal impression on each side of the groove, the median part of the base striolate; elytra elongate, but a little amplified in the middle, broader than the prothorax, with the shoulders acute, truncate obliquely behind, plane, narrowly punctato-striate, with the intervals plane and covered with a very short, silky pubescence, on the fourth interval is a broad, rounded submedian impression, and another past the middle on the third, and in the posterior part on each side a transverse yellow patch extending from the fifth to the eighth interval; legs and tarsi black. Length 5 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape, Stellenbosch, Worcester).

TETRAGONODERUS SERICATUS, Dej.,

Spec. Col., vol. iv., p. 498.

The description of *T. biguttatus* applies almost entirely to this species, the only distinctive characters being that the three basal joints of the antennæ are yellow instead of the first one only; the elytra are also a little more amplified in the middle, the silky pubescence is denser and more glittering, and the two dorsal round impressions on each side are also broader; the tibiæ are yellowish instead of being black.

*Hab.* Natal (D'Urban, Frere), Delagoa Bay (Rikatla), Cape Colony (Uitenhage, Albany).

TETRAGONODERUS SCITULUS, Bohem.,

Vet. Ac. Förh., 1860, p. 13.

*T. dispar*, Pér., Trans. S. Afric. Phil. Soc., 1892, p. 6.

Head and prothorax metallic black, shining; the three basal joints of the antennæ, palpi, and legs reddish; prothorax smooth, one-third broader than long, a little wider in the anterior than in the posterior part; the striolation of the median part of the base very conspicuous; elytra a little broader at the base than the prothorax, with the anterior angles acute, slightly rounded below the shoulders, with the outer sides nearly parallel, the posterior part obliquely truncate, plane, narrowly and deeply striate with the intervals plane, the third one with two punctures, bronze black, shining, without any pubescence, and each one with a subhumeral broad yellow band reaching diagonally from the sixth to the third stria, and a posterior irregularly triangular one of the same colour above the apex, and extending from the third stria to near the outer margin; under side piceous. Length 7 mm.; width 3 mm.

In one example the apex of the subhumeral diagonal band is produced along the fourth interval in the direction of the supra-apical patch.

*Hab.* Ovampoland (Cunene River).

## TETRAGONODERUS IMMACULATUS, Laferté,

Rev. et Mag. Zool., 1853, p. 416.

*T. immaculatus*, Bohem., Res. Freg. Eugen., p. 8, No. 17.*T. simplicissimus*, Gerst., Beitr. z. Ins. Zanz., 1866, p. 17.

Shape of the preceding species, but smaller; colour of the antennæ, head, and prothorax alike; elytra shorter, less elongato-quadrate, owing to their being a little amplified in the outer sides; the striæ are very narrow, the intervals plane, with a faint silky look, and without yellow patches or bands. Length  $4\frac{1}{2}$ –5 mm.; width 3 mm.

Recorded from the Cape by Boheman and De Chaudoir.

## GEN. TILIUS, Chaud.,

Bull. d. Mosc., 1876, part ii., p. 71.

Mentum without any median tooth; ligula and paraglossæ of *Tetragonoderus*; labrum short, sinuate at the apex; prothorax arcuate at the apex, with the sides rounded, the outer angle acute, and the basal part obliquely truncate\*; elytra elongato-ovate, very slightly obliquely truncate behind; legs long; the three basal joints of the anterior tarsi of the male dilated and lamellate underneath; those of the intermediate pair not dilated; claws not pectinate.

*Hab.* The genus is represented in Egypt and Northern Bengal.

## TILIUS SUBSERICEUS, Chaud.,

*Loc. cit.*, p. 73.

Greenish bronze, feebly shining on the upper and lower parts; antennæ, palpi, and legs black; head smooth; prothorax very finely aciculated, arcuate in front and laterally, the transverse anterior impression hardly visible, the median groove reaching from base to apex; elytra elongato-ovate, broader than the prothorax at the base, and a little inflated from below the shoulders, plane, very slightly striated, with the intervals plane and covered with a very short, silky pubescence. Length  $3\frac{1}{2}$  mm.; width  $1\frac{3}{4}$  mm.

*Hab.* Cape Colony (Worcester).

## TRIBE ORTHOGONIDES.

Ligula horny; paraglossæ very much wider than the ligula, not longer, and fused with it; mentum without any median tooth; antennæ filiform; prothorax transversal, depressed; elytra elongato-quadrate, plane, subtruncate behind, with the pygidium projecting; legs moderately long; femora thickened; tibiæ with several carinæ; tarsi moderately long, triangular, squamigerous underneath, the fourth joint of the anterior tarsi deeply lobate or hardly incised.

\* The shape of the prothorax is more that of *Lionychus* than of *Tetragonoderus* or *Cyclosomus*.

## GEN. ORTHOGONIUS, Dej.,

Spec. Col., i., p. 279.

Ligula very narrow, nearly truncate at the tip, with one long seta on each side of it; paraglossæ three times as broad as the ligula, expanding from base to apex, almost fan shape, a little longer than the ligula but fused with it, and having on each outer angle a small fascicle of short hairs; mandibles projecting, incurved at the tip, the right one with a median inner tooth; antennæ moderately long, with the joints a little compressed, and with a very narrow median groove on each side, the three first joints and the basal part of the fourth smooth, the others pubescent; labrum as long as broad, truncate at apex, and with two deep setigerous punctures and a lesser one on each side; prothorax transverse, with the outer margins recurved, the basal one sinuate; elytra elongato-quadrate, depressed, rounded subdiagonally behind; femora thickened; tibiæ with four grooves edged by a duplicate series of short spines; tarsi moderately long, triangular, the basal one narrower than the second, the fourth one either slightly incised or lobate; anterior and tarsi of the male squamigerous and lamellate underneath; claws moderately long, pectinate.

*Orthogonius* is met with in Senegal, Old Calabar, and Sierra Leone in Africa; also in India, in the Malayan Archipelago (Moluccas, Philippine Islands, Java, Malacca, Pulo-Penang, &c.), in Cochin China, Siam, Birmania, and Ceylon.

*Synopsis of Species.*

Fourth joint of the anterior tarsi bilobate.

Two punctures on third interval of elytra, intervals moderately plane, apical part of intermediate and posterior tibiæ not thickened; antennæ moderately long .. .. . *caffer*.

No puncture on third interval; intervals very convex, apical part of intermediate and posterior tibiæ much thickened; antennæ short .. .. . *brevicornis*.

Fourth joint of the anterior tarsi not bilobate; no punctures on the third interval.

Prothorax nearly as broad as the base of the elytra; intermediate joints of the antennæ twice as long as broad .. .. . *capucinus*.

Prothorax much narrower than the base of the elytra; intermediate joints of the antennæ one-third longer than broad .. .. . *æmulus*.

## ORTHOGONIUS CAFFER, Bohem.,

Insect. Caffr., p. 64.

*O. modestus*, Pér., Trans. S. Afric. Phil. Soc., vol. iv., p. 81.

Piceous, with the palpi, labrum, antennæ, femora, and abdomen reddish brown or very dark brown; head deeply and irregularly punctured; prothorax twice as broad as long, with the anterior and posterior margin very slightly sinuate, the outer sides subpubescent

and broadly depressed all round, with the outer margins recurved, narrowly grooved in the centre, and with three deep depressions in the basal part, one in the middle above the scutellum, and one on each side of the median one; elytra three times as long as the prothorax, elongato-quadrate, narrowly punctato-striate, with the intervals a little convex and punctulated, the third one with one median and one supra-apical punctures; outer margins with a regular series of punctures reaching from the humeral angle to the suture. Length 13–16 mm.; width 7–8 mm.

*Hab.* Transvaal (Rustenburg), Zambezia (Mazoe).

*O. modestus*, Pér., although differing in points of size and also of sculpture with the type form, must be considered as a slight variety only of the present species.

#### ORTHOgonIUS BREVICORNIS.

Reddish brown, moderately shining; palpi, antennæ, and legs ferruginous; head coarsely punctured; antennæ very short, reaching no further than the median part of the prothorax, the intermediate joints are almost moniliform, and the apical one elongato-ovate; mandibles long; prothorax one-third broader than long, with the outer sides a little rounded, the base is not much narrower than the apex, the posterior angles are rounded, and the outer margin is not recurved, the whole upper side is very roughly shagreened; elytra parallel, rounded behind but not sinuate, moderately convex, striate, the striæ are narrow, faintly punctate, and the intervals very convex and irregularly punctured; there is no trace of an eighth striæ; the tibiæ are much dilated at apex, the intermediate ones much incurved, and the posterior ones short and not bent. Length 18–19 mm.; width 7–8 mm.

*Hab.* Zambezia (Buluwayo).

#### ORTHOgonIUS CAPUCINUS, Bohem.,

Insect. Caffr., p. 65.

Reddish brown or piceous, darker on the upper part; head and prothorax of the same shape as the preceding species, but with a less dense and deep punctuation; elytra elongato-quadrate, narrowly punctato-striate, with the intervals convex, and very finely and closely aciculate, always darker than the prothorax, with the suture and outer margins redder than the dorsal background, third interval without any perceptible puncture; posterior tibiæ straight. Length 12–13 mm.; width  $5\frac{1}{4}$ –6 mm.

*Hab.* Natal (D'Urban).

#### ORTHOgonIUS ÆMULUS.

Brownish black, with the antennæ, the labrum, palpi, pectus, and

legs redder brown; head finely and irregularly plicate, like the prothorax, which is much more narrow than in the two preceding species, imparting at once a distinct look to this species, apart from the difference in the sculpture; the outer margins are also less rounded and the edge more recurved; elytra elongato-quadrate, three and a half as long as the prothorax and nearly twice broader, finely punctato-striate, with the intervals convex, no puncture on the third interval; in this and the preceding species the outer margin is very narrow laterally and hardly punctured, except in the posterior part; abdomen turning to black; hind tibiæ incurved. Length 17 mm.; width 7 mm.

*Hab.* British Bechuanaland.

### TRIBE GRAPHIPTERIDES.

Ligula narrow, convex, adhering to the paraglossæ, which are very broad, truncate at the apex, one-third longer or nearly as long as the ligula, and surrounding it on the anterior part, the outer angles with three long rigid bristles, the embossed apical part of the ligula also with two long, slender bristles; palpi subfiliform, second joint of the labial palpi with three rigid, inner bristles; mentum broad; mandibles sharp, arcuate at the tip, and with a short basal tooth; head ovate on the anterior part, not narrowed behind, with a ridge above the eyes, which are large and protuding, and have two supra-orbital setæ; joints of antennæ carinated on the inner part, the three first joints glabrous, the others pubescent and more or less compressed and dilated, but never filiform; prothorax more or less cordiform; elytra depressed, truncated more or less obliquely at the apex, with the anal segment projecting, always covered with a very short, thickly set pubescence; tibiæ grooved on the inner side, the anterior ones with two moderately long apical spurs, the outer one stouter and longer in the median and posterior legs; claws not pectinate.

*Graphipterides*, like their close allies, *Anthiades*, are a very typical feature of the South African Coleopterous fauna. Nothing is known of their life-history. Only once did I find in the immediate neighbourhood of an ant (*Plagiolepis fallax*) a number of *Graphipterus trilineatus* with the elytra quite soft, half imbedded in a round depression under a stone, where they had apparently undergone their metamorphosis.

They are generally met with at the beginning of spring in the south-western districts of the Cape Colony, or at the beginning of

the rainy season in Natal and the more northern parts, Bechuana, Transvaal, Zambezia, or Damaraland.

Running with extreme rapidity, they are not always easy of capture, but, in spite of their colour blending so harmoniously with that of the soil, such species as have darker or black dorsal markings are very conspicuous on the ochraceous or reddish-coloured plains of the Karoo, almost destitute of vegetation, or in the openings of the grass country, farther north. As I have already said, they appear suddenly after the first summer rains, and it was a pleasant sight for me to witness at Kimberley, after a good shower, the apparition of a great many representatives of several species (*G. ancora*, *cordiger*, *pusillus*, *vittiger*) scouring the place in all directions, where the day before not one was to be seen, and apparently heedless of the presence of a large number of *Mantichora tibialis* that seemed, however, more busy fighting for the possession of a mate than on the look-out for food.

Like *Mantichora* and *Anthia*, *Graphipterus* seems to be fearless of what enemy it may encounter, relying seemingly on the power of its weapons (its mandibles are very strong and long, and the width of head and prothorax testifies to a great munching power), and goes about in a fast, jerky manner not unlike that of *Mantichora*. When seized the anal segment opens and contracts, as if emitting the same pungent and volatile fluid thrown out by the *Anthia*, but I have not been able to detect either smell or trace of it in the species I have personally captured, but Mr. G. A. K. Marshall is very positive that *G. mashunus*, *G. lineatus*, and *G. nanniscus* emit a pungent odour, and that this power of ejecting a pungent fluid is most developed in the first-named species.

Certain species, much alike in general facies, vary a good deal in the dorsal markings where their habitat is restricted to mountainous country, owing to their incapacity for flight. It is not so, however, on the undulating plains of the high plateaux of South Africa, mainly in the northern and north-western parts. Several species first recorded from the Lake N'Gami and occurring also in Damaraland are also met with as far south as Griqualand West, in the Cape Colony (*G. suturalis*, *lateralis*); others occurring in Ovampoland are also found in Zambezia (Salisbury), and even so far east as Delagoa Bay (*G. tibialis*). Some, but with a very slight differentiation in the shape of the dorsal markings (*G. cordiger*, *hamatus*, *Wahlbergi*), have the widest range of all, extending from D'Urban, Natal, to Zambezia (Salisbury), Damaraland, Ovampoland, and even to the northern parts of the Cape Colony (Kimberley, Calvinia).

The vestiture of the South African species of *Graphipterus* consists of a thickly set, very short pubescence, varying from greyish to fulvous, margined with white or light yellow, and with discoidal

black bars or patches on the elytra, or sometimes lines or bands of a hue lighter or darker than the background. The head is generally denuded in the centre, and the prothorax marginated with white, or with a velvety median longitudinal band.

The genus *Graphipterus* is represented in Senegal, the Gold Coast, and Angola in the east, and Abyssinia in the west, also in Northern and North-eastern Africa. But while those found in the first-named parts are not unlike the South African ones in shape and colouring, the North African ones have a very distinct facies and different colouring, consisting of pure white markings on a black background; the elytra are also more orbicular.

In *Piezia* the markings consist of short, white, or sometimes pale yellow dorsal patches on a black, pubescent background; the facies, however, is very different from that of *Graphipterus*, and is evidently a transitory form between it and *Polyhirma*, of the tribe *Anthiades*. These white markings, consisting of short white hairs, are easily rubbed off or distorted, thus making the identification very difficult at times if the examples are not in a perfect state of preservation.

Although considered at one time as a purely South African form, *Piezia* has lately been recorded as occurring in Zanzibar, Tabora, Benguela, and Somaliland, and in all these the facies is not very different from that of the South African species.

#### *Synopsis of Genera.*

Ligula one-third shorter than the paraglossæ, and entirely surrounded by them; mentum with a short sinuation at the base; prothorax short, broader than long; elytra longer than broad, ovate or elongato-quadrate . . . . . *Graphipterus.*

Ligula nearly as long as the paraglossæ, but surrounded by them; mentum with a blunt, bifid tooth at the base; prothorax longer than broad; elytra nearly always half as long as broad, but not broader at the base than the base of the prothorax . . . *Piezia.*

#### GEN. GRAPHIPTERUS, Latreille,

Hist. Nat. Ins., viii., 1804, p. 236.

Mentum broadly and deeply notched, with the lateral sides nearly perpendicular and the basal part nearly transverse, but with a median incised sinuation; ligula slender, shorter than the paraglossæ, which are twice as broad and surround it in the anterior part; palpi short, robust, the last joints subfusiform, truncate at the tip, the second labial one longer than the third by one-half; labrum long, nearly quadrate, truncate or very slightly sinuate at the tip, with six setiger punctures at the apex; head ovate, with an orbital ridge, the eight

apical joints of the antennæ more or less compressed, the third joint longer than the others; prothorax more or less broadly cordiform, with the anterior angles turned down; elytra ovate, elongato-ovate or subquadrate, depressed, truncate behind; legs long; tibiæ carinated inwardly; claws not pectinate; anterior tarsi of the male (with one exception) hardly dilated, if dilated at all.

### Synopsis of Species.

#### I.

Antennæ with the eight apical joints subcompressed.

Prothorax broad, depressed, the outer sides subaculeate in the middle.

Elytra suborbicular, with a broad black sutural band, and three dark cinnamon ones on each side . . . . . *grandis*.

Prothorax short, narrow and cordiform.

Elytra elongato-ovate, with no humeral angle, covered with a greyish or yellow pubescence, and marginated with white.

Prothorax longer than broad . . . . . *cicindeloides*.

Prothorax as long as broad . . . . . { *limbatus*.

{ *pusillus*.

Prothorax broader than long . . . . . *frontalis*.

Prothorax broader than long.

Elytra with no humeral angle, but gradually amplified triangularly.

Prothorax very cordiform and slender; elytra with a whitish suture, and a juxta-sutural black band on each side . . . . . *agilis*.

Prothorax short, covered like the elytra with a yellow pubescence; elytra not striate . . . . . *angustus*.

Prothorax and elytra marginated with white, the latter slightly striate . . . . . *damarensis*.

Elytra more or less ovate, with much rounded humeral angles.

Prothorax and elytra with a median and sutural black band.

Elytra very ovate, pale yellow, with a short, basal, discoidal cinnamon band . . . . . *ovipennis*.

Elytra very ovate, pale yellow, with the cinnamon dorsal band reaching from base to apex . . . . . *propinquus*.

Elytra nearly elongato-quadrate, with a broad cinnamon band on each side . . . . . *amabilis*.

Elytra narrowed at the base, much inflated behind, and with a very broad cinnamon band . . . . . *gratiosus*.

Elytra subelongato-quadrate, with a narrow white line along the sutural band . . . . . *suturalis*.

Elytra subelongato-quadrate, without any white line along the sutural band . . . . . *adamantinus*.

- Elytra subelongato-quadrate, with a broad discoidal black band on each side.. . . . . *vittiger*.
- Elytra a little amplified behind, with a discoidal black band reaching the median part, and also a comma-shaped one .. . . *femoratus*.
- Elytra without a sutural black band.
- Elytra with a posterior oblique band on each side .. . . *postfasciatus*.
- Elytra elongate, hardly amplified in the central part, anterior angles well defined.
- Prothorax and elytra with a median and sutural black band.
- Elytra pale yellow, with a very broad cinnamon dorsal band on each side .. . . . . *cinctus*.
- Elytra pale yellow, with two narrow cinnamon bands on each side .. . . . . *ornatus*.
- Prothorax without any median black band.
- Elytra with two broad fulvous dorsal bands on each side .. . . *suturiger*.
- Elytra with two narrow black dorsal lines.. . . . . *deceptor*.
- Elytra elongato-quadrate, outer sides nearly straight.
- Head, prothorax, and elytra without any median or sutural black band.
- Elytra with a black discoidal band on each side .. . . . . *bivittis*.
- Elytra with one black and two fulvous bands on each side .. . . *simulator*.
- Prothorax with a median black band.
- Elytra with a juxta-sutural black band, a white line edging it, a very broad cinnamon band and a white margin .. . . . . *leucophæus*.
- Elytra with a broad juxta-sutural black band, incised behind, with the inner side prolonged .. . . . . *bilineatus*.
- Elytra with a juxta-sutural black band tapering towards the apex .. . . . . *mimus*.
- Elytra with a juxta-sutural black band, and a supra-marginal and narrower one .. . . . . *amicus*.
- Elytra with three equi-distant black bands of equal width, reaching from base to apex .. . . . . *sexvittatus*.
- Elytra with a broad band, narrowly incised at the base, and a supra-lateral narrow one .. . . . . *fraternus*.
- Elytra with the same dorsal bands, but the first one not incised .. . . . . *consobrinus*.
- Elytra with one very broad black dorsal band, narrowly incised at the base .. . . . . *plagiatus*.
- Elytra with a broad, juxta-sutural black band reaching neither base nor apex, and a narrower and shorter one parallel to and coalescing with the first band .. . . . . *elegantulus*.
- Prothorax without a median black band.
- Elytra greyish brown, with four dark brown bands on each side .. . . . . (*tibialis*, *insidiosus*).
- Elytra brownish grey, with four greyish white lines on each side .. . . . . *lineelus*.

- Elytra yellow, with four narrow whitish lines on each side .. *assimilis.*  
 Elytra with a sutural brown band, and a discoidal one having a fine longitudinal yellow line in the centre .. .. . *suspectus.*
- Prothorax with a median, and elytra with a sutural black band.
- Elytra with a discoidal black band on each side, with a fine longitudinal yellow line in the centre .. .. . *quadrum.*  
 Elytra with two discoidal black bands .. .. . *vittatus.*  
 Elytra with the sutural black band acuminate behind, stopping short of the apex, and two dorsal ones, the inner longer than the other and both coalescing behind .. .. . *obliteratus.*  
 Elytra with the sutural black band and three discoidal ones on each side merging above the apex in a broad transverse band.. .. . *Mashunus.*  
 Elytra with the sutural band stopping short of the apex, and with a discoidal one not connected behind with the sutural .. *irritans.*  
 Elytra with the sutural band reaching nearly to the apex, and coalescing there with the discoidal one .. .. . *trivittatus.*  
 Elytra with the sutural band broad from the base to past the middle, and produced from there in a juxta-sutural line, uniting behind with the discoidal one .. .. . *trilineatus.*  
 Elytra with the sutural band uniting behind with the discoidal one, which emits a long inner spur.. .. . *arcuatus.*  
 Elytra with the inner spur of the discoidal band very small.. *montanus.*  
 Elytra with one narrow, juxta-sutural perpendicular line .. *cursor.*
- Prothorax without any median black band; elytra elongato-quadrate, margined with white, and without dorsal markings.
- Prothorax moderately narrow, subcordiform, not serrulate laterally; elytra parallel .. .. . *Mouffleti.*  
 Prothorax broad, serrated, posterior angles sharp, projecting behind .. .. . *velutinus.*  
 Prothorax short, serrated, posterior angles in line with the base .. .. . *lateralis.*  
 Prothorax short, serrated; elytra grey, distinctly striate .. *griseus.*  
 Prothorax broad, not serrated; elytra square .. .. . *vestitus.*  
 Prothorax not serrated, ferruginous; elytra mouse-grey, sub-striate .. .. . *canescens.*
- Head and prothorax very broad; elytra short, quadrate or elongato-quadrate.
- Elytra without dorsal bands.
- Elytra elongato-quadrate, grey with whitish striæ .. .. . *incanus.*  
 Elytra elongato-quadrate, grey with a fulvous base .. .. . *basalis.*  
 Elytra quadrate, grey, without any stria .. .. . *macrocephalus.*
- Elytra with black dorsal bands.
- Elytra with two black bands on each side .. .. . *Bonvouloiri.*  
 Elytra with one broad band on each side .. .. . *Chaudoiri.*  
 Elytra with a sutural and three discoidal black bands .. .. *quadrilineatus.*  
 Elytra with a sutural and two discoidal black bands .. .. . *consocius.*
- Prothorax very broad, the anterior part very depressed, anterior angles sharp and projecting.

Elytra with a sutural black band.

Elytra with a discoidal black band on each side, disconnected from either base or apex .. .. . *giganteus*.

Discoidal band as in *giganteus*, and a transverse supra-marginal patch uniting on each side with the suture .. .. . *ancora*.

Median part of the discoidal band uniting on each side with the suture .. .. . *transitans*.

Discoidal band very broad, coalescing with the suture, apical patch also very broad .. .. . *Westwoodi*.

A median transverse patch reaching nearly the outer margin on each side, apical patch very broad, covering one-third of the length of the elytra .. .. . *egressus*.

Dorsal patch invading nearly the whole of the disk, and coalescing behind with the apical patch .. .. . *discoidalis*.

Discoidal band forming in connection with the suture, an upturned crescent-shape patch, apical patch triangular .. .. . *egregius*.

A dorsal quadrate black patch reaching from the base to the median patch, and a broad, apical transverse fascia .. .. . *fasciatus*.

Elytra without sutural black band.

A discoidal black juxta-sutural patch, reaching from the base to about the median part, and a small sutural apical patch .. .. . *Fritschi*.

Prothorax broad, but with the anterior sides not much depressed, and the angle blunt.

A triangular black patch past the middle, twice as broad as the sutural band .. .. . *Zambezius*.

A blunt, crescent-shape median black patch .. .. . *cordiger*.

Dorsal black patch as in *cordiger*, but quadrate, and with a very short, aculeate sutural patch .. .. . *transfugus*.

Dorsal patch post-median and narrower .. .. . *Wahlbergi*.

Dorsal patch longer and broader, quadrate, with the four angles projecting .. .. . *hamatus*.

## II.

Antennæ with the eight terminal joints very flattened.

Prothorax moderately broad, cordiform; elytra ovate.

Elytra fulvous or ochraceous-yellow, with a broad sutural black band .. .. . *atrimedius*.

Elytra with a broad sutural black band, and two narrow ones on each side .. .. . *Erikssoni*.

Elytra covered with a black pubescence, outer margins narrowly edged with white .. .. . *circumcinctus*.

Elytra covered with a black pubescence, with seven striæ on each side, the striæ with lines of greyish white .. .. . *lineolatus*.

Elytra as in *lineolatus*, but with the first six white lines duplicated, and separated from the other duplicated set by a wider interval .. .. . *geminatus*.

Elytra greyish brown, with six white lines on each side .. .. . *nanniscus*.

Elytra with a discoidal white band, outer margin white .. .. . *lugens*.

Elytra with a discoidal yellow line reaching past the middle,

and coalescing with a short transverse line of the same colour directed towards the outer margin . . . . . *Salinæ.*

Elytra with a discoidal yellow line and three narrower ones, and a sub median elongato-quadrate transverse yellow patch on each side . . . . . *Antiokæ.*

Prothorax broad ; elytra quadrate.

Elytra black, with a narrow white outer margin, six white lines on each side, reaching from the base to the middle, and also an apical patch . . . . . *albolineata.*

GRAPHIPTERUS GRANDIS, Pér.,

Plate VIII., fig. 4.

Trans. S. Afric. Phil. Soc., vol. vi., 1892, p. 7.

Head moderately large, covered with greyish-white hairs, leaving in the centre a denuded broad band, somewhat acuminate at the tip ; antennæ and palpi totally black ; prothorax twice as broad as long at its widest, with the outer sides subacuminate in the median part, and the anterior angles not projecting much, covered with greyish ochraceous hairs, with a broad black median band ; elytra suborbicular, three times as long as the prothorax with the humeral angles obtuse, covered with light cinnamon hairs, and having a broad black sutural band, slightly acuminate towards the apex, three narrow white bands on each side, the inner two connected at the apex with a wide outer margin, also whitish, and the third one reaching only to about three-fourths of the length, the intervals between the white lines are light cinnamon, turning sometimes to dark brown ; under side and legs piceous, hairless ; abdomen reddish brown. Length 19 mm. ; width 10 mm.

*Hab.* Ovampoland.

GRAPHIPTERUS CICINDELOIDES, Oliv.,

Ent., iii., 35, p. 50, pl. 11, fig. 125.

Black, thickly covered with yellowish-brown short hairs ; antennæ and palpi entirely black ; prothorax a little broader than the head but not longer, cordiform, narrowly denuded in the centre, with the outer margin not serrated, and the yellow tomentum whitening in the anterior angles which are not projecting ; elytra elongato-ovate, with no humeral angle, striate, but the striæ are hidden by the yellow hairs which are whitening outwardly, thus forming a narrow, white lateral outer margin ; under side of prothorax and pectus with long, stiff white hairs ; abdomen and legs piceous black. Length 19–20 mm. ; width  $8\frac{1}{2}$ – $9\frac{1}{2}$  mm.

*Hab.* Cape Colony (Fraserburg, Carnarvon, Beaufort West, Bushmanland, Little Namaqualand).

## GRAPHIPTERUS LIMBATUS, Castlenau,

Hist. Nat. Ins., i., 1835, p. 59.

*G. lutescens*, Chaud., Bull. Mosc., 1843, iv., p. 714.*G. marginellus*, Guér., Rev. Zool., 1859, p. 527, pl. 21, fig. 7.*G. parvicollis*, Chaud., Bull. Mosc., 1843, iv., p. 715.

Black, thickly covered with yellowish-brown short hairs, turning sometimes to almost light cinnamon or grey, but with the outer margin of the prothorax slightly, and that of the elytra conspicuously, white; the description of *G. cicindeloides* applies almost entirely to this species; the prothorax shaped alike, is, however, a little shorter, the four basal joints of the antennæ are also black, but the others are more or less flavescent; the elytra are of a similar shape, and the fore tarsi of the male are not slightly dilate as in *G. cicindeloides*, the size of which is about threefold that of *G. limbatus*. Length 8–11 mm.; width 4–5 mm.

We have in this species a very good example of assimilation of colouring to surroundings. The grey variety, *G. lutescens*, of Chaudoir, occurs near Cape Town on light greyish, sandy soil, while my brightest yellow examples were captured on the reddish ground of Namaqualand and of the Karoo.

*Hab.* The habitat of this species is restricted to the western part of the colony. I have recorded it from Cape district, Stellenbosch, Paarl, Worcester, Carnarvon, Namaqua and Bushmanland, and Kimberley.

## GRAPHIPTERUS LIMBATELLUS, Bohem.,

(Piezia) Insect. Caffr., i., 1848, p. 97.

*G. pusillus*, Chaud., Bull. Mosc., 1852, i., p. 62.

Pubescence varying from very light grey to pale red ochre, shape and disposition of the whitish marginal bands identical, but the joints of the antennæ, with the exception of the three basal joints, are rufescent, and the tibiæ almost always red; the size does not exceed that of the smallest *G. limbatus*, and for a long time I did identify *G. pusillus* with *G. limbatus*; but the constant identity in size of the examples captured at very great distances from one another leads me to consider *G. limbatus* as a distinct species. Length 7–8 mm.; width  $3\frac{1}{2}$ –4 mm.

*Hab.* The range of this insect is very great. It is found in the Cape Colony (Burghersdorp, Kimberley), Transvaal (Potchefstroom and Pretoria), Zambezia (Salisbury, Buluwayo), and also in Ovipoland (Cunene River).

## GRAPHIPTERUS FRONTALIS, Bohem.,

Insect. Caffr., i., p. 86.

Black, thickly covered with dark ochraceous hairs; antennæ, palpi, and legs entirely black; head with two lateral bands of whitish hairs uniting above the epistoma; prothorax proportionally broader than in *G. cicindeloides* and *G. limbatus*, and with the anterior angles projecting more on each side of the head, narrowly marginate with white, the lateral margin smooth; elytra more elongate than in *G. cicindeloides*, that is to say the humeral angles are more sloping, and the median part is not rounded, they are not much broader at the base than the prothorax at its widest part, broadly although not deeply striate, and have a lateral narrow white band; abdomen black, glabrous. Length 13 mm.; width 5 mm.

In Boheman's type the hairs of the lateral bands of the head are rubbed off, and only the apical patch left, hence the name of *G. frontalis*. Although the description resembles very much that of the two preceding species, the general facies is different, owing to the greater width of the prothorax and the less ovate shape of the elytra.

*Hab.* Transvaal (Potchefstroom).

## GRAPHIPTERUS AGILIS, Pér.,

Trans. S. Afric. Phil. Soc., vol. vi., 1892, p. 10.

Antennæ and legs black; head with two narrow lateral yellowish bands joining above the epistoma; prothorax longer than broad, very cordiform, and of the shape of that of *G. cicindeloides*, covered with pale yellow hairs, leaving a narrow median denuded band; elytra hardly broader at the base than the prothorax, with no humeral angles, gradually amplified from the base to near the apex, non-striate, with the suture, a dorsal narrow white line, and the outer margin white, a narrow and black band reaching from base to apex placed between the suture and the dorsal white line, the broad interval between the dorsal white line and the outer margin is light cinnamon; sides of pectus and abdomen with dense white hairs. Length 12–13 mm.; width  $5\frac{1}{2}$ –6 mm.

*Hab.* Damaraland.

## GRAPHIPTERUS ANGUSTUS, Pér.,

Trans. S. Afric. Phil. Soc., 1888, p. 80.

Head moderately broad, with two lateral yellow bands joining above the epistoma; antennæ and legs black; prothorax short, a little broader than the head, cordiform, but depressed instead of being convex as in *G. cicindeloides* and *G. agilis*, and also broader at the base, covered with light ochraceous hairs hardly whitening on

the outer margin, and without any denuded median band; elytra elongate, gradually ampliate behind from the base to near the apex, and nearly twice as broad there as at the base, covered with light ochraceous hairs, outer margin hardly lighter in colour than the disk; pectus and abdomen hairless. Length 12 mm.; width 5 mm.

*Hab.* Cape Colony (Small Namaqualand).

#### GRAPHIPTERUS DAMARENSIS.

Head moderately broad, with two lateral yellow bands uniting above the epistoma; antennæ and legs black; prothorax cordiform, a little wider than the head, somewhat convex, although not so much as in *G. cicindeloides*, black, with a narrow band of whitish yellow hairs on the outer margin; elytra elongate, with the humeral angles very sloping, a little broader at the apex than below the humeral angles, striate, covered with a dense dark ochraceous pubescence, with a narrow greyish marginal band; pectus and lateral sides of abdomen hairless. Length 13 mm.; width  $4\frac{1}{2}$  mm.

The elytra are more parallel than in *G. angustus*, the prothorax is not so plane, and the yellow hairs are disposed differently.

*Hab.* Damaraland (? Goagas).

#### GRAPHIPTERUS OVIPENNIS, Pér.,

Trans. S. Afric. Phil. Soc., vol. vi., 1892, p. 9.

Head moderately broad, with two lateral cinnamon bands joining above the epistoma; antennæ black, with the three first joints and the basal part of the fourth red; prothorax slightly broader than the head at the apex, one-third narrower at the base, one-third longer than broad at its widest, slightly convex in the anterior part, clothed with cinnamon hairs and having a narrow white outer margin, and a broad black longitudinal median band, outer edge slightly serrate; elytra very ovate, clothed with pale yellow hairs, with two cinnamon spots near the base, and having a broad sutural black margin acuminate at the apex, being the continuation of the cephalic and prothoracic median band; under side of prothorax, the pectus, the lateral parts of the abdomen, and the four last abdominal segments densely clothed with white hairs. Length 11–12 mm.; width  $5-5\frac{1}{2}$  mm.

*Hab.* Ovampoland.

Var. *propinquus*, *loc. cit.*, p. 10.

In this variety the small basal cinnamon patch has developed in a more or less distinct, light cinnamon, narrow, discoidal band hardly reaching beyond two-thirds of the length of the elytra. Length 11–12 mm.; width  $5-5\frac{1}{2}$  mm.

*Hab.* Ovampoland.

GRAPHIPTERUS AMABILIS, Bohem.,  
Ofvers. Vet. Ac. Förh., 1860, p. 7.

*G. Andersoni*, Chaud., Bull. Mosc., 1870, p. 319.

Head broad, with two lateral whitish or yellow bands joining in the anterior part, the three first joints of the antennæ and the basal part of the fourth, red; prothorax broad, short, with the outer margin slightly serrated, densely covered with more or less yellow hairs and having a broad median longitudinal black band; elytra elongato-quadrate, hardly amplified in the middle and with the humeral angles rounded, the outer margin serrulate, covered with greyish white or sometimes yellow hairs with a broad cinnamon band on each side of the disk, and a broader sutural black band slightly acuminate at the apex, being the continuation of the prothoracic band; legs black, sternum and lateral parts of abdominal segments with dense white hairs. Length 13–18 mm.; width 6–8 mm.

*Hab.* Ovampoland, Zambezia (between the Limpopo and Zambeze Rivers).

In the examples from the last-named locality, the colour of the hairs forming the background is much more yellow than in the specimens from Ovampoland (Cunene River), in which the cinnamon discoidal band turns also sometimes to light brown.

The *G. Andersoni*, Chaud., which differs from *G. amabilis*, in having a narrow prothorax and less amplified elytra, is for me the male of *amabilis*. A collector is always given to securing the larger specimens, because they are more easily seen. I have seen two more males from the Cunene River, caught at the same time and in the same locality. They have the exact shape of *Andersoni*, with the same paler colouring mentioned above.

As Mons. R. Oberthur has very kindly placed one of De Chaudoir's examples of *Andersoni* at my disposal, there can be no error as to the identity of the two species.

#### GRAPHIPTERUS GRATIOSUS.

Head moderately broad, with two lateral yellow bands uniting in the anterior part, the three first joints of the antennæ red; prothorax short, with the outer margins serrulate, densely covered with yellow hairs and having a broad median longitudinal black patch; elytra gradually amplified from the base to long past the middle without any humeral angle, outer margins serrulate, clothed with rich yellow hairs and having a very broad cinnamon dorsal band, broader in the anterior part, and a sutural black band, slightly acuminate at the apex; legs black; sternum and sides of abdomen with dense white hairs. Length 14 mm.; width 7 mm.

Not unlike in colouring *G. amabilis* and *G. suturalis*, but the shape of the elytra is very different owing to their having no humeral angle, whereas in *G. amabilis* and *suturalis* the humeral angle is much developed, and thus gives to the elytra a more quadrate appearance; the dorsal cinnamon band is broader than the yellow background which it divides in two, and does not reach quite the apex.

*Hab.* Cape Colony (? Vaal River, Kimberley).

GRAPHIPTERUS SUTURALIS, Bohem.,

Ofvers. Vet. Ac. Förh., 1860, p. 7.

Head moderately broad, with two yellow-ochre lateral bands uniting in front, the three first joints of the antennæ and the basal part of the fourth red; prothorax densely clothed with yellow ochre hairs and with a median black longitudinal band, outer margin serrulate; elytra elongato-quadrate, the humeral angles project and the outer sides are but very slightly ampliate, they are substriate and covered with yellow-ochre hairs, darker on the disk, thus forming two narrow pale yellow lines, the one edging the broad sutural black band; sternum and sides of abdomen with white hairs. Length 14–16 mm.; width 6–8 mm.

*Hab.* Cape Colony (Kimberley), ? Transvaal, Damaraland (Nolagi River), teste Bohem.

GRAPHIPTERUS ADAMANTINUS, Pér.,

Trans. S. Afric. Phil. Soc., 1888, p. 79.

Head with two lateral greyish brown bands uniting in the anterior part, the three basal joints of the antennæ red, but the apical part of the third infuscate; prothorax covered with greyish-brown hairs, and having a median, black, longitudinal band, outer margins not serrulate; elytra elongato-ovate, covered with greyish-brown hairs and having a very broad sutural black band, slightly inflated in the median part and gradually narrowed from past the middle to the apex; under side as in *G. suturalis*.

Allied to that species, but the outer margins of the prothorax are not serrulate; the elytra are more ovate, that is to say the humeral angles are more rounded, there is no trace of a whiter line on the outer margin or alongside the black sutural band which is also broader and more acuminate towards the apex. Length 14–17 mm.; width 6–7 mm.

*Hab.* Cape Colony (Kimberley).

## GRAPHIPTERUS VITTIGER, Pér.,

Plate IV., fig. 2.

Trans. S. Afric. Phil. Soc., vol. iv., 1888, p. 78.

Head with two lateral deep yellow bands uniting in the anterior part; antennæ with the three basal joints red; prothorax with the outer margins serrate, thickly covered with deep yellow hairs, whitening very slightly on the edge, and with a moderately broad median longitudinal black band; elytra ovate, covered with pale yellow hairs, and having a small humeral patch of the same colour as the sides of the prothorax, a sutural black band broader than that of the prothorax, and a discoidal one on each side not quite so broad as the sutural one, and reaching to a very short distance from the apex; sternum and sides of abdomen, also the four last abdominal segments, clothed with white hairs. Length 12–13 mm.; width 5–5½ mm.

*Hab.* Cape Colony (Kimberley).

## GRAPHIPTERUS FEMORATUS, Chevr.,

Plate IV., fig. 1.

Mag. Zool., Class ix., 1835, pl. 138.

Head with two lateral yellow bands uniting in the anterior part; the three basal joints of the antennæ red; prothorax clothed with moderately bright yellow hairs whitening a little in the anterior angles, and having a black median longitudinal band, broader at the base than at the apex; elytra ovate, covered with bright yellow hairs, whitening slightly along the outer margin, having a moderately broad sutural black band, and on each side a discoidal one reaching from the base to about the middle, and under it another slanting one, shaped like a reversed comma, the point of which is connected with the outer edge of the anterior band, and the broad part does not reach the apex; sternum and sides of abdomen with white hairs; femora red, black at the tip; tibiæ and tarsi black. Length 13–15 mm.; width 5–7 mm.

*Hab.* Cape Colony (Fraserburg, Beaufort West, Hope Town, Prieska).

## GRAPHIPTERUS POSTFASCIATUS, Fairm.,

Ann. Soc. Ent. France, 1888, p. 177.

Briefly ovate and somewhat depressed, fuscous black, shining with the prothorax and elytra thickly clothed with greyish fulvous closely set hairs; prothorax denuded in the centre; elytra narrowly margined with white hairs; elytra large, subrotund, covered with a very densely set light punctures, with faint traces of costæ, and

having on each side above the apex a denuded, very oblique band; legs black. Length 18 mm.

This species is a remarkable one on account of the ampliation of the elytra which have only a black, denuded, oblique band placed slightly above the apical margin; the prothorax is moderately small, with the anterior angles aculeate, the posterior ones are truncate, and the base sinuate.

*Hab.* Great Namaqualand.

GRAPHIPTERUS CINCTUS, Chaud.,

Coleopt. Novitat., vol. i., 1883, p. 25.

Head covered with ochre-yellow hairs and having a narrow, denuded longitudinal line in the centre, the three basal joints of antennæ red; prothorax with the outer margins closely serrated, covered with ochre-yellow hairs turning to pale yellow on the outer margins and with a narrow black median line; elytra elongato-quadrata, hardly amplified laterally, faintly striate, covered with pale yellow hairs, and having a broad sutural black band narrower at the apex than at the base, and a broad discoidal, more or less deep-cinnamon band as broad as the suture, dividing the background into a narrow line near the suture, and a marginal one nearly as broad as the cinnamon band; lateral sides of the sternum with white hairs; abdominal sides hairless; legs black. Length 11 mm.; width 6 mm.

*Hab.* Bechuanaland (Moropeng), Kuruman, teste Chaud.

GRAPHIPTERUS ORNATUS, Pér.,

Trans. S. Afric. Phil. Soc., vol. vi., 1892, p. 8.

*G. vicinus*, Pér., *loc. cit.* p. 9.

Head covered with ochre-yellow hairs and having a narrow, denuded, longitudinal band in the centre; the three basal joints of antennæ red, the third one sometimes infuscate at the tip; prothorax with the outer margins serrated, covered with deep ochre-yellow hairs turning to whitish on the outer sides and with a broad black longitudinal median band; elytra elongato-quadrata, covered with whitish grey hairs and having a broad sutural black band narrower at the apex than at the base, and on each side a narrow discoidal cinnamon band and a subdiscoidal dark brown one equally broad, uniting at the apex and dividing the background in two alternate narrow white lines and a broader outer margin; abdominal sides hairless; legs black.

The only difference between *G. ornatus* and *G. vicinus* consists in the two discoidal bands on each side of the elytron, both of which are cinnamon colour instead of cinnamon and black; these two bands are also slightly broader, and the sutural band hardly attenu-

ate behind; in spite of these small differences, I think that the two species must be considered as one. Length 11 mm.; width  $5\frac{1}{4}$ – $5\frac{1}{2}$  mm.

*Hab.* Ovampoland (Ondera, Chichaubis).

GRAPHIPTERUS SUTURIGER, Chaud.,

Bull. Mosc., 1870, p. 335.

Head covered with greyish hairs, with a faint yellowish tinge and without median longitudinal denuded band; antennæ with the three basal joints reddish; prothorax without any median black longitudinal band, outer sides serrulate; elytra elongato-quadrate, with a sutural black band gradually acuminate from the median part to the apex, covered with light greyish hairs and having on each side of the disk two narrow darker brown bands uniting behind, dividing the background on each side in two narrow greyish-white lines and a broader outer margin; abdominal sides hairless; legs black.

Allied to the preceding species in shape and colouring, but differentiated at once by the absence of the prothoracic median black band; the sutural band on the elytra is also much more acuminate behind. Length  $11\frac{1}{2}$  mm.; width 5 mm.

*Hab.* Lake N'Gami, teste Chaud.

I am indebted to Mons. R. Oberthur for one of De Chaudoir's examples.

GRAPHIPTERUS DECEPTOR, Pér.,

Trans. S. Afric. Phil. Soc., 1892, p. 9.

Head covered with greyish hairs, sometimes slightly ochraceous yellow, not denuded in the centre; the three basal joints of antennæ red; prothorax covered with more or less deep ochraceous hairs in the centre, white on the sides, and without any black median band, the outer margin very faintly crenulate; elytra elongato-quadrate, covered with greyish hairs, and having a broad dark brown sutural band a little narrower at the apex than at the base and three narrow brown lines on each side, the outer of which is hardly defined and sometimes nearly obliterated, and dividing the background in four bands broader than the brown ones; abdominal sides hairless; legs black. Length 10 mm.; width 5 mm.

*Hab.* Ovampoland.

GRAPHIPTERUS BIVITTATUS, Bohem.,

Insect. Caffr., i., p. 90.

? *G. bivittis*, Chaud., Bull. Mosc., 1870, p. 329.

Head covered with a pale yellow pubescence without any median longitudinal denudation; first and second joints of antennæ and the

basal part of the third reddish; prothorax, with the outer sides crenulate, densely covered with pale yellow hairs turning to greyish white on the outer sides and without any median black band; elytra elongate, nearly parallel, covered with dull yellowish hairs, with a white outer margin, and having on each side close to the suture a moderately broad black band, broader in the anterior part than behind and reaching the apex. In the only example of that species kindly given me by Mons. R. Oberthur, the yellowish background has a very fine white line edging the black band, and one equally narrow, but hardly distinct, dividing the subdiscoïdal space above the outer white margin; abdominal segments denuded; legs black. Length 14 mm.; width 6 mm.

*Hab.* Lake N'Gami, teste Chaud.

This description is made from *G. bivittis*, Chaud., and I am not quite sure that this species is identical with the one described by Boheman.

GRAPHIPTERUS SIMULATOR, Pér.,

Trans. S. Afric. Phil. Soc., 1892, vol. vi., p. 11.

Head covered with a yellow pubescence without any median longitudinal denudation; first and second joint of the antennæ and basal part of the third reddish; prothorax, with the outer sides crenulate, covered with deep ochre-yellow hairs in the centre, turning to white on the sides, and without any median longitudinal band; elytra elongato-quadrate, covered with white hairs and having on each side, close to the suture, a broad black band reaching from base to apex and of equal width throughout, a narrower, very dark, almost black, narrow line, equi-distant from the black band and the outer margin, and a still narrower line of lighter brown between that one and the outer margin, the background is thus divided into a sutural, two dorsal, and a marginal yellowish-white bands; abdominal segments hairless; legs black. Length 12 mm.; width  $5\frac{1}{2}$  mm.

Closely allied to *G. bivittis*, but more quadrate, the black band near the suture is not at all attenuate behind, and the dorsal bands are very well defined, broader, and deeper in colour.

*Hab.* Ovampoland (Cunene River, Ondonga).

GRAPHIPTERUS BILINEATUS, Bohem.,

Vet. Ac. Förh., 1860, p. 7.

Covered with an ochraceous pubescence; head denuded in the centre; antennæ black, with the three basal joints red; prothorax with a narrow median black band and the outer margins white;

elytra short, quadrate, with a narrow white outer margin and a juxta-sutural black band on each side of equal width from the base to four-fifths of the length, slightly incised at the end with the inner edge produced as a fine line towards the apical part of the elytra, which it does not reach; this juxta-sutural patch is occasionally edged on both sides with a very narrow line of faintly white or lighter yellow pubescence; legs black, with the tibiæ reddish. Length 9–10 mm.; width 6 mm.

*Hab.* Zambezia (Salisbury), Bechuanaland (Ramoutsa).

GRAPHIPTERUS MIMUS, Pér.,

Trans. S. Afric. Phil. Soc., 1892, p. 98.

Head covered with a yellow pubescence and denuded in the centre; the three basal joints of antennæ red; prothorax covered with deep ochraceous hairs, with a whitish marginal band, having a narrow longitudinal median band, outer sides not crenulate; elytra moderately elongato-quadrate, covered with yellow hairs, and having on each side, at a very small distance from the suture, a moderately broad black band reaching from the base to near the apex, and gradually acuminate at the tip in a fine line reaching further towards the apical margin; abdominal segments hairless; legs black. Length 10–12 mm.; width  $5\frac{1}{2}$ –6 mm.

*Hab.* Cape Colony (Kimberley), Orange Free State (Parys).

Closely allied to *G. bilineatus*, but the elytra are more elongato-quadrate, the juxta-sutural band is not so broad, and instead of being of equal width throughout, tapers slightly behind, and is aculeate at the apex instead of being truncate, with the inner edge projecting.

GRAPHIPTERUS LEUCOPHÆUS, Chaud.,

Bull. Mosc., 1870, p. 46.

Head covered with a yellowish-white pubescence, hardly denuded in the centre; the three basal joints of antennæ reddish; prothorax with a narrow median longitudinal band, covered with a cinnamon pubescence broadly edged with white; elytra elongato-quadrate, with a broad whitish sutural band, and on each side a moderately broad black band beginning at the base, and cut diagonally at the tip, the point of which reaches nearly the apical margin; this black band, which is close to the suture, is separated by a narrow white line from a cinnamon band nearly as broad as the white sutural one, and the whole elytron is broadly marginated with white; abdominal segments hairless; legs black. Length 12 mm.; width 6 mm.

*Hab.* Lake N'Gami, teste Chaud.

## GRAPHIPTERUS AMICUS, Pér.,

Trans. S. Afric. Phil. Soc., 1892, vol. vi., p. 11.

Head covered with a yellowish pubescence, broadly denuded in the centre; the three basal joints of antennæ reddish; prothorax with a narrow median longitudinal band, covered with a yellow pubescence, broadly edged with white; elytra short, quadrate, with a narrow sutural yellow band, and having on each side a broad black band, close to the suture, beginning at the base and reaching the apical margin, separated by a narrow white line from a slender black or dark cinnamon line reaching from below the base to about three-fourths of the length of the elytron, edged with a narrow white border, outer margin white and separated by a narrow yellowish space from the white line edging the second dorsal black band; sides of abdomen hairless; legs black, with the tibiæ rufescent. Length 10 mm.; width 5 mm.

*Hab.* Ovampoland.

## GRAPHIPTERUS SEXVITTATUS, Chaud.,

Bull. Mosc., 1870, p. 327.

Head covered with a greyish-yellow pubescence, denuded in the centre; prothorax broad, with a median black band and the disk and sides with a yellowish pubescence, outer margins crenulate; elytra broad, quadrate, with the pubescence of the same colour as that of the prothorax, and having on each side three black bands of equal width and equi-distant, the outer ones a little shorter than the inner one; sides of abdomen hairless; legs black. Length 13 mm.; width  $6\frac{1}{2}$  mm.

*Hab.* South Africa (exact locality unknown), ? Mozambique.

## GRAPHIPTERUS FRATERNUS, Pér.,

Trans. S. Afric. Phil. Soc., 1892, vol. vi., p. 100.

Head covered with a greyish-yellow pubescence, denuded in the centre; the three basal joints of antennæ reddish; prothorax covered with a yellow pubescence, with no trace of a longitudinal median band, outer margins not serrated; elytra broad, quadrate, covered with a yellow pubescence and having on each side a broad black band, close to the suture, reaching from the base to the apex, divided in two at the base by a very narrow line of the colour of the background, reaching from the base to about four-fifths of the length, and a narrower one, nearly equi-distant from the first band and the outer margin and a little shorter; sides of abdomen hairless; legs black, sometimes rufescent, tibiæ red. Length 13 mm.; width 6 mm.

*Hab.* Transvaal (Barberton), Mozambique (Lebombo).

## GRAPHIPTERUS CONSOBRINUS.

Head with the same pubescence and median denudation as in *G. fraternus*; the pubescence of the prothorax and elytra is alike, the former has, however, a broad median black band, and the elytra are a little more elongated, the two dorsal black bands on each elytron are alike, but the inner one is not divided by a narrow yellowish line as in *fraternus*; sides of abdomen hairless; legs black. Length 12 mm.; width 6 mm.

*Hab.* Natal (Newcastle).

## GRAPHIPTERUS PLAGIATUS, Bohem.,

Insect. Caffr., i., p. 87.

Head covered with a yellow-ochre pubescence, denuded in the centre; the three basal joints of antennæ reddish; prothorax with a deep yellow pubescence and a broad median longitudinal black band, outer sides slightly serrulate; elytra elongato-quadrate, covered with a deep yellow pubescence and having on each side, at a very short distance from the suture, a very broad discoidal black band running almost from base to apex, covering about two-thirds of the width of the disk and divided in the anterior part for about one-fourth of the length by a narrow line of the colour of the background; towards the apical portion of that discoidal black band there is also a small dent subdividing the apical part diagonally, but not deeply; legs black. Length 12–14 mm.; width 5–6 mm.

*Hab.* Transvaal (Potchefstroom, Pretoria).

## GRAPHIPTERUS ELEGANTULUS, Bohem.,

Insect. Caffr., i., p. 83.

Head, antennæ, and prothorax like in *fraternus*, the outer sides of the latter more serrate; elytra elongato-quadrate, covered with a yellowish pubescence, and having on each side, close to the suture, a moderately broad black band reaching neither base nor apex, aculeate behind, and parallel to it, a much shorter one coalescing for two-thirds of its length with the first dorsal band; legs black. Length  $11\frac{1}{2}$ –13 mm.; width  $5\frac{1}{2}$ –6 mm.

*Hab.* Natal (Malvern, Frere), Transvaal (Pretoria), Bechuanaland (Ramoutsa).

In my examples from the Pretoria district, which are also nearer in colouring to Boheman's type, the second dorsal black band is more slender where it does not coalesce with the first dorsal band, and the sides of the prothorax and also the anterior part of the elytra are chrome yellow instead of greyish yellow as in the Natal examples.

## GRAPHIPTERUS TIBIALIS, Chaud.,

Bull. Mosc., 1870, p. 330.

*G. lætus*, Pér., Trans. S. Afric. Phil. Soc., 1892, p. 11.

Head and prothorax covered with a yellowish, slightly ochraceous pubescence without any median denudation or black band; the three basal joints of antennæ red; the sides of the prothorax with a whitish-grey pubescence, the outer margins slightly serrulate; elytra elongato-quadrate, with the shoulders and posterior outer angles slightly rounded, covered with a greyish pubescence, slightly more whitish on the outer margin, and having on each side four brown, more or less denuded brown bands, the three inner ones much broader than the supra-marginal one and dividing the background into a sutural greyish band, three narrow dorsal and a broad marginal one; legs black, tibiæ reddish. Length 11 mm.; width 5 mm.

*Hab.* Ovampoland, Mozambique (Rikatla), Zambezia (Salisbury).

## GRAPHIPTERUS INSIDIOSUS.

Black with a pale ochraceous pubescence; head with a narrow, longitudinal denuded band; the two basal joints of antennæ reddish; the other joints and the legs black; prothorax short, nearly twice as broad as long; anterior angles not sharp, densely pubescent; elytra nearly as broad as long, and rounded laterally at the shoulder and the posterior angle, roughly and closely punctured, and having on each side three ochraceous pubescent lines equally distant from one another and reaching from base to apex; the outer margin is broadly pubescent, the band being moderately broad; under side piceous.

This species is allied to *G. tibialis*, Chaud., but is at once distinguished by the absence of ochraceous pubescence on the suture, the three dorsal lines on each side are also more slender, and the prothorax is broader. Length 12½ mm.; width 6 mm.

*Hab.* Mozambique (Lebombo).

## GRAPHIPTERUS LINEELUS.

Head with a yellowish pubescence and narrowly denuded in the centre; three first joints of antennæ and basal part of the fourth reddish; prothorax with a ferruginous pubescence turning to white on the outer sides, which are very slightly serrulate; elytra one-third longer than broad, with the shoulders hardly sloping, covered with a brownish grey pubescence with a broad greyish outer margin, and on each side four narrow whitish lines, the first and second equally distant from one another, the other two very near each other and close to the outer margin; legs black, tibiæ red. Length 11 mm.; width 5 mm.

*Hab.* Zambezia (Salisbury).

## GRAPHIPTERUS ASSIMILIS.

Head with a greyish pubescence, but broadly denuded in the centre; the three basal joints of antennæ red; prothorax short, the outer margins serrulated, covered with a deep yellow pubescence turning to greyish white on the outer margins; elytra elongato-quadrate, with the shoulders and posterior angles very slightly rounded, covered with a deep yellow pubescence, and having a narrow whitish outer margin and four longitudinal narrow white lines on each side of the disk; the first one near the suture is very narrow, and occupies the centre of the space between the suture and the second one, and both reach the apex; the third and fourth reach from the base to four-fifths of the length, and the fourth one is situated very close to the white outer margin; under side and legs black.

This species might be mistaken, from the description, for *G. lineelus*, to which it is closely allied; the prothorax in *G. assimilis* is wider and the elytra proportionately less broad and a little more elongated; the pubescence is deep yellow instead of brownish grey, and the two first whitish dorsal lines are nearer to the suture; the legs are also quite black instead of having red tibiæ. Length 12 mm.; width  $5\frac{1}{2}$  mm.

*Hab.* Orange Free State (Hoopstad).

## GRAPHIPTERUS SUSPECTUS.

Head covered with an ochraceous pubescence, slightly denuded in the interior part; the three basal joints of the antennæ red; prothorax short, serrulated laterally, covered with a yellow pubescence turning to chocolate colour in the centre and to greyish outwardly; elytra nearly quadrate, covered with a pale yellow pubescence, the suture with a broad chocolate-brown band of equal width reaching from base to apex, and on each side a median one narrowed at both ends, a little shorter than the sutural, and having in the centre a narrow slit filled with the pale yellow pubescence of the background; under side and legs black. Length 11 mm.; width  $5\frac{1}{2}$  mm.

In shape, size, and disposition of the brown bands on the elytra this species might be taken for *G. quadrum*, but the prothorax has no black median band, nor is the head denuded in the posterior part; the dorsal bands are chocolate-brown instead of black, and the discoidal one is spindle-shape instead of being of equal width as in *quadrum*.

*Hab.* Orange Free State (Hoopstad).

## GRAPHIPTERUS QUADRUM, Chaud.,

Bull. Mosc., 1870, p. 335.

Head with an ochraceous pubescence, denuded in the centre; the three basal joints of antennæ reddish; prothorax covered with a deep

ochre-yellow pubescence whitening on the outer sides, the edge of which is serrulate, median part of the disk with a broad longitudinal black band; elytra nearly quadrate and covered with an ochraceous-yellow pubescence, the suture with a broad black band reaching from base to apex, and on each side a discoidal band of the same colour narrowed towards the lower end, not reaching so far as the sutural one, and divided in the centre for two-thirds of its length by a very narrow line of the colour of the background; legs black; tibiæ sometimes reddish. Length  $9\frac{1}{2}$ – $10\frac{1}{2}$  mm.; width 5–6 mm.

*Hab.* Transvaal (Potchefstroom, Pretoria, Klerksdorp).

GRAPHIPTERUS VITTATUS, Dej.,

Spec. Col., vol. v., p. 461.

*G. vittipennis*, Bohem., Insect. Caffr., i., p. 85.

Head and prothorax covered with a yellow-ochre pubescence turning to greyish white on the outer margins of the prothorax, the lateral edges of which are not serrulate; head denuded in the centre; prothorax with a narrow longitudinal black band; the three basal joints of antennæ reddish; elytra quadrate, covered with a yellow pubescence with a very narrow white outer margin, the suture with a moderately broad black band reaching from base to apex, and on each side two narrower parallel discoidal bands united behind near the apex; legs black. Length 12 mm.; width 6 mm.

*Hab.* Transvaal (Potchefstroom).

GRAPHIPTERUS MASHUNUS,

Plate VIII., fig. 2.

Densely covered with a deep ochre-yellow pubescence; head denuded in the centre; antennæ totally black; prothorax with the outer edges not serrulate, the pubescence on the anterior angles whitening slightly, in the centre a broad median black band; elytra quadrate, with a broad black sutural band and three narrow discoidal lines merging in the posterior part into a very broad transverse band reaching the third band on each side, and three discoidal narrow lines merging in the posterior part into a broad transverse band reaching the outer black line on each side, with the posterior edge produced in a broad triangular sutural point reaching the apex, and a narrow outer line that seems to be the prolongation of the outer discoidal line, and which reaches as often as not the apical margin; the second and third discoidal black lines are united at about the third of the length by a more or less quadrate black patch; legs and antennæ totally black. Length 14–15 mm.; width 7–8 mm.

*Hab.* Zambezia (Salisbury).

## GRAPHIPTERUS OBLITERATUS, Bohem.,

Plate VIII., fig. 1.

Vet. Ac. Förh., 1860, p. 8.

Covered with a greyish white pubescence; head denuded in the centre; three basal joints of antennæ reddish; prothorax with a broad median longitudinal black band, outer edges hardly serrulate; elytra quadrate, with a broad sutural black band reaching from the base to three-fourths of the length, acuminate at the tip, and two narrower discoidal bands of the same colour, the first one beginning at a long distance from the base, nearly reaching the apex, and the second one beginning at about the median part and coalescing, long above the apical part with the first discoidal line; legs slightly reddish. Length 13 mm.; width  $6\frac{1}{2}$  mm.

*Hab.* Damaraland (banks of Svakop River).

## GRAPHIPTERUS IRRITANS.

Covered with a yellowish pubescence; head denuded in the centre; antennæ entirely black; prothorax with a broad median black band, outer sides hardly serrulate; elytra quadrate, the suture with a moderately broad black band reaching from the base to four-fifths of the length, and reduced in the posterior fifth into a small line reaching the apex, and on each side a discoidal black band as broad as the sutural one, running parallel to it, slightly aculeate at the tip, and stopping a little short of the apex; legs black. Length 13 mm.; width 6 mm.

*Hab.* Cape Colony (Kimberley).

## GRAPHIPTERUS TRIVITTATUS, Gory,

Ann. Soc. Ent. France, 1836, p. 209, pl. v., fig. 2.

Bull. Mosc., 1837, p. 12.

*G. rectilineatus*, Chaud.

*G. obscurus*, Gory, Ann. Soc. Ent. France, 1833, p. 207.

Covered with a yellow pubescence; head denuded in the centre; antennæ entirely black; prothorax with the edges of the outer margins hardly serrulate, in the centre a broad longitudinal black band; elytra elongato-quadrate, with a moderately broad sutural black band reaching from the base to about four-fifths of the length, reduced from there to a narrow line reaching the apex, and connected where the attenuation begins by a narrow diagonal line with the apical part of an equally broad discoidal black band reaching from a short distance from the base to nearly the apex; legs black. Length 12 mm.; width 5–6 mm.

*Hab.* Cape Colony (Hopefield, Grahamstown, Caledon, Touw's River).

## GRAPHIPTERUS TRILINEATUS, Fabric.,

Syst. Eleut., i., p. 223.

Dej., Spec. Col., i., p. 337; Icon., ii., pl. 6, fig. 3.

Covered with a yellow pubescence; head denuded in the centre; antennæ entirely black; prothorax with a broad median longitudinal black band, edges of outer margins hardly serrulate; elytra elongato-quadrate, with a narrow sutural black band reaching from base to apex, and a juxta-sutural one coalescing from the base to past the median part with the sutural one, and from there running diagonally and uniting near the apex with the tip of a broad discoidal band running from near the base close to the apex, and slightly narrower behind than in the anterior part; legs black. Length 12 mm.; width 5-5 $\frac{1}{4}$  mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Worcester, Tulbagh, Malmesbury).

## GRAPHIPTERUS ARCUATUS, Gory,

Ann. Soc. Ent. France, 1833, p. 206.

*G. Rouxi*, Casteln. Etud. Entom., p. 57; Hist. Nat. Ins., i., pl. iv., fig. 6.

*G. Hopei*, Casteln., Hist. Nat. Ins., i., p. 59.

Covered with a yellow pubescence; head denuded in the centre; antennæ black; prothorax with a broad median longitudinal black band; elytra elongato-quadrate, with the sutural band of the same shape and colour as in *G. trilineatus*, but the discoidal one is narrower and emits a long inner spur, reaching about the centre of the elytron; legs black. Length 11 $\frac{1}{2}$ -12 $\frac{1}{2}$  mm.; width 5-6 mm.

*Hab.* Cape Colony (Caledon, Knysna, Grahamstown).

## GRAPHIPTERUS MONTANUS, Pér.,

Trans. S. Afric. Phil. Soc., 1888, vol. iv., p. 80.

Covered with a yellow pubescence; head denuded in the centre; antennæ black; prothorax with a broad median triangular dark brown band; elytra broad, subelongato-quadrate, covered with a yellow pubescence, but with a narrow white margin; elytra with a brown broad sutural band, narrowed behind in a line reaching the apex as in *G. arcuatus* and *G. trilineatus*, and with a discoidal band of the same colour as the sutural one, slightly connected behind with the sutural, and emitting a short slender spur directed inwards at about the median part; legs black. Length 15 mm.; width 8 mm.

Very closely allied to *G. arcuatus*, but larger; the dorsal bands on the elytra are nearly alike, brown instead of black, and with the inner spur of the discoidal band much shorter. I have seen one example only of this species, which may prove to be a variety of *G. arcuatus*.

*Hab.* Cape Colony (Worcester).

GRAPHIPTERUS CURSOR, Pér.,  
Trans. S. Afric. Phil. Soc., 1888, p. 81.

Covered with a yellow pubescence; head denuded; antennæ black; prothorax with a broad triangular black median band, edges of outer margins not serrulate; elytra subovate, with a broad sutural black band reaching from base to apex, and with a juxta-sutural line of the same colour stopping a little short of the apex; legs black. Length 11–14 mm.; width 5–6 mm.

*Hab.* Cape Colony (Caledon).

GRAPHIPTERUS MOUFFLETI, Chaud.,  
Bull. Mosc., 1870, p. 307.

Covered with a reddish yellow pubescence; head denuded in the centre; antennæ black, with the two basal joints slightly reddish; prothorax subcordiform, a little broader than long, much attenuated behind, with a median, longitudinal, very narrow groove, outer sides not serrulate, the lateral margins with a narrow pubescent white line; elytra elongated, nearly parallel with the shoulders much rounded, outer sides with a narrow white band reaching from the shoulder to the outer posterior angle; legs black. Length 14 mm.; width 6 mm.

*Hab.* Damaraland (Walfish Bay).

GRAPHIPTERUS VELUTINUS, Bohem.,  
Insect. Caffr., i., p. 85.

Covered with a yellowish grey pubescence; head not so broad as in *G. Mouffleti*, hardly denuded in the centre; three basal joints of antennæ red; prothorax nearly twice as broad as long, the base broad with the outer angles projecting a little, outer margins slightly serrulate and with a white pubescent band; elytra elongato-quadrate, one-fifth longer than broad, subparallel, substriate, and with the yellowish grey pubescence turning to light grey along the outer margin; legs black, tibiæ rufescent, sometimes black. Length 14 mm.; width 6 mm.

*Hab.* Transvaal (Potchefstroom), Zambezia (Victoria Falls, Bulawayo).

GRAPHIPTERUS LATERALIS, Bohem.,  
Insect. Caffr., i., p. 88.

*G. marginatus*, Bohem., Vet. Ac. Förh., 1860, p. 8.

*G. ferruginosus*, Chaud., Bull. Mosc., 1870, p. 387.

Covered with a reddish yellow pubescence; head narrowly denuded in the centre; antennæ with the three basal joints of antennæ red; prothorax short, narrow, cordiform, with the edge of

outer margins distinctly serrulate, outer margins with a yellowish white pubescent band; elytra elongato-quadrate, faintly striate, outer margins with a narrow white pubescent band; legs sometimes entirely black, but oftener with red tibiæ.

Closely allied in shape and colouring to *G. velutinus*, Bohem., but the prothorax is narrower and more cordiform, and the elytra not so broad.

*Hab.* Middle Limpopo, Transvaal (Potchefstroom, Rustenburg), Natal, teste Chaud. (*G. ferruginosus*), Damaraland, River Svakop, teste Bohem. (*G. marginatus*), and Mozambique (Delagoa Bay), teste Chaud.

GRAPHIPTERUS GRISEUS, Chaud.,

Bull. Mosc., 1870, p. 309.

Covered with a greyish pubescence, with a faint tinge of brown; the outer sides of the prothorax and the outer margins of the elytra with a broad white pubescent band; head narrowly denuded in the centre; the three basal joints of antennæ reddish; prothorax short, moderately narrow, subcordiform, the outer sides distinctly serrulate; elytra elongato-quadrate, longer than broad by one-fourth, distinctly striate; legs black, tibiæ rufescent. Length 11 mm.; width  $5\frac{1}{2}$  mm.

*Hab.* Ovampoland (Okovango River).

GRAPHIPTERUS VESTITUS, Dej.,

Spec. Col., vol. v., p. 464.

*G. obtusus*, Bohem., Insect. Caffr., i., p. 87.

Covered with a light brownish grey pubescence; head not denuded, or hardly so in the centre; the two basal joints of antennæ reddish; prothorax nearly twice as broad as long, with the base broad, edges of outer margins not serrulate, the brownish grey pubescence whitening slightly on the outer sides; elytra quadrate, one-fifth longer than broad, the suture and the outer margins with a whiter pubescence than that of the background; legs black; tibiæ faintly rufescent. Length 13 mm.; width  $6\frac{1}{4}$  mm.

Allied to *G. velutinus*, but the prothorax, although broad, is not so much ampliate in the anterior angles, and looks thus more quadrate; the elytra are equally broad, but shorter, and therefore more quadrate.

*Hab.* Transvaal (Potchefstroom).

GRAPHIPTERUS CANESCENS, Chaud.,

Bull. Mosc., 1870, p. 338.

Head covered with a greyish pubescence, denuded in the centre; three first joints of antennæ and the basal half of the fourth reddish;

prothorax short, the basal part broad, and the outer posterior angles nearly blunt, deep cinnamon in the centre with the outer sides whitish grey, edges not serrulate; elytra a little longer than broad, covered with a mouse-grey pubescence, forming some distinct striæ, and whitening slightly on the outer margins; legs black, with the tibiæ often rufescent. Length 10–13 mm.; width 5–7 mm.

*Hab.* Mozambique (Lourenço-Marquez, Rikatla).

#### GRAPHIPTERUS BASALIS.

Head covered with a fulvous pubescence, but denuded in the centre; the three first joints of the antennæ reddish; prothorax short, the basal part broad, covered with dense fulvous hairs turning to white along the outer margins; elytra elongato-quadrate, substriate, covered with a short black pubescence, which in the basal part is replaced by fulvous hairs, of the colour of those on the prothorax, and forming a transverse patch, outer margin with a moderately broad band of white; abdomen piceous; legs reddish. Length  $14\frac{1}{2}$  mm.; width  $6\frac{1}{2}$  mm.

*Hab.* Mozambique (Antioka).

Allied to *G. canescens*; but the size is larger, the striation of the elytra is deeper, and the fulvous basal transverse patch is sufficient to distinguish this species.

#### GRAPHIPTERUS INCANUS, Dej.,

Spec. Col., v., p. 464.

Densely covered with a brownish grey pubescence; head narrowly denuded in the centre; the two basal joints of antennæ rufescent; elytra less broad than long, covered with a greyish brown pubescence, with six lighter brown, not well defined, narrow lines on each side; legs black. Length 10–12 mm.; width 4–5 mm.

*Hab.* Natal (D'Urban).

#### GRAPHIPTERUS MACROCEPHALUS, Bohem.,

Insect. Caffr., i., p. 91.

Very closely allied to *G. incanus*; the pubescence is more greyish, the prothorax is slightly shorter and broader; the elytra are hardly longer than broad, and have little or no trace of striæ or white lines. Length 9–12 mm.; width 4–5 mm.

*Hab.* Natal (Newcastle, Frere), Transvaal (Pretoria, Klerksdorp, Potchefstroom, Barberton), Orange Free State (Parys).

Both this species and the preceding ones are very closely allied; the paler lines on the elytra are more or less discernible in both, although always less pronounced in *G. macrocephalus*, but the most distinctive feature of this species is the form of the elytra, which are broader in proportion to the length, with the humeral angles very slightly rounded only, thus giving them a more quadrate shape.

## GRAPHIPTERUS BONVOULOIRI, Chaud.,

Bull. Mosc., 1870, p. 310.

Covered with a yellow pubescence; head with a narrow denuded median line; prothorax very broad; elytra quadrate, with a broad juxta-sutural black band on each side reaching neither base nor apex, divided in the centre by a narrow line, of the colour of the background, and a narrow black line parallel to the first, connected with it behind, but not reaching the base; legs and antennæ black. Length 13 mm.; width 5 mm.

*Hab.* Mozambique and Lake N'Gami, teste Chaud.

In one of the examples in De Chaudoir's collection the juxta-sutural band is not divided in the centre by a narrow yellow line.

## GRAPHIPTERUS CHAUDOIRI, Pér.,

Trans. S. Afric. Phil. Soc., 1888, p. 77, pl. i., fig. 2.

Covered with a yellow pubescence; head with a narrow denuded median line; prothorax very broad; elytra quadrate, with a broad juxta-sutural black band reaching from a little below the base to near the apex, and covering about two-fifths of the disk; legs and antennæ black, but with the tibiæ and two basal joints of antennæ sometimes rufescent. Length  $9\frac{1}{2}$ –12 mm.; width  $4\frac{1}{4}$ –5 mm.

*Hab.* Natal (Frere, very small specimens); Transvaal (Pretoria, Potchefstroom, Klerksdorp, Leydenburg).

## GRAPHIPTERUS QUADRILINEATUS, Brullé,

Silberm. Rev. ii., 1834, p. 112.

*G. obsoletus*, Dej., Spec. Col., vol. v., 1831, p. 463.

Covered with a pale yellow or light grey pubescence; head narrowly denuded in the centre; antennæ totally black; prothorax broad, short; elytra elongato-quadrate, with a black sutural band, and three narrow discoidal ones on each side; these black bands reach from the base to the apex; legs black. Length 12–14 mm.; width  $4\frac{1}{2}$ –5 mm.

*Hab.* Cape Colony (Kowie, Stockenstroom, East London), Natal (Frere).

## GRAPHIPTERUS CONSOCIUS.

Size, colouring, and shape of *G. quadrilineatus*; elytra with a sutural black band, and two discoidal ones on each side instead of three as in the preceding species; legs and antennæ black, with the two basal joints of the latter slightly rufescent. Length 12 mm.; width 5 mm.

*Hab.* Bechuanaland (Ramoutsa).

GRAPHIPTERUS GIGANTEUS, Chaud.,  
Bull. Mosc., 1870, p. 40.

Covered with a yellow pubescence ; head broadly denuded on the vertex ; the two basal joints of antennæ reddish ; prothorax with a broad black median band ; elytra subquadrate at the base, gradually amplified at the apex, where they are broader by nearly one-fourth than at the base, with a broad sutural black band reaching from the base to about four-fifths of the length and acuminate at the tip, and on each side a short discoidal band of the same colour, disconnected from the base and reaching about the median part ; this discoidal band is not quite as broad as the sutural one ; legs black ; tibiæ reddish. Length 14–17 mm. ; width 7–9 mm.

*Hab.* Bechuanaland (Vryburg), Transvaal.

GRAPHIPTERUS ANCORA, Dej.,  
Spec. Col., v., p. 460.

*G. Gadameri*, Wallengr., Entom. Tidsk., vol. ii., p. 12.

Shape, size, and colouring of *G. giganteus* ; elytra equally amplified behind, the discoidal band identical, although a little broader, sutural band equally broad, reaching as far but connected by a narrow line with a transverse supra-marginal apical band, the juxta-sutural part of which is broader than the rest and subtriangular ; legs black. Length 15–18 mm. ; width 7–9 mm.

*Hab.* Cape Colony (Kimberley), Orange Free State (Bloemfontein), Transvaal (Potchefstroom), Zambezia (Victoria Falls).

Var. *transitans*.

Shape, size, and colouring of *G. ancora* ; elytra with the sutural black band equally long and broad, but coalescing on each side with the median part of the discoidal band, while the supra-marginal apical transverse band is reduced to a sinuate very short patch, hardly reaching the median part of the disk, but is sometimes also nearly as well defined as in *ancora* ; three basal joints of antennæ reddish ; legs black. Length 15 mm. ; width 8 mm.

*Hab.* Bechuanaland.

The description of *G. Gadameri* agrees so well with the description given by Wallengren that it may be considered as identical with *G. ancora*.

GRAPHIPTERUS WESTWOODI, Brême,  
Ann. Soc. Ent. France, 1844, p. 291, pl. 7, fig. 6.

Covered with a yellow-ochre pubescence ; head broadly denuded on the vertex ; three basal joints of antennæ reddish ; prothorax with a broad black median band ; elytra broader by one-fourth at

the apex than at the base, with a broad black patch, covering two-thirds of the disk on each side, reaching from near the base to about the median part, more or less quadrate in the posterior edge, aculeate on each side in the anterior part, with the sutural band protruding in front and behind, and connected past the middle by a narrow slightly diagonal black line, with a very broad supra-marginal apical black band, covering more or less the posterior part, but not broader than the discoidal patch, and leaving under the apical part of the black sutural band a more or less fleur-de-lis-like shaped patch of the yellow background; legs black. Length 14–20 mm; width 6–9 mm.

*Hab.* Orange Free State (Cronstad, Parys), Transvaal (Pretoria, Potchefstroom, Klerksdorp, Zoutpansberg, Marico).

Var. *discoidalis*.

Shape, colour, and size of *G. Westwoodi*, but in the elytra the dorsal black patch, still slightly aculeate on each side of the anterior part, and with the basal part of the black sutural band as in *Westwoodi*, has invaded the whole of the dorsal part and coalesces with the transverse supra-marginal apical band, still slightly projecting beyond the quadrate dorsal patch; through the diffusion and extension of the black dorsal patch, there is only an indented basal and a narrower lateral band of yellow pubescence and a small triangular sutural patch of the same colour left. Length 18 mm.; width 8 mm.

*Hab.* Transvaal (Pretoria, Potchefstroom).

GRAPHIPTERUS EGREGIUS, Pér.,

Plate IV., fig. 3.

Trans. S. Afric. Phil. Soc., 1892, p. 99.

Covered with an ochre-yellow pubescence, sometimes deeper yellow on the prothorax and anterior part of the elytra; head broadly denuded in the posterior part; three basal joints of antennæ sometimes rufescent; prothorax with a narrow black median band; elytra about one-fourth broader at the apex than at the base, with a dorsal black patch in the shape of a broad crescent, with the points directed towards the base and extending on each side to a little past the median part; the anterior part of the suture is somewhat aculeate at the base, and the posterior median part of the crescent-shaped dorsal patch is produced into a short but broad sutural band connected with a transverse supra-marginal apical black patch of the same shape and width as in *G. ancora*; legs black. Length 16–19 mm.; width 7–9 mm.

*Hab.* Transvaal (Rustenburg), Zambesia (Buluwayo, Salisbury).

In this as well as in *G. Westwoodi* and its variety *G. discoidalis*,

the dorsal yellow anterior black band has coalesced on each side with the sutural band, but whereas this coalition assumes a quadrate shape in *Westwoodi*, it is more rounded diagonally in *G. egregius*, and the posterior part of the projecting black suture is much broader than in the anterior part.

This species seems to take the place of *Westwoodi* in the north-east part of South Africa. The examples from Matabeleland have a red-ochre pubescence.

GRAPHIPTERUS EGRESSUS.

Size and shape of *G. Westwoodi*; head and prothorax with the same median denudation or black band, but the yellow pubescence is more ochraceous; the elytra, a little less amplified behind, have a short sutural broad black band merging into a transverse patch one-fourth the width of the elytra, and the hind edge of which hardly reaches the median part, continues from there for a short distance and connects with a subtriangular patch, very broad, nearly perpendicular, reaching as far as the third part of the length, extending a little nearer the outer margin than the anterior transverse band and enclosing at the apex a moderately broad triangular patch of the yellow background; legs and antennæ black.

*G. egressus* is differentiated from *G. Westwoodi* by the shape of the transverse anterior black patch, narrower by one-half than the dorsal patch of the latter, and with the edges nearly parallel; the posterior patch is more perpendicular, one-third broader, and ascends much higher. Length 18 mm.; width 8 mm.

*Hab.* Transvaal (Leydenburg).

GRAPHIPTERUS FASCIATUS, Chaud.,

Bull. Mosc., 1870, p. 323.

Covered with a yellowish grey pubescence; head broadly denuded in the posterior part; the two basal joints of antennæ reddish; prothorax with a broad median black band; elytra one-fourth broader at the apex than at the base, with a quadrate black patch extending from very close to the base to about the median part, leaving only a narrow marginal and basal band of the yellowish background, and with a posterior black patch not quite as broad as the anterior one, connected with it by a short but broad sutural band, and enclosing a triangular or quadrate yellowish patch on the apex of the suture; legs black; tibiæ faintly rufescent. Length 13 mm.; width 6 mm.

*Hab.* Transvaal (Leydenburg), Mozambique (Lebombo).

GRAPHIPTERUS FRITSCHI, Chaud.,

Coleopt. Novitat., 1883, p. 25.

Covered with a yellow pubescence; head with a narrow denuded band; prothorax also with a narrow black band, the discoidal part

brighter yellow than the outer sides; elytra elongato-quadrate, with on each side a juxta-sutural black band reaching from the base to about the median part, broadest there and attenuated diagonally from its broadest part towards the base but not reaching it; behind a supra-marginal apical triangular patch on each side, on a line with the inner edge of the anterior elongated patch, and sometimes connected with it by a fine longitudinal sutural line; legs black. Length 13 mm.; width 6 mm.

*Hab.* Cape Colony (Kimberley, Barkly), Bechuanaland (Molopo, Bawankitsi), teste Chaud., Mashunaland (Salisbury).

GRAPHIPTERUS ZAMBEZIANUS, Pér.,

Trans. S. Afric. Phil. Soc., 1892, p. 99.

Covered with a deep ochraceous pubescence; head broadly denuded in the centre; antennæ black, with the three basal joints red; prothorax moderately broad, with a median black band; elytra elongato-quadrate, with a broad sutural band reaching from the base to past the middle, where it merges into a triangular black patch only twice as broad as the sutural band, and the point of which stops a little short of the apex. Length 13 mm.; width 6 mm.

*Hab.* Neighbourhood of the Zambeze River.

GRAPHIPTERUS CORDIGER, Dej.,

Spec. Col., v., p. 461.

Covered with a yellow pubescence; head broadly denuded on the vertex; first and second joints of antennæ reddish; prothorax moderately broad, with a broad median black band; elytra elongated, nearly one-fourth broader at the apex than at the base, a broad black sutural band merging into a more or less cordiform black patch beginning at about the median part, produced behind in a triangular narrow sutural band, hardly reaching the apex; legs black. Length 13–15 mm.; width 6–7 mm.

The habitat of the typical *G. cordiger* seems to be the grassy plains extending from the northern parts of the colony towards the west, as far as Ovampoland and the Marico District (Transvaal) in the east; further east and north they are replaced by *G. Wahlbergi*, while in Natal and the southern part of the Transvaal we meet with *G. hamatus*, the discoidal patch of which often assumes the shape of that of *G. cordiger*, but is always more quadrate.

*Hab.* Cape Colony (Calvinia, Kimberley), Orange Free State (Parys, Cronstad), Transvaal (Middelburg), Upper Limpopo, Damara-land, Bechuanaland, Ovampoland.

The median patch on the elytra varies in size; the anterior edge

is seldom projecting much, but the posterior angle is always rounded, thus differentiating *G. cordiger* from *G. hamatus*.

Var. *transfugus*.

Similar in shape, size, and colouring to *G. cordiger*; the pubescence, however, is more greyish; the black patch on the elytra instead of being bluntly cordiform is quite quadrate, smaller than in *G. hamatus*, and emits behind a very short, aculeate, sutural spur. Length 11 mm.; width 6 mm.

*Hab.* Transvaal (Zoutpansberg).

GRAPHIPTERUS WAHLBERGI, Bohem.,

Insect. Caffr., i., p. 80.

Size and shape of *G. cordiger*; the pubescence more reddish either on the head, prothorax, and basal part of elytra, or on the whole of the surface; head broadly denuded in the centre; the three basal joints of antennæ reddish, occasionally nearly black; prothorax with a median black band narrower than in *G. cordiger*; elytra with a subquadrate post-median black patch, longer than broad, seldom cordiform, produced behind along the suture in a short point which does not reach the apex and connected with the base by a moderately broad sutural band.

Mostly distinguished from *G. cordiger* by the position and shape of the dorsal patch, which is more quadrate, narrower, placed further down, and the posterior sutural projection does not reach the apex; legs black. Length 14–15 mm.; width 7–7½ mm.

*Hab.* Transvaal (Potchefstroom, Leydenburg, Marico, Middelburg, Middle Limpopo), Zambesia (Salisbury, Buluwayo).

The pubescence in the examples from Salisbury is fulvous.

GRAPHIPTERUS HAMATUS, Bohem.,

Insect. Caffr., i., p. 81.

Colour, size, and shape of *G. cordiger*; differs from it merely in the shape of the dorsal black patch on the elytra, which is much broader, more quadrate, not curving outwards as in *G. cordiger*, invading often nearly the whole of the disk, but with the anterior angles projecting in front and occasionally behind. The discoidal patch is broadest in my examples from Potchefstroom and Bocksburg, and in those from D'Urban, Natal, the anterior edge of the patch is sometimes straight, but the projection in the posterior angle is nearly always noticeable. Length 13–15 mm.; width 6½–7 mm.

*Hab.* Cape Colony (Kimberley), Transvaal (Potchefstroom, Bocksburg), Natal (D'Urban, Malvern, Newcastle).

## GRAPHIPTERUS ATRIMEDIUS, Chaud.,

Bull. Mosc., 1870, p. 303.

*G. lateralis*, Bohem., Insect. Caffr., i., p. 96.*G. ovatulus*, Pér., Trans. S. Afric. Phil. Soc., 1888, p. 78.

Head broadly denuded in the centre; antennæ and legs black; prothorax black, with a narrow median groove, and with a narrow band of dark ferruginous hairs on the outer sides; elytra elongato-ovate, covered with a deep ferruginous or fulvous pubescence, with a very narrow often hardly noticeable whitish outer margin, and a broad sutural black band as broad as the denuded part of the prothorax, but tapering slightly towards the apex.

*G. ovatulus* is only a much smaller variety of the type, apparently restricted to the Transvaal, but found together with the large examples. Length 10–15 mm.; width 4–7 mm.

*Hab.* Transvaal (Potchefstroom, Pretoria, Marico, Rustenburg), Middelburg, Middle Limpopo.

## GRAPHIPTERUS ERIKSONNI, Pér.,

Trans. S. Afric. Phil. Soc., vol. vi., 1892, p. 12.

Covered with a pale yellow pubescence; head broad, narrowly denuded in the centre; the two basal joints of antennæ reddish; prothorax not much broader than the head, with a discoidal broad black band on each side, thus dividing the background into a moderately broad median yellow band and two marginal ones; elytra rounded in the anterior and posterior angles, but with the outer sides somewhat parallel, and having a very broad black sutural band and two very narrow ones on each side of the disk, thus leaving on each side two alternate narrow yellow bands and a margin of the same size and colour; legs black. Length 14 mm.; width 5½ mm.

*Hab.* Ovampoland.

## GRAPHIPTERUS CIRCUMCINCTUS, Bohem.,

Insect. Caffr., i., p. 94.

Black, with a very short greyish pubescence; head with a whitish band on each side; antennæ black; prothorax with a moderately broad marginal white band; elytra elongate, with the anterior and posterior angles rounded, but the outer sides nearly parallel, covered with a very short pubescence, black or greyish black, faintly striate, and with a narrow marginal band of white hair; legs black. Length 16 mm.; width 6 mm.

*Hab.* Transvaal (Pretoria).

## GRAPHIPTERUS LINEOLATUS, Bohem.,

Insect. Caffr., i., p. 95.

Colour and shape of *G. circumcinctus*, but the black background is apparently without any pubescence; the white bands on the head and sides of prothorax are alike; the elytra, equally elongated, have, besides the narrow outer margin, seven fine white lines on each side, filling the striæ; legs black. Length  $11\frac{1}{2}$ –14 mm.; width 5–6 mm.

*Hab.* Zambezia (Victoria Falls, Buluwayo, Salisbury, Middle Limpopo), Ovampoland.

The examples from Ovampoland are smaller than any received from other localities.

Var. *geminatus*.

Shape, size, and colouring of *G. lineolatus*, but the seven white lines on the elytra, instead of being equidistant, have three sets of duplicate lines set close to one another, with the intervals, of course, broader between the duplicated line.

I have seen three examples only of this variety—one from Salisbury (Zambezia), the other two collected by Dr. Holub during his second ill-fated journey to beyond the Zambeze River.

This duplication of the white lines may, after all, prove to be only an accident. Length 13–14 mm.; width 5–6 mm.

## GRAPHIPTERUS NANNISCUS.

Covered with a very short light brown pubescence; head with a white band on each side; antennæ black, with the first and second joints occasionally reddish; prothorax slightly broader than the head, marginated with white; elytra much rounded in the anterior angles, with the outer sides subparallel, the apical part slightly broader than the basal one in the female, each one with six narrow white lines and a broader marginal one; legs black, with the tibiæ reddish. Length 7–9 mm.; width 3–4 mm.

This species might at first be taken for a small example of *G. lineolatus*, but not only is the size always smaller (I have seen a good series of them), but the absence of the seventh white line on each elytron and also the light brown pubescence seems to be constant.

*Hab.* Zambezia (Salisbury).

## GRAPHIPTERUS LUGENS, Chaud.,

Bull. Mosc., 1870, p. 303.

*G. univittatus*, Pér., Trans. S. Afric. Phil. Soc., 1885, p. 78.

Covered with a black very short pubescence; head with a yellowish white band on each side; antennæ black; prothorax a little

broader than the head, and with a narrow lateral white margin; elytra elongato-ovate, with a narrow white or yellow marginal border and a discoidal band of the size of the border and of the same colour; legs black. Length 13–14 mm.; width 5–6 mm.

*Hab.* Ovampoland.

GRAPHIPTERUS SALINÆ, Bertol.,

Nov. Comm. Ac. Bonon., x., 1849, p. 408, pl. 9, fig. 1.

*G. tristis*, Klug, Peters' Reise, n. Mozamb., p. 149, pl. 12, fig. 1.

Covered with a black very short pubescence; head with two yellowish bands; antennæ black; prothorax a little broader than the head, with a median yellow band and a marginal one on each side; elytra elongato-ovate, with a discoidal yellowish band reaching on each side from the base to two-thirds of the length, and connected behind with a transverse narrow band which does not reach the outer sides, which are also narrowly marginated with yellow; legs black, pygidium with two yellow patches. Length 14 mm.; width 6 mm.

*Hab.* Zambeze River.

GRAPHIPTERUS ANTIOKANUS.

Covered with a black very short pubescence; head with two yellowish bands; antennæ black; prothorax not very pubescent, closely punctured, a little broader than the head, with a median yellow band and a marginal one on each side; elytra ovate, faintly striate, covered with a dense black pubescence having a yellow outer margin, and on each side a yellow discoidal longitudinal line reaching from the base to about one-third of the length, with three basal and very short and narrower lines parallel with the first and a little below these, but in line with the first, a diagonal, elongato-quadrate patch directed towards the outer margin, but not connected with it; pygidium with two yellow patches; legs black.

Shape of *G. Salinæ*, but the discoidal band of the former is much longer and unites with the transverse band, which is not broader than the longitudinal one, while in *G. Antiochanus* not only is that longitudinal band shorter, but there are three more, very narrow but parallel, and the diagonal line of *G. Salinæ* is replaced by a sub-quadrate patch more than twice as broad. Length 13–14 mm.; width 5–6 mm.

*Hab.* Mozambique (Antioka), Zambezia (Umfuli River).

## GRAPHIPTERUS ALBOLINEATUS, Wallengr.,

Pl. viii., fig. 3.

Ent. Tidsk., ii., 1881, p. 12.

## PIEZIA ALBOSIGNATA, Pér.,

Trans. S. Afric. Phil. Soc., 1885, p. 77, pl. i., fig. 1.

Covered with a black very short pubescence; head with two yellowish white bands; prothorax broader than the head, with the outer sides not sinuated, outer margins with a moderately broad white band; elytra broad, quadrate, with the anterior angles a little rounded, each one with a narrow white marginal band, and four discoidal ones on each side, beginning at the base and reaching to a little past the median part, also a subquadrate sometimes elongated patch of the same colour in the centre of the apical margin; antennæ and legs black. Length 14–18 mm.; width 7–9 mm.

In one of my examples the dorsal white bands on the elytra are interrupted irregularly; in another from the Upper Limpopo the bones are pale yellow instead of white.

*Hab.* Transvaal (Potchefstroom), Zambezia (Fort Tuli).

Of the hitherto described species of *Graphipterus* there are two only which I have not yet been able to identify. One is *G. adspectabilis*, Wallengr., which from the description might prove to be identical with *G. Westwoodi*, var. *discoidalis*; and the other *G. discoideus*, Chaud., which might also prove to be identical with *G. elegantulus*.

## GRAPHIPTERUS ADSPECTABILIS, Wallengr.,

Entom. Tidsk., vol. ii., p. 12.

Black, the two basal joints of antennæ ferruginous red; head broad, with an ochraceous pubescent longitudinal band on each side; prothorax thickly pubescent, with a median longitudinal black band; elytra black, with an uninterrupted ochraceous pubescent marginal band narrowed in the angle of the posterior part, and a somewhat small cordiform one extending on each side of the suture and merging into the marginal band; legs black; coxæ, trochanters, and abdomen ferruginous. Length 15 mm.

*Hab.* Transvaal (Potchefstroom).

## GRAPHIPTERUS DISCOIDEUS, Chaud.,

Bull. Mosc., 1870, p. 327.

The facies is that of *G. plagiatus*, but it differs, owing to the ochraceous-yellow colour of the pubescence which forms the design; the prothorax has the same median black band with the sides

yellow; the elytra are yellow all round; this border is very wide, and surrounds a large black patch divided in two by a narrow sutural band of the same colour as the border; this patch is besides notched outwardly in the anterior part, and obliquely sinuate behind. Length 13-13½ mm.

*Hab.* Zululand, teste Chaud.

GEN. PIEZIA, Brullé,

Hist. Nat. Ins., iv., 1834, p. 272.

Mentum broadly and deeply notched, with the lateral sides nearly perpendicular, and the base produced in the centre in a moderately short broad tooth slightly incised in the middle, the ligula as long as the paraglossæ which surround it and are truncate at the tip; palpi and head of *Graphipterus*; antennæ compressed, with the four ultimate joints almost subfoliate; prothorax cordiform; elytra not broader at the base than the posterior part of the prothorax, elongato-ovate, truncated diagonally behind, with the anal segment projecting; legs long; tibiæ grooved inwardly; claws not pectinate, the three basal joints of the anterior tarsi of the male dilated, and with two rows of lamellæ under each; head and prothorax roughly punctured or very rugose; elytra rugose; pectus and under side of prothorax covered with moderately dense white hairs.

*Synopsis of Species.*

Prothorax long, slender.

Elytra quadri-costate on each side, first three intervals with a fulvous pubescence, a whiter round spot a little below the base, another below it, and a third one parallel with the second, but on the third interval .. .. .

*Spinolæ.*

Elytra six-costate, intervals without a fulvous pubescence, except a short basal band on the first interval, the three fulvous spots shaped as in *Spinolæ*, but on the third and fifth intervals respectively .. .. .

*algoensis.*

Prothorax short, cordiform.

Elytra with a basal patch on each side and a sutural one at the apex; basal white band short, one white dot on the fourth costa, and another in the fifth interval; prothorax broad, cordiform; elytra amplified .. .. .

*axillaris.*

Prothorax subelongated; elytra ovate .. .. .

*angusticollis.*

Basal white band short, only one white spot on the third costa

*Mnitzechi.*

Basal white band reaching nearly the median part of the elytra, a small spot in the fifth interval .. .. .

*Ovampoensis.*

Elytra with a basal band on each side, but without any apical patch.

Basal band short, fulvous, one dot in the third costa and one in the fifth interval .. .. .

*sulcipennis.*

A basal, short, fulvous band without any dots .. .. .

*aptinoides.*

Elytra with a juxta-sutural white or yellow band and an apical patch.

- White band reaching about the median part .. .. . *Mashunensis*.  
 White band reaching the median part, a discoidal white patch on each side.  
 Elytra elongato-ovate .. .. . *Marshalli*.  
 Elytra not much narrowed behind .. .. . *dissidens*.  
 White band curving behind from the suture towards the median part of the disk .. .. . *virgulifera*.  
 Elytra with a discoidal band and an apical one on each side.  
 A dorsal white band connected behind with a median transverse patch and a supra-apical diagonal band on each side .. . *Selousi*.  
 A dorsal fulvous yellow band merging into a transverse one past the middle, the supra-apical patch on each side small, triangular .. .. . *Livingstoni*.  
 Elytra without any dorsal white or yellow bands or patches.  
 Elytra costate, the four intervals covered with dense grey hairs *pilosevittata*.

PIEZIA SPINOLÆ, Bertol.,

Nov. Comm., x., 1849, p. 409, pl. 9, fig. 2; Lacord., Gen. Atlas, pl. 6, fig. 3.

Black; head with a raised triangle in the anterior part, and two broad lateral bands of fulvous hairs; antennæ black; prothorax very elongate, slightly amplified in the middle, twice as long as broad, with a narrow longitudinal median groove, and with a very faint trace of a supra-marginal lateral fulvous band; elytra elongato-ovate, gradually amplified from the base to past the middle, and very slightly attenuated from there to the apex, where they are obliquely truncated, with the outer angle and each side of the suture sharp, slightly convex, each with four costæ, the first one connected twice with the raised suture by a slanting ridge, and coalescing with the second at the apex, the first, second, and third intervals covered with a fulvous pubescence, beginning at the base for the first one, and at about one-third of the length for the second and third, and with three lighter yellow round spots, the first one at a short distance from the base of the second interval and two more a little below the first, one in the second and the other in the third interval, the costæ with a series of moderately long whitish depressed bristles on each side; legs black, thorax underneath and pectus with long white depressed hairs. Length 20–22 mm.; width  $7\frac{1}{2}$ –8 mm.

*Hab.* Mozambique (Lourenço-Marquez, Rikatla).

PIEZIA ALGOENSIS.

Size and shape of *P. Spinolæ*; head and prothorax alike; elytra also elongato-ovate, but with six costæ on each side and a raised suture, the intervals without any fulvous tomentum, except in the basal part of the first, which is tomentose from the base to the same distance as the first yellowish fulvous sub-basal round spot in the second interval; the other two round spots as in *P. Spinolæ*, the first

costa also diagonally connected twice by a raised line with the suture, and each costa with a double set of thick, decumbent, short, rigid hairs; legs black; under side of thorax and pectus covered with dense, long, decumbent, white hairs. Length 21–28 mm.; width  $8-8\frac{1}{4}$  mm.

*Hab.* Mozambique (Rikatla).

PIEZIA AXILLARIS, Brullé,

Plate IV., fig. 4.

Hist. Nat. Ins., iv., p. 272.

*P. fazoglica*, Thoms., Arc. Nat., 1859, p. 114.

Head with two oblique raised lines on the anterior part and a short median one, and a band of white hairs on each side; prothorax cordiform, one-third broader than long, grooved in the centre, rugose, and with a longitudinal straight white band above the outer margin; elytra elongato-ovate, truncate diagonally behind but with the outer angles rounded, striate with eight convex intervals on each side, each interval with a duplicate series of short white hairs, at the base a short yellowish white band of hairs extending on each side on the second and third intervals to a short distance from the base, and immediately underneath two small round yellowish white dots, the first one in the third interval, the other in the fifth, and also a sutural elongated white patch extending on each side as far as the first interval; legs and under side as in preceding species. In one example from Delagoa Bay the pubescence on the second and third intervals has coalesced above the costa, and looks thus much broader. Length 23–24 mm.; width  $8\frac{1}{2}$ –9 mm.

*Hab.* Transvaal (Pretoria), Delagoa Bay (Rikatla).

There can be no doubt that in Brullé's type, which I have seen in Chaudoir's collection, the apical sutural white patch has accidentally been rubbed off, while in *P. fazoglica* the patch is preserved.

PIEZIA ANGUSTICOLLIS, Bohem.,

Insect. Caffr., i., p. 92.

Size and colouring of *P. axillaris*; the prothorax is, however, narrower by one-third; the elytra are more elongated; the basal fulvous band and the two spots are identical, but the apical sutural patch is narrower. Length 21–22 mm.; width 8–9 mm.

I have seen male examples only of this species.

*Hab.* Transvaal (Potchefstroom), Delagoa Bay (Lourenço-Marquez).

PIEZIA MNISZECHI, Chaud.,  
Bull. Mosc., 1870, p. 289.

Head and prothorax as broad as in *P. axillaris*, and coloured alike; elytra a little shorter and equally broad, thus more sub-orbicular, also with six costæ, the sides of which have a more or less regular series of short, distant, decumbent white hairs; the basal patch as in the two preceding species, but with only one dot below it, apical sutural patch as in *P. axillaris*. Length 20 mm.; width 9 mm.

*Hab.* Transvaal (Potchefstroom).

PIEZIA OVAMPOENSIS, Pér.,  
Trans. S. Afric. Phil. Soc., 1892, p. 12.

Head as in *P. angusticollis* and *P. axillaris*; prothorax one-third longer than in the former species, but not so broad in proportion as in the latter; elytra as elongated as in *P. angusticollis*, but more narrowed laterally to near the median part, and more amplified from there, on the third interval a broad white band reaching on each side from the base to two-fifths of the length, and parallel with the apical part of the dorsal band, a small white dot on the fifth interval; the apical sutural patch as in *P. axillaris*. Length 24 mm.; width  $9\frac{1}{2}$  mm.

*Hab.* Ovampoland.

PIEZIA SULCIPENNIS.

Shape, size, and sculpture of *P. axillaris*; the lateral bands on the head and prothorax are fulvous yellow instead of white; the shape of the elytra is identical; the basal band and the two spots are fulvous instead of white, and so are the duplicate series of decumbent hairs on the outer side of the costæ, but there is no trace whatever of an apical sutural patch. Length 22 mm.; width 9 mm.

PIEZIA APTINOIDES, Perr.,  
Ann. Soc. Linn. Lyon, 1846, p. 25.

*P. laticollis*, Bohem., Insect. Caffr., i., p. 96.

Head as in the previous species; prothorax cordiform but short, and a little broader than long, without any trace of lateral pubescent bands; elytra ovate, not much narrowed at the base, costate, with hardly any hairs on the outer side of the costæ, and with two very short basal yellow bands on the second and third intervals reaching from the base to one-fifth of the length; no sutural apical patch. Length 16–17 mm.; width  $7-7\frac{1}{4}$  mm.

*Hab.* Natal (D'Urban).

## PIEZIA MASHUNA.

Head and prothorax as in *P. axillaris*, the latter part not so broad, white lateral bands alike; elytra gradually amplified from the base to past the middle, but very little narrowed from the median towards the posterior part, plane, six-costate, with the usual double series of white hairs, a sutural white band covering the first interval on each side from the base to beyond the middle, and an apical sutural patch extending on each side as far as the second costa. Length 20 mm.; width 8 mm.

*Hab.* Zambezia (Salisbury).

## PIEZIA MARSHALLI.

Head and prothorax as in *P. Mashuna*, and with the white bands alike; elytra regularly elongato-ovate, that is to say, gradually amplified from the base to the median part, and from there gradually narrowed towards the apex, six-costate, with a sutural white band placed on each side on the first interval, reaching from the base to about the middle, and with two transverse maculae merging into one another in a line with the apical part of the sutural band, and placed on the third, fourth, and fifth intervals, and an apical sutural white patch extending as far as the second costa on each side. Length 20 mm.; width  $7\frac{1}{2}$ –8 mm.

*Hab.* Zambezia (Salisbury).

## PIEZIA DISSIDENS.

Head and prothorax as in *P. Marshalli*, the prothorax somewhat broader and intermediate in width with that of the last-named species and *P. axillaris*, cephalic and thoracic white bands alike; elytra gradually amplified from the base to the middle, but hardly narrowed from there towards the posterior part, which seems to be more abruptly truncate on account of it being broader than in the other species; the sutural band is the same as in *Marshalli*, but the median dorsal white spots have merged into a sinuose narrow transverse band reaching from the second to the fourth costa on each side, apical sutural patch of the shape and size of that of *P. Marshalli*. Length 20–21 mm.; width  $7$ – $8\frac{1}{2}$  mm.

Had I not seen a good series of both sexes of *P. Marshalli* and *P. dissidens*, I would have felt inclined to consider the latter as the female of the first-named species; the distinctive character consists in the shape of the elytra, which are not regularly elongato-ovate as in *Marshalli*, but hardly narrowed past the median part.

*Hab.* Zambezia (Salisbury).

## PIEZIA VIRGULIFERA.

Head and prothorax of the same shape and with the same white bands as in *P. Marshalli*; elytra of the same shape, but with a

broader juxta-sutural white band extending from the base in a straight line to about two-thirds of the length, and from there curving so as to reach the fourth costa on each side; apical sutural patch as in the two former species. Length 20 mm.; width 8 mm.

*Hab.* Zambezia (Salisbury).

*P. Marshalli*, *P. dissidens*, and *P. virgulifera* appear to be found together, and might after all prove to belong to one species only, although I have my doubts about it.

PIEZIA SELOUSI,

Plate VIII., fig. 5.

Head and prothorax as in *P. dissidens*, but the white lateral bands of the prothorax are slightly broader; elytra elongato-ovate, costate as usual, and with a discoidal white band on the fourth interval reaching from the base to half the length, and coalescing there with a short transverse fascia reaching from the third to the sixth interval, and a supra-apical elongated patch of the same colour reaching diagonally from the second interval to the posterior angle. Length 21 mm.; width 8 mm.

*Hab.* Zambezia (Salisbury, Manica).

PIEZIA LIVINGSTONI, Chaud.,

Bull. Mosc., 1870, p. 290.

Shape and size of *P. Selousi*, the cephalic and thoracic band of the same size, but yellowish instead of white; elytra with a yellowish band reaching from the base to past the median part, and produced from there at right angles to the outer margin, which it does not reach, the outer margin with a very narrow yellowish margin which dilates on each side of the posterior part in a small triangular juxta-sutural patch disconnected from the suture. Length 20 mm.; width 8 mm.

*Hab.* Zambeze River.

As Chaudoir justly remarks, the shape and disposition of the yellow discoidal band on the elytra are nearly identical with that of *Graphipterus Salinæ*.

PIEZIA PILOSEVITTATA, Thoms.,

Archiv. Entom., i., p. 395.

Head and prothorax as in *P. Marshalli*, &c., with the white bands similar; elytra elongato-ovate, depressed, each with three broad costæ, with the four intervals equally broad and covered with dense yellowish white hairs, outer margin with a narrow band of hairs of the same colour. Length 18 mm.; width 7 mm.

*Hab.* Mozambique (Tembe).

## TRIBE ANTHIADES.

Mentum without any median tooth, the lateral lobes much developed; ligula with very short paraglossæ at the base, long, convex; palpi strong, second joint of labial always longer than the third, this last one slightly swollen at the tip, last joint of maxillary always thickened at the apex; labrum convex; eyes with an orbital ridge, and two setæ over it; antennæ long, compressed; prothorax nearly always cordiform, more or less elongate or sub-hexagonal; elytra elongate, truncate obliquely behind, or nearly rounded; no wings; legs long; tarsi spinose underneath, the three basal joints of the anterior ones dilated inwardly in the male. The tribe is represented in Africa, Armenia, and India.

Although the general facies of the insects contained in this tribe is very different, and the size vary much, the distinctive characters supplied by the shape and arrangement of the buccal organs are very uniform with the exception of the genus *Bæoglossa*. The ligula is shaped like a long convex spatula, narrowed in the basal part and embedded there in the paraglossæ, which form a sort of quadrate base with the outer angle acute; the lobes of the mentum are slightly different; while in *Polyhirma* and *Anthia* the apex is strongly sinuate and bifid, it is truncate in *Atractonota*, with a sharp inner spine in *Cycloloba* and *Microlestia*, and conical in *Bæoglossa*. In this last species the buccal characters are very striking indeed, the shape of the ligula and total absence of paraglossæ being, I believe, unique among the Carabidæ, yet the general facies of *B. villosa* approximates very much that of *A. decemguttata*, while, in spite of a facies as dissimilar as that of this last-named species and that of *Polyhirma notata*, the shape of the mentum, ligula, and palpi is identical. This difference in facies is perhaps still more exemplified in *Cycloloba* and *Microlestia*.

The species contained in this tribe are mostly diurnal, but I believe that *Microlestia tabida* is crepuscular, if not nocturnal. It is found under stones in daytime, and is the only species I know which produces a stridulating noise. All the South African species emit a volatile pungent fluid, the discharge of which produces a stinging sensation on the human skin, and I have even seen the discharge of one of the large *Anthia* (*A. maxillosa*) produce a discoloration of the skin of the face accompanied by great pain.

The *Anthiades* are generally found running over the ground, or taking shelter during the hot part of the day under low bushes or scrub, but Mr. G. A. K. Marshall informs me that "at the Mazoe (Mashunaland) he found several examples of both *Anthia pachyoma* and *A. thoracica* climbing small trees at the height of about 6 or 7 feet, after the manner of *Calosoma*." One of the former he saw devouring a small Geometrid caterpillar.

## Synopsis of Genera.

Ligula tridentate, no paraglossæ.

Ligula in the shape of a trident; lobes of mentum very sharp at the tip; second joint of labial palpi more than twice as long as the third; prothorax cordiform; elytra elongato-ovate, truncate behind .. .. . *Bæoglossa*.

Ligula spatuliform, convex, and with short basal paraglossæ.

Lobes of the mentum gradually rounded outwardly, the inner edge ending in a sharp spine.

Head without a neck; prothorax very plane, with the outer sides slightly rounded in front and nearly straight from there to the base; elytra subparallel, slightly convex, costate, and truncate behind .. .. . *Cycloloba*.

Head with a neck; prothorax very cordiform; elytra flattened, costate, truncate diagonally behind .. .. . *Microlestia*.

Head without a neck; prothorax cordiform, subhexagonal or produced behind in two lobes, plane or convex, parallel, elongato-ovate or much ampliate, the posterior part rounded; lobes of the mentum broadly scooped in the apical part .. .. . *Anthia*.

Head with a neck; mentum and palpi of *Anthia*; prothorax elongato-cordate or cordiform; elytra subconvex, costate, with the intervals more or less broadly alveolate, and the costæ seldom reaching the apex, the apical part diagonally truncate .. .. . *Polyhirma*.

Prothorax and elytra very convex; the posterior margin of the latter broadly scooped between the outer angle and the suture .. *Eccoptoptera*.

Lobes of mentum truncate at the apex; head very long and narrow; eyes hardly prominent; antennæ very compressed; prothorax fusiform; elytra very convex, the suture spinose on each side .. .. . *Netrodera*.

Head very long; eyes hardly prominent; antennæ not much compressed; elytra elongato-ovate, plane, costate, truncated diagonally behind .. .. . *Atractonota*.

## GEN. ATRACTONOTA,\* Perr.,

Ann. Soc. Linn. Lyon, 1846, p. 60.

Mentum, ligula, and palpi of *Polyhirma*; the three basal joints of antennæ long, slender, the others compressed, subfoliate; head very narrow, very long; prothorax very slender, fusiform; elytra elongato-ovate, very convex, with the posterior margin broadly scooped, and the apical part of the suture spinose; legs a little more slender than in *Netrodera*.

No representative of this genus has yet been found beyond the South African region.

\* The original name was *Atractonotus*; Lacordaire changed its desinenace to be in harmony with those of the genera included in the tribe.

## ATRACTONOTA MULSANTI, Perr.,

Ann. Soc. Linn. Lyon, 1846, p. 60; Lacord. Gen. Atl., pl. 6, fig. 5.

*Anthia minima*, Bertol. Mem. Act. Bolog., viii., 1857, p. 313, pl. 23.

*Anthia Baucis*, Dohrn, Stett. Ent. Zeit., 1881, p. 326, fig. 6.

Black; head narrow, longer from the labrum to the eyes than from there to the base, a little narrowed behind, deeply impressed on both sides between the eyes with the median part raised, and a deep, ovate-median impression on the posterior part, which is also deeply punctured; prothorax fusiform, constricted at both ends, but with the anterior part narrower than the posterior, and the inflation past the median part very rugose, and with six costæ, the two median ones straight and enclosing a deep longitudinal groove, the others a little wavy; elytra elongato-ovate, very convex, with the posterior margin deeply sinuated between the outer angle and the apical part of the suture, which is produced in a long sharp spine, each one with eight sharp much-raised costæ with the intervals subfoveate, shining, with a small submedian white pubescent patch on the fifth and sixth intervals, and a little broader one at the same distance from the apex as the first one is from the base, but extending from the third to the sixth interval inclusively. Length 11 mm.; width 3 mm.

*Hab.* Free State, Zambezia (Salisbury).

## GEN. NETRODERA, Chaud.,

Bull. Mosc., 1861, pt. ii., p. 576.

Mentum with the inner part of the lateral lobes straight, the outer one also nearly straight, the apical part wide, truncate, with the two angles slightly acute; ligula short, much inflated; palpi of *Polyhirma*, apical part of the labial palpi not much shorter than the second one; the three basal joints of antennæ thick; head elongato-quadrangle; eyes very little convex; prothorax subfusiform, truncate at both ends; elytra elongato-ovate, plane; legs moderately short and somewhat massive.

The late Mr. H. W. Bates has described another species from Benguela.

## NETRODERA FORMICARIA, Erichs.,

Plate IV., fig. 9.

Wieg. Arch., 1843, i., p. 214.

Black, labrum and first joint of antennæ piceous, head very closely punctured, elongato-quadrangle, nearly twice as long as broad, hardly narrower at the base than at the apex, with a long depression on each side from the labrum to long past the eyes, which are hardly convex; prothorax slender, very slightly amplified in the median

part, as long as the head, but half the width, moderately convex, with a very broad median longitudinal depression filled with a very short scattered greyish pubescence; elytra elongato-ovate, plane, truncated diagonally behind with the outer angle rounded and the apical part of the suture slightly notched, each one with three very sharp costæ reaching from base to apex, with the inner and outer one joining under the median one, intervals with a series of small granules and a fine line of greyish hairs, forming a denser sutural band reaching from the base to one-fourth of the length, and an apical denser and broader patch very often rubbed off. Length 10-13 mm.; width 3-4 mm.

*Hab.* Transvaal (Potchefstroom, Leydenburg), Zambezia (Manica).

GEN. ECCOPTOPTERA, Chaud.,

Rev. Zool., 1878, p. 189.

Buccal organs and palpi of *Polyhirma*, but the ligula is a little longer; the prothorax is swollen more or less in the median part and very convex; the elytra are also very convex, with the posterior margins broadly sinuate between the outer angles and the suture.

One of the two species included in this genus (*E. cupricollis*) is found also on the Zanzibar mainland.

*Synopsis of Species.*

Head and prothorax glowing metallic red	.. .. .	<i>cupricollis</i> .
Prothorax black	.. .. .	<i>mutilloides</i> .

ECCOPTOPTERA CUPRICOLLIS, Chaud.,

Plate IV., fig. 5.

Rev. Zool., 1878, p. 190.

Head scrobiculate, impressed laterally on each side, densely covered with long hairs, black, with a glowing red tinge; the four basal joints of antennæ with a greyish pubescence; prothorax glowing red, elongate, swollen in the middle, convex, deeply scrobiculate, with a median, ill-defined longitudinal groove, and covered with moderately dense greyish brown erect hairs; elytra elongato-ovate, very convex, the posterior margin with a deep sinuation between the outer angle and the suture, eight sharp, closely set costæ on each side, reaching from the base to a very short distance from the apex, intervals with a deep broad series of punctures; black, shining, with moderately dense grey hairs round the base, and a few scattered longer ones on the disk, denser on the outer margins, which, as well as the posterior one, have a bronze metallic tinge, there is besides a submedian transverse white hairy band or patch reaching from the third to the seventh costa on each side, and a broader supra-

apical one extending from the outer margin on one side to the other ; under side and legs black, hairy. Length 17 mm. ; width  $5\frac{1}{2}$  mm.

*Hab.* Zambezia (Salisbury, between Limpopo and Zambeze Rivers).

ECCOPTOPTERA MUTILLOIDES, Bert.,

Mem. Ac. Bologn., viii., 1857, p. 313, pl. 23, fig. 6.

*E. labrata*, Fairm. Ann. Fr., 1891, p. 231.

Head black, very pilose, deeply scrobiculate ; four first joints of antennæ, legs, and anterior and median tarsi hirtose ; prothorax deeply scrobiculated and with long black erect hairs, elongated, swollen in the centre, with the median part subangular, the median longitudinal groove very distinct ; elytra elongato-ovate, very convex, with the posterior margin broadly and deeply incised between the outer angle and the suture, each one with nine costæ running from the base to very near the apex, the first costa bordering the suture not so much raised as the other ; black, shining, with long erect, sparse black hairs, denser and whiter on the outer margins ; the base of the elytra with densely set short yellowish hairs, forming a short basal band along the suture, and on each side of the disk a median, transverse, white hairy patch, reaching from the fourth to the seventh costa, and a broader, supra-apical one extending from the outer margin on one side to the other ; under side very hairy. Length 19 mm. ; width 6 mm.

*Hab.* Delagoa Bay (Lourenço-Marquez, Rikatla).

GEN. POLYHIRMA, Chaud.,

Bull. Mosc., 1850, i., p. 44.

CYPHOLOBA, Chaud.

Ligula elongato-ovate ; paraglossæ half as broad as the ligula, but very short ; mentum with the lobes rounded outwardly, the apical part broadly incised, with the two angles ending in a sharp spine ; second labial palpi one-third longer than the third ; labrum broader than long, produced in front, convex ; head quadrate, suddenly narrowed behind the eyes, which are bulging into a very distinct neck ; prothorax elongato-cordate or cordiform, and occasionally subhexagonal ; elytra elongato-ovate, oblong, or subparallel, slightly convex in the anterior part and flattened behind, with the posterior edge truncate diagonally, always costate, with the intervals deeply punctured or alveolate.

The male has always a more slender or less broadly cordiform prothorax ; the elytra are more parallel and more depressed behind, the three basal joints of the anterior tarsi dilated inwardly, and with a series of lamellæ under the inner dilatation.

The number of *Polyhirma* occurring in South Africa is considerable—not less than twenty-seven out of sixty-three recorded species. They are mostly found in Eastern Africa, reaching from the Cape Colony, on the border of Natal, as far as Somaliland and Abyssinia. On the west coast they have not yet been met with further north than Benguela.

The genus *Cypholoba*, created by De Chaudoir for the reception of *C. alveolata*, differs from *Polyhirma* merely in having the basal part of the lateral lobes of the mentum thickened and projecting as a blunt tubercle, which character is more or less pronounced in several kinds of *Polyhirma*.

*Synopsis of Species.*

Prothorax very long and slender, with a median pubescent band; elytra with a short pubescent macula round the scutellum.

Elytra with eight costæ on each side, intervals with long depressions separated by raised transverse lines .. .. . *scrobiculata*.  
 Intervals with shorter and less deep depressions .. .. . *gracilis*.  
 Intervals with narrow regular shallow punctures .. .. . *edax*.

Elytra with a sutural white band and an outer marginal one.

Elytra with eight costæ on each side, and the intervals broadly scrobiculate from base to apex .. .. . *divisa*.  
 A scutellary white patch, and a median and posterior one on each side .. .. . *enigma*.

Prothorax elongato-cordate, pubescent in the centre; elytra with seven costæ of nearly equal height on each side.

Elytra with a sutural white band reaching from the base to one-third of the length, and a supra-apical one on each side; costæ wavy, alternate ones more raised than the others, all reaching from the base to two-thirds of the length; intervals very deeply foveate .. .. . *leucospilota*.  
 Costæ reaching from the base to slightly past the middle; foveæ not deep .. .. . *semilevis*.

Elytra with seven costæ, the alternate ones more raised than the others.

Elytra with a sutural white band reaching from base to apex; costæ reaching only the median part of the elytra, with a white patch below them on each side, and a narrow white dot above the apical part .. .. . *Gaza*.

Prothorax cordiform, pubescent in the centre; costæ reaching from the base to two-thirds of the length; the supra-apical white patch small, quadrate, covering the second and third intervals .. .. . *perspicillaris*.

Prothorax broader, foveæ of intervals deeper, posterior white patch wider .. .. . *graphipteroides*.

Elytra narrower, the alternating costæ not much higher than the others; posterior patch in the shape of a narrow diagonal band .. .. . *bilunata*.

Prothorax cordiform, pubescent in the centre; elytra with a sutural white band and an apical white patch.

Elytra with eight costæ on each side; sutural band reaching from the base to about one-third of the length; apical patch reaching on each side from the suture to the outer angle .. .. *rutata.*

Sutural band reaching from base to apex; postical part whitish .. .. .. .. .. *suturella.*

Elytra with seven costæ on each side reaching from the base to four-fifths of the length, the juxta-sutural one beginning at some distance from the base; intervals broadly scrobiculate; sutural band reaching from the base to the middle; apical sutural patch small .. .. .. .. .. *semisuturata.*

Seven costæ on each side reaching from the base to three-fourths of the length, sixth one a short apical one, intervals broadly foveate, foveæ with a fulvous pubescence, a very short basal sutural patch, and a broader one at the apex .. .. .. *macilenta.*

Six costæ on each side reaching from the base to two-thirds of the length, foveate, foveæ without a fulvous tomentum, a very short basal sutural patch and an apical one, also very small *notata.*

Elytra with eight costæ; intervals with a deep series of punctures; a short, broad, sutural, yellow patch, without any apical one .. .. .. .. .. *opulenta.*

Prothorax cordiform; elytra very oblong.

Elytra with eight raised costæ on each side, the inner three hardly produced beyond the median part, each of the following ones a little longer than the preceding, but none of them reaching the apex; a median prothoracic band culminating in a scutellary yellow pubescence .. .. .. .. .. *Fritschi.*

Elytra with six raised costæ on each side, reaching from the base to the median part; the intervals broadly alveolate; no pubescent band or patch .. .. .. .. .. *Chaudoiri.*

Elytra with six costæ on each side reaching from the base to four-fifths of the length, the fourth costa interrupted past the middle in the male; intervals broadly alveolate and fulvous .. .. *amatonga.*

The six costæ of the elytra entire .. .. .. .. .. *consobrina.*

Prothorax broadly cordiform in both sexes; elytra parallel in the male, amplified behind in the female.

Elytra with seven uninterrupted costæ on each side; intervals alveolate; prothorax with a pubescent band and a circa-scutellary white patch .. .. .. .. .. *Boucardi.*

Elytra with six costæ on each side; a broad median band on the prothorax; a short basal one on the elytra, and very tomentose on the posterior part .. .. .. .. .. *Ranzanii.*

Prothorax very depressed, almost hexagonal in both sexes, but more so in the male.

Elytra with five uninterrupted costæ and the rudiment of a basal one on each side; intervals broadly alveolate; no pubescence on head, prothorax, or elytra .. .. .. .. .. *alveolata.*

Elytra with six costæ on each side, the fourth one reaching only from the base to the fourth alveola, but apparent again in

the posterior part, on the second, third, and last alveolæ; prothorax with a median band; elytra with a circa-scutellary patch and a broad postical one; alveolæ broad and fulvous . . . . . *algoensis*.

Elytra with six uninterrupted costæ; bands and patches as in *algoensis* . . . . . *Plantei*.

Elytra elongated, parallel, not diagonally truncate behind.

Elytra with six convex costæ reaching from base to apex; intervals punctato-striate . . . . . *Alstoni*.

POLYHIRMA SCROBICULATA, Bertol.,

Nov. Comm. Ac. Bonon., x., 1849, p. 410, pl. 9, fig. 3.

Totally black; head with a very short, sparse greyish tomentum; prothorax very long, narrow, swollen in the centre, closely punctured, with a faintly raised longitudinal line in the centre; elytra much elongated, hardly broader than the end of the prothorax at the base, amplified from the base, the outer sides from below the base nearly straight, truncated obliquely behind, moderately convex in the anterior part and very depressed behind, with seven sharp, continuous lines running from base to apex, and an outer one running from two-thirds of the length to the apex; intervals very broadly foveate, the foveæ deeper in the anterior part, the posterior part more raised, ending in a crescent-shaped wall, and less deep towards the apex, without any reticulation; no trace of any white patch or tomentum. Length 19–20 mm.; width 6–6¼ mm.

*Hab.* Mozambique (Lourenço-Marquez, Rikatla, Gazaland).

In the Delagoa Bay examples the reticulated alveolæ are not so deep in the posterior part as in one example, ex collect. Mnitzech from Mozambique.

POLYHIRMA GRACILIS, Dej.,

Spec. Col., v., p. 468.

*P. fossulata*, Perr., Ann. Soc. Linn. Lyon, 1846, p. 50.

Black; head with a greyish tomentum; prothorax elongate, swollen in the anterior part, one-third longer than broad at the widest part, broadly grooved in the centre, with the groove filled with greyish tomentum and closely punctured; elytra with a small scutellary greyish patch, amplified from the base, outer sides nearly straight, truncated obliquely behind, moderately convex in the anterior part and depressed in the apical one, each one with seven acute costæ and an outer one reaching from the median part to the apex; intervals deeply foveate from the base to past the middle, and deeply punctured from there to the apex.

Allied to *P. scrobiculata*, but the prothorax is less slender, the elytra are less depressed behind, and the foveæ are narrower, and not so deep. Length 17–20 mm.; width 5–6 mm.

*Hab.* Natal (? Frere, Newcastle), Free State (Wynburg, Kroonstad), Transvaal (Potchefstroom, Pretoria, Rustenburg), Ovampo, Zambezia, Bechuanaland (Ramoutsa).

POLYHIRMA EDAX, Pér.,

Trans. S. Afric. Phil. Soc., vi., p. 13.

Black; head with a greyish tomentum; prothorax elongato-cordate, longer by one-fourth than broad, very broadly grooved in the centre, with the groove filled with a greyish white tomentum; elytra with a small scutellary grey patch; oblong, truncated diagonally behind, very depressed, each one with seven entire sharp costæ and a lateral one reaching from the apex to three-fourths of the length; intervals with a regular series of shallow alveolæ, hardly shallower at the apex than at the base.

Not unlike *P. gracilis*, this species is at once distinguished by the more depressed elytra and the shallowness of the alveolæ of the intervals, which are of equal width from base to apex; the general size is also larger. Length 23 mm.; width 7-8 mm.

*Hab.* Ovampoland.

POLYHIRMA DIVISA, Bohem.,

Plate IV., fig. 7.

Vet. Ac. Förh., 1860, p. 9.

*P. circumcincta*, Chaud., Bull. Mosc., 1861, ii., p. 572.

Black; head with a whitish, sometimes yellowish tomentum; prothorax elongato-cordate, one-fourth longer than broad, narrowly grooved in the centre, the groove filled with a white, or whitish-yellow tomentum; elytra with a sutural white or yellowish band reaching from base to apex, and a lateral marginal one, oblong, truncated obliquely behind, convex, but depressed at the apex, with eight acute costæ on each side, the outer one reaching short of the base, and the intervals deeply foveate, the foveæ shallower at a short distance from the apex. Length 21 mm.; width 7 mm.

*Hab.* Zambezia (Victoria Falls), Ovampoland.

In the examples from Zambezia, the sutural bands are white, and yellowish in the examples from Ovampoland.

POLYHIRMA ÆNIGMA, Dohrn,

Plate IV., fig. 6.

Stett. Ent. Zeit., 1881, p. 326.

Head with a greyish tomentum; prothorax slender, one-third longer than broad, broadly grooved in the centre, the groove filled with a greyish white pubescence; elytra elongated, convex, not much depressed at the apex, each one with eight costæ running from the

base to three-fourths of the length, but the sixth and eighth beginning in the middle, not at the base; apical part punctulated, and intervals foveate; a short sutural basal white band, a transverse band reaching on each side from the second to the sixth costa, and another sinuate one, situated at the apical part of the dorsal costæ and reaching diagonally from near the suture to the outer margin, which has also a narrow band of whitish, not very dense hairs. Length 15–17 mm.; width 4–5 mm.

*Hab.* Zambezia (Victoria Falls, Salisbury).

POLYHIRMA LEUCOSPILOTA,\* Bertol.,

Nov. Comm. Ac. Bonon., x., 1849, p. 388, pl. 8, fig. 3;

Peters' Reise, 1862, p. 154, pl. 8, fig. 8.

Head with a greyish sparse tomentum; prothorax elongato-cordate, one-fourth longer than broad; moderately amplified beyond the apex, broadly grooved in the centre, the groove with a very narrow white or slightly yellowish line; elytra very elongated, narrow, very little convex on the anterior part, depressed behind, each one with six costæ more or less wavy, especially the first, third, and sixth, which are also less raised than the others, reaching from the base to three-fourths of the length, where they disappear; intervals foveate, the foveæ deep, and replaced below the costæ with more or less evanescent broad punctures, suture with a broad yellowish band reaching from the base to half the length, and on each side a round white spot situated at the apex of the fourth, fifth, and sixth costæ, outer margin with a greyish band not very distinct on the lateral sides, but denser and broader on the outer angle and posterior margin. Length 28 mm.; width 8 mm.

*Hab.* Mozambique (Gazaland).

POLYHIRMA SEMILEVIS, Chaud.,

Bull. Mosc., 1861, ii., p. 571.

Head with a greyish tomentum; prothorax elongato-cordate, one-fifth longer than broad, slightly pubescent and closely punctured, broadly grooved in the centre, the groove with a greyish white pubescence; elytra very elongated, depressed throughout, but with the depression still greater in the posterior half, each one with six costæ somewhat undulating, the first, third, and sixth not so much raised as the intervening ones, reaching from the base to two-thirds of the length, where they disappear; intervals foveate, the foveæ deep, between the costæ; posterior part with a few more or less evanescent punctures as a continuation of the alveolæ of the anterior

\* According to Dohrn (Stett. Ent. Zeit., 1887, p. 172), *P. suturata*, Perroud (*P. graphipteroides*), is identical with *leucospilata*, and has the priority.

part; suture with a basal greyish white band reaching from the base to one-third of the length, and on each side, two coalescing white spots at the apex of the sixth costa, the outer sides are also sparsely pubescent; the greyish pubescence is thicker and denser on the posterior margin; that pubescence is also discernible, although faint, on the intermediate costæ, and is most noticeable at the apex of the first, third, and fifth, where it looks like an ill-defined transverse band. Length 22–26 mm.; width 7–8 mm.

Very closely allied to *P. leucospilota*; the prothorax is more amplified near the apex, not so long; the elytra are a little less attenuated in front, and less convex; the costæ are shorter, and so is the sutural band; the foveæ are not so deep, and there is no trace whatever in my examples of *leucospilota* of a transverse discoidal pubescent patch.

*Hab.* Tongaland, Mozambique (Rikatla).

#### POLYHIRMA MARQUEZA.

Head with a greyish tomentum; prothorax elongato-cordate, but broader in the anterior part than the two preceding species; faintly pubescent on the outer margins, broadly grooved in the centre, with the groove filled with a yellowish white pubescence; elytra elongate, very depressed, each one with three costæ reaching from the base to half the length; each interval with a double series of round punctures divided by a slightly raised line, posterior half part faintly striated without any punctures in the intervals; a sutural yellowish white band reaching from the base to the apex, but broader and better defined from the base to a little short of the middle; a subdiagonal patch, moderately broad, extending from the first to the fourth interval, and a small rounded white dot in the posterior part of the sixth interval; posterior half of the elytra and outer margin briefly pubescent. Length 29–31 mm.; width 8–10 mm.

*Hab.* Mozambique (Gazaland).

#### POLYHIRMA PERSPICILLARIS, Chaud.,

Rev. Zool., 1878, p. 187.

Head with a greyish tomentum; prothorax elongato-cordate, nearly as broad as long, closely punctured, broadly grooved in the centre, the groove filled with a greyish white pubescence; elytra elongate, depressed with the posterior part more plane than the anterior, each one with three costæ reaching from the base to two-thirds of the length; each interval with two series of alveolæ, divided by a raised wavy line, posterior part faintly striate, with evanescent punctures in the intervals, a sutural whitish band reaching from the base to one-third of the length, and two small coalescing white patches of the

second and third intervals on each side, outer sides and posterior part faintly pubescent. Length 23–25 mm.; width 7–8 mm.

An intermediate form between *P. semilevis* and *P. graphipteroides*; as much elongated as the former, and with the post-median white macula on the elytra nearly alike; the foveæ are more closely and regularly set and also more numerous; the apical and lateral parts are also distinctly pubescent.

*Hab.* Ovampoland.

De Chaudoir has described the species from some examples captured in the Schimba Mountains, on the Zanzibar mainland.

POLYHIRMA GRAPHIPTEROIDES, Guér.,

Rev. Zool., 1845, p. 285.

*P. suturata*, Perr., Ann. Soc. Linn. Lyon, 1846, p. 43.

Head with a greyish tomentum; prothorax cordiform, as broad as long, punctulate, broadly grooved in the centre, the groove with a greyish white tomentum; elytra distinctly amplified from one-third of the length, depressed with the anterior part more plane than the interior, each one with three costæ reaching from the base to two-thirds of the length, with a double series of small alveolæ in the intervals, divided by a raised line nearly as much raised in the first anterior third as the costæ; posterior part substriate, with evanescent punctures in the intervals, a sutural whitish band reaching from the base to one-third of the length, and a subtransverse white patch situated at the apex of the costæ and reaching from the first costa to the inner part of the outer margin. Length 24–26 mm.; width, 8–9 mm.

Closely allied to *P. perspicillaris*; the elytra are more amplified at a certain distance from the base and much broader; the sutural band is identical, but the two coalescing supra-apical spots of *perspicillaris* are replaced by a broad subtransverse band consisting of three coalescing patches.

*Hab.* Transvaal (Middelburg, ? Potchefstroom), Zambezia (Victoria Falls, Buluwayo).

POLYHIRMA BILUNATA, Bohem.,

Vet. Ac. Förh., 1860, p. 8.

Head with a greyish tomentum; prothorax elongato-cordate, one-fifth longer than broad, with the usual median groove and the pubescent longitudinal band, outer sides slightly tomentose; elytra slender, much elongated, depressed with the posterior part more plane than the anterior, each one with the three costæ and intervals as in *P. graphipteroides*, but a little narrower; the sutural band is the same, but the supra-apical band is diagonal, narrow, and reaches on

each side from the first costa to the outer margin which is slightly tomentose, the tomentum is denser on the posterior one. Length 24 mm. ; width  $6\frac{1}{2}$  mm.

*Hab.* Zambezia (Buluwayo, Mazoe); neighbourhood of Lake N'Gami, teste Boheman; Mombassa, teste Chaud.

Distinguished from *P. graphipteroides* by the more slender elytra the shape of the supra-apical band, and the narrower alveolæ.

POLYHIRMA SUTURELLA, Chaud.,

Rev. Zool., 1866, p. 73.

Head with a greyish tomentum; prothorax cordiform, closely punctured, broadly grooved in the centre, with a longitudinal pubescent white band; elytra oblong, depressed in the anterior part, more plane behind, each one with eight sharp costæ reaching from the base to a short distance of the apex, intervals with small alveolæ, a sutural white band reaching from the base to the apex, and merging there in a white pubescence covering the latter part. Length 23 mm.

The only examples of that species I have seen are in De Chaudoir's collection.

*Hab.* Zambezia.

POLYHIRMA RUTATA, Pér.,

Trans. S. Afric. Phil. Soc., 1892, p. 101.

Head with a greyish pubescence; prothorax elongato-cordate in the male, more broadly cordate in the female, closely punctured, broadly grooved, with a longitudinal white pubescent band; elytra oblong, depressed in the anterior part, almost plane behind, each one with eight very sharp costæ reaching from the base to close to the apex, inner costa, close to the suture, beginning only at about one-third of the length, intervals with regularly set narrow alveolæ, a sutural white band reaching from the base to the beginning of the first costa, and a triangular white pubescent patch extending from one angle of the apex to the other. Length 22-27 mm.; width 7-8 mm.

*Hab.* Transvaal (Pietersburg), Zambezia (Victoria Falls), Zambezia (between Zambeze and Limpopo, Victoria Falls).

POLYHIRMA SEMISUTURATA, Chaud.,

Rev. Zool., 1866, p. 71.

*P. neutra*, Dohrn, Stett. Ent. Zeit., 1883, p. 360.

Head with a greyish pubescence; prothorax cordiform, closely punctured, broadly grooved in the centre, the groove filled with a narrow white pubescent band; elytra elongated, nearly parallel,

moderately convex with the apical part depressed, shining, each one with six acute costæ somewhat wavy, reaching from the base to four-fifths of the length, the inner costa near the suture beginning only in the median part, intervals broadly foveate, a sutural white pubescent band reaching from the base to where the inner costa begins and a small triangular or diamond-shaped small white patch at the apex of the suture. Length 22–26 mm. ; width 6–7½ mm.

*Hab.* Zambezia (Victoria Falls, Salisbury, between Limpopo and Zambeze Rivers, Buluwayo.)

POLYHIRMA MACILENTA, Olivier,  
Ent., iii., 35, p. 26, pl. 11, fig. 130.

*P. foveata*, Perr., *l. c.*, p. 43.

*P. Dregei*, Guér., Lefev. Voy. Abyss., p. 257.

*P. exarata*, Bohem., Insect. Caffr., i., p. 109.

Head with a greyish pubescence ; prothorax cordiform, closely punctured, broadly grooved in the centre with a longitudinal white band ; elytra elongated, nearly parallel, moderately convex, with the apical part depressed, each with seven sharp slightly sinuose costæ, reaching from the base to three-fourths of the length, the sixth costa very short and beginning at about two-thirds of the length of the elytron and ending as far behind as the seventh intervals, broadly alveolate, the bottom of the alveolæ fulvous, a very short basal sutural patch, and another, hardly broader, at the apex. Length 21–23 mm. ; width 6–7 mm.

*Hab.* Orange Free State (Cronstad), Transvaal (Pretoria, Marico Rustenburg), Zambezia (Buluwayo).

In female examples the sixth costa is a little longer than in the male.

There can be but little doubt about the identity of *P. macilenta* with *P. foveata* ; Olivier saw, in all probability, an example with the white pubescence rubbed off, which is not a rare occurrence.

POLYHIRMA NOTATA, Perr.,  
Ann. Soc. Linn. Lyon, 1846, p. 50.

*P. amabilis*, Bohem., Insect. Caffr., i., p. 110.

*P. spuria*, Bohem., Insect. Caffr., i., p. 111.

Head with a greyish pubescence ; prothorax cordiform, closely punctured, broadly grooved in the centre, with a whitish longitudinal white band ; elytra subparallel, moderately convex, with the apical part much depressed, each with seven costæ reaching from the base to a little past the middle, with the sixth one situated behind and extremely short, intervals with broad foveæ without any fulvous

tomentum, posterior part faintly striate, the intervals with evanescent punctures, a very short narrow white sutural line at the base, and at the apex a narrow, subtriangular patch. Length 21–22 mm.; width 6–7 mm.

*Hab.* Natal (D'Urban, Malvern, Maritzburg, Newcastle), Transvaal (Pretoria).

I am unable to find any difference between Boheman's type of *P. spuria* and the typical *notata*.

POLYHIRMA OPULENTA, Bohem.,

Plate VIII., fig. 6.

Vet. Ac. Förh., 1860, p. 9.

*P. scutellaris*, Chaud., Bull. Mosc., 1861, ii., p. 573.

Head with a fulvous pubescence; prothorax cordiform, closely punctured, grooved in the centre with a very broad, longitudinal median fulvous band; elytra elongato-ovate, depressed, each one with eight acute costæ reaching from the base to nearly the apex, the intervals with a series of broad punctures shallower in the posterior part, a short, basal, broad sutural fulvous patch, none at the apex. Length 18–24 mm.; width 6–8 mm.

*Hab.* Damaraland (Svakop River), Northern Namaqualand.

POLYHIRMA FRITSCHI, Chaud.,

Coleopt. Novit., 1883, p. 27.

Head with a fulvous pubescence; prothorax cordiform, nearly as broad as long, punctulate, broadly grooved in the centre, with a faint, fulvous, pubescent median band, very thick and broad at the apex; elytra oblongo-ovate, moderately convex in the anterior part, depressed behind, each one with eight costæ, the outer one hardly reaching from near the apex to the median part, the three inner ones extending from the base to a little past the middle, and the outer ones reaching further, intervals with a series of moderately broad foveæ, posterior part smooth in the centre, on the scutellum a broad, fulvous, pubescent patch, lateral and posterior margin faintly pubescent. Length 25–31 mm.; width 10–11 mm.

*Hab.* Bechuanaland (Kuruman).

POLYHIRMA CHAUDOIRI, Pér.,

Plate VIII., fig. 8.

Trans. S. Afric. Phil. Soc., 1892, p. 101.

Black, shining; head without any pubescence; prothorax cordiform, with a broad longitudinal depression and a very narrow groove, apparently hairless; elytra oblong, depressed in the anterior part,

the posterior half nearly plane, each one with six costæ, the three inner ones reaching the median part, the other three longer, intervals with broad foveæ, posterior part smooth, no pubescent patch or band. Length 33–35 mm.; width 6–7 mm.

*Hab.* Bechuanaland.

POLYHIRMA AMATONGA, Pér.,

Trans. S. Afric. Phil. Soc., 1892, p. 102.

Head without any pubescence; prothorax a little longer than broad, subelongato-cordate, broadly grooved in the centre, the groove hairless; elytra oblong, a little more convex in the male than in the female, depressed behind, the male with six acute costæ on each side, the fourth one interrupted at about the median part and having only an apical rudiment, the costæ entire in the female, the intervals alveolate, with a fulvous pubescence in the bottom of each alveola, costæ reaching from the base to two-thirds of the length. Length 24–28 mm.; width  $7\frac{1}{2}$ – $8\frac{1}{2}$  mm.

*Hab.* Tongaland, Delagoa Bay (Rikatla).

In the original description of this species I gave a wrong diagnosis of the male, having mistaken for such a very small example of *P. Plantei*, with prothorax narrower than usual.

POLYHIRMA CONSOBRINA.

Shape, size, and colouring of *P. amatonga*; the sculpture of the head and prothorax is alike; the elytra are as broadly foveate and the alveolæ have the fulvous pubescence, but in both sexes the six costæ on each side are entire, and they also reach further down, from the base to three-fourths of the length, thus reducing the size of the apical smooth part. Length 24–28 mm.; width  $7\frac{1}{2}$ –9 mm.

*Hab.* Transvaal (Middelburg).

POLYHIRMA BOUCARDI, Chaud.,

Coleopt. Novit., 1883, p. 27.

*P. septemcostata*, Dohrn, Stett. Ent. Zeit., 1883, p. 357.

Head with a greyish very sparse pubescence; prothorax cordiform, as broad as long, or very nearly so, closely punctured, broadly grooved in the centre, with a more or less defined pubescent median greyish band; elytra nearly parallel in the male, gradually amplified from one-third of the length, with the outer sides not rounded behind in the female, plane, each one with seven costæ reaching from the base to four-fifths of the length, intervals alveolate, outer and posterior margins faintly pubescent, a small, greyish white, short, sutural patch at the base. Length 29–33 mm.; width 9–11 mm.

*Hab.* Transvaal (Barberton), Zambezia (between Zambeze and Limpopo Rivers).

## POLYHIRMA RANZANII, Bertol.,

Nov. Comm. Ac. Bohon., x., 1849, p. 386, pl. 8, fig. 2;

Klug, Peters' Reise, 1862, p. 153, pl. 8, fig. 7.

Head with a greyish pubescence; prothorax one-fifth longer than broad, cordate, closely punctured, deeply grooved in the centre with a narrow yellowish white longitudinal median band; elytra nearly parallel in the male, more elongato-ovate in the female, each one with seven costæ, only reaching from the base to four-fifths of the length, the sixth costa is only a very short supra-apical one, intervals alveolate, a short sutural greyish white basal band, the posterior denuded part and the outer margins clothed with a dense, greyish, very short pubescence. Length 31 mm.; width  $9\frac{1}{2}$  mm.

*Hab.* Zambezia (Manica).

## POLYHIRMA ALVEOLATA, Brême,

Ann. Soc. Ent. France, 1844, p. 293, pl. 7, fig. 5.

Head with hardly any pubescence; prothorax very depressed, broad, almost hexagonal in the male, more cordate in the female, closely punctured, very broadly depressed longitudinally in the centre and with a very fine groove in the depression, no median pubescent band; elytra nearly parallel in the male, and very slightly amplified past the middle in the female, depressed, each one with six costæ reaching from the base to a very short distance from the apex, with the exception of the fifth one at the base, which is very short, reaching only one-sixth of the length, intervals broadly alveolate, bottom of alveolæ with a fulvous pubescence. Length 31–33 mm.; width 9–10 mm.

*Hab.* Cape Colony (Vaal River), Orange Free State (Kroonstad), Transvaal (Rustenburg, Marico, Pretoria).

In all the examples of this species which I have seen, and there are a great many, the absence of greyish pubescence or greyish bands on thorax or elytra has always been constant.

## POLYHIRMA ALGOENSIS.

Shape and size of *P. alveolata*, but the head is very pubescent; the prothorax, shaped as in the previous species in both sexes, has a very broad yellowish white pubescent band; in the elytra the costæ reach four-fifths of the length, the basal part of the sixth one is longer, and there is also a trace of it in the apical part, the outer margin is densely pubescent, and so is the smooth apical part of each elytron. Length 30–34 mm.; width 9–11 mm.

*Hab.* Transvaal (Barberton), Mozambique (Lourenço-Marquez, Rikatla).

POLYHIRMA PLANTEI, Chaud.,  
Bull. Mosc., 1861, ii., p. 569.

Size and shape of *P. alveolata* and *P. algoensis*; head pubescent; prothorax still more hexagonal in the male, less cordate in the female, broadly depressed in the centre, and with a broad longitudinal greyish white pubescent band; elytra as in the two preceding species, but with six continuous costæ reaching from the base to four-fifths of the length, intervals alveolate, the alveolæ with a fulvous pubescence, a greyish, short, sutural basal band, and the smooth posterior part and also the lateral outer margins with a sparse greyish pubescence. Length 26–33 mm.; width 8–11 mm.

*Hab.* Tongaland, Mozambique, Zambesia (between Limpopo and Zambeze Rivers).

POLYHIRMA ALSTONI, Pér.,  
Plate VIII., fig. 7.

Trans. S. Afric. Phil. Soc., 1892, p. 14.

Black, shining, without any trace of white pubescence; head with a reddish spot on the vertex; prothorax as broad as long, cordiform, with scattered punctures, narrowly depressed longitudinally in the centre, and with a very fine median groove; elytra smooth, shining, elongated, with the anterior angle much sloping, the lateral sides straight, and the posterior angles sloping, not truncate, subdepressed, punctato-striate, with seven broad convex costæ on each side, striæ and intervals reaching from base to apex.

The facies of this *Polyhirma* is unlike that of any other South African ones. Length 23–24 mm.; width 6½–7 mm.

*Hab.* Bechuanaland, Ovampoland.

GEN. MICROLESTIA, Chaud.,  
Bull. Mosc., 1850, i., p. 45.

Mentum with the lobes straight in the inner part, convex, much curved outwardly and ending in a sharp spine, ligula broad, spatuliform, convex; the paraglossæ fused with the attenuated basal part; maxillary and labial palpi of *Anthia*; labrum broader than long, subtruncate apically, with the external angles oblique; head with a deep longitudinal impression on each side between the eyes, and having a very distinct neck; prothorax cordiform, with the anterior angles projecting, and truncate at the base, with the posterior angles subacute; elytra more or less elongato-ovate, plane or little convex, with the posterior part obliquely truncate and incised at the apex of the suture; the three basal joints of the anterior tarsi of the male dilated inwardly, the dilated part lamellate.

The genus is represented in the southern part of Angola.

*Synopsis of Species.*

Prothorax broadly cordiform.

Elytra with four acute costæ on each side, intervals with a double series of broad punctures .. .. . *tabida*.

Elytra with seven acute costæ on each side, the intermediate ones higher than the others, intervals with one series of punctures .. .. . *rugosopunctata*

Elytra with seven rounded equal costæ, intervals with a series of moderately shallow punctures .. .. . *oxygona*.

Elytra more attenuated in front, costæ more acute, and punctures broader and deeper .. .. . *sobrina*.

Prothorax narrowly cordiform.

Elytra with the seven costæ on each side sharp, and the punctures deep .. .. . *atrata*.

Elytra with seven fine sharp costæ, intervals with a series of punctures; prothorax long and narrow .. .. . *immericita*.

## MICROLESTIA TABIDA, Fabr.,

## Plate VIII., fig. 9.

Syst. Ent., p. 237; Oliv. Ent., iii., 35, p. 25, pl. 8, fig. 97.

*M. spinosa*, Linn. Syst. Nat. Gmel., i., iv., p. 1967.

Totally black, shining; head very closely punctured; prothorax very cordiform, with the anterior angles projecting a little, and the outer margins carinated, with the outer sides a little depressed, with a broad median depression containing a very fine groove reaching from the base to a transverse, arcuated, shallower impression in the anterior part, each side of the disk owing to the lateral and median depression is slightly raised; elytra with the shoulders very sloping, and the outer sides suddenly amplified at about one-fourth of the length, and subparallel nearly to the posterior angle, which is sharp, and the outer margin truncated very obliquely from the outer angle to the suture, the apical part of which broadly notched inwardly and thus produced in a broad spine on each side; they have each four acute much-raised costæ, including the sutural one, the outer one of which is at a right angle with the humeral part, and thus hides from view; when looked at from above, the narrower part of the anterior outer margin, the intervals are hairless with a double series of broad, moderately deep punctures. Length 19 mm.; width 22 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Piquetberg).

## MICROLESTIA RUGOSOPUNCTATA, Thunb.,

Schönh., Syn. Ins., i., p. 234; Lequien, Monogr., pl. 40.

*M. rubiginosa*, Perr., Ann. Soc. Linn. Lyon, 1846, p. 42.

Head and prothorax of *M. tabida*, but the latter is not quite so

broad, the discoidal part not so much raised, the punctures are denser, and both head and prothorax are covered with some short decumbent brownish hairs; elytra a little more parallel than in *tabida*, each one with seven costæ, with the intermediate ones not so much raised as the others, and with dense decumbent yellowish brown hairs, intervals with one broad series of punctures, apical part of the suture slightly notched. It is not unusual to meet with examples in which the brown pubescence has disappeared. Length 19–22 mm.; width  $6\frac{1}{2}$ –7 mm.

*Hab.* Cape Colony (Port Elizabeth, Somerset East).

MICROLESTIA OXYGONA, Chaud.,  
Bull. Mosc., 1844, iii., p. 475.

Black, moderately shining; head and prothorax like in *M. rugosopunctata*; elytra a little more quadrate at the base, more parallel in the male, but more amplified in the middle in the female, and in that way approximating the shape of the female *M. tabida*, also more convex in the anterior part in that sex, each one with seven moderately raised costæ, bearing on each side a series of minute punctures briefly setigerous, the said costæ more developed in the first anterior part than in the posterior, where they get gradually obliterated from the median part towards the apex, the intervals are shallow, with a series of broad punctures, apical part of the suture slightly incised. Length 20–23 mm.; width 7–8 mm.

*Hab.* Cape Colony (Calvinia, Namaqualand minor).

MICROLESTIA SOBRINA.

Head as in *M. oxygona*; prothorax alike, but not quite so broad; elytra convex in the anterior part, amplified from below the humeral part, not attenuated behind, the apical part of the suture broadly notched, on each side seven equal costæ, more raised in the anterior than in the posterior part, where the inner ones become flattened, and intervals with a series of broad, round punctures. Length 20 mm.; width 8 mm.

An intermediate form between *M. rugosopunctata* and *M. atrata*, while the shape of the prothorax is like that of the former, with the anterior angles less acute, the disposition of the costæ on the elytra is as in *atrata*, and the intervals and the series of punctures are broader. Male unknown.

No record of locality.

MICROLESTIA ATRATA, Bohem.,  
Insect. Caffr., i., p. 113.

*M. nigrina*, Bohem., Vet. Ac. Förh., 1860, p. 10.

Head as in *M. tabida* and *M. rugosopunctata*; prothorax with the

anterior part hardly rounded outwardly, and gradually narrowed towards the base; elytra more elongated in proportion to the length than in *rugosopunctata*, and more convex, each one with seven equally raised sharp costæ, and the intervals with a series of broad punctures, apical part of the suture slightly notched.

More slender than the preceding species, and elytra more elongato-ovate; prothorax somewhat in the shape of a truncated cone. Length 15–17 mm.; width 5–6 mm.

*Hab.* Transvaal (Marico), Damaraland (Svakop River).

MICROLESTIA IMMERITA, Bohem.,

Vet. Ac. Förh., 1860, p. 10.

Head of *M. tabida*, *atrata*, &c.; palpi, tarsi, and first joint of antennæ ferruginous red; prothorax truncate at the apex, with the anterior angles hardly projecting, hardly amplified in the middle, gradually attenuated from there to the base, which is less than half as broad as the anterior part, closely punctured with the usual median longitudinal depression; elytra amplified in the middle, with the outer sides from there nearly straight, notched at the apex of the suture, plane, but less so in the anterior than in the posterior part, each one with seven sharp equal costæ from base to apex, and having a distinct series of small punctures on each side, intervals with a series of narrow, moderately deep punctures. Length 16 mm.; width 6 mm.

The elytra are more narrowed in front than in any of the other species, the prothorax is also more slender.

*Hab.* Damaraland (Walfish Bay, Svakop River).

GEN. CYCLOLOBA, Chaud.,

Bull. Mosc., 1856, i., p. 43.

Mentum with the lobes broad, much rounded at the upper part, the inner edge carinated, nearly straight for two-thirds of the length, slightly sinuate at the tip, which ends in a short, sharp tooth; ligula spatuliform and convex for half the length, the other half very narrowed and fused with a moderately broad paraglossa on each side, diagonally truncate at the tip, with the outer angle acute and projecting a little; maxillary and labial palpi of *Anthia*; labrum short, subtruncate at the apex without any incision; head broad, hardly narrowed behind; prothorax plane, gradually decreasing from the anterior part towards the base, which is truncate and about half the width of the apex; elytra elongate, almost subparallel, moderately plane, the posterior outer margin truncate, nearly straight; male with the three basal joints of the anterior tarsi dilated inwardly.

## Synopsis of Species.

Elytra with six equal costæ on each side . . . . .	<i>septemguttata</i> .
Elytra with the sixth costa on each side more raised than the others . . . . .	<i>truncatipennis</i> .

## CYCLOLOBA SEPTEMGUTTATA, Fabric.,

Syst. Eleuth., i., p. 222.

*C. sexnotata*, Thunb., Sch. Syn. Insect., i., p. 233.*C. pilosa*, Bohem., Insect. Caffr., i., p. 105.

Head broad, very rugose, with some scattered black rigid hairs and a golden yellow short pubescence, leaving the median part denuded; prothorax closely punctured, with a transverse arcuated impression in the anterior part and a narrow median one, the edge of the lateral margin slightly recurved, pilose, with a short black tomentum in well-preserved examples, a median flavescent band in the longitudinal depression and a broader one on each side of the lateral margins; scutellary region with an ovate yellow patch; elytra with the base straight, the outer sides very slightly amplified at about the middle and with the posterior part truncated at an acute angle, slightly convex, each elytron with eight moderately raised costæ, with the intervals filled with short yellow hairs, and having behind a few long rigid black bristles, a humeral round spot, a median one on the third interval, and an apical one at the end of the fifth and sixth costæ, and a short subdiagonal basal band of the same colour near the scutellum. Length 23–25 mm.; width 8–9 mm.

*Hab.* Cape Colony (Port Elizabeth, Grahamstown, Seymour), Natal (Maritzburg, Eshowe, Escourt), Transvaal (Leydenburg, Maghaliesberg).

## CYCLOLOBA TRUNCATIPENNIS, Bohem.,

Insect. Caffr., i., p. 104.

Shape, size, and colouring of *C. septemguttata*; elytra also with eight costæ on each side, but the sixth one is more raised than the others, and this gives it a more parallel look; the yellow markings and the pubescence are alike, but the median dot on the third costa is wanting. Length 25 mm.; width 9 mm.

Boheman's type is the only example I have seen; the abrupt truncature of the elytra mentioned by this author is not much more pronounced than in some examples of *septemguttata*, and I should not be surprised if the sixth costa, being more raised than the others, was merely accidental, in which case this species will prove to be identical with *septemguttata*.

*Hab.* Interior of Caffraria.

## GEN. BÆOGLOSSA, Chaud.,

Bull. Mosc., 1850, i., p. 43.

Base of mentum very narrow, slightly notched in the centre, lateral lobes very diverging from the base on the inner side, convex, and very rounded outwardly, and ending in a very sharp conical point; ligula short, spear-shaped, with another equally sharp projection, one on each side at a broad angle with the median one, and having thus the shape of a trident; paraglossæ entirely wanting; second joint of labial palpi very thick from base to apex, four times as long as the apical one and more than twice as thick; maxillary palpi of *Anthia*, but the ultimate one more securiform; labrum twice as broad as long, with the apical part semicircular; mandibles with two sharp inner teeth on the left one, a bifid median and a short basal one on the right; prothorax with the anterior part broad and aculeate laterally, and gradually narrowed from there to the base; elytra depressed, elongato-ovato or broadly oblong, with the posterior margin subtruncate; the joints of the anterior tarsi of the male not dilated inwardly, nor lamellated underneath, but the inner half more bristly than the outer; apical part of the intermediate tibiæ very slightly dilated.

*Synopsis of Species.*

- Elytra with four acute costæ, intervals broad, pubescent .. .. *villosa*.  
 Elytra with eight moderately raised costæ, intervals narrow,  
 striate .. .. .. .. .. *melanaria*.

## BÆOGLOSSA VILLOSA, Schönh.,

Syn. Ins., i., p. 233, not. i.

*B. decemsulcata*, Bon. Mem. Ac. Tur., 1813, p. 452.

Labrum short, semicircular in front, bi-impressed at the base; head black, broad, with a very deep impression on each side between the eyes, roughly and closely punctured; prothorax dark ferruginous, or black, very rugose, truncate at the base, broadest in the anterior part, which is bluntly aculeate and gradually narrowed behind, upper part with a transverse groove in the anterior part and a narrower one at the base, and in the centre a broad median depression with each side of the disk slightly raised, and with a round depression in the lateral part; elytra plane, elongato-ovate, amplified from below the base, one-third broader behind than in front, each one with four distinct acute costæ, with the intervals very broad and filled with a dense fulvous or sometimes greyish pubescence. Length 28–31 mm.; width 9–12 mm.

*Hab.* Cape Colony (Malmesbury, Worcester, Carnarvon, Burghersdorp).

## BÆOGLOSSA MELANARIA, Bohem.,

Plate IV., fig. 8.

Insect. Caffr., i., p. 101.

Head black, very rugose, with two long deep impressions between the eyes; prothorax of the same shape as in *B. villosa*, but a little more gradually cordiform, disk alike, black, with a few rough punctures; elytra nearly oblong in the male, gradually amplified from below the humeral part in the female, plane or little convex, hairless, black, moderately shining, punctato-striate, with eight convex intervals on each side. Length 26–30 mm.; width 10–12 mm.

*Hab.* Cape Colony (Griqualand West).

GEN. ANTHIA, Weber,

Obs. Entom., 1801, p. 17.

Base of mentum straight, lobes rounded outwardly, nearly straight, although slightly sinuated inwardly, broadly incised in the upper edge, which leaves thus the two angles very acute; ligula spatuliform, very convex, of nearly equal width for two-thirds of the length and suddenly narrowed at the base, with the paraglossæ very short, fused with the ligula at the narrowed part, slightly diagonal at the tip, with the outer angle projecting; second labial palpi slightly curving inwards, twice as long and nearly twice as thick as the ultimate one, which is rounded at the tip; maxillary palpi subclavate, the last one truncate at the tip; labrum long, subtruncate, or slightly projecting in the middle at the apex, the outer angle separated from the apical part by a slit on each side; prothorax cordiform or subhexagonal; elytra nearly parallel (*biguttata*) or elongato-ovate (*decemguttata*), nearly plane or convex, and gradually narrowed behind; legs long, strong, the three basal joints of the anterior tarsi of the male dilated inwardly, and with a series of lamellæ under each dilatation; the apical part of the intermediate tibiæ is also broadly dilated inwardly in that sex.

*Hab.* The genus is represented in Africa (Northern Africa, Egypt, Senegal, Kordofan, Nubia, Abyssinia, and East and West Coasts), Arabia, and India.

This genus may be divided in three sections:—

- Section 1. Prothorax cordiform in both sexes; elytra parallel, almost plane.  
 „ 2. Prothorax subhexagonal in both sexes; elytra elongato-ovate, convex.  
 „ 3. Prothorax produced behind in two long lobes in the male, arcuated in front in the female.

## Synopsis of Species.

## I.

Prothorax cordiform, with the broadest part gradually rounded, a deep transverse impression in the anterior part; elytra plane, parallel.

TYPE *A. biguttata*.

Elytra with four much-raised costæ, intervals subcostate, filled with a fulvous pubescence, with an elongated subhumeral white patch on each side, divided by the fourth costa, an elongated band at the apex of the fourth interval, a narrower marginal one, and an apical, juxta-sutural round spot of the same colour .. *biguttata*.

Elytra with one elongated spot on the third interval; postical band and spot very narrow and small .. .. . *sexcostata*.

The three alternate costæ very raised, no alternate ones visible, an ovate patch on the third interval; posterior band and spot well defined .. .. . *namaqua*.

The alternate costæ very slightly higher than the intervening ones, markings of *biguttata*, but intervals hairless .. .. . *costata*.

All the costæ of the same height, no pubescence, a white ovate patch on the sixth and seventh costæ on each side; posterior band and spot well defined .. .. . *propinqua*.

All the costæ of the same height, two short white bands on the fifth and sixth intervals, a posterior supra-marginal one reaching from the apex to one-fourth of the length, no apical spot .. .. . *nima*.

Elytra more or less deeply striate and having on each side a supra-marginal white band, reaching from below the shoulder to the apex, and a sub-basal short band on each of the two intervals adjoining the supra-marginal band .. .. . *limbata*.

Elytra more or less deeply striate, having on each side a supra-marginal white band and a sub-basal ovate pale fulvous patch on the fifth and sixth intervals, but extending sometimes from the third to the seventh .. .. . *cephalotes*.

Elytra costate, supra-marginal band narrow, a small white dot on the sixth interval .. .. . *ovampo*.

Elytra very parallel, costate, having on each side a narrow supra-marginal white band, and a round patch on the fifth and sixth intervals, the spot much nearer the median part of the disk than in the other species .. .. . *æquilatera*.

Elytra costate, convex, with only a supra-marginal white band .. .. . *torva*.

Elytra with only a supra-marginal white band reaching from the apex to one-third of the length .. .. . *desertorum*.

## II.

Prothorax with the anterior part arcuated, the posterior angle very acute, posterior part diagonally narrowed, posterior angles subobtuse, a white spot on each side of the anterior part; elytra elongato-ovate, strongly costate.

TYPE *A. decemguttata*.

Elytra with four acute costæ on each side, intervals hardly pubescent, five white elongated patches on each elytron .. .. *decemguttata*.

- Elytra with the intervals covered with a short fulvous pubescence, the five spots on each side small .. .. . *Knysna*.
- Intervals of the elytra covered with a dense greyish pubescence, two white patches only on each side, one at the shoulder, one at the apex .. .. . *quadriguttata*.
- Intervals of elytra covered with a thick fulvous pubescence, five large round white spots on each side .. .. . *villosa*.
- Elytra without any pubescence, five large round white spots on each side .. .. . *guttata*.
- Intervals of elytra non-pubescent, each elytron with three large white spots.. .. . *alboguttata*.
- Intervals of elytra very pubescent, three white round spots, the median one very small .. .. . *stolida*.
- Intervals of elytra densely pubescent, one round humeral spot only .. .. . *vorax*.

Prothorax more regularly cordiform, but with the median outer part slightly angular; elytra elongato-ovate, convex.

TYPE A. *omoplata*.

- Elytra oblong, punctato-striate, with the intervals very convex, on each side a broad subhumeral ovate white patch, consisting of three elongated white bands on the fourth, fifth, sixth, and seventh intervals, and a supra-marginal white pubescent band beginning above the median part and reaching the apex .. .. . *omoplata*.
- Intervals of elytra hardly convex, subhumeral patch reduced to a mere dot on the third stria .. .. . *heres*.
- Elytra faintly punctato-striate with the intervals plane, subhumeral patch small .. .. . *intempestiva*.
- Elytra faintly punctato-striate, with the intervals plane, no subhumeral white patch .. .. . *vagans*.
- Elytra faintly punctato-striate, with the intervals plane, the subhumeral patch small and coalescing with the supra-marginal band .. .. . *cupiens*.
- Elytra more amplified behind in the female, punctato-striate with the intervals convex from the base to two-thirds of the length, subhumeral patch broad, ovate .. .. . *algoensis*.
- Elytra hardly punctato-striate, intervals quite plane, subhumeral patch very broad .. .. . *Mellyi*.
- Elytra hardly punctato-striate, intervals quite plane, subhumeral patch very broad, no supra-marginal white band.. .. . *incolata*.
- Prothorax regularly cordiform.

TYPE A. *Massilicata*.

- Elytra costate, with the intervals deeply punctato-striate, and on each side a pubescent marginal white band, beginning near the shoulder and ending at the apex .. .. . *Massilicata*.
- Elytra as in *Massilicata*, but without the marginal pubescent white band .. .. . *unicolor*.
- Elytra costate, with the intervals punctato-striate, and covered as well as the outer margin with short yellow hairs; sides of prothorax with a broad, tomentose fulvous pubescence .. .. . *Burchelli*.
- Elytra as in *Burchelli*, but prothorax without any fulvous pubescence .. .. . *Anderssoni*.

## III.

Prothorax straight at the apex, with the anterior angles acute and projecting, the disk produced in two lobes broadly notched behind; mandibles very long and falciform in the male, the left one overlapping the right, which is grooved for two-thirds of the length and has besides two basal teeth, while the left one has one only; prothorax of the female with very short lobes hardly projecting behind the base; mandibles short; elytra ovate or amplified in the middle.

TYPE A. *Maxillosa*.

Elytra smooth, without any marginal pubescent white band	<i>maxillosa</i> .
Elytra faintly striated, with the intervals a little convex ..	<i>alga</i> .
Elytra convex, much rounded at the humeral angles and with a marginal white band .. .. .	<i>cinctipennis</i> .
Elytra subquadrate at the base, nearly smooth, and with a marginal white band .. .. .	<i>pachyoma</i> .
Prothorax of the male with a lateral band of white hairs; elytra subquadrate at the base, striated, with the intervals slightly convex, a marginal white band .. .. .	<i>circumscripta</i> .
Elytra entirely smooth, a marginal white band .. .. .	<i>limbipennis</i> .
Prothorax with the lateral parts much dilated and covered with a dense fulvous pubescence; elytra faintly striated, and with a marginal white band .. .. .	<i>thoracica</i> .

## ANTHIA BIGUTTATA, Bonelli,

Mem. Ac. Tur., 1813, p. 452.

Head much depressed on either side and with an acute ridge reaching from the labrum to the median part, closely punctured and covered with fulvous decumbent hairs; prothorax cordiform, as broad as long and a little wider than the head, the external anterior part sloping with the discoidal part on each side raised, a broad median depression reaching from base to apex, with a narrow groove in the centre, and a round depression on each side in the anterior part, discoidal part smooth, with the apical part with broad punctures, the longitudinal depression with fulvous or greyish hairs; elytra with the anterior angles moderately rounded, the outer sides parallel, plane, each one with three much-raised convex costæ carinated at the tip, the intervals also with a costa much less raised than any of the three and hidden by dense fulvous hairs, below the shoulder an elongated bifid white patch, the first part of which is situated in the interval between the second and third costæ, and the second a narrower but equally long one on the outer side of the third costa, at the rounding of the posterior part of the elytra a narrow marginal and a shorter but broader one in the outer interval and a small round apical dot at the junction of the suture; under side and legs black, rugose. Length 27–28 mm.; width 8–10 mm.

*Hab.* Cape Colony (Worcester, Beaufort West, Willowmore Humansdorp).

Var. *sex-costata*, Chaud., Bull. Mosc., 1848, i., p. 131.

Shape, size, and sculpture of *A. binotata*; the hairs on the head, prothorax, and elytra are not so dense, and the intervals are thus exposed to view; instead of a bifid subhumeral white patch, there is an elongated narrow spot on the third interval; there is only a marginal very narrow white band at the rounding of the posterior part, and the apical spot near the suture is hardly distinct. Length 27–28 mm.; width 8–9 mm.

*Hab.* Cape Colony (Stellenbosch).

Var. *Namaqua*.

Shape, size, and sculpture of *A. binotata*; head with a median reddish patch; prothorax red, hairless; elytra more diagonal behind, and also more elongate, with three raised costæ on each side; intervals hairless, with a very faint raised line, an ovate white patch in the third interval; posterior lateral band and apical spot well defined. Length 30–31 mm.; width 10 mm.

*Hab.* Small Namaqualand (O'okiep).

Var. *costata*, Gory, Mag. Zool., 1839, t. 15; Ann. Soc. Ent. France, 1836, p. 219, pl. 5a, fig. 1.

Shape, size, and sculpture of *A. binotata*, but elytra more elongated, each one with eight costæ, slightly hairy on each side, four of which are a little more raised than the others; two subhumeral small white patches, the first a round one between the sixth and seventh costæ, the other a narrow elongated one on the eighth costæ; a posterior small elongated patch at the apex of the eighth interval parallel to a short marginal one, also a round apical dot on each side of the suture. Length 30 mm.; width 10 mm.

*Hab.* Cape Colony (Worcester, Beaufort West).

Var. *propinqua*.

Shape, size, and sculpture of *A. costata*; prothorax reddish black, hairless; elytra with eight costæ of equal height; on each side a small subhumeral ovate white patch; posterior markings as in *costata*. Length 28–33 mm.; width 9–9½ mm.

*Hab.* Small Namaqualand (O'okiep, Springbokfontein).

#### ANTHIA MIMA.

Shape, size, and sculpture of *A. propinqua*; head more hairy; prothorax with a broad median pubescent yellowish white band; elytra with eight costæ of equal height, with the intervals punctured, the punctures with distant decumbent fulvous hairs, on each side an elongated white patch on the fifth, sixth, and seventh intervals, divided, however, in three by the sixth and seventh costæ, also a posterior marginal band beginning at about three-fourths of the

length and reaching the apex. Length 25–32 mm.; width 8–9½ mm.

*Hab.* Cape Colony (Carnarvon, Fraserburg).

This species, equally distinct from *A. biguttata* and *A. limbata* and their varieties, is, however, a link between the two.

ANTHIA LIMBATA, Dej.,

Spec. Col., v., 1831, p. 466.

Head and prothorax as in *A. biguttata*; head very pubescent, also the median part of the prothorax and the outer margins; elytra elongated, with the anterior angles sloping and the outer sides parallel, plane, with the intervals slightly convex and with a series of setigerous punctures on each side; the hairs sparse, short, decumbent, on the sixth and seventh intervals, a small diagonal juxtasutural band on each side and an elongated white patch coalescing with a supra-marginal band reaching from below the shoulder to the suture. Length 28–29 mm.; width 9–10 mm.

*Hab.* Orange Free State (Cronstad), Transvaal (Potchefstroom Ovampoland).

ANTHIA CEPHALOTES, Guér.,

Plate IV., fig. 10.

Rev. Zool., 1845, p. 285.

*A. binotata*, Perr., Ann. Soc. Lyon, 1846, p. 30.

*A. bimaculata*, Perr., *loc. cit.*, p. 30.

Head and prothorax as in *A. limbata*, but the hairs instead of being white are fulvous; elytra punctato-striate, with the intervals slightly raised in the anterior part, but hardly convex from the median part to the apex; dull black, with a subhumeral elongated narrow yellow patch, either perpendicular and then extending on the fifth, sixth, and seventh intervals (*binotata*)—these three intervals show a sinuation for the reception of the patch—or broadly ovate or diagonal when it extends from the third to the seventh (*bimaculata*), outer margin with a moderately broad white band reaching from the median part of the subhumeral patch to the suture; there is also a short diagonal basal tomentose line on each side below the scutellum.

More robust than *A. limbata*, with the prothorax wider and more convex; the difference in the size of the subhumeral patch is considerable, but it is a curious fact that the intervals form a sinuation according to the size of the tomentose patch, that is to say if the patch reaches from the fifth to the seventh intervals, all three will be sinuated so as to enclose it, if from the fourth to the eighth, the four are sinuated; in spite of that the tomentum invades sometimes further than the sinuation. Length 26–35 mm.; width 9–11 mm.

*Hab.* Natal (D'Urban), Transvaal (Rustenburg, Upper Limpopo), Zambezia (Buluwayo).

Var. *Ovampo*a.

Head and prothorax of *A. cephalotes*, tomentum white instead of fulvous; elytra more parallel, costate, intervals with a series of punctures on the sixth interval, a very small faint white pubescent subhumeral dot, and a supra-marginal outer band reaching from about the median part to the suture; also a short juxta-scutellary diagonal band on each side.

This variety is a transitory form between *A. limbata* and *A. cephalotes*. I have seen many well-preserved examples from the same locality; in all of them the smallness of the subhumeral patch was constant, the costæ of the elytra were more raised than in *limbata* and slightly more than in *cephalotes*, but more shining than in the last-named species; the elytra are also more parallel than in *cephalotes*, that is to say the anterior angle is less sloping. Length 25–28 mm.; width 8–8½ mm.

*Hab.* Ovampoland.

Var. *æquilatera*, Klug, Peters' Reise, n. Mosamb., 1862, p. 152, pl. 8, fig. 6.

Head and prothorax of *A. cephalotes*; elytra still more parallel than in *ovampo*a owing to the anterior angles being hardly rounded, very plane, costate, with the costæ moderately sharp, intervals punctured, the punctures slightly setigerous, on each side a small elongato-quadrangle white pubescent patch situated a little above the median part, and a narrow marginal white band reaching from below the shoulder to the apex; also a short basal juxta-scutellary diagonal band on each side. Length 28–33 mm.; width 8–9 mm.

Although more closely allied to *A. ovampo*a than to *limbata* and *cephalotes*, *A. æquilatera* is easily distinguished by the position of the dorsal white patch, which is about twice further from the base; the elytra are also more parallel.

In one of my female examples from Mozambique, the punctures of the intervals are much deeper, and the costæ more raised than in another from Mashunaland.

*Hab.* Zambezia, Mozambique.

Var. *torva*.

Head of *A. cephalotes*, &c., but with the two transverse ridges much more developed; prothorax less narrowed behind, massive, hardly depressed in the centre, but with a longitudinal narrow median groove, seemingly hairless; elytra parallel, with the shoulders sloping, convex, punctato-striate, with the intervals broad, convex; the striæ with setigerous punctures; the hairs very short; no dorsal markings except the short juxta-scutellary diagonal pubescent band, and also a narrow marginal white band reaching from below the humeral part to the apex. Length 36 mm.; width 10½–11 mm.

Easily distinguished from the above-described varieties by the more massive facies, the broader and thicker prothorax, the more convex elytra, and the absence of dorsal white patch.

*Hab.* Transvaal (Middelburg), Middle Limpopo, Mozambique (Lebombo).

Var. *desertorum*, Thoms., Arc. Natur., 1859, p. 116.

Head, prothorax, and elytra as in *A. cephalotes*; prothorax (judging from the examples I have seen) without any lateral pubescent bands; the sculpture of the elytra is the same, but they have no dorsal white patch or vestige of it whatever, and the marginal white band instead of beginning below the shoulder starts from the third part of the length. Length 28–29 mm.; width 8–8½ mm.

*Hab.* Ovampoland.

ANTHIA DECEMGUTTATA, Linn.,

Syst. Nat. i., p. 669; Oliv., Entom., iii., 35, p. 23, pl. 9, fig. 15c;

Guér., Icon. Insect., pl. 4, fig. 1.

Head very rugose, with a median much-raised costa and an equally high lateral one reaching from about the point of insertion of the antennæ to the median part of the orbital ridge, median part of the neck not punctured; prothorax not longer than the head, the anterior part semicircular from the outer angle to a little short of the middle aculeate, narrowed from there to the base, the outer margins sharp and slightly recurved, convex on the disk, which is divided in two by a deep narrow median longitudinal groove reaching from the base to near the apex and merging there in a transverse depression, sparsely but deeply punctured, hairless and with a white more or less rounded pubescent patch in the anterior angle; elytra with the humeral angles very sloping, gradually amplified from the base to four-fifths of the length, and but slightly attenuated from there towards the apex, the posterior part slightly oblique, and incised at the suture, moderately convex, each elytron with four much-raised acute costæ reaching from base to apex, the intervals very broad with two series of deep punctures, nearly hairless, with five elongated white patches arranged as follows: a humeral one on the fourth interval; a smaller one slightly above the middle in the second interval; one, the longer of the two, in the third, and parallel with a smaller one in the first interval; and an apical, more or less ovate one in the second; legs and under side black, rugose. Length 30–35 mm.; width 11–12½ mm.

This species seems to have a very limited area of distribution, being restricted to a radius of less than forty miles from Cape Town.

*Hab.* Cape Colony (Cape, Stellenbosch, Paarl).

Var. *Knysna*.

Shape and sculpture of the type form, but smaller, with the elytra more parallel; the head and prothorax are more densely punctured; the median part of the intervals on the elytra has a narrow fulvous pubescent band, the five patches on each side are disposed in the same manner, also elongated, but smaller, and fulvous instead of white. Length 27 mm.; width  $8\frac{1}{2}$ –9 mm.

*Hab.* Cape Colony (Knysna).

Var. *quadriguttata*, Fabr., Syst. Eleuth., i., p. 223.

*elongata*, Oliv., Entom., iii., 35, p. 24, pl. 9, fig. 107.

Shape, size, and sculpture of *A. decemguttata*; prothorax red, or ferruginous red; elytra with the intervals covered with a thick greyish or yellowish grey tomentum, two elongated white patches on each side, one at the shoulder, the other one, smaller and more ovate, at the apex of the third costa. Length 31–33 mm.; width 10–12 mm.

This variety seems to be restricted to a narrow belt along the western shore of the Cape Colony, from the neighbourhood of Cape Town to Port Nolloth.

*Hab.* Cape Colony (Koeberg, Paternoster, Port Nolloth).

The disappearance of the post-median patch on the third interval is not always constant; this patch is, however, almost obliterated, and I have seen it only in some examples captured in the close proximity of Cape Town. In the examples from Port Nolloth the pubescence in the intervals of the elytra is denser and more yellow.

Var. *villosa*, Lequien, Monogr., No. 13.

Shape, size, and sculpture of *A. decemguttata*; prothorax dark ferruginous red; elytra with the intervals covered with a thick fulvous tomentum, and having on each side five white spots arranged in the same manner as in *decemguttata*, but round instead of elongate. Length 29–34 mm.; width 10–13 mm.

*Hab.* Cape Colony (Fraserburg, Uniondale, Somerset East).

Var. *levicollis*, Schönh.

According to Lequien (Monogr. d. gen. Anthia) this variety differs from the preceding in the prothorax being quite red and almost smooth.

In my example of what I consider to be the above-named variety, the femora are as red as the prothorax, the intervals are not thickly pubescent, and the pubescence is golden yellow, but I am of opinion that this example is merely a newly matured specimen. Length 29 mm.; width 10 mm.

*Hab.* Cape Colony (Somerset East).

Var. *guttata*, Lequien, Mag. Zool., Cl. ix., p. 13.

Shape, size, and sculpture of *A. decemguttata*, but the intervals on the elytra are quite hairless, and the five white spots on the elytra larger and rounder, but the median one on the second interval is very small. Length 33–40 mm. ; width 12–14 mm.

*Hab.* Cape Colony (Worcester, Namaqualand, Bushmanland).

Var. *alboguttata*, Degeer, Ins., vii., p. 624, pl. 46, figs. 15, 16.

Differs from the preceding variety merely in having three white spots on each elytron ; the median one on the second interval and the post-median one on the first interval are wanting, although the median one is sometimes discernible ; intervals hairless. Length 27–40 mm. ; width 10–15 mm.

*Hab.* Cape Colony (Worcester, Tulbagh, Robertson).

Var. *stolida*.

Shape, size, and colouring of *alboguttata*, but the intervals of the elytra are hidden under a thick yellowish grey pubescence, each elytron has three white round or ovate spots, but the humeral and apical ones are much larger than the post-median one on the third interval, which is reduced to a mere dot. Length 38–39 mm. ; width 10–14 mm.

*Hab.* Cape Colony (Knysna?, Oudtshoorn).

Var. *vorax*.

Shape, size, and colouring of *stolida* ; intervals of elytra equally covered with a greyish brown pubescence, the post-median white dot has disappeared entirely, and the apical one is almost obliterated. Length 33–38 mm. ; width 11–14 mm.

*Hab.* Cape Colony (Ladismith).

ANTHIA OMOPLATA, Lequien,  
Mag. Zool., 1832, Cl. ix., pl. 39.

Head punctulated, impressed on each side with a median elevation, no pubescence ; prothorax hairless, smooth, with a few fine scattered punctures, a fine median longitudinal groove and a slightly arcuate transverse impression in the anterior part ; elytra oblong, but more attenuated in the anterior than in the posterior part, convex, narrowly punctato-striate, with the intervals convex from base to apex, but less so behind than near the anterior part, and having on each side a subhumeral broad ovate pubescent yellowish white patch, consisting of three short elongated bands, the outer and inner shorter and narrower than the median one, which covers the fifth and sixth intervals, while the others cover the fourth and seventh respectively, and also a supra-marginal broad yellowish white

pubescent band, reaching from a little below the subhumeral patch to the apex. Length 38–43 mm.; width 13–15 mm.

*Hab.* Cape Colony (Carnarvon, Beaufort West, Kimberley, Ovampoland).

In the examples from Ovampoland the intervals of the striæ are a little less convex than in those from the Cape Colony, and the size is also smaller.

Var. *heres*, Pér., Trans. S. Afric. Phil. Soc., 1892, p. 15.

Shape and size of *omoplata*, but a little narrower; sculpture of head and prothorax identical; elytra faintly punctato-striate, with the intervals somewhat convex from the base to about the median part, and with very faint punctures, supra-marginal patch as in *omoplata*, but the subhumeral ovate patch reduced to a mere dot, sometimes divided in two at the base of the sixth interval. Length 31–36 mm.; width 10–14 mm.

*Hab.* Northern Ovampoland, Bechuanaland (Ramoutsa).

Var. *intempestiva*, Pér., *loc. cit.*, p. 15.

Shape and size of *heres*; sculpture of head and prothorax identical; elytra very faintly punctato-striate, with the intervals quite plane except at the very base, where they are somewhat convex, the supra-marginal pubescent band is alike, but yellowish white instead of white, and the subhumeral patch consists of two small patches on the sixth and seventh intervals, the outer one of which is often reduced to a rudiment.

Although very closely allied to the preceding variety, *intempestiva* is differentiated by the intervals of the elytra being hardly defined, and also by the shape of the elongated patch on the sixth interval, which is longer and broader. Length 37–41 mm.; width 13–15 mm.

*Hab.* Ovampo, Damara, and Bechuana lands.

Var. *vagans*, Pér., *loc. cit.*, p. 16.

Shape and size of the two preceding varieties; elytra smooth, with a trace of convex intervals near the base, supra-marginal white band as in *heres*, but no subhumeral white spot or patch, or any trace of it. Length 39–42 mm.; width 14–16 mm.

*Hab.* Ovampoland (Omrramba).

Var. *cupiens*, Pér., *loc. cit.*, p. 16.

Shape and size of *heres*; head and prothorax sculptured alike; elytra smooth, with a trace of convex intervals at the base only; the subhumeral patch consist of two elongated bands, the lower one of which has coalesced with the supra-marginal one, which runs

thus from the shoulder to the apex. Length 31–36 mm.; width 10–14 mm.

*Hab.* Ovampoland.

Var. *Algoensis*, Pér., *loc. cit.*, p. 15.

Head and prothorax as in *A. omoplata*; elytra much more amplified behind from behind the subhumeral patch in the female, and not quite so much convex in both sexes; intervals vaguely punctato-striate, and moderately convex from the base to two-thirds of the length, the subhumeral patch broad, ovate, reaching from the third to the seventh interval; supra-marginal white band beginning only at about the median part of the outer sides and reaching the apex.

This variety is a good form of transition between *omoplata* and the following *Mellyi*; the intervals are less convex than in the first species, and more so than in the second, the supra-marginal white band is also shorter than in both, but in a female example from the Middle Limpopo this band is as long as in *Mellyi*. Length 40–42 mm.; width 13–15½ mm.

*Hab.* Zambezia (Middle Limpopo), Mozambique (Lourenço-Marquez).

Var. *Mellyi*, Brême, Ann. Franc., 1844, p. 292, pl. 7, fig. 4.

Head and prothorax of *omoplata*; both sculptured alike; elytra of the same shape, but a little broader at the base and not so much convex; smooth, with hardly any striation; on each side a broad obovate subhumeral pale yellow patch consisting of three coalescing elongated ones; the supra-marginal band yellowish white, reaching from the first third of the length to the apex. Length 31–41 mm.; width 10–15 mm.

*Hab.* Cape Colony (Kimberley), Natal (Frere, D'Urban, Malvern, Maritzburg, Newcastle), Transvaal (Rustenburg).

Var. *incolata*, Pér., *loc. cit.*, p. 16.

Shape of head, prothorax, and elytra as in *Mellyi*, but the elytra are distinctly and regularly striato-punctate; the punctures are shallow and the intervals quite plane and with a double series of shallow punctures; the supra-humeral patch is as broad as in *Mellyi*, and of the same colour, but there is no supra-marginal posterior pubescent band.

I have seen one example only of this variety, a female, but I do not think that the absence of the supra-marginal band is due to an accident, because there is no trace on the eighth interval of the depression and slight roughness that underlies the pubescent patches or bands in the other varieties. Length 38 mm.; width 14 mm.

*Hab.* Mozambique (Lourenço-Marquez).

## ANTHIA ÆMILIANA, Dohrn,

Plate VIII., fig. 10.

Stett. Ent. Zeit., 1881, p. 322 ; 1883, p. 358.

Head hairless, roughly punctured ; prothorax smooth, with hardly any punctures in front or laterally, subhexagonal, owing to the median part of the outer sides being very angular ; the elytra are very convex, elongato-ovate, slightly punctato-striate with the intervals smooth, or very slightly convex, except near the base, and have on each side a basal, comma-shaped white patch, one band twice as long but equally narrow in the following interval, and a marginal moderately broad white pubescent band beginning at a short distance from the shoulder, and at about the median part of the second subhumeral patch, but one interval below it, and reaching the apex. Length 36–37 mm. ; width 13–14 mm.

*Hab.* Cape Colony (Prieska), British Bechuana, Ovampoland, Zambezia, teste Dohrn.

## ANTHIA MASSILICATA, Guér.,

Rev. Zool., 1843, p. 285.

*A. Natalensis*, Perr., Ann. Soc. Linn. Lyon, 1846, p. 30.

*A. Fornasinii*, Bert., Nov. Comm. Ac. Bon., x., 1849, p. 385, pl. 8, fig. 1.

Head very rugose, deeply impressed on each side, with the impressions plicate, deeply punctured behind the eyes ; prothorax cordiform with the outer sides of the median part not angular, depressed longitudinally in the middle, with a very narrow groove in the depression, anterior arcuated transverse depression not deep or well defined, a few scattered deep punctures on the disk ; elytra elongato-ovate, with the shoulders much rounded, moderately convex, costate with the intervals deeply punctato-striate, and occasionally a few setiger punctures on the sides of the costæ, black, moderately shining with a marginal pubescent white band reaching from very nearly the rounding of the shoulder to the apex ; this marginal band invades sometimes the eighth costa on the anterior part.

Chaudoir has persisted in considering *A. Fornasinii*, as distinct from *Massilicata*, but the different specific characters which he adduces to prove the difference between the two are also found in *Massilicata*. Length 40–45 mm. ; width 15–17 mm.

*Hab.* Zambezia (Salisbury, Victoria Falls).

## ANTHIA UNICOLOR, Chaud.,

Bull. Mosc., 1861, ii., p. 565.

Shape of the head and prothorax as in *Massilicata*, the latter part deeply and more closely punctured ; elytra with the humeral angles

more sloping, giving thus the appearance of their being more amplified past the middle, costate, the costæ highly carinate, the intervals deeply punctato-striate, moderately convex, entirely black, shining, without any trace of the white pubescent marginal band as in *A. Massilicata*.

In six examples, both sexes, the punctures on the prothorax and those on the sides of the costæ bear a moderately long black bristle, and the under side is also pilose; this peculiarity does not occur in the other examples from the same locality. Length 40–43 mm.; width 8–10 mm.

The habitat of this species seems to be restricted to the neighbourhood of Lourenço-Marquez and Rikatla, Mozambique.

ANTHIA BURCHELLI, Hope,

Anim. Kingd., xiv., p. 270, pl. 13, fig. 1.

*A. Petersi*, Klug, Peters' Reise n. Mossamb., p. 151, pl. 8, fig. 4.

Head very deeply impressed on each side between the eyes, with the median part broadly raised and two transverse blunt ridges behind, the posterior part of the head deeply and closely punctured, neck smooth; prothorax cordiform with the outer sides well rounded in the broadest part, longitudinally impressed in the centre with a narrow median groove, the anterior semicircular impression hardly defined, median part of the prothorax denuded, very deeply and closely punctured, the punctures setigerous, the outer sides with a broad flavescent pubescent band; elytra much elongated, with no humeral angles, and gradually amplified to past the middle where they are nearly twice as broad as at the base, very convex, highly costate, with the intervals and also the outer margin covered with a short very dense yellow pubescence, sides of intervals with a series of punctures, bearing each a long, black seta. Length 42–50 mm.; width 14–17 mm.

*Hab.* Transvaal (Rustenburg), Mozambique (Rikatla), Zambezia (Salisbury).

ANTHIA ANDERSSONI, Chaud.,

Bull. Mosc., 1861, ii., p. 564.

*A. Westermanni*, Dohrn, Stett. Ent. Zeit., 1883, p. 359.

Head as in *A. Burchelli*, but not punctured behind; prothorax with the median part of the outer sides subaculeate, the median longitudinal groove and transverse subarcuated anterior depression are identical, but entirely smooth, save for three or four small punctures, it is piceous red and without yellow pubescent lateral patches; shape of elytra as in *Burchelli*, although a little more depressed in the

female, costæ alike, and the yellow hairs in the intervals and outer margin, also the setigerous punctures on the sides of the costæ, identical. Length 50–57 mm.; width 16–19 mm.

*Hab.* Seems restricted to British Bechuanaland and N'Gami or Ovampoland (Okovango River).

ANTHIA MAXILLOSA, Fabr.,

Mant., i., p. 194; Oliv., Entom., iii., 35, p. 13, pl. 8, fig. 90,  
and pl. i., fig. 10.

*A. atra*, Chaud., Bull. Mosc., 1843, iv., p. 717.

? *A. Hottentota*, Oliff., Oate's Matabeleland. Entom., 1889, p. 368,  
pl. 8, fig. 3.

Head quadri-impressed between the eyes and with a very deep transverse impression on the vertex; labrum not incised laterally; prothorax of the male truncate at the apex, with the anterior angles projecting, the anterior outer sides depressed, and the median part of the disk produced into an excavated process overlapping the elytra, deeply notched in the centre, and each lobe arcuated at the apex; prothorax of the female like that of the male in the anterior part, but the median part of the disk is deeply excavated and raised on each side, and produced behind in two short truncated lobes divided by a small notch and hardly projecting beyond the base; elytra broad and very convex at the base in the male, narrower in the female and with the humeral angles less pronounced, gradually sloping behind, more broadly ovate in the female than in the male, very slightly punctato-striate, or smooth with the intervals hardly convex, black, subopaque, without any lateral white margin. Length 31–44 mm.; width 12–16 mm.

*Hab.* Cape Colony (Fraserburg, Namaqualand minor, Willowmore, Calvinia, Worcester, Carnarvon, De Aar, Orange River), Bechuanaland, Transvaal (? Leydenburg).

ANTHIA ALGOA.

Shape and colour of *A. maxillosa*; the head and prothorax of each sex are alike in both species, but the elytra are generally more elongated and more parallel, flatter, very distinctly striated, with the intervals moderately raised, and with a series of shallow setigerous punctures on each side.

I have not yet met with any form of transition between *maxillosa* and the present species, which, so far, seems to be restricted to Mozambique (Rikatla). Length 46–51 mm.; width 16–19 mm.

ANTHIA CINCTIPENNIS, Lequien,  
Rev. Zool., Cl. ix., pl. 38.

*A. marginipennis*, Cast., Etud. Entom, ii., Suppl., p. 149; Gory, Mag. Zool., 1839, pl. 14.

Head as in *A. maxillosa*, and with the same depressions between and behind the eyes; prothorax of the male with the posterior lobes generally shorter and in many cases hardly longer behind than in the female of *maxillosa*, that of the female not lobate behind, merely notched; elytra very convex in the anterior part, sloping gradually behind, ovate or a little amplified at the middle, with the humeral part much rounded, very faintly punctato-striate from the base to past the median part, with the intervals quite plane or very slightly convex, the outer margin with a white pubescent band reaching from the shoulder to the apex. Length 37–38 mm.; width  $7\frac{1}{2}$ –9 mm.

*Hab.* Elytra very smooth: Cape Colony (Fraserburg, Burghersdorp,)\* Orange State (Boshof), Transvaal (Potchefstroom, Pretoria). Elytra with the intervals very slightly convex: Ovampoland. Elytra punctato-striate from the base to past the middle, and with a pronounced convexity: Damaraland (Goagas, Omaruru).

ANTHIA PACHYOMA, Chaud.,  
Coleopt. Novitat., 1883, p. 26.

? *A. limbipennis*, Chaud., Bull. Mosc., 1861, ii., p. 561.

Head and mandibles of *A. maxillosa*, with the same impressions between the eyes and on the vertex; shape of the prothorax of both male and female identical with that of the above-named species; the lobes of the former long, reaching sometimes beyond the basal part of the elytra, which are nearly parallel, with the base broad, owing to the humeral angles not sloping, plane above, hardly punctato-striate, with the intervals quite plane, the outer margin with a white pubescent band reaching from near the humeral angle to the apex. Length 36–47 mm.; width 13–15 mm.

*Hab.* Elytra very smooth: Transvaal (Potchefstroom, Middelburg, Pretoria, Marico, Middle Limpopo), Bechuanaland (Ramoutsa), Zambezia (Salisbury), Cape (Calvinia). Elytra with the intervals slightly convex from base to median part: Cape Colony (Kenhardt), Damaraland.

The distinctive characters between *A. maxillosa* and *pachyoma* consist in the more quadrate shape of the base of the elytra, which imparts to the latter a more parallel look.

\* I have received from this locality a dwarfed male specimen 25 mm. long, with the posterior lobes of the prothorax of the same shape as the female.

I think that *A. limbipennis*, Chaud., the type of which I have seen, is identical with the present species.

ANTHIA CIRCUMSCRIPTA, Klug,

Monatsb. Berl. Ac., 1853, p. 245; Peters' Reise n. Mossamb., p. 151.

*A. limbipennis*, var. *Ovampoensis*, Pér., Trans. S. Afric. Phil. Soc., 1892, p. 15.

Head and mandibles as in *A. maxillosa* and *pachyoma*, with the same impressions between the eyes and on the vertex; prothorax of the same shape, but the lateral sides have a thin band of white decumbent hairs, very often rubbed off; the elytra have the same shape as those of *pachyoma*; they are striated, with the intervals a little convex from base to apex or less so, and then only from the base to past the middle; margin with a white pubescent band reaching from the shoulder to the apex. Length 36-46 mm.; width 13-18 mm.

The greater or lesser convexity of the intervals of the elytra seems to vary very much (although it is never much developed) in examples from the same locality. Thus, some examples from Ovampoland, and of the same sex, show a striation with more convex intervals reaching from base to apex, while in others it reaches only past the middle. It might be said, however, that in the male the striation and convexity of the intervals of the elytra are more defined. In a male example from Lake Nyassa the convexity of the intervals is much more pronounced than in the examples from South Africa.

*Hab.* Zambezia (Salisbury, Manica), Ovampoland.

ANTHIA THORACICA, Fabr.,

Mant., i., p. 195; Oliv., Entom., iii., 35, p. 14, pl. 10, fig. 5b.

*Carabus fimbriatus*, Thunb., Insect. Nov. Spec., 1784, figs. 82 & 83.

Head as in *A. maxillosa* and allies, with the same depressions between the eyes and on the vertex, and with some moderately close and deep punctures; prothorax with the outer anterior sides suborbicular, very broad, and clothed with a dense flavescent short pubescence in both sexes; posterior lobes of the male often very long and subarcuate behind, those of the female hardly projecting further than the basal part; elytra broad at the base like in *A. pachyoma*, more convex in the anterior than in the posterior part, outer sides subparallel, very faintly punctato-striate, with the intervals plane or hardly noticeable; outer margin with a pubescent white band reaching from base to apex. Length 33-48 mm.; width 12-17 mm.

This species has the widest range of any *Anthia* in South Africa. The elytra are nearly always smooth, with a very faint trace of convex intervals; yet this character is liable to variation, and I have seen a few examples from Manica (female) and from Ovampoland (male) where the intervals are subconvex and regularly striate. To this variety Chaudoir has given the collection name of *stigmodera*.

*Hab.* Cape Colony (Fraserburg, Prince Albert, Beaufort West, Willowmore, Humansdorp, Port Elizabeth, Grahamstown, Kimberley, De Aar, Calvinia), Orange Free State (Cronstad), Natal (Newcastle), Transvaal (Potchefstroom, Marico), Zambezia (Salisbury, Manica), Delagoa Bay (Lourenço-Marquez, Rikatla), Damaraland, Ovampoland.

ANTHIA IMMACULATA, Wallengr.,

Entom. Tidsk., ii., 1881, p. 13.

Oblong, subdepressed, black, moderately shining; head closely punctured, grooved in the centre in the anterior part, impressed lengthways on each side, and with a large and deep puncture between the antennæ; prothorax elongated, narrowed behind, closely punctured in the upper part, longitudinally grooved in the middle, and with a fovea on each side of the posterior part; elytra oblongo-ovate, truncated obliquely behind, closely punctured on the upper part, moderately punctato-striate, with the striæ uninterrupted and roughly punctured, with the intervals equally convex and very finely carinated; pectus with a white pubescence. Length 18 mm.

*Hab.* Transvaal (Waterberg).

This species, which I have not been able to identify, is probably allied to *A. limbata* or *A. cephalotes*.

## TRIBE MORIONIDES.

Mentum deeply emarginate, and with a median tooth; epilobes very concave; ligula broad, short, horny; paraglossæ slender, short, separated from the ligula; antennæ robust, compressed, intermediate joints more or less moniliform; eyes projecting, either with or without a projection behind, two supra-orbital setæ; prothorax with two setigerous punctures; mandibles strong; body depressed (*Morio*) or a little convex (*Stereostoma*); legs moderately long, anterior tibiæ dilated at the tip, tarsi of the male slightly ampliate, the basal ones sometimes pubescent underneath.

### *Synopsis of Genera.*

Body depressed; mandibles very long; labrum long, deeply incised; eyes edged behind by the cheek . . . . . *Morio*.

Body convex; mandibles short; labrum short, not incised; eyes not edged behind by the cheek . . . . . *Stereostoma*.

## GEN. MORIO, Latreille,

Régne Anim., 1st edit., iii., p. 189.

Mentum deeply emarginate, inner part of the lobes sloping, concave, median tooth short, distinctly bifid; ligula horny, broadening towards the apex in a triangle, acutely carinate longitudinally in the median part and bearing two setæ in the middle of the apical part; paraglossæ very slender, longer than the ligula and separated from it; maxillæ hooked; palpi thick, the last joint subcylindrical, attenuate at the tip; mandibles very long, the right one obtusely bidentate inwardly; labrum long, deeply incised, and with three deep setigerous punctures on each side; antennæ thick, the three basal joints and the greatest part of the fourth glabrous, the intermediate ones moniliform, compressed, pubescent, the last one subovate; head, prothorax, and elytra plane, the prothorax with a subapical lateral seta and one in the posterior angle; legs moderately long, the anterior tibiæ broadly dilated, the three basal joints of the anterior tarsi of the male slightly dilated, and the second and third with a double series of papillæ, the first one with the papillæ on the apical part only.

*Hab.* *Morio* occur in Asia Minor, Africa, Madagascar, Ceylon, the Malay Archipelago, Australia, New Guinea, and Northern and Southern America.

## MORIO GUINEENSIS, Imhof,

Verhandl. der Naturforsch. Gesselsch., Basel, 1842, v., p. 164;

Lacord., Genera Atlas, pl. 7, fig. 2.

*M. senegalensis*, Lafert., Rev. Zool., 1850, p. 390.*M. feronioides*, Thoms., Archiv. Entom., ii., p. 31.*M. acuticollis*, Putz., Ann. d. Mus., Civ. d. Genova, iv., p. 218.*M. anthracinus*, Bohem., Insect. Caffr., i., p. 122.

Intensely black, very shining; palpi, legs, and abdomen piceous; mandibles very long; labrum much incised and with three deep setigerous punctures on each side; epistoma narrowed in front and with four longitudinal impressions, the outer apical part apparently without any setigerous puncture; head smooth, with a long, deep, but narrow impression on each side; eyes with an acute supra-ocular carina, edged behind by the cheek; prothorax transverse, the anterior margin sinuate in the middle with the angles sharp, hardly ampliate laterally in the middle, but sinuate from the median part to the base with the posterior angle acute and projecting, plane, smooth, with a narrow deep line near the base on each side of the median longitudinal one; elytra parallel, with the base truncate, carinate with the outer angle acute, plane, narrowly striate with the intervals

very slightly convex laterally, outer margin with a series of deep punctures a little interrupted in the middle, third interval with a puncture in the posterior part; under side smooth, shining, the four last abdominal segments with two deep median punctures near the lower margin. Length 16–17 mm.; width 5–5½ mm.

*Hab.* Mozambique (Rikatla), occurs also in Senegal, Gaboon, Abyssinia, and the Zanzibar mainland.

GEN. STEREOSTOMA, Murray,

Ann. & Mag. Nat. Hist., ser. 2, xix., 1857, p. 448.

*Stereodema*, Chaud., Ann. Soc. Ent. Belg., 1872, p. 21.

Mentum transverse, deeply emarginate, lateral inner part of the lobes concave with the median part acutely carinate, and the outer edge of the median part of the mentum with a short sharp tooth; ligula broad, horny, semicircular at the tip and bearing two short setæ; paraglossæ slender, sublanciform, disconnected from the ligula; palpi short, thick, the last joint of the maxillary palpi cylindrical, a little attenuate at tip, that of the labial thickly clubbed, and subtruncate, the penultimate with two setæ, maxillæ short, not hooked; antennæ short, the three basal joints glabrous, the others thickly pubescent, compressed, as broad as long, the last one elongato-ovate, all the intermediate ones with a glabrous median line above and under; labrum very narrow; head elongato-quadrate, eyes projecting, a seta over the hind part of the eye; prothorax broader than long, a little ampliate in the anterior part with the posterior angles acute, grooved in the centre, with one lateral seta at about the median part and two near the posterior angle; elytra elongate, parallel, convex, and declivous behind; legs moderately long; tibiæ carinate on the upper part, denticulate outwardly, the anterior ones dilated at the apex with the inner spur long, curving downwards; tarsi long, joints triangular, glabrous underneath and with a fascicle of rufous ciliæ at the apex, the fascicle longer outwardly on the two basal joints of the anterior tibiæ.

*Hab.* Occurs in West Africa (Old Calabar and River Quango).

STEREOSTOMA CORPULENTUM, Chaud.,

Ann. Soc. Ent. Belg., 1872, p. 22.

*S. meridionale*, Pér., Trans. S. Afric. Phil. Soc., 1892, p. 103.

Piceous black, redder on the elytra and abdomen; labrum narrow, truncate, with one setigerous puncture in the outer angle; epistoma transverse, with one impression on each side and one in the centre; head smooth, with two very deep longitudinal impressions; prothorax broader than long, a little rounded in the anterior part, and a little sinuate behind, slightly convex, with the extreme outer part slightly

depressed, and with a series of broad shallow punctures, the posterior angle with two narrow emarginations bearing a seta each above but close to the posterior angle, base a little depressed, the median longitudinal groove on the disk well defined, and wider behind than in front, on each side of it, but nearer to the outer margin, a very deep narrow impression reaching the base; elytra broader than the base of the prothorax by one-fourth, elongate, parallel, convex, and very declivous behind, narrowly striate with the intervals a little convex and smooth; the three median abdominal segments have a transverse series of punctures, while on the last one the punctures are on the apical margin, closely set and setigerous. Length 22 mm.; width 9 mm.

*Hab.* Cape Colony (Port Elizabeth), Transvaal (Rustenburg), Zululand, teste Chaud.

### TRIBE SCARITIDES.

Ligula very concave and broad (*Scaritidæ*), or flat and truncate at the tip (*Clivinidæ*); mentum deeply emarginate and with a median tooth; head with one supra-orbital seta (*Scaritidæ*) or two (*Clivinidæ*); prothorax united to the hind part of the body by a peduncle; legs short, stout, the anterior tibiæ palmate, digitate outwardly, deeply incised internally and with two long spines; tarsi slender, joints ciliate.

This tribe can be divided in two well-characterised sections.

Ligula very broad and concave, thickly edged with hairs; head with one seta over the posterior part of the eye; first joint of antennæ very long .. .. . *Scaritidæ*.

Ligula flat, narrow, bisetose at tip; two setæ over the eye; first joint of antennæ either moderately long or short .. .. . *Clivinidæ*.

### GROUP SCARITIDÆ.

In the insects included in this group, the form of the ligula is entirely dissimilar from that of any other Carabid. It is semi-circular and very concave, thickly fringed with hairs with the outer angles raised, these and the paraglossæ which branch off the outer angles bear a fascicle of hairs; the median tooth of the mentum projects deeply inwards so as to fit the cavity of the ligula, but is more or less plane outwardly, the tip of the maxillæ are normally hooked or sometimes obtuse, and the basal joint of the antennæ is very long; the head has one supra-orbital seta, and the prothorax generally one in the hind angle, but there are exceptions; the elytra are elongato-ovate, more or less linear, seldom ovate, soldered together and thus apterous, or with wings under the elytra; the legs are eminently adapted to burrowing.

They are generally found in daytime under stones, in moist sandy places. They are nocturnal, but I have seen *Scarites Herbsti* running at a fair pace in the full glare of a hot day, on the sea-shore at Port Elizabeth, retreating towards the sand dunes bordering the surf-beaten beach. *Acanthoscelis* is found only on the sea-shore under decomposed seaweed.

The Scaritid are distributed all over the world, but they seem to be more numerous in Africa, and in South Africa we have no less than five genera which have not yet been met with elsewhere.

The similarity of the general facies is very great, and makes the identification of species extremely difficult; this difficulty is still further enhanced by the difference in size of examples of the same species found in the same locality; the setigerous punctures on the third interval are seldom symmetrical on each side of the elytra, and some of them are often missing.

The outer sexual characters are wanting, beyond a more linear shape of the elytra in the male, but in two South African species—*Pachyodontus languidus* and *Scarites nigritus*—the characters of the male sex are very conspicuous.

### Synopsis of Genera.

#### I.

Maxillæ straight or rounded at the tip.

Prothorax and elytra cylindrical; abdominal punctures almost absent . . . . . *Macromorphus*.

Genæ developed in a very conspicuous tubercle behind the eyes; mandibles long, slightly falcate . . . . . *Otophthalmus*.

Maxillæ rounded at the tip; median tooth of the mentum triangular, sharp; elytra elongato-ovate, hardly broader past the median part than at the base . . . . . *Haplotrachelus*.

#### II.

Maxillæ ending in a terminal hook.

Head with two very long sulci, facies of *Haplotrachelus* . . . . *Macrotelus*.

Tooth of the mentum long, obtuse at the tip; eighth interval of each elytron not overhanging the outer margin . . . . . *Scarites*.

Tooth of the mentum short, blunt; elytra not soldered, wings underneath; antennæ with the seven ultimate joints moniliform and gradually increasing, the last one the broadest of all . . *Distichus*.

Same characters as in *Distichus*; elytra soldered . . . . . *Teniolobus*.

Median tooth of mentum very long, carinate in the middle, obtuse at tip; mandibles of the male long, straight, falcate at the apex; elytra without intra-marginal carina . . . . . *Pachyodontus*.

Median tooth of mentum quadrifid; prothorax and elytra linear, seventh interval much developed at the base . . . . . *Passalidius*.

Mentum with a broad triangular tooth; outer spines of anterior tibæ very long and distant from one another, with the inner spurs also very long; intermediate and posterior tibæ considerably thickened and flattened at the tip . . . . . *Acanthoscelis*.

GEN. MACROMORPHUS, Chaud.,  
Bull. Mosc., 1857, ii., p. 61.

Mentum very little excavate, the median tooth tridentate, with the median tooth longer than the other two, and as long as the lateral lobes, which are narrow, acute at the tip, slightly diverging internally, rounded outwardly, and with a deep long impression on each side of the base; last joint of the maxillary palpi moderately compressed and truncate, the penultimate one of the labial palpi longer than the others, last joint short, rounded at tip and truncate; labrum short, bisinuate, the median part subtruncate, three deep punctures, one in the centre of the median part and one on each side; head quadrate, projecting slightly in front of the eyes, the genæ moderately developed in a small tubercle behind the eyes; antennæ short, hardly reaching the median part of the prothorax, the first joint claviform, nearly as long as the three following ones; prothorax elongatoquadrate; elytra cylindrical, with the humeral angles moderately dentate; anterior tibiæ moderately digitate, intermediate ones with three teeth, the apical one much longer than the others; median part of the abdominal segments very faintly bipunctate.

MACROMORPHUS ELONGATUS, Chaud.,  
Plate IX., fig. 1.  
Bull. Mosc., 1857, ii., p. 62.

Black, subopaque; head as broad as long, sinuate above the eye, a little emarginate in the lateral part of the anterior angle, forehead with two moderately deep impressions, slightly plicate and reaching the median part, posterior part of the head smooth; prothorax as long as broad, truncate at the apex, not dentate in the posterior angle, slightly sinuate in the median part of the outer sides, median part of the base not produced behind, the sides of the base very slightly oblique, smooth, with the usual median longitudinal and apical transverse lines, the basal one hardly defined, but ending in a faint impression at each end; elytra twice as long as the prothorax, not broader, cylindrical, with the humeral angle projecting a little, convex, nonstriate on the disk, with the intervals not raised, the seventh stria distinct, and the eighth interval somewhat more convex in the basal part, where it overhangs a little the outer margin, than in the posterior part, outer margin with a series of distant punctures; two punctures (on one side only) in the posterior part of the sixth stria in my unique example; anterior tibiæ unidentate above the digitation. Length 33-mm.; width 8 mm.

The cylindrical facies of this species is very peculiar.

I am indebted to Mons. R. Oberthur for an example of this very rare species, originally belonging to the collection of the late H. W. Bates, and labelled Cradock (South Africa).

GEN. OTOPHTHALMUS, Chaud.,  
Monogr., *loc. cit.*, 1879, p. 146.

Mentum hardly excavate, with a triangular median tooth as long as the lateral lobes, very broad at the base, and carinate on each side of it, inner part of the lobes parallel, but obliquely truncate at tip, outer part rounded; maxillæ straight and obtuse at tip; mandibles long, subfalcate; labrum trilobate, the median one longer than the others, all with one deep setigerous puncture; head subquadrate, sinuate above the eye, the genæ projecting behind the eye in a tubercle twice the size of the eye; antennæ reaching nearly the base of the prothorax, the basal joint as long as the two following; prothorax nearly twice as broad as long, the posterior angles dentate; elytra soldered together, truncate at the base, with the humeral angles projecting, convex, nearly parallel for two-thirds of the length, elongato-ovate in the posterior part; anterior tibæ tridigitate, intermediate ones pluridentate, the apical tooth very long, a long seta between each dentation, posterior ones with three long setæ on the inferior margin; median part of the abdominal segments bipunctate.

OTOPHTHALMUS POLITUS, Wiedem.,

Plate IX., fig. 4.

Zool. Mag., ii. 1, p. 36.

Shining or very shining; head quadrate, sinuate above the eyes, two very deep impressions in the anterior part filled with faint plicæ, posterior part of the head smooth; prothorax a little broader than the head, but not broader than the head with the genæ, nearly truncate in the anterior part, almost straight laterally from the anterior to the posterior angle, oblique from the posterior angle towards the median part of the base, which is slightly produced behind, the median longitudinal and the transverse apical lines as usual; base carinulate; elytra truncate in the base, sinuate in the middle, with the lateral angles slightly sloping and acutely dentate, outer sides parallel for two-thirds of their length, gradually elongato-ovate behind, convex, smooth, shining or very shining, faintly striate with the intervals plane, smooth, a very sharp supra-marginal carina widely separated from the outer margin, and reaching from the humeral angle to a certain distance from the apex, the outer margin with a well-defined series of moderately deep punctures, third interval with three deep long setigerous punctures in the posterior part; anterior tibæ strongly bidentate above the digitation. Length 15-24 mm.; width  $4\frac{1}{2}$ -7 mm.

*Hab.* Cape Colony (Cape Town, Knysna, Mossel Bay).

The swollen genæ, coupled with the comparatively short head and long falcate mandibles, impart to this species a very peculiar facies.

GEN. HAPLOTRACHELUS, Chaud.,  
Bull. Mosc., 1855, i., p. 15.

Mentum excavated, the inner lobes nearly straight, rounded outwardly at the tip, the outer ones a little inflated in the median part, in the middle a broadly triangular tooth, sharp at the apex, carinate in the median and outer parts; maxillæ straight, much rounded at the tip; ligula deeply concave, and with a sub-bifid median tooth in the centre considerably less high than the outer angles; labrum plane, trilobate, with three deep setigerous punctures; antennæ, palpi, and mandibles of *Scarites*; head quadrate, bi-impressed in the anterior part; prothorax transverse, generally rounded from the basal angle, which is seldom acute, towards the base, the median part of which is hardly produced behind; elytra fused, elongato-ovate, convex, no wings; legs strong, anterior tibiæ with three strong external teeth, intermediate with one only, posterior ones without any teeth, the three penultimate abdominal segments with two median punctures, the last one with four.

*Synopsis of Species.*

I.

Humeral angle of the elytra dentate.

Basal median part of prothorax slightly produced behind; elytra very faintly striate.. .. .	<i>pasimachoides.</i>
Elytra short, carinate from the base to past the median part	<i>polypleurus.</i>
Elytra long, the carinæ reaching from the base to two-thirds of the length .. .. .	<i>latesulcatus.</i>
Elytra striate, intervals convex, of equal width except near the suture .. .. .	<i>holcopleurus.</i>
Fifth and seventh intervals narrow, acute, sixth broader and highly raised .. .. .	<i>subcrenatus.</i>
Intervals of elytra nearly equally raised, three punctures on the third interval; tibiæ long, not dentate above the third digitation .. .. .	<i>ovipennis.</i>
Four punctures on the third interval; anterior tibiæ tridentate above the third digitation .. .. .	<i>punctuliger.</i>
Three punctures on the posterior part of third interval, and one in the base of the fourth stria; anterior tibiæ bidentate above the third digitation .. .. .	<i>capicola.</i>
Humeral angle of elytra very obtuse, intervals equally convex, two setigerous punctures behind; tibiæ bidentate beyond the long outer teeth .. .. .	<i>Dregei.</i>

II.

Humeral angle of the elytra not dentate.

Prothorax with several setigerous marginal punctures; intervals of elytra equally convex, the eighth one very broad; no intra-marginal carina .. .. .	<i>Atropis.</i>
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Prothorax with only three setigerous punctures; eighth interval not much broader than the intra-marginal carina, not overhanging the outer margin; the fifth and sixth striæ distinctly punctured .. .. . *oviventris*.

Sixth and seventh intervals of elytra carinate; fifth and sixth striæ smooth, with two series of granulations .. .. . *Transvaalensis*.

#### HAPLOTRACHELUS PASIMACHOIDES, Chaud.,

Monogr., *loc. cit.*, 1879, p. 164.

Black, hardly shining; head quadrate, with two triangular impressions in the anterior part; epistome with longitudinal plicæ invading the impressions; prothorax smooth, twice as broad as long, the outer sides rounded from the anterior to the posterior angle, and slightly oblique from there towards the median part of the base, which does not project; elytra excavated at the base, with the humeral angle sharp, elongato-ovate, convex, as broad as the prothorax, very faintly striate, with the intervals almost plane, except the seventh one, which is a little raised, but the intra-marginal carina is very sharp and reaches from the humeral angle to the suture; in the posterior part are two setigerous punctures at a short distance from the apex, and there is also a series of small punctures in the excavation of the base, and between the intra-marginal carina and the margin; episterna of the prosternum finely granulated; anterior tibiæ not dentate above the digitation. Length 28–37 mm.; width 10–13 mm.

*Hab.* Natal (Frere), Zululand, according to De Chaudoir.

The facies of a small example from Frere is almost identical with that of a female of *Pachyodontus languidus*.

#### HAPLOTRACHELUS POLYPLEURUS, Bates,

Entom. Month. Mag., 1875, vol. xi., p. 177.

Black, hardly shining on the upper side; head quadrate, with two deep impressions on each side filled with longitudinal folds reaching the apex of the epistome and projecting also beyond the impressions; prothorax a little broader than the head, moderately rounded from the apical to the posterior angle, but more obliquely produced from there towards the median part of the base than in *H. pasimachoides*; this median part of the base projects slightly, and is nearly smooth on the disk but plicate all round; elytra hardly broader than the prothorax, ovate, truncate and emarginate at the base, with the humeral angle sharp, short, one-fourth longer than broad, moderately convex in the posterior part, with six moderately raised sharp lines disappearing beyond the median part, separated by broad shagreened intervals, intra-marginal carina very sharp and reaching from

the shoulder to the suture; two indistinct setigerous punctures towards the apex; under side smooth; episterna of prosternum with a very slight granulation. Length 35 mm.; width 13 mm.

*Hab.* Zululand, according to De Chaudoir.

I am indebted to Mons. R. Oberthur for one example, ex collection Bates, labelled Caffraria.

HAPLOTRACHELUS LATESULCATUS, Bates,  
Entom. Month. Mag., 1875, vol. xi., p. 177.

*H. rugosostriatus*, Chaud., Monogr., *loc. cit.*, p. 165.

Head similar to that of the two preceding species; the shape of the prothorax is identical with that of *H. polypleurus*, but is quite smooth, with the sides not plicate; the elytra are hardly broader than the prothorax, elongato-ovate, one-third longer than broad, truncate and emarginate at the base with the humeral angles sharp, convex in the posterior part, with seven moderately raised blunt lines reaching from the base to near the apex, separated by broad rugose intervals, blunter near the suture, but the sixth and seventh are more sharply carinate, the intra-marginal carina reaches from the humeral angle to the suture; two indistinct setigerous punctures a short distance from the apex, also a series of small punctures in the basal excavation and between the intra-marginal carina and the margin; episterna of the prosternum granulose; anterior tibiæ not dentate above the digitation. Length 33–36 mm.; width 11–12 mm.

*Hab.* Transvaal (Barberton).

HAPLOTRACHELUS HOLCOPLEURUS, Chaud.,  
Bull. Mosc., 1855, i., p. 16.

Head with the two usual deep impressions (plicate impressions) reaching a little further towards the hind part in the male than in the female; shape of prothorax identical with that of *H. latesulcatus* and quite smooth; elytra elongato-ovate, truncate and emarginate at the base, outer sides nearly straight in the male, slightly amplified towards the middle in the female, nearly twice as long as broad, narrowly striate with the intervals adjoining the suture moderately convex, the fifth, sixth, and seventh more carinate, principally in the male, the intra-marginal carina very acute, intervals nearly smooth or faintly plicate, two setigerous punctures in the apical part of the third interval, a series of distant ones on the eighth, extending from base to apex, and a few punctures in the excavation of the base; under side of prosternum slightly granulose; anterior tibiæ tridentate above the digitation.

In this species the outer sides of the elytra of the male are much

more parallel than in the female, and the outer intervals also more carinate. Length 34–36 mm.; width  $10\frac{1}{2}$ –12 mm.

*Hab.* Cape Colony (Butterworth, Griqualand West, Tsomo), Natal (Maritzburg), Transvaal (Potchefstroom).

HAPLOTRACHELUS SUBCRENATUS, Chaud.,

Bull. Mosc., 1855, i., p. 18.

Head and prothorax as in *H. holcopleurus*; elytra shaped alike, narrowly striate, with the first three intervals plane, the fourth broadest of all and slightly convex, the fifth and seventh narrow, carinate, while the sixth is broader and more convex, the sixth and seventh are roughly plicate, the seventh has a series of setigerous punctures more regular from the median part to the apex, and there is a long seta on the posterior part of the third interval; base with a few granules on each side; anterior tibiæ with two denticulations above the digitation. Length 30–34 mm.; width  $9$ – $10\frac{1}{4}$  mm.

In some female examples the first stria near the suture has disappeared altogether or is almost obliterated.

*Hab.* Cape Colony (Grahamstown).

HAPLOTRACHELUS OVIPENNIS, Chaud.,

Bull. Mosc., 1843, p. 732.

*H. ignobilis*, Chaud., Monogr., *loc. cit.*, p. 169.

Like an *H. holcopleurus* of greatly reduced size; the elytra are more convex; the setigerous punctures on the posterior part of the third interval are the same; the anterior tibiæ, however, have no denticulation above the digitation. Length 18–30 mm.; width  $5\frac{1}{2}$ –9 mm.

*Hab.* Cape (Tsomo), Natal.

HAPLOTRACHELUS CAPICOLA, Dej.,

Spec. Col., v., p. 496.

A little smaller than *H. ovipennis*, but the facies is identical; the elytra are equally convex; the setigerous punctures are alike, but the anterior tibiæ are bidentate above the digitation. Length 18–21 mm.; width 6–7 mm.

*Hab.* Cape Colony (Grahamstown).

HAPLOTRACHELUS DREGEI, Chaud.,

Monogr., *loc. cit.*, p. 170.

Size, shape, and colouring of *H. holcopleurus*; but the elytra are more convex in both sexes, the punctures on the third and seventh

intervals are alike, but the humeral angle projects very little, imparting thus a more oviform shape to the elytra. Length 34–37 mm.; width  $10\frac{1}{2}$ –12 mm.

*Hab.* Cape Colony (Knysna, Tsomo), Natal (Maritzburg).

HAPLOTACHELUS PUNCTULIGER, Bates,

Entom. Month. Mag., 1875, vol. xi.

*H. gibbosus*, Chaud., Monogr., p. 169.

Shape and sculpture of *H. capicola*, but generally a little larger; the elytra are slightly more ovate, the setigerous punctures on the seventh interval are alike, but there are four punctures in the posterior part of the third interval, one of these punctures is often missing; anterior tibiæ tridentate above the digitation. Length 25–27 mm.; width 8 mm.

*Hab.* Natal (D'Urban).

HAPLOTACHELUS ATROPIS, Bates,

Entom. Month. Mag., 1875, vol. xi.

Head and prothorax of *H. capicola*, the latter part with five or six long setæ on each of the posterior outer sides; elytra elongate without any humeral angle, striate, with the intervals slightly convex laterally, the eighth very broad, without a supra-marginal carina, the outer margin with a series of well-defined punctures, the base with a few granules, three setigerous punctures in the posterior part of the third interval and one in the apical part of the second; anterior tibiæ bidentate above the digitation. Length 22–24 mm.; width 6–7 mm.

*Hab.* Cape Colony (Port St. John), Natal (D'Urban, Newcastle).

HAPLOTACHELUS OVIVENTRIS, Chaud.,

Monogr., *loc. cit.*, p. 172.

Head and prothorax of *H. capicola*, the latter bisetose laterally in the anterior part; elytra more ovate than in *Atropis*, striate with the intervals slightly convex, the eighth subcarinate, overhanging the margin but slightly, the sixth and seventh striæ are distinctly punctured, the outer margin has a series of punctures turning to a series of small tubercles in the basal and humeral part, third interval with three setigerous punctures in the posterior part, another puncture at the apex of the second interval; anterior tibiæ obtusely bidentate above the digitation. Length 21–26 mm.; width 6–8 mm.

*Hab.* Natal (D'Urban).

## HAPLOTACHELUS TRANSVAALENSIS, Chaud.

Size, shape, and colour of *H. oviventris*; it differs from this species merely in having the two outer intervals of the elytra acutely carinate and the two last striæ nearly smooth, not punctured; the intra-marginal carina slightly overhangs the outer margin, the marginal series of punctures is not duplicated in the humeral part, but the base has the two rows of granules; the anterior tibiæ are tridentate above the digitation. Length 25 mm.; width 8 mm.

*Hab.* Transvaal (Potchefstroom).

## GEN. MACROTELUS, Chaud.,

Monogr., *loc. cit.*, 1880, p. 14.

Mentum hardly transverse, not deeply excavate, with a triangular median tooth very broad at the base, inner lobes perpendicular for half the length, diagonal in the other half, tip moderately sharp, outer lobes inflated in the middle; maxillæ straight, hooked at the tip; ligula and palpi normal; labrum very short, tripunctate in the anterior part which is trilobate; antennæ reaching near to the posterior angle of the prothorax, submoniliform, the basal joint clavate, equal in length to the two following ones; head one-third longer than broad, sinuate over the eye; genæ small, not projecting beyond the eyes, deeply and narrowly grooved on each side, the groove reaching from the epistome to a short distance from the base, the median part also grooved in the anterior part only; prothorax shaped as in *Haplotrachelus*, but distinctly aculeate in the posterior angles, median part of the base not produced behind, outer sides very oblique; elytra of the same shape as *Haplotrachelus*, fused; wings wanting; legs of *Haplotrachelus*.

## MACROTELUS PERSIMILIS.

Black, either shining or subopaque on the upper part; prothorax as broad as the head and eyes at the base, rounded slightly from the anterior part to the posterior angles, which are dentate, the lateral sides of the base are very oblique, and the median part very slightly produced behind and carinate; elytra elongated, ovate behind, but with the outer sides not amplified, striate, with the intervals near the suture moderately convex and the seventh one carinate, overhanging the eighth, the sutural one depressed; on the third stria are four setigerous punctures, one near the base, one in the middle, sometimes wanting, and two in the posterior part, the outer margin, which is very narrow, is punctulate, and the base has a double series of granules; under side smooth with the lateral part of the abdomen slightly shagreened; anterior tibiæ bidentate above the digitation.

The facies of this insect is not unlike that of a small *Haplotrachelus*,

from which it is, however, easily distinguished through the long impressions on the head. Length 21–22 mm.; width 6–7 mm.

*Hab.* Zambezia (Salisbury), Transvaal, no exact locality.

Very closely allied to *M. sulciger*, Chaud., from the west coast of Africa, but the head is a little less broad than in that species; the humeral angle of the elytra is much less developed, the base less tuberculate, and the space between the edge of the base and the striæ narrower, more abrupt, and not aciculate, as in *M. sulciger*.

GEN. SCARITES, Fabric.,

Syst. Eleuth., i., 1801, p. 123.

Mentum excavate, with a broadly median triangular tooth the base of which fills the cavity; the apical part is not very sharp, but is conspicuously carinate longitudinally in the middle; the inner part of the lateral lobes is very oblique, and the outer part very slightly ampliate in the middle; maxillæ slightly sinuate outwardly, incurved at the tip in a long, sharp tooth, the outer lobe much longer than the inner one, which is densely ciliate; two last joints of maxillary palpi a little shorter than the first, the last one hardly inflated, but compressed, truncate at the tip, last joint of the labial also subcylindrical or sometimes subfusiform, shorter than the penultimate one by one-third; mandibles long, interlocking; labrum short, bisinuate; epistoma with a setigerous puncture on each side of the median part; a seta over the posterior part of the eye; antennæ reaching the posterior angle, first joint as long as the two following, the others moniliform; prothorax more or less rounded at the base, the posterior angle well defined, and with a marginal seta above it and one near the anterior angle; elytra convex, either parallel, ampliate in the posterior part, or elongato-ovate; abdominal segments with two median setigerous punctures, the last one with four; anterior tibiæ strongly digitate, intermediate ones with two spines; some species are winged, others are not.

This genus is represented in Europe, Asia, including Japan, Java, the Philippine Islands, North and South America and Africa (Senegambia, Guinea, Nubia, Kordofan, Abyssinia, Zanzibar mainland).

*Synopsis of Species.*

I.

Prothorax with the posterior angles distinct.

Species non-apterous.

Elytra parallel, third interval unipunctate.

Striæ of elytra punctulate .. .. .	<i>æstuans.</i>
Striæ of elytra not punctulate .. .. .	{ <i>senegalensis.</i>
	{ <i>perplexus.</i>

Third interval bi- or tri-punctate.

Elytra distinctly striate, third interval tripunctate .. .. .	<i>simogonus.</i>
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Elytra without any distinct striæ, third interval bipunctate .. *politus*.  
Species apterous.

Intervals of elytra tectiform, posterior tibiæ with a long and thick fringe of rufous hairs .. .. . *Epaphius*.

Elytra with the third, fifth, and seventh intervals conspicuously carinate .. .. . *costipennis*.

Elytra narrowed in the anterior part.

Third interval with two punctures near the apex.

Elytra with the intervals plane, hardly striate on the disk .. *rugosus*.

Elytra striate, intervals convex .. .. . *Doguerawi*.

Elytra striate, seventh interval carinate at the base .. .. . *Natalensis*.

Elytra striate, eighth interval reaching nearly the humeral angle, base of eighth stria granulose .. .. . *exaratus*.

Third interval with five punctures .. .. . *Herbsti*.

Elytra ovate .. .. . *molossus*.

## II.

Prothorax with no posterior angle.

Elytra striate, third interval with four punctures .. .. . *nigritus*.

Elytra striate, third interval with two punctures .. .. . *diductus*.

Elytra nonstriate, intervals plane, third interval with two punctures .. .. . *rugiceps*.

### SCARITES ÆSTUANS, Klug,

Peters' Reise n. Mossamb., p. 157, pl. viii., fig. 11.

*S. obtusangulus*, Chaud., Monogr., *loc. cit.*, 1880, p. 72.

Black, shining, mandibulæ plicate longitudinally, the frontal plication very conspicuous, the impressions in the shape of an acute triangle, three or four longitudinal plicæ above the eye; prothorax smooth, outer sides slightly sinuose near the anterior angle, posterior angle very sharp, lateral part of the base diagonal, carinate, median part hardly produced behind but much recurved, on each side of the post-lateral carinæ a very fine granulation; elytra abruptly truncate at the base, with the humeral carina not much produced, the angular tooth distinct, parallel laterally, convex, finely striate, intervals moderately convex, with a series of minute granules on each side of the striæ, but sometimes also with the first five intervals without these granules, the intra-marginal interval not much developed, almost obsolete near the base, outer margin broad and densely granulate, along the base also a dense granulation; prosternum slightly granulose; sides of metasternum and of abdomen slightly shagreened; anterior tibiæ tri- or quadri-dentate above the digitation.

This species seems to range from Abyssinia to South Africa. It is in the examples from the first-named country that the small granules on each side of the smooth striæ are found. Length 27–28 mm.; width 8 mm.

*Hab.* Transvaal (Potchefstroom).

## SCARITES SENEGALENSIS, Dej.,

Spec. Col., i., p. 386.

*S. striatidens*, Chaud., Bull. Mosc., 1855, i., p. 97.*S. Patroclus*, Murray, Ann. and Mag. Nat. Hist., 1857, p. 457.*S. linearis*, Bohem., Insect. Caffr., i., p. 116.*S. superciliosus*, Klug, Peters' Reise n. Mossamb., p. 156, pl. viii., fig. 10.? *S. morosus*, Klug, Peters' Reise n. Mossamb., p. 157.

Very closely allied to *S. æstuans*, but larger; head and prothorax alike; elytra a little less parallel in the female than in the male and somewhat less convex, with the humeral tooth a little more produced than in *S. æstuans*, striate with the intervals moderately convex, the sixth, seventh, and eighth narrower and more carinate than the others, the eighth not reaching the base nor overhanging the outer margin, which is broad and densely granulose, as is also the base, the eighth and also the seventh intervals sometimes with a faint granulation on each side of the striæ, one puncture at the apex of the second stria; episterna of prosternum hardly granulose; lateral part of metasternum and abdomen slightly shagreened. Length 32–38 mm.; width 9–11 mm.

It is very difficult to distinguish small examples of this species from *S. æstuans*, the main difference consisting, in these small examples, in the total absence of the fine granulation along the striæ.

*Hab.* Cape Colony (Griqualand West).

This species occurs also in Senegambia and on the West Coast Africa.

## SCARITES PERPLEXUS, Dej.,

Spec. Col., i., p. 387.

*S. æthiops*, Chaud., Bull. Mosc., 1855, i., p. 96.

Much smaller than the two preceding species; head and prothorax as in *æstuans*, lateral part nearly straight from anterior to posterior angle, the granulation on the lateral posterior part very faint; elytra parallel, convex, humeral tooth moderately sharp, striate, intervals slightly convex, the sixth and seventh with a very faint trace of granulation above the stria, outer margin broad, densely granulose, puncture at the apex of the second stria often indistinct, base slightly granulose, intra-marginal interval obsolete in the anterior part; under side as in the two previous species; anterior tibiæ bidentate above the digitation. Length 19–21 mm.; width 6 mm.

*Hab.* Transvaal (Potchefstroom).

SCARITES SIMOGONUS, Chaud.,  
 Monogr., *loc. cit.*, 1880, p. 98.

Black, moderately shining, general facies of *S. perplexus*; the head is very closely plicate, with the plicæ very long and reaching to a short distance from the base; prothorax not quite so parallel laterally as in *perplexus*; elytra very parallel, moderately convex, striate, intervals with a series of small granules along the striæ, outer margin broad, densely granulate, intra-marginal interval hardly discernible in the anterior part, five punctures on the third interval, one below the base, two in the median and two in the posterior part; under side as in the previous species; anterior tibiæ tridentate above the digitation.

De Chaudoir mentions three punctures only in the third stria, but in the only example I possess of *simogonus* the five punctures are very distinct; the basal one is more distant from the two median ones, which are near to one another and separated from the two posterior ones, which are equally distant, by a longer interval. Length 22 mm.; width 6 mm.

*Hab.* Damaraland, ? Zambezia.

SCARITES POLITUS, Bonelli,  
 Mém. Acad. Tur., 1813, p. 36.

*S. lævis*, Dej., Spec. Col., i., p. 381.

Black, subopaque, facies very cylindrical; mandibles long and very acute at tip, frontal impressions deep, but not much plicate; genæ protruding a good deal; prothorax a little attenuate behind, with the outer sides straight, smooth, faintly undulate, no granules on the lateral part of the base; elytra cylindrical, nonstriate, the intra-marginal interval alone distinct and overhanging a little at the base the outer margin, which has a series of faint punctures replaced in the anterior part by a faint granulation, which is quite indistinct in the base; anterior tibiæ bidentate above the digitation; under side as in the previous species. Length 21–25 mm.; width 6–7 mm.

*Hab.* Cape Colony (Cape, Stellenbosch, Worcester).

The mandibles in this species are a little blunt at the tip, that is to say the apical inward hook is hardly noticeable, but although its linear form and smooth elytra approximates it to *Macromorphus*, I do not see any reason why it should not be included in the genus *Scarites*.

SCARITES COSTIPENNIS.

Black, subopaque; head deeply and narrowly impressed laterally, the sulci reaching the median part; epistoma plicate; antennæ short, the six penultimate joints quadrate, the last one, broader than the others, is subovate; outer sides of prothorax nearly straight,

lateral part of the base slightly rounded, with the humeral angle sharp, moderately convex, posterior angle well defined; elytra parallel, striate, with the striæ punctulate, the two first intervals plane, the third, fifth, and seventh highly and sharply carinate with the intervening spaces plane, eighth interval slightly convex from about the median part towards the apex, outer margin moderately broad, slightly granulose in the posterior part, three distinct punctures on the posterior part of the third stria; anterior tibiæ bidentate above the digitation. Length 22 mm.; width 6 mm.

*Hab.* Cape Colony (Bredasdorp).

I endeavoured in vain to find in *S. costipennis* some generic characters different from those of *Scarites*. In spite of its very distinct facies, caused to a great extent by the acute costæ on the elytra, the only difference I can find is in the somewhat more quadrate shape of the last seven joints of the antennæ, but in *S. perplexus* the shape of these joints is nearly alike.

SCARITES EPAPHIUS, Chaud.,  
Monogr., *loc. cit.*, 1880, p. 106.

Black, moderately shining; head deeply impressed laterally, and with very well-defined regular sinuate plications invading the median part; maxillæ long, sharp, and strong; prothorax much broader than the head, nearly one-third broader at the apex than at the lateral part of the base, the said lateral part slightly sinuate, and the median one nearly straight and not projecting, disk slightly plicate; elytra subparallel, a little broader past the middle than at the base, with the humeral angle sharp, moderately convex, striate, with the sixth, seventh, and eighth intervals convex, the eighth reaching the base, outer margin broad, granulose, as is also the humeral part of the base, posterior part of the third stria with two setigerous punctures; anterior tibiæ quadridentate above the digitation. Length 37 mm.; width 12 mm.

De Chaudoir in his description mentions a fringe of yellow hairs on the posterior legs. The only example I possess has no fringe. The nearest ally to this species is *S. Doguerawi*, and I am somewhat inclined to believe that *S. Epaphius* will prove to be the male of *S. Doguerawi*.

*Hab.* Cape Colony (Namaqualand minor).

SCARITES RUGOSUS, Wiedem.,  
Germar's Mag. der. Ent., iv., p. 118.

*S. Dregei*, Chaud., Bull. Mosc., 1843, p. 723.

*S. Hopei*, Gory, Ann. Soc. Ent. France, 1833, p. 209.

Black, moderately shining; frontal impressions deep, reaching the

median part of the head, very slightly plicate, genæ hardly projecting; prothorax much broader than the head, one-third broader than long, with anterior angles projecting, decreasing slightly from the apex to the posterior angle which does not project much, the median part of the base itself is not produced behind; the elytra are narrower than the prothorax at the base, but are gradually amplified from the humeral angle to past the median part, where they are as broad as the prothorax at its broadest part, they are moderately convex, faintly striate in the disk, with the intervals smooth, but the seventh and eighth striæ are better defined and the interval slightly convex, the outer margin is finely granulose from round the humeral angle to the apex, and there are two deep setigerous punctures in the posterior part of the third interval, which are, however, missing altogether sometimes; the anterior tibiæ are not dentate above the digitation, and the intermediate and posterior ones are fringed with long brown hairs. Length 28–33 mm.; width 9–11 mm.

*Hab.* Cape Colony (Cape Town, Koeberg, Robben Island).

Generally found on the seashore, or at no great distance inland.

SCARITES DOGUERAUL, Gorg.,

Ann. Soc. Ent. France, 1833, p. 207.

Head as in *S. rugosus*, but with the anterior part and the frontal depressions much more plicate, the first joint of the antennæ is proportionately longer; the prothorax has the same shape and the same proportion of length to width; the elytra have the same shape, but they are more convex, deeply striate from base to apex, with the intervals raised and the three outer ones almost carinate, the outer margin is granulated from round the shoulder to the apex, the humeral angle is small, and there is a faint trace of the two posterior setigerous punctures on the third interval; the anterior tibiæ are uni- or bi-dentate above the digitation, and the intermediate and posterior tibiæ are not much fringed with hairs. Length 35–38 mm. width 12–12¼ mm.

*Hab.* Cape Colony (Saldanha Bay, Darling).

SCARITES NATALENSIS, Bohem.,

Insect. Caffr., i., p. 117.

*S. angulifrons*, Chaud., Monogr., loc. cit., p. 111.

Black, shining; head quadrate, with the anterior part and frontal depressions conspicuously plicate; genæ projecting; antennæ long, reaching the posterior angle, joints submoniliform; prothorax nearly twice as broad as long, widest in the anterior part, with the

posterior part very slanting from the humeral angle to the median part of the base which is truncate and not produced behind; elytra narrower at the base than past the median part, which is as broad as the prothorax at its widest, convex, striate, with the first four intervals a little convex, but oftener plane, and the sixth and seventh more raised than the others, the seventh subcarinate near the base and overhanging the eighth, which does not reach the humeral angle, the outer margin and the base are very faintly granulose, and on the posterior part of the third interval are two setigerous punctures; the anterior tibiæ are tridentate above the digitation. Length 29–31 mm.; width 9–10 mm.

*Hab.* Transvaal (Potchefstroom, Waterberg).

SCARITES EXARATUS, Dej.,

Spec. Col., i., p. 373.

Black, shining; the whole of the anterior part of the head, including the space between the two impressions, closely plicate; the shape of the head and prothorax is the same as in *S. rugosus*; the elytra have also the same shape, but they are very distinctly striate, and the eighth interval, which does not reach the base, is carinate, and the seventh convex, the outer margin is densely granulose and the granulation extends round the shoulder, two setigerous punctures on the posterior part of the third stria; anterior tibiæ bidentate before the digitation. Length 28 mm.; width 9 mm.

*Hab.* Cape Colony (Port Nolloth).

SCARITES HERBSTI, Dej.,

Spec. Col., i., p. 372.

*S. Polyphemus*, Herbst, Col., p. 254, pl. 175, fig. 3.

Facies of *S. Natalensis*, but elytra more narrowed at the base; head densely plicate in the anterior part and in the frontal depressions which are not very deep, genæ projecting very much; prothorax of the same shape as *Natalensis*; elytra narrowed at the base, amplified at about one-fourth of the length, convex, distinctly striate, with the first four intervals slightly convex, and the other four subcarinate, outer margin narrow, granulose, with a faint trace of seriated broad punctures, the eighth interval becomes somewhat indistinct from the median part to the apex, and the third one has four distinct setigerous punctures nearly equidistant, the first one is situated above the median part; anterior tibiæ tridentate above the digitation. Length 28–36 mm.; width 9–11 mm.

*Hab.* Cape Colony (Port Elizabeth, Kowie River).

## SCARITES MOLOSSUS, Klug,

Peters' Reise n. Mossamb., 1862, p. 155, pl. viii., fig. 9.

Anterior part of the head and frontal depressions much plicate; prothorax a little more than one-third wider than long, a little rounded laterally from the anterior to the posterior angle, lateral part of the base not much slanting, median part truncate; elytra not so broad at the base as the basal part of the prothorax at the angles, elongato-ovate, with the humeral part sloping and the angle projecting but little, distinctly striate, with the intervals convex and the sixth, seventh and eighth somewhat carinate, the eighth one does not reach the base, the third interval has two setigerous punctures on the posterior part, the upper one nearly in the stria; outer margin very slightly granulose, and with a regular series of setigerous punctures reaching from the median part to the apex; the base is also slightly granulose; anterior tibiæ bidentate above the digitation. Length 29 mm.; width  $9\frac{1}{2}$  mm.

This species is very distinct, owing to the ovate form of the elytra, which approximate it to some *Haplotrachelus*.

*Hab.* Originally discovered near the Zambeze River (Tette); it also occurs in East Central Africa (Tabora), and in Zambezia (Buluwayo).

## SCARITES NIGRITUS, Bohem.,

Insect. Caffr., i., p. 118.

Black, very shining; head very broad in the male, a little less so in the female; paragenæ much developed, with anterior part of the outer sides very obliquely truncate; antennæ with moniliform joints, and reaching only a little beyond the median part; anterior part of the head conspicuously plicate, frontal depressions not deep; prothorax slightly broader at the apex than across the posterior angles with the outer sides straight, the lateral part of the base a little rounded, and the median part slightly sinuate but not projecting behind; elytra one-third narrower at the base than the prothorax at its widest, gradually amplified from one-third of the length to about the part where it is nearly as broad as the prothorax, convex, deeply striate, with the intervals convex, the eighth one very narrow, carinate, and separated from the base, the third stria with five setigerous punctures in the male, almost equidistant from a short distance from the base to the apical part of the stria, while in the female the two anterior punctures are missing, outer margin moderately broad, granulose, base also granulose, and with a series of very small tubercles; anterior tibiæ uni- or bi-dentate above the digitation. Length 22–27 mm.; width 7–8 mm.

Easily distinguished from *S. Herbsti*, which has five punctures on

the third interval of the elytra, by the smaller size and the shape of the prothorax, the posterior angles of which are hardly defined, and the outer sides, which are nearly straight instead of being slightly rounded as in *S. Herbsti*; the elytra are also more parallel for two-thirds of the length.

This is the only South African *Scarites* the male of which differs from the female. The distinctive characters are—a broad dilatation of the basal part of the left overlapping mandible, a broader head, a slighter ampliation of the prothorax at the base, and slightly more linear and less convex elytra.

*Hab.* Natal (Maritzburg), Delagoa Bay (Lourenço-Marquez Rikatla).

SCARITES RUGICEPS, Wiedem.,

Zool. Mag., ii., 1, p. 37.

*S. caffer*, Dej., Spec. Col., ii., p. 470.

*S. brevicornis*, Chaud., Bull. Mosc., 1835, i., p. 68.

Subcylindrical, moderately shining; head plicate in the anterior part, even between the frontal depressions, which are narrow; paragenæ hardly projecting; prothorax somewhat cylindrical, very little narrower across the basal angles than at the apex, lateral part of the base diagonal, median part slightly sinuate and not projecting behind; elytra parallel with the humeral angle moderately projecting, convex, very slightly striate or not striate at all, and with the intervals very faintly raised, except on the sides where they are sometimes a little more convex, outer margin nearly smooth, third interval, or that part of the elytra which should be such, with two conspicuous setigerous punctures on the posterior part; anterior tibiæ bidentate above the digitation. Length 15–22 mm.; width 4–6 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Paarl, Worcester).

SCARITES DIDUCTUS.

*S. rugiceps*, Wiedem., Bohem., *loc. cit.*, p. 119.

Head and prothorax of *S. rugiceps*, but the elytra are convex and a little more amplified in the posterior part, the humeral angle is identical, but they are deeply striate with the intervals narrow and subcarinate, the eighth one begins at a long distance from the base, the outer margin is narrow and has a series of ill-defined punctures in the posterior part, the two punctures in the posterior part of the third interval are very conspicuous. Length 16–18 mm.; width 5–5¼ mm.

*Hab.* Cape Colony (Knysna), Natal (D'Urban), teste Bohem.

## GEN. TÆNIOLOBUS, Chaud.,

Bull. Mosc., 1855, i., p. 30.

## DISTICHUS, Motsch.

Lobes of mentum with an intramarginal and nearly straight carina; maxillæ straight, curved at tip and very sharp, last joint of maxillary and labial palpi longer than the preceding one and sub-compressed; labrum very short, trilobate; antennæ reaching the posterior angle of the prothorax, basal joint slightly arcuate, claviform, as long as the two following, the second, third, and fourth small, the others quadrate, gradually increasing in size from the fifth to the last, which is the thickest, and obtusely rounded at tip; head quadrate, with two long impressions; prothorax angular laterally behind, median part of the base sinuate, not produced behind; elytra very little convex or depressed, elongate, winged or not, shoulders dented; legs moderately long.

The genus is represented in South America, Europe, Africa (Senegal, White Nile, Grand Bassam), and India.

*Synopsis of Species.*

- Elytra subcylindrical, three punctures on the posterior part of third interval; prothorax without any basal angle; elytra with rounded shoulders; clypeus quadridentate .. .. . *lucidus*.  
 Elytra quite plane, four punctures on the third stria; no wings .. *depressus*.  
 Elytra a little convex, three punctures on the third stria; wings .. *picicornis*.  
 Elytra convex, no humeral angle, two punctures in the posterior part of the third stria .. .. . *nitidulus*.

## TÆNIOLOBUS LUCIDUS, Chaud.,

Monogr., *loc. cit.*, 1880, p. 42.

Shiny; head broad, transverse, lateral impressions deep, short, ending in a narrow line that reaches the median part; clypeus quadridentate in the middle of the anterior part; prothorax subparallel laterally, a little broader than the head, broader than long, posterior angle rounded and without any trace of the small angular tooth; elytra elongato-ovate, not quite parallel laterally, without any humeral angle, convex, deeply punctato-striate with the intervals moderately convex, the seventh one although not carinate overhangs a little the following one, third interval with three broad setigerous punctures on the posterior part, basal part granulose, outer margin smooth; anterior tibiæ unidentate above the digitation, intermediate ones serrate and with one apical tooth, posterior ones not dentate. Length  $15\frac{1}{2}$  mm.; width  $4\frac{2}{5}$  mm.

*Hab.* Lake N'Gami, teste De Chaud.

## TÆNIOLOBUS DEPRESSUS, Bohem.,

Insect. Caffr., i., p. 120.

? *T. bisquadrifurcatus*, Klug, Reise n. Mossamb., p. 158.

Black, little shining; palpi, the four basal joints of the antennæ and legs piceous; head broad, subquadrate, longitudinally plicate all over from the apex to the neck; mandibles short, robust; prothorax nearly straight laterally from the apex to the posterior angle which is sharp; elytra plane, not broader than the prothorax, subparallel, humeral angle sharp, and base narrowly granulate, narrowly punctato-striate, with the dorsal intervals plane and the seventh slightly carinate at the base, third stria with four equidistant punctures and a smaller one at the apex, outer margin finely granulate; anterior tibiæ unidentate above the digitation, intermediate ones serrulate and with one apical tooth, posterior ones not dentate. Length 13 mm.; width  $3\frac{1}{2}$  mm.

I have seen only Boheman's type, but it seems to me more probable that *D. bisquadrifurcatus* of Klug is the same as Boheman's species instead of being identical with *D. planus*, as suggested by De Chaudoir.

*Hab.* Caffraria.

## TÆNIOLOBUS PICICORNIS, Dej.,

Spec. Col., vol. v., p. 493.

Black, shining, basal joints of antennæ piceous; head nearly smooth, faintly plicate in the anterior part of the frontal impressions which are ending in a narrow groove, there is a transverse row of punctures on the posterior part; mandibles short, robust; prothorax subparallel from the basal to the posterior angle which is not very sharp, lateral part of the base very diagonal, median part narrow; elytra elongate, parallel from the humeral angle which is sharp to near the median part, and ovate from there to apex, striate with the intervals not quite plane, and the fourth, fifth, sixth, and seventh slightly convex at base, third stria with three equidistant punctures and a smaller one above the apical margin, the base is densely granulose, but not the outer margin; anterior tibiæ unidentate above the digitation, intermediate ones serrulate and with one apical tooth, posterior ones not dentate. Length 10 mm.; width 3 mm.

*Hab.* Natal (Durban), Mozambique (Rikatla).

The range of this species is very great; not only does it occur in Senegal and Zanzibar, but De Chaudoir says that he had specimens from Ceylon and Deccan entirely similar to the African examples.

TÆNIOLOBUS NITIDULUS, Klug,  
Peters' Reise n. Mossamb., 1862, p. 158.

This species is closely allied to *T. picicornis*, but it is more shiny, a little larger, and the elytra are more convex and have no humeral angle; the striae are punctato-striate, and there are two setigerous punctures only on the posterior part of the third stria and another at the apical end of the second; the elytra are soldered together and there are no wings, the base is granulose and so is the basal part of the outer margin; head, prothorax, and legs as in *D. picicornis*. Length  $11\frac{1}{2}$ –13 mm.; width  $2\frac{4}{5}$ –3 mm.

*Hab.* Zambezia (Salisbury), Tette (teste Klug), and West Coast (Grand Bassam), teste De Chaud.

GEN. PACHYDONTUS, Chaud.,  
Ann. Soc. Ent. Belg., 1880, p. 11.

Mentum longer than broad, with a shallow excavation filled by a broad blunt convex tooth carinate in the middle broadly subquadrate at the base, much longer than the apical part of the inner lobe which is much slanting, the outer lobe is nearly perpendicular; ligula very concave, produced in the median part in a sharp tooth nearly as high as the lateral angles; palpi of *Scarites*; mandibles of the male straight for two-thirds of the length, falcate at the tip; labrum narrow, oblique laterally, bisinuate in the anterior part, carinate near the epistoma and with a series of setigerous punctures in front along the carina; head large, broader than long, quadrate, narrower in front of the eyes which are moderately convex, and with two deep longitudinal impressions in the anterior part; prothorax twice as broad as long with the posterior angles acute, the basal part truncate obliquely with the median part produced behind; elytra short with the humeral angle sharp, dentate, the base sinuate, and the margin itself forming a very sharp carina; abdominal segments with two punctures in the median part, anal one with four; anterior tibiae with long external teeth, intermediate ones unidentate.

The shape of the tooth in the mentum, that of the mandibles in the male, which are not unlike those of *Mantichora*, and the absence of intramarginal carina on the elytra, are peculiar to this genus, the habitat of which seems to be restricted to the Cape Colony.

PACHYDONTUS LANGUIDUS, Wiedem.,  
Plate IX., fig. 2.  
Zool. Mag., ii., 1, p. 35.

Black, subopaque; palpi and tarsi piceous; head quadrate, but a little narrowed in front of the eyes, smooth, with two parallel depressed lines in the median anterior part, and a shallow faintly

plicate depression on each side of the epistoma; prothorax smooth, twice as broad as long at the apex, truncate, apically rounded laterally from the apical angle to the humeral, which is sharp, and produced diagonally from the humeral tooth towards the median part of the base, which is impressed on each side and produced in a short truncate quadrate process broader than the peduncle; elytra short, slightly narrower than the prothorax across the basal angles, ovate with the basal part truncate and sinuate, the humeral angles projecting in a well-developed tooth, depressed in the anterior part and moderately convex behind, faintly striate with the intervals smooth, outer margin sharply carinate with a faint series of very small tubercles turning to punctures in the anterior part instead of an intramarginal carina, and a line of similar tubercles in the arcuation of the base, third interval with two very faint impressions in the posterior part. Length 24–33 mm.; width 11–12 mm.

*Hab.* This species has not, to my knowledge, been found anywhere but on the Table or neighbouring mountains.

GEN. PASSALIDIUS, Chaud.,  
Rev. Zool., 1863, p. 116.

Mentum broad, deeply excavate, the lateral lobes spear shape, the median tooth nearly straight laterally, carinate in the middle, quadrifid at tip; ligula very concave; palpi of *Scarites*; maxillæ curved, falcate at tip, the falciform tooth very sharp and long; antennæ short, basal joint claviform, not longer than the two following, second and fourth equal, third nearly as long as the second and fourth together, shaped like a broadly truncate cone, the other joints thick, moniliform; mandibles moderately long, thick, the internal teeth much developed; labrum narrow, trilobate; head transverse, supra-orbital ridge much developed, the genæ projecting very much; prothorax broader than long, outer sides nearly straight, posterior angle hardly defined; elytra not broader than the prothorax, parallel, without humeral tooth, not much convex, fused; anterior tibiæ with a strong digitation, intermediate and posterior ones with a strong spine; abdominal segments with the median punctures indistinct or entirely wanting.

PASSALIDIUS FORTIPES, Bohem.,  
Plate IX., fig. 3.

Vet. Ac. Förh., 1860, p. 10.

*P. Andersoni*, Chaud., Rev. Zool., 1863, p. 117.

*P. afer*, Chaud., *loc. cit.*, p. 116.

Black, moderately shining; mandibles very roughly strigose; head covered with very rough sinuate plicæ from the apex to near

the vertex, only the posterior part smooth; prothorax smooth on the disk, with faint longitudinal plicæ between the base and the transverse apical line which is almost obsolete, the lateral part is roughly sinuate in the anterior part, the outer margin is slightly recurved, and there is a deep infra-marginal groove with rough broad irregular punctures, on each side of the basal transverse line is a small depression; elytra truncate at the base with the humeral angles not projecting, parallel laterally from the shoulder to nearly the apex, depressed in the dorsal part, with the lateral parts sloping, almost abruptly retuse behind, punctato-striate, with the first four intervals either plane and smooth or very slightly convex, the other four sharply carinate, with the intervals roughly punctured from the base to a little short of the posterior declivity, which is thickly granulate, the intervals stop a little above the declivity, the eighth one overhangs only in the anterior part the outer margin which is slightly sinuate near the median part, no apparent setigerous punctures; anterior tibiæ strongly and widely digitate, there being a very small space between the third digit and the base of the tibia, intermediate ones with a long spine and a very broad ciliate groove on the outer margin, the posterior ones, also with a long spur, very broadly inflated outwardly in the median part, and with a moderately broad groove, thickly ciliate; abdominal segments with hardly any trace of any median punctures, segments either smooth or slightly granulose, the last one always roughly plicate or rugose, anal punctures with a very short bristle, and often undistinguishable. Length 31–39 mm.; width 10–12½ mm.

De Chaudoir has described, under the name of *P. afer*, a variety of *fortipes* differing from the latter merely in being a little smaller and in having the juxta-sutural intervals of the elytra less raised and more smooth; this occurs also, however, in *fortipes*, as a very long series of examples from N'Gami and Damara lands have shown me; but I must state that all the examples of *fortipes* found in the Cape Colony have the median part of the disk smoother than examples from further north.

*Hab.* Cape Colony (Fraserburg, Griqualand West, Cradock, Namaqualand), Damara and Ovampo lands.

GEN. ACANTHOSCELIS, Latreille,

Considér. général, p. 239.

Dej., Spec. Col., i., 1825, p. 402.

Mentum twice as broad as long, moderately excavate, and having a broad triangular median tooth, inner lobe perpendicular nearly to the height of the median tooth, then produced almost horizontally to

the apical angle which is slightly rounded, outer part of the lobes very little amplified in the centre; last joint of maxillary palpi subfusiform, blunted at the tip, the penultimate one of the labial twice as long as the last one, both much more slender than the maxillary; maxillæ much curved outwardly, apical part hamate, but not sharp at tip, very thickly fringed outwardly with thick long incurvate bristles; labrum very short, the median part triangular; head short, twice as broad as long, the superciliary ridge produced in a very acute carina in front of the eye; genæ (cheeks) indistinct; antennæ reaching slightly beyond the median part of the prothorax, the basal joint, subclaviform, is nearly as long as the three following ones, the second nearly as long as the third and fourth together, the others are moniliform; prothorax nearly twice as broad as long, truncate in the apex, with the lateral angles projecting, hardly rounded laterally with the posterior angle very distinct, lateral sides of the base slightly oblique, median part slightly produced backwards; elytra short, twice the length of the prothorax, not so broad at the base, with the humeral angles acutely toothed, gradually amplified to past the median part; tarsi short, the three digits of the anterior tibiæ extremely long, the first two curving outwardly, the two inner teeth also very long, intermediate and posterior ones much thickened apically, the former with two broad apical teeth, the latter denticulate.

ACANTHOSCELIS RUFICORNIS, Fabr.,

Plate IX., fig. 5.

Syst. Eleuth. i., p. 124; Dej., Iconogr., vol. i., pl. 22, fig. 1;

Guérin's Iconogr. Règn Anim., vol. v., f. 8 a.

Black, shining; head very deeply impressed on each side, the impressions nearly reaching the base, and deeply plicate; antennæ and palpi rufescent, a triangular process in front of the eyes; prothorax plicate longitudinally from the apex to the transverse line, the disk transversely plicate with the plicæ wavy, basal part smooth, shining with a deep lateral impression; elytra striate, the intervals subrugose, much raised, convex, almost carinate behind, setigerous punctures absent, no intra-marginal carina, but the space between the eighth interval and the outer margin broad and very rugose; abdominal segments subplicate longitudinally, the ultimate one rugulose, metasternum slightly shagreened; posterior tibiæ curving outwardly. Length 18–23 mm.; width  $6\frac{1}{2}$ –8 mm.

This species, one of the most distinct South African form, has no ally. It is found in plenty on the seashore, under the masses of the decaying seaweeds, *Sargassum longifolium*, and *S. integrifolium*, and *Ecklonia buccinalis*, the "sea bamboo" of the colonists.

*Hab.* Cape Colony (Cape Town, Somerset West, Hout's Bay), Damaraland (Walfish Bay).

## GROUP CLIVINIDÆ.

In this group the shape of the ligula is normal, that is to say, it is not concave, and the paraglossæ are partly separated, and sometimes very divergent from the ligula which is more or less slender; the head has a very well-defined lamina on each side from the eye to the angle of the epistoma; the eyes are prominent (*Reicheia* excepted) and reach nearer to the epistoma; the first joint of the antennæ is not so long as in the *Scaritidæ*, the other joints are more moniliform; the head has two supra-orbital setæ, and the prothorax also two subapical and a postical; the elytra are convex, sometimes cylindrical.

*Synopsis of Genera.*

Anterior tibiæ tridigitate.

Mandibulæ very long and strongly falcate; mentum quadrate; median tooth much shorter than the lateral lobes; paraglossæ slender, diverging; ligula broad, quadrate, a little convex in the median part which is less transparent than the sides .. .. .

*Scolyptus.*

Mandibles arcuate; mentum subquadrate; median tooth nearly as long as the lateral lobes; paraglossæ very slender and curving inward, longer than the ligula which is very narrow, truncate at the tip and bears four long setæ .. .. .

*Bohemanina.*

Mandibles arcuate; mentum quadrate; median tooth as long as the lateral lobes; paraglossæ short, diverging from the ligula which is very narrow, and bear two long setæ at tip; prothorax more or less quadrate .. .. .

*Clivina.*

Mandibles arcuate; mentum without a median tooth; paraglossæ and ligula of *Clivina*; prothorax globose .. .. .

*Dyschirius.*

Anterior tibiæ hardly without any digitation.

Mandibles arcuate; eyes hardly distinct .. .. .

*Reicheia.*

*Clivina* is found in damp grassy places or under stones. *Dyschirius* prefers the sandy shores of rivulets or streams, where they run with rapidity and bury themselves to avoid being captured. *Reicheia* was captured in sifting some damp mould and mosses. Of the five genera included in the *Clivinidæ* one only, *Bohemanina*, is South African; *Scolyptus* is an African genus, occurring in Senegal; *Clivina* and *Dischirius* are represented in Europe, Asia, North and South America, and Australia; while *Reicheia* occurs in Europe only.

The dissection of the buccal organs of the species of this group is by no means easy, as rightly stated by Dr. Horn (genera *Carabidæ*, &c., p. 121), but it is somewhat singular that the figure of the mentum, ligula, and paraglossæ, as given by him, should differ so much from that of the South African species. Putzeys' figures of some *Clivina* (Postscriptum ad Clivin. Monogr., figs. 43-60) seem highly fanciful, but the details of the buccal organs of *Bohemanina* and *Scolyptus* are fairly correct.

## GEN. SCOLYPTUS, Putz.,

Memoir. Acad. Sc. d. Liège, xviii., 1863; Postscr. ad Clivinid. Monograph, 1863, p. 21.

Mentum quadrate; outer side of lateral lobes straight, upper margin truncate, with a slight sinuation in the inner angle which is slightly dentate, inner part of the lobes perpendicular, median part filled by a broad obtuse tooth nearly as long as the lateral lobes; ligula very broad, subquadrate, with the apical angles slightly rounded, horny, with a narrow median part more corneous, and surmounted by two diverging setæ not set close to one another; paraglossæ lanciform, short, diverging from the base of the ligula, and about one-half shorter; maxillæ falcate at the tip, third joint of labial palpi slender, and nearly twice as long as the ultimate one which is acutely fusiform, second joint of maxillary palpi much swollen, the apical one of the same shape as the labial; antennæ not long, the first joint shorter than the two following, the others moniliform, the last one ovate; head quadrate, with two long setæ at the back of the eye; mandibles very long, falcate; prothorax elongato-quadrate; elytra cylindrical, eighth interval carinate, overhanging the outer margin; anterior tibiæ quadri-digitate, intermediate ones dilated and with a long post-median tooth.

## SCOLYPTUS MERIDIONALIS.

Reddish brown; head with a well-developed lateral lamina reaching from the labrum to above the eye, incised near the labrum; labrum short, slightly bisinuate; head slightly punctulate in the anterior part, with a narrow median depression and a slightly deeper lateral one on each side; epistoma circular, with the apical part of the head projecting in a semicircle; prothorax elongato-quadrate, a little broader across the posterior angles than at the apex, with the outer sides slightly sinuate in the anterior part, posterior angles not much produced, lateral part of the base subdiagonal, median part truncate, slightly convex on the disk, smooth, shining, and with a narrow median groove; elytra cylindrical, truncate at the base, and with a moderately sharp humeral angle, narrowly punctato-striate, with the eighth interval very narrow and carinate, outer margin broad with a regular series of broad punctures, on the third interval four deep setigerous equidistant punctures, sub-basal, median, post-median, and supra-apical. Length 12 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Natal (D'Urban).

## GEN. BOHEMANIA, Putz.,

Postscr. ad Clivinid. Monogr., 1863, p. 17.

Mentum subquadrate, a little broader at the base than at the apex,

slightly sinuose laterally, lateral lobes a little rounded outwardly, truncate diagonally towards the inner part, which is shallow and perpendicular, median part filled with a broad triangular tooth a little shorter than the inner part of the lateral lobes; ligula very slender, and bearing four long setæ at the tip; paraglossæ longer than the ligula, equally slender and curving inward; maxillary palpi thick, apical one of both maxillary and labial fusiform; maxillæ lobate at the tip; head broad, quadrate, eyes prominent, basal joint of antennæ nearly as long as the two following, the others moniliform, the apical one elongato-ovate; prothorax quadrate, elytra cylindrical, punctato-striate; anterior tibiæ with three long digits, and a well-defined tooth above it, intermediate, more or less sinuate above the apical spur.

*Synopsis of Species.*

Body large, robust, black; intermediate tibiæ strongly sinuate above the apical spur, which is very long .. .. . *gigantea.*

Body slender, brown; intermediate tibiæ hardly sinuate above the apical spur, which is very small .. .. . *minor.*

BOHEMANIA GIGANTEA, Bohem.,

Insect. Caffr., i., p. 121.

Black, shining; head plicate laterally, the fold near the eye reaching beyond it, central part with a short groove, the horizontal lamina in front of the eye very much developed and incised at the junction with the epistoma; labrum emarginate, fringed with yellowish setæ, and with three setigerous marginal punctures on each side; prothorax quadrate, sinuate in the anterior part, straight laterally from the apical to the posterior angle, truncate behind above the median part of the base, which is produced behind, smooth, shining, median groove very distinct; elytra slightly broader than the prothorax, cylindrical, truncate at the base, with the humeral angle distinct, punctato-striate, with the six first intervals broad and slightly convex, the seventh and eighth carinate towards the base and reaching the humeral angle, one puncture in the median part of the third interval, another one in the posterior part, and one between at equal distance from the two, outer margin broad, and with a series of punctures, the walls of which are slightly granulose; anterior tibiæ with a conspicuous tooth above the digitation, intermediate ones dilated, the outer margin sinuate above the apical spur, which is long; both intermediate and posterior legs densely ciliated with brown bristles. Length 20 mm.; width  $5\frac{1}{2}$  mm.

*Hab.* Transvaal (Leydenburg).

BOHEMANIA MINOR.

The description of *B. gigantea* applies also to this species. It is,

however, very much smaller, reddish brown instead of black; the head has four lateral very distinct plicæ; the elytra have the same shape, and the same sculpture, but the third interval has four punctures, a median, a post-median, and two posterior ones; these punctures are not symmetrical, there being no appearance of the median one on the right elytron; intermediate tibiæ not emarginate above the apical spur, which is small. Length 12 mm.; width 3 mm.

*Hab.* Natal (D'Urban).

GEN. CLIVINA, Latr.,

Considér. Génér., 1810, p. 156.

Mentum subquadrate, lateral part of the lobes straight, outer part of the apical margin slightly sinuate outwardly, and a little diagonal towards the inner part; mentum shallow, filled with an acute triangular tooth nearly as long as the inner part of the lobes; ligula very slender, submembranaceous, short and with two long setæ at the tip; paraglossæ lanciform, very short and diverging from the base of the ligula; maxillæ hooked at the tip, last joint of maxillary and labial palpi fusiform inwardly, but linear outwardly; basal joint of antennæ as long as the two following, the others moniliform except the last one, which is ovate; head deeply impressed laterally; eyes prominent, with a well-developed ridge or lamina in the anterior part reaching the epistoma; prothorax more or less quadrate; elytra cylindrical; anterior tibiæ with three long digits and sometimes a well-defined tooth above it.

*Synopsis of Species.*

I.

Anterior tibiæ with a tooth above the digitation, the intermediate with an outer supra-apical spur.

Eighth interval of each elytron not produced above the shoulder. . . . . *(grandis.*  
*Bohemani.*

II.

Anterior tibiæ without a tooth above the digitation, intermediate ones without an outer spur, eighth interval of each elytron produced above the shoulder.

Ante-ocular laminæ rounded; eyes very prominent; elytra striate, striæ punctured from base to apex . . . . . *sculptilis.*  
Laminæ distinctly separated from the epistome.  
Joints of antennæ moniliform; elytra moderately costate . . . . . *lacustris.*  
Joints of antennæ subelongate; elytra moderately costate . . . . . *damarina.*  
Elytra highly costate, intervals deeply punctured . . . . . *natalensis.*  
Laminæ slightly separated from the epistoma; joints of antennæ subelongate.  
Prothorax and elytra somewhat depressed . . . . . *caffra.*  
Sutural part of elytra broad, first and second intervals slightly punctured in the anterior part only . . . . . *concinna.*  
Sutural part of elytra carinate, first and second intervals punctured from the base to past the median part . . . . . *perplexa.*

CLIVINA GRANDIS, Dej.,  
Spec. Col., i., p. 478.

Black, with the apical part of the elytra reddish brown, or entirely dark brown and sometimes reddish brown; head deeply impressed laterally, and also in the centre, the lateral impressions slightly plicate; ocular lamina incised slightly at the junction with the angle of the epistoma, which is slightly sinuate in the anterior part; labrum deeply emarginate; antennæ pubescent, first joint not as long as the following two, very moniliform from the third joint to the eleventh, the latter ovate, broader than the others; prothorax elongato-quadrate, a little broader at the posterior than at the anterior angles, lateral sides of the base oblique, median part projecting a little, posterior angles slightly dentate; elytra cylindrical, truncate at the base, with the humeral angle acute and dentate, deeply punctato-striate, with the intervals moderately broad and convex, with the basal part of the seventh and eighth carinate, outer margin broad, with a series of small foveæ, third interval with three punctures on the outer side of the convexity; anterior tibiæ with a conspicuous tooth above the digitation, intermediate ones with a conspicuous tooth at the apex of the outer carina. Length 9–11 mm.; width 3–3½ mm.

*Hab.* Natal (D'Urban, Maritzburg, Newcastle, Escourt), Transvaal (Potchefstroom, Pretoria), Zambezia (Salisbury), Damaraland.

CLIVINA BOHEMANI, Putz.,

Postscript. ad Clivin. Monog., *loc. cit.*, p. 34.

*C. angustata*, Dej., Bohem., Insect. Caffr., i., p. 122.

According to Putzeys, *loc. cit.*, this species, which I have not seen, is distinguished from *C. grandis*, with which it is closely allied by its smaller size, by the more elongated and less convex elytra; the prothorax is longer and a little broader in the anterior part, the vertex of the head is less rugose, the laminae are less distinctly separated from the epistoma, the labrum is hardly emarginate, the mandibles are thicker, hardly carinate on the upper side and shorter; lastly, the digits of the anterior tibiæ are less developed. Length 8 mm.; width 2¾ mm.

*Hab.* Interior of Caffraria, teste Bohem.

Putzeys in his description of this species is not quite certain that it is a distinct species, for he adds that "only the examination of a number of examples will decide if the differences (between *Bohemani* and *grandis*) are constant and not merely accidental."

## CLIVINA SCULPTILIS, Putz.,

Rev. Gen. d. Clavinid., Ann. Soc. Ent. Belg., 1866, p. 119.

Piceous; head with a deep central fossa, and on each side several carinæ extending as far as the neck; laminæ rounded; epistoma semicircular; labrum truncate, with the angles rounded; antennæ not reaching the posterior angles, moderately thick, the last joints as broad as long; prothorax quadrate, with the outer sides depressed; elytra parallel, almost cylindrical, with the base and shoulders rounded, deeply punctured from base to apex, the prescutellary stria runs parallel to the suture, and reaches the fifth part of the length; the fourth interval has four setigerous punctures. Length  $7\frac{3}{4}$  mm.; width  $1\frac{3}{4}$  mm.

*Hab.* Natal (? D'Urban).

## CLIVINA LACUSTRIS, Putz.,

Rev. Gén. d. Clivinid., *loc. cit.*, p. 129.

Brownish red; head punctulate on the vertex, deeply impressed laterally, but with the side of the impression not highly carinate; epistoma truncate in the anterior part; laminæ much developed, rounded, incised at the junction with the epistoma; labrum hardly emarginate; joints four to ten of the antennæ quadrate, moniliform, ultimate one ovate; prothorax quadrate from the anterior to the posterior angles, nearly truncate at the base, lateral part of the base very diagonal, central part hardly produced behind, posterior angle acute; elytra parallel, truncate at the base, with the humeral angle not rounded, finely punctato-striate, the striæ reaching from base to top of posterior declivity, with the punctures well defined the whole length, intervals convex, a little more carinate in the anterior part, the sixth, seventh, and eighth carinate near the base, third interval with four deep setigerous punctures, presutural stria very short. Length 5 mm.; width  $1\frac{1}{4}$  mm.

*Hab.* Transvaal (Pretoria), Lake N'Gami, teste Putz.

## CLIVINA DAMARINA.

Black, shining; antennæ, palpi, and tibiæ rufescent; head with a lateral acute carina reaching the neck, vertex smooth; laminæ prominent, incised at the junction with the epistoma, which, like the labrum, is truncate at the apex; antennæ reaching further than the basal angle, pubescent, the joints nearly one-half longer than broad, the last joint elongato-ovate; prothorax elongato-quadrate, not broader at the posterior than at the anterior angle, lateral part of the base very diagonal, median part slightly emarginate and a little produced behind; elytra parallel, cylindrical, narrowly punctato-striate, the striæ reaching from the base to a short distance from the apex, the

punctures well defined from the base to two-thirds of the length; intervals slightly convex, the fourth one with four punctures; anterior tibiæ with a very slight indentation preceded by a seta above the digitation, the two setæ on each side of the last abdominal segment close to one another, as in *C. lacustris*, but I believe this to be a sexual character. Length 6 mm.; width  $1\frac{1}{2}$  mm.

*Hab.* Damaraland (Kookarrah).

Closely allied to *C. lacustris*; the general facies and the sculpture of the elytra are identical, but the sculpture of the head is very different, and so is the shape of the joints of antennæ.

CLIVINA NATALENSIS, Putz.,

Postscr. ad Clivinid. Monogr., *loc. cit.*, p. 63.

Black, shining, with the antennæ, palpi, labrum, intermediate and posterior tibiæ rufescent; head smooth, sulcate laterally, the edge of the depression not carinate except behind, and with a round deep median puncture; laminæ very distinctly incised at the junction with the epistoma, which is truncate in front as well as the labrum antennæ reaching short of the posterior angle, with the intermediate joints moniliform, the ultimate one also short, ovoid, and the second and third moderately elongated; prothorax elongato-quadrate, but slightly broader at the posterior than in the anterior angles, slightly punctulate on the disk, lateral part of the base diagonal, median part not projecting, posterior angle slightly projecting; elytra oblong, a little wider beyond the middle than at the base, which is truncate, with the angles slightly rounded and without a humeral dent, deeply and narrowly punctato-striate, with the intervals much raised and acutely carinate, and reaching from the base to the fourth puncture of the third interval on the top of the declivity, the punctures are very conspicuous as far as the third puncture. Length  $5\frac{1}{2}$ –6 mm.; width  $1\frac{1}{2}$ – $1\frac{3}{4}$  mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch).

More deeply punctato-striate than *C. cognata*, its nearest ally.

CLIVINA CAFFRA, Putz.,

Postscr. ad Clivinid. Monogr., *loc. cit.*, p. 65.

Head and prothorax black, shining; elytra piceous; antennæ and palpi reddish brown; head impressed laterally and with a diagonal short carina from the base of the epistoma to the hind part of the eye; vertex smooth, with a median round well-defined puncture; laminæ very slightly disjointed from the epistoma, which, like the labrum, is truncate at the apex; antennæ reaching short of the posterior angle of the prothorax, intermediate joints elongato-quadrate, the ultimate one ovoid; prothorax quadrate, with the lateral

part of the base very diagonal, disk plicatulate and slightly depressed; elytra parallel, slightly depressed from the base to two-thirds of the length, punctato-striate, with the punctures small and evanescent beyond the third puncture of the third interval, suture raised, pre-sutural striæ reaching to one-sixth of the length, intervals narrow, carinate from the base to the median part and rounded beyond it. Length 7 mm.; width 2 mm.

The biggest of South African *Clivinæ*, and more depressed than the others.

*Hab.* Delagoa Bay (Rikatla).

#### CLIVINA COGNATA.

Black, shining; antennæ, palpi, and intermediate and hind legs reddish brown; head smooth on the vertex, impressed laterally, one carina moderately raised above the eye; lamina not incised at the junction with the epistoma; antennæ reaching the posterior angle of the prothorax, intermediate joints one-third longer than broad, the ultimate one elongato-ovate; prothorax elongated, slightly amplified from the anterior angle, which is slightly rounded to the posterior one, lateral part of the base somewhat rounded, although diagonal, base truncate, hardly projecting, truncate, posterior angle hardly dentate; elytra parallel, truncate at the base, with the humeral angle somewhat rounded, subcylindrical, narrowly punctato-striate, with the first, second, and third intervals a little broader than the others, the suture raised, and the punctures distinct from the base to two-thirds of the length except on the first and second intervals, where they are distinct as far only as the second puncture on the third interval, prescutellary striæ reaching one-sixth of the length. This species might be mistaken for *C. natalensis*, but the sculpture of the head is different, the elytra are more parallel, less deeply punctato-striate, and the intervals are not so carinate. Length 6 mm.; width  $1\frac{3}{4}$  mm.

*Hab.* Natal (Frere), Zambezia (Salisbury).

#### CLIVINA PERPLEXA.

Intense black, shining; palpi, antennæ, intermediate and posterior legs reddish brown; head smooth on the vertex, carina over the eyes not very well defined; laminæ not incised at the junction with the epistoma, which is truncate in the middle as well as the labrum; mandibles long; apical part of the ultimate joint of the labial palpi truncate; antennæ reaching the posterior angle of the prothorax, intermediate joints one-third longer than broad, ultimate one elongato-ovate; prothorax quadrate from the anterior to the posterior angle, where it is a little broader than at the apex, lateral part of the

base subdiagonal; elytra parallel, truncate at the base, with the shoulders slightly rounded, narrowly punctato-striate from the base to the top of the posterior declivity, with the first, second, and third intervals moderately plane, and the others more carinate, suture slightly raised, and prescutellary striæ short, basal setigerous puncture on the third interval sometimes nearly obliterated. Length  $6\frac{3}{4}$ –7 mm.; width 2 mm.

*Hab.* Mozambique (Rikatla).

GEN. DYSCHIRIUS, Bonelli,

Observ. Entom., part i., Mém. Acad. Tur., 1813, p. 483.

Mentum subquadrate, moderately deep and without a median tooth; paraglossæ and ligula of *Clivina*; last joint of maxillary palpi occasionally inflated inwardly or subsecuriform in the male; mandibles long, falcate; antennæ moniliform; head impressed laterally, ante-ocular ridge well-defined; prothorax globose, seldom elongated, convex; elytra oblong or elongato-ovate, depressed near the suture at a short distance from the base; anterior tibiæ deeply incised in the inner part and ending in a long spine, the outer part compressed and ending in a long apical spur preceded by a short tooth.

*Synopsis of Species.*

I.

Median part of the prothorax not amplified laterally.

Punctures on the elytra reaching from the base to the posterior declivity .. .. . *dispar*.

II.

Prothorax gradually amplified laterally from the apex to past the median part.

Elytra with a smooth patch between the first and fourth striæ .. *ornatus*.

III.

Prothorax globose.

Prothorax smooth; elytra with a posterior rufescent patch .. *capensis*.

Elytra without any rufescent patch.

Light bronze; antennæ flavous; punctures moderately deep .. *flavicornis*.

Dark bronze; antennæ black; punctures broad and deep .. *parvulus*.

Prothorax punctulate; elytra ovate .. .. . *puncticollis*.

DYSCHIRIUS DISPAR.

Black, with a faint metallic tinge, shining; palpi, antennæ, labrum, and mandibles reddish; head deeply impressed laterally in the anterior part, smooth in the middle and behind; prothorax a little longer than broad, and a little broader in the posterior than on the anterior part with the outer sides not amplified, slightly marginate but with the angles rounded, smooth, shining, and with a very

narrow although distinct median longitudinal groove; elytra elongate, subcylindrical, punctato-striate, the two juxta-sutural striæ punctured as far as the median part, only the lateral ones punctured as far as two-thirds of the length, the posterior part striated without punctures as far as the apex, punctures small, intervals raised slightly in the anterior part; under side black; legs reddish. Length 4 mm.; width 1 mm.

The facies is not unlike that of a *Clivina*, owing to the elongate form of the prothorax, but the angles are obtuse, and the digitation of the anterior tibiæ is that of *Dyschirius*.

*Hab.* Cape Colony (Cape Town).

DYSCHIRIUS ORNATUS, Pér.,

Trans. S. Afric. Phil. Soc., vol. iii., 1885, p. 78.

Very light bronze with a rufescent tinge; labrum, mandibles, palpi, and the three basal joints of antennæ rufescent, the other joints infuscate; head smooth on the vertex and behind; prothorax smooth, very convex, finely grooved longitudinally in the centre, broader at the base than at the apex with the outer sides gradually amplified from the anterior to the basal part; elytra elongate, subcylindrical with the base sloping slightly from the peduncle to the humeral angle, deeply punctato-striate; from the base to past the middle, striate laterally from there with the punctures evanescent, and with a broad ante-median smooth space between the first and fourth striæ, and a narrower one at the apex of the dorsal striæ, the posterior part of the elytra, the under side and the tibiæ are flavescent; the femoræ are darker. Length  $4\frac{1}{2}$  mm.; width  $1\frac{1}{4}$  mm.

*Hab.* Cape Colony (Cape Town).

DYSCHIRIUS CAPENSIS, Pér.,

Trans. S. Afric. Phil. Soc., vol. iii., 1885, p. 78.

Bronze, shining; labrum, mandibles, palpi, legs, and the three basal joints of antennæ reddish, the other joints of the antennæ infuscate; head smooth; prothorax globose, smooth, faintly grooved longitudinally in the middle; elytra elongate subcylindrical, subtruncate at the base, punctato-striate, the punctures moderately deep from the base to about the median part, and disappearing almost altogether from there to the apex, where the striæ themselves become very faint; the intervals in the anterior part slightly raised, bronze, shining, with a lateral reddish not very well-defined patch at the posterior declivity, under side black. Length  $3\frac{1}{2}$ –4 mm.; width  $1-1\frac{1}{4}$  mm.

*Hab.* Cape Colony (Cape Town, Grahamstown).

## DYSCHIRIUS FLAVICORNIS.

Light bronze, shining; palpi, labrum, and antennæ flavous; head and prothorax quite smooth, the median groove of the latter almost indistinct; elytra truncate at the base; elongate, punctato-striate, the punctures moderately broad and deep from the base to a little beyond the median part, evanescent behind; the three juxtasutural intervals slightly raised; under side and legs rufescent. Length  $3\frac{1}{4}$  mm.; width 1 mm.

*Hab.* Zambezia (Salisbury).

## DYSCHIRIUS PARVULUS.

Head and prothorax very dark blue, almost black; elytra very dark bronze; labrum and the three basal joints of antennæ rufescent, the other joints black; head and prothorax smooth, the latter globose, the median groove very indistinct; elytra elongate, punctato-striate from the base to three-fifths of the length with the punctures broad and deep, the striæ not punctate behind, but still discernible beyond the third puncture of the third interval; under side black; legs rufescent. Length  $2\frac{1}{2}$  mm.; width  $\frac{4}{5}$  mm.

*Hab.* Cape Colony (Grahamstown).

## DYSCHIRIUS PUNCTICOLLIS.

Bronze, shining; antennæ, palpi, and labrum rufescent; head very deeply impressed laterally and with small plicæ on the basal part of the epistoma and a small carina in the median part of the head, posterior part smooth; prothorax globose, covered with fine closely set punctures; elytra truncate at the base, shorter than in the preceding species, and hence more ovate in shape, punctato-striate, with the punctures deep; the first stria punctate as far as the median part only, the others as far as three-fifths of the length and indistinct beyond that distance; under side black; legs rufescent. Length 3 mm.; width 1 mm.

*Hab.* Natal (Frere).

## GEN. REICHEIA, Sauley,

Ann. Soc. Entom. France, 1862, p. 285.

Mentum subtriangular, with no median tooth, last joint of maxillary and labial palpi swollen at the base and very acute at the tip; head with lateral impressions, the laminæ in the anterior part of the eyes well developed, eyes rudimentary, reduced to a single facet; antennæ submoniliform, intermediate joints slightly increasing in width from the third to the eleventh, which is ovate, second joint slightly shorter than the first; prothorax globose; elytra elongato-ovate, convex, punctured; anterior tibiæ with two long

inner spurs with a deep incision between, apical part not compressed, and outer part ending in a short blunted spur, with two faintly defined denticulations above it.

#### REICHEIA PROMONTORII.

Reddish brown, shining; head with a deep lateral impression and a high ridge surmounted by a long seta reaching from near the neck to the point of insertion of the antennæ and overhanging the eye, which is extremely small and quite rudimentary; ante-ocular lamina small, rounded, not incised at the junction with the epistoma, the epistoma truncate; labrum very slightly emarginate and with five punctures bearing a long seta; last joints of maxillary and labial palpi fusiform, much swollen at the base; prothorax very convex, truncate at the apex, rounded laterally from the anterior to the posterior angle, smooth on the disk and with the median line well defined; elytra ovate, truncate at the base, with the shoulders much rounded, very convex, and with series of moderately deep discoidal punctures disappearing past the median part of the elytra, the intervals are smooth, but what should be the eighth one is more distinct in the anterior part, the outer margin has a series of long setæ; anterior tibiæ blunted at the tip and with a short spine on the outer edge with two faint denticulations above it; intermediate tibiæ with a very short, outward spur. Length 2 mm.; width  $\frac{3}{4}$  mm.

Although the place where the eye should be is occupied by a broad ridge, the two long setæ found on the Clivinidæ, close to and also at the hind part of the eye are present also in *R. Promontorii*. The demeanour of this species in captivity leaves no doubt at it being a blind one.

#### TRIBE SIAGONIDES.

Mentum very big, fused with the gula or submentum, very deeply emarginate, with the inner part of the lobes nearly perpendicular, and with a bifid median tooth; ligula horny, elongato-quadrate, no paraglossæ; mandibles hooked; basal joint of antennæ long; head, prothorax, and elytra quite plane; the posterior part of the body pedunculate; legs non-fossorial; eyes with two supra-orbital setæ; prothorax very strongly constricted at the base and with two lateral setæ, one in the anterior part, the other one near the middle.

GEN. SIAGONA, Latreille,

Gen. Crust. et Insect., i., 1806, p. 160.

Mentum deeply emarginate with the epilobes straight but concave, rounded at the apex and outwardly, and with a broad perpendicular median tooth moderately long and deeply incised at the tip; ligula

horny, quadrate, truncate at the apex, carinate longitudinally in the middle, the apical part slightly scooped out and bearing several setæ; no paraglossæ, but instead a small fascicle of hairs; maxillæ ending in a long hook; palpi pubescent, the apical one of the maxillary clubbed, subtruncate at the tip, that of the labial securiform; mandibles much arcuate, thick at the base, very sharp at the tip; labrum plane, and with five apical setigerous punctures; eyes moderately prominent with a long supra-orbital ridge ending at the angle of the epistoma, two setæ above the eye, one in front, one above; head slightly constricted with a very short neck; antennæ long, intermediate joints of the antennæ pubescent, the three basal ones very densely pilose, and also with long bristles, the first one nearly as long as the three following, the others elongate; prothorax narrowed diagonally laterally from the median part to the base, which is very narrow, disk quite plane; elytra pedunculate at the base, elongato-ovate, very plane; legs moderately long; femora clubbed; tibiæ compressed at the tip, not fossorial; tarsi pubescent above and under; joints subconical, the fourth one not incised; claws long, slender.

*Siagonn* occurs in Europe, Africa, and the Indian Peninsula. It is worthy of notice, as pointed out by De Chaudoir in his 'Monographie des Siagonides,' Bull. d. Mosc., 1876, p. 18, that they are eminently continental insects, having not yet been found in any of the islands round Asia or Africa, and the Oriental continental limit seems to be the river Mekong.

#### *Synopsis of Species.*

Light brown or rufo-piceous, densely pubescent . . . . . *australis*.  
 Black, shining; elytra smooth, with a few setigerous punctures in the dorsal part . . . . . (*simplex*.  
 . . . . . (*caffra*).

#### SIAGONA AUSTRALIS, Pèr.,

Trans. S. Afric. Phil. Soc., p. 7, vol. vi., pt. ii., 1892.

Light or reddish brown, very pubescent on the upper side; head very closely and deeply punctured; prothorax truncate at the base, covered with setigerous punctures, median part of the disk depressed and with a deep, narrow, longitudinal impression reaching from apex to base, the outer part a little convex; elytra with the shoulders slightly rounded, elongate, nearly parallel, plane, densely pubescent, and with a few scattered bristles; under side closely punctured and briefly pubescent, the female is less pubescent on the upper part than the male, and the anterior angles of the elytra more rounded; the prothorax is also less closely punctured. Length 11–11½ mm.; width 3½–4 mm.

*Hab.* Ovampoland, Zambezia (Salisbury).

## SIAGONA SIMPLEX, Pèr.,

Trans. S. Afric. Phil. Soc., *loc. cit.*, p. 6.

Black, shining, nearly smooth; head deeply and closely punctured; prothorax with the lateral longitudinal impressions interrupted in the median part, hairless, and with a few scattered punctures; elytra nearly smooth with a few faint setigerous punctures in the dorsal part, more or less seriate longitudinally, the anterior part with more distinct and more closely set punctures. Length 13–15 mm.; width 4 mm.

*Hab.* Ovampoland.

## SIAGONA CAFFRA, Bohem.,

Insect. Caffr., i., p. 115.

*S. melanaria*, Klug, Peters' Reise n. Mossamb., p. 154.

The description of *S. simplex* applies almost entirely to this species, the difference consists more in the size; the elytra are very sparsely punctured, very smooth, and the punctures are a little more numerous near the base; the head has only a few punctures, and the prothorax is punctured only along the base and apex. Length 20 mm.

*Hab.* Interior of Caffraria (Bohem.), Mozambique (Tette), Klug.

## TRIBE HARPALIDES.

Mentum broad, deeply emarginate, with or without a median tooth; ligula either very slender or moderately broad, free at the tip, which is slightly dilated and bear two long setæ, from the paraglossæ which are longer than the ligula (with the exception of *Amblystomus*) and slightly pilose laterally, last joint of palpi subfusiform, generally acute at the tip; maxillæ subfalcate, outer maxillary lobe very slender and acute; head broad, not narrowed into a neck, with one supra-orbital seta, and a very long one in the apical angle of the clypeus; mandibles usually short; prothorax transverse, seldom cylindrical (*Batoscelis*) posterior angles blunt or acute, with a lateral seta above the median part; elytra elongate, nearly plane or not much convex, striate, either pubescent or glabrous; legs moderately long, anterior tibiæ with three or four short apical spines apically, only in one case dentate (*Pachytrachelus*), tarsi variable.

The generic characters of the species included in this tribe are to a great extent based on the shape and vestiture of the tarsi of the male, the anterior, and sometimes the intermediate ones of which are more or less dilated, glabrous, spongy, or with biseriated squamulæ underneath. However undesirable it may be to adopt

generic characters founded on sexual characters only, the great likeness of a Harpalid to another, as well as the great similitude in colour and sculpture, renders the adoption of these characters necessary. I am not aware that the character derived from the greater dilatation of the tarsi of the male, and the clothing with squamæ underneath, fails in the series of the South African species.

The *Harpalides* are divided in three groups.

Antennæ short, intermediate joints submoniliform; tarsi not dilate nor squamose in both sexes . . . . . *Daptidæ*.

Antennæ filiform; anterior tarsi dilated in the male, and spongy underneath . . . . . *Anisodactylidæ*.

Antennæ filiform; anterior tarsi dilated in the male, with two series of diagonal squamulæ underneath . . . . . *Harpalidæ*.

#### GROUP DAPTIDÆ.

##### *Synopsis of Genera.*

Antennæ geniculate; prothorax and elytra cylindrical; anterior tibiæ deeply sinuate outwardly and tridenticulate . . . . . *Batoscelis*.

Antennæ subgeniculate; prothorax cordiform; elytra depressed; anterior tibiæ not sinuate externally . . . . . *Agriodius*.

#### GROUP ANISODACTYLIDÆ.

##### *Synopsis of Genera.*

Anterior and intermediate tarsi of the male spongy, but not thickly, and the basal one glabrous, a little dilated; ligula narrow, setulose at the apex; paraglossæ much longer, lobate, diverging apically, no median tooth in the mentum. . . . . ( *Cratognathus*.  
 *Encephalus*.

Anterior and intermediate tarsi broadly dilate, basal joint of the intermediate ones glabrous; ligula very narrow; paraglossæ lobate, much longer than the ligula, no tooth in the mentum . . . . . *Anisodactylus*.

#### GROUP HARPALIDÆ.

##### *Synopsis of Genera.*

##### I.

Anterior tarsi of male slightly dilated, intermediate ones narrow, not squamulose.

Four joints of the anterior tarsi squamulose, intermediate ones glabrous; ligula broad, as long as the paraglossæ, which are equally broad, united with it and with the apical outer angle diagonal; mentum without any median tooth; elytra flavescent with green bands; intervals smooth . . . . . *Bradybænus*.

Basal joint of the anterior tarsi glabrous, the second, third, and fourth slightly dilated and squamulose, intermediate ones narrow, not squamulose, basal joint of the

posterior legs as long as the two following; ligula narrow; paraglossæ nearly three times as broad as the ligula, rounded apically and very slightly longer; mentum without any median tooth; intervals of elytra plane; three series of punctures on each side . . . . .

*Pseudoselenophorus.*

## II.

Anterior and intermediate tarsi more or less dilated, cordiform, the apical joint incised.

Tarsi moderately dilated, the first joint of the anterior and intermediate ones not squamulose; ligula long, slender; paraglossæ three times as broad, much longer and diagonally truncate at tip; prothorax deeply sinuate laterally; intervals of elytra convex; mentum with a short median tooth . . . . .

*Omostropus.*

Tarsi dilated; ligula very narrow; paraglossæ broader, but hardly longer; median part of mentum sinuate; intervals of elytra shagreened, two or three series of punctures on each side . . . . .

*Hypolithus.*

Median part of mentum with a conspicuous tooth, one post-median puncture on third interval . . . . .

*Axinotoma.*

Ligula slender; paraglossæ also very slender and longer than the ligula; mentum with a short median tooth; intervals plane, separated by two parallel lines . . . . .

*Siopelus.*

Ligula slender; paraglossæ twice as broad as the ligula, slightly longer and more or less diverging at tip; mentum with a very short median tooth or a moderately deep sinuation; intervals of elytra smooth, third one with a post-median puncture; more or less rectangular . . . . .

*Harpalus.*

Ligula broad; paraglossæ much narrower and longer, median part of the emargination of the mentum straight; prothorax suborbicular; intervals of elytra smooth, abdominal segments fringed with hairs . . . . .

{ *Ooidius.*  
*Harpalomorphus.*

Ligula very narrow; paraglossæ very broadly dilated and rounded at the tip; median part of mentum straight; intervals of elytra plane and finely shagreened . . . . .

*Dioryche.*

Last joint of anterior and intermediate tarsi deeply lobate; ligula very slender; paraglossæ broader than the ligula, much longer and diverging; mentum without a median tooth; apical joint of palpi truncate . . . . .

*Stenolophus.*

Tarsi of the anterior and intermediate legs very slightly dilate, fourth joint not incised; ligula narrow; paraglossæ slender, much longer than the ligula and slightly diverging, last joint of the labial palpi stoutly oval and sharply acuminate . . . . .

*Acupalpus.*

Tarsi of the anterior legs very slightly dilate, glabrous on the upper side; paraglossæ very much broader than the ligula, singly rounded above it and apparently united beyond; last joint of labial palpi acute . . . . .

*Amblystomus.*

## GEN. PACHYTRACHELUS, Chaud.,

Bull. Mosc., 1852, i., p. 85.

## BATOSCELIS, Lacord.,

Gen. Col., i., 1854, p. 261; Schm. Goeb., Col. Birm., pl. 2, fig. 8.

Mentum emarginate, the emargination crescent-shaped, and with no median tooth; ligula narrow, elongate, truncate, and with two long setæ at the tip; paraglossæ as broad as the ligula, disunited from the ligula at a certain distance from the tip and curving inwards towards the ligula, which is very slightly shorter; maxillæ long, subfalcate, and very densely ciliate from the base to two-thirds of the length; ciliæ very long; palpi slender, the last joint of both labial, and maxillary subovate and acuminate; antennæ short, subfractate, the basal joint long, the second very short, the third a little shorter than the basal one, and all three glabrous, the other joints closely set, short and submoniliform; right mandible overlapping the left; head with a distinct horizontal carina from the anterior part of the eye to the base of the labrum, which is as broad as long and truncate, one supra-orbital seta; prothorax long, nearly straight laterally, convex and truncate at base and apex; elytra twice as long as the prothorax, subcylindrical, striate; third interval with a puncture above the posterior declivity; anterior tarsi dilated towards the apex, deeply incised internally with two long inner spurs, deeply sinuate externally with one very short slender tooth above the sinuation and two at the apex; intermediate tibiæ spinulose outwardly; tarsi narrow, subcordiform, not squamulose underneath.

The diagnosis of this genus is given by Lacordaire from the details of the excellent figure by Schmidt Goebel in his unfinished work, 'Faunula Coleopterorum Birmanicæ,' of an unpublished species. In the South African species there is no median tooth in the mentum, and the anterior tarsi have only one spinule instead of two above the lateral sinuation. While the short, subgeniculate antennæ with submoniliform joints, the dilatation of the anterior tibiæ with external spinules, the antecular laminæ, the mode of insertion of the antennæ, as well as the cylindrical facies, approximate this genus to the *Clivina*, of the tribe *Scaritides*, the shape of the mentum and ligula, the one supra-ocular seta instead of two, and one lateral seta on the prothorax instead of two lateral punctures are truly characteristic of the *Harpalides*.

This is a clear demonstration of what an adaptation to a special mode of life may have led to the modifications in the structure of certain organs.

One species is recorded from Ceylon, and three from Eastern India.

*Synopsis of Species.*

Head and prothorax black; elytra pale yellow, with a broad dorsal fuscous band on each side .. .. . *Promontorii.*

Prothorax broadly flavescent all round; elytra with a short narrow fuscous band on each side .. .. . *capensis.*

## PACHYTRACHELUS PROMONTORII.

Head and prothorax black, the anterior and basal margins of the latter sometimes narrowly rufescent; palpi and the three basal joints of antennæ flavescent, the other joints infusate; clypeus with two small tubercle-like protuberances in the basal part; head deeply impressed longitudinally along the ocular ridge and impressed across the vertex, posterior part smooth; prothorax nearly as broad as long, nearly truncate at both ends, with the outer sides nearly straight, convex, narrowly grooved longitudinally from apex to base, impressed on each side of the median groove near the base, which is closely but narrowly punctured from one impression to the other; body not pedunculate; elytra not broader than the prothorax, subcylindrical, narrowly striate with the intervals smooth, flavescent with a broad fuscous dorsal band extending on each side from the first to the fifth stria, and disconnected from both base and apex, the scutellary region and the outer margin are also infusate; under side piceous red; legs pale flavous with the knees infusate. Length 6-7 mm.; width 2-2 $\frac{1}{4}$  mm.

*Hab.* Cape Colony (Cape Town).

Found burrowing in wet sandy saline spots under water algæ.

## PACHYTRACHELUS CAPENSIS.

Size, facies, and sculpture of the preceding species, but the head is not transversely impressed on the vertex; the prothorax is only infusate in the median part, the fuscous dorsal patch on each elytron reaches from the second to the fourth interval instead of the first, and is very short on the fifth interval if it invades it, the colour of the background is also more testaceous red, as are the legs also. Length 6-7 $\frac{1}{2}$  mm.; width 2-2 $\frac{1}{4}$  mm.

*Hab.* Zambezia (? Zambeze River).

This species may, however, prove to be only a varietal form of *P. Promontorii.*

## GEN. AGRIODUS.

Mentum broadly emarginate, semicircular, with the apical part of the lobes very sharp; ligula narrow, parallel, truncate at the tip, and bearing a long seta at each apical angle; paraglossæ also parallel and truncate, very slightly broader than the ligula, and disunited from it at some distance from the tip, slightly diverging and glabrous; last joint

of maxillary and labial palpi plurisetose, fusiform and somewhat acute at the tip; mandibles, labrum and head of *Harpalus*, but the joints of the antennæ from the fourth are submoniliform, and the last one ovate; the supra-ocular seta is placed behind the eye; prothorax subcordiform, truncate at the base, posterior angles distinct; elytra subparallel, with the base straight and the humeral angle hardly rounded; legs moderately long, tarsi slightly pilose underneath, tarsi narrow not dilated.

#### AGRIODUS SIMPLEX.

Totally rufous brown, with the apex of the mandibles black; head smooth, the two basal joints of antennæ and the greatest part of the third are glabrous, the others only slightly pubescent; head quite smooth; prothorax ampliate in the anterior part and narrowed behind, subcordiform, with the base nearly straight, broadly impressed laterally behind, and aciculate all along the base; elytra broader at the base than the prothorax, parallel, with the humeral angle very slightly rounded, narrowly striate, with the intervals a little convex, the third one without any puncture. Length 9 mm; width 3 mm.

*Hab.* ? Damaraland.

#### GEN. CRATOGNATHUS, Dej.,

Spec. Col., iv., p. 46.

*Cyphogenius*, Chaud., Bull. Mosc., 1843, p. 395.

Mentum broad, deeply emarginate, median part straight, outer sides of the lobes much rounded; ligula very narrow, plurisetose, and with a very long seta on each angle; paraglossæ lobate, broader than the ligula and longer; last joint of palpi slender, a little swollen outwardly, straight inwards, extreme apical part truncate; labrum long, narrowed in front, incised in the centre, sometimes almost lobate, and with three long setæ on each side of the incision; mandibles much developed, the right one either with a median inner tooth or the two pluridentate; antennæ very slender; head broad in both sexes, with two deep round impressions above the epistoma; prothorax short, broad, a little attenuate behind; elytra a little broader than the prothorax, truncate at the base, subparallel, hardly convex, striate, with the intervals smooth, the third one with one puncture in the posterior part, the eighth stria sinuate in the middle; anterior and median tarsi of the male moderately dilate, the three intermediate joints cordiform and densely squamulose, the fourth joint elongate and without squamulæ underneath.

The original diagnoses of this and the following genus are very

faulty. Of this there can be no doubt, as I have been able to examine the types of Dejean, De Chaudoir, and De Castelnau.

According to the Munich Catalogue, species belonging to this genus are found in North America, the Canary Islands, and South Africa; but Horn does not mention this genus in his essay on the genera of Carabidæ of Boreal America as occurring there.

*Synopsis of Species.*

Right mandible of male with one median inner tooth; labrum deeply incised in the middle; prothorax with the posterior angles acute; piceous, with a faint greenish tinge.

Labrum long	. . . . .	} <i>minor.</i>
Labrum short	. . . . .	} <i>mandibularis.</i>
		} <i>maxillosus.</i>

Head and median part of prothorax infusate; elytra and legs flavescens . . . . . *grandiceps.*

Mandibles of male pluridentate; posterior angles of prothorax quite rounded . . . . . *fallax.*

CRATOGNATHUS MANDIBULARIS, Dej.,

Spec. Col., iv., p. 48; Iconogr., i., pl. 173, fig. 5.

*C. pallipes*, Chaud., Bull. Mosc., 1843, iii., p. 399.

Black; palpi, antennæ, and legs flavescens; lateral margin of prothorax narrowly flavescens; elytra light piceous, with a greenish bronze tinge; head smooth, broad, a little bigger in the male than in the female; labrum long, deeply incised; prothorax truncate at base and apex, a little rounded and amplified in the anterior part, where it is as broad as the head and eyes, a little attenuate behind, with the posterior angles sharp, moderately plane, and with a depression on each side near the posterior angle; elytra elongate, subparallel, short, broader than the base of the prothorax, the anterior angle acute, and the shoulder briefly diagonal, striate, intervals plane, smooth, third interval with a distinct puncture on the posterior part, close to the second stria; under side black. Length 9–10 mm.; width  $3\frac{1}{4}$ –4 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Worcester).

CRATOGNATHUS MINOR.

Might be mistaken for a small example of *C. mandibularis*, but constantly smaller and darker, with a greener bronze tinge; prothorax of the female not so amplified as in the male, although this occurs occasionally in *mandibularis*; in size it approximates *C. capensis*, but the elytra are less parallel, and the posterior angle of the prothorax is not rounded. Length 7 mm.; width 3 mm.

*Hab.* Cape Colony (Cape Town).

## CRATOGNATHUS MAXILLOSUS.

Size, shape, and colour of *C. mandibularis*; the palpi, antennæ, and legs are more rufescent, and the labrum is very short and narrow, almost rudimentary, thus exposing the whole of the mandibles, which are very long and hooked apically; the elytra are also a little more elongate. Length 10 mm.; width 3 mm.

I have seen only one male example of this interesting species, captured near Kimberley by Mons. Eugène Simon.

## CRATOGNATHUS GRANDICEPS, Bohem.

*Harpalus grandiceps*, Vet. Acad. Förh., 1860, p. 12.

Head black, with a bronze sheen; prothorax bronzy in the centre of the disk; elytra ferruginous, with the sutural part of the disk fusco-æneous; palpi, antennæ, legs, and the two abdominal segments flavescent; head large, nearly smooth; labrum slightly rufescent, long, incised; prothorax broad, nearly smooth, of the same shape as *C. mandibularis*, and with the posterior angles equally acute; elytra short, elongate, subparallel, striate, intervals plane, the third interval with the customary puncture close to the second stria; under side piceous. Length 7 mm.; width 3 mm.

*Hab.* Damaraland (Nolagi River).

Boheman's type (a male) is the only example of this species that I have seen.

## CRATOGNATHUS FALLAX.

Black, very shining; labrum, palpi, antennæ, and legs rufescent; labrum long, deeply incised; mandibles long, the right one bidentate inwardly, the left one with a median inner tooth in the male; head and prothorax smooth, shining, the latter truncate at the apex, sinuate at the base, a little amplified in the anterior part, slightly attenuate from the median to the posterior part, but not sinuate, and with the posterior angles conspicuously rounded; elytra elongate, sub-parallel, short, hardly broader than the prothorax; striate with the intervals plane, the third one without any puncture in the posterior part; under side piceous. Length 9 mm.; width 4 mm.

Smaller and a little more parallel than *C. mandibularis*, and easily distinguished from it by the rounded posterior angle of the prothorax.

*Hab.* Cape Colony (Worcester).

## GEN. ENCEPHALUS, Castelnau,

Etud. Entom., p. 66.

The only difference between this genus and the preceding one consists in the basal joint of the anterior tarsi, being as squamulose as the three intermediate ones; the tip of the basal joint of the inter-

mediate tarsi is also squamulose, instead of being glabrous as in *Cratognathus*; the head of the male is broader than that of the female; the labrum is long, incised in the middle, and the mandibles of the male are bluntly pluridentate in the inner part.

ENCEPHALUS CAPENSIS, Castelnau,  
Etud. Entom., p. 66, pl. ii., fig. 5.

*Daptomorphus capensis*, Chaud., Bull. Mosc., 1837, vii., p. 40.

Black, shining; labrum, antennæ, and palpi rufescent; mandibles of the male bluntly pluriserrate, the apical part incised and hooked; labrum very long, deeply incised; head nearly smooth; prothorax nearly as broad as long, broader at the apex than at the base, not sinuate behind, but slightly narrowed laterally from the median part to the posterior angle, which is not acute, smooth on the disk, with the lateral margin and the base narrowly rufescent; elytra elongate, nearly parallel, a little broader than the prothorax; striate with the intervals smooth, the three pre-sutural ones plane, the others a little convex, but all of them subcarinate behind, third interval without any puncture in the posterior part; under side piceous; the posterior abdominal segments somewhat reddish brown. Length  $6\frac{1}{2}$ –8 mm.; width  $2\frac{3}{4}$ –3 mm.

*Hab.* Cape Colony (Cape Town, Worcester, Hopefield).

GEN. ANISODACTYLUS, Dej.,  
Spec. Col., iv., 1829, p. 132.

Mentum broad, outer part of the lobes diagonal, ending in a more or less acute angle in the apex, inner lobes either sub-vertical or slightly sinuate, base broad without any median tooth; ligula very narrow, parallel, truncate at the apex which bears two very long setæ; paraglossæ twice as wide as the ligula, slightly detached from it, but as a rule very much longer; last joint of palpi subfusiform, with the tip truncate, maxillæ ending in a very long hook; outer lobe very slender; mandibles short; labrum very short, emarginate, bearing six deep setigerous punctures; antennæ subfiliform; prothorax transverse; elytra oblong, sinuate in the posterior part, third interval with four punctures spaced from the median part to near the apex; legs short; anterior tibiæ slightly increased at the apex, and with a few short spines on the outer margin; anterior and intermediate tarsi, with the second, third, and fourth joints dilated in the male, and very spongy underneath.

*Synopsis of Species.*

Posterior angles of prothorax blunt, slightly rounded; intense black, very shining, lateral edges of prothorax ferruginous, basal part closely punctured, intervals of elytra carinate .. .. *melanarius*.

Black; the two basal joints of antennæ maculated with black; lateral edges of prothorax not ferruginous, basal part of prothorax slightly aciculate; elytra striate, intervals nearly plane; labrum very short .. .. . *caffer*.

Basal joints of antennæ not maculated with black; labrum very long .. .. . *sobrinus*.

Prothorax with a faintly ferruginous margin, basal part very faintly aciculate; intervals of elytra slightly convex; striæ not punctured .. .. . *australis*.

Prothorax with a narrow ferruginous margin, as broad in the middle as the base of the elytra; elytra narrowly striate, intervals depressed .. .. . *harpalinus*.

Posterior angles of the prothorax acute; prothorax with a narrow, ferruginous margin; elytra punctato-striate, intervals raised, convex .. .. . *incrassatus*.

Upper side metallic green; lateral part of the base densely punctured; elytra narrowly punctato-striate, intervals plane .. .. . *nitens*.

#### ANISODACTYLUS MELANARIUS, Bohem.,

Insect. Caffr., i., p. 192.

Black, very shining; head quite smooth; palpi and the two basal joints of antennæ rufescent; the other joints brownish, very pubescent; labrum, epistoma, and head quite smooth; prothorax one-fourth longer than broad, slightly sinuate at the apex, very slightly amplified from the apical angle to the median part, and from there narrowed in a lesser degree towards the posterior angles, which are moderately rounded, base truncate, but very slightly sinuate above the scutellum and a little broader than the apical part, deeply grooved longitudinally in the middle, smooth on the disk, which is deplanate behind and deeply and closely aciculate there; elytra parallel, with the base straight and the shoulders not rounded, attenuated in the posterior part and sinuate towards the apex, nearly plane, narrowly punctato-striate, with the striæ finely punctured and the intervals raised, moderately broad and subcarinate; under side and legs light piceous, tarsi rufescent. Length  $13\frac{1}{2}$ –14 mm.; width 5 mm.

*Hab.* Zambezia (Upper Limpopo River).

#### ANISODACTYLUS CAFFER, Bohem.,

Insect. Caffr., i., p. 193.

Black, shining; palpi and antennæ rufescent, the two basal joints of the latter maculated with black on the upper side; labrum very short, slightly sinuate in the middle, head smooth; prothorax one-fourth broader than long, moderately rounded from the apex to a little past the median part, posterior angles not acute, transverse anterior impression on the disk well defined, median longitudinal groove conspicuous, basal part of the disk very slightly aciculate;

elytra parallel, with the base straight and the shoulders not rounded, a little attenuated towards the posterior part and sinuate at the apex, nearly plane, narrowly striate, with the intervals almost plane and the punctures on the third interval very indistinct; under side reddish brown; legs rufescent or piceous. Length  $11\frac{1}{2}$  mm.; width  $4\frac{2}{3}$  mm.

*Hab.* Zambezia (Upper Limpopo River).

#### ANISODACTYLUS SOBRINUS.

The description of *A. caffer* applies almost entirely to this species; the distinctive specific characters are: the absence of black muculæ on the two basal joints of the antennæ, the length of the labrum which is greatly developed and nearly three times as long as in *A. caffer*, in which species it is abnormally short, and the base of prothorax less closely aciculate, while the anterior transverse groove is entirely wanting; the punctures on the third interval of elytra more distinct. Length  $11\frac{1}{2}$  mm.; width  $4\frac{1}{2}$  mm.

*Hab.* Zambezia (Upper Limpopo River), Natal (Maritzburg).

#### ANISODACTYLUS AUSTRALIS.

*Harpalus caffer*, Bohem., Insect. Caffr., i., p. 203.

Black, shining; palpi, antennæ, and legs rufescent; labrum reddish brown; head smooth; prothorax a little amplified in the anterior part, very slightly aciculate in the basal part, outer edges faintly ferruginous, transverse anterior groove a little distinct in the female only, posterior angle blunt, slightly rounded; elytra parallel, the base straight, and the shoulders not rounded, sinuate near the apex, nearly plane, narrowly striate, with the intervals slightly convex, less so in the female, in which sex the punctures on the third interval are also less distinct, and the black colouring of the body more opaque; under side piceous. Length  $11\frac{1}{2}$ –14 mm.; width  $4\frac{1}{2}$ – $5\frac{1}{4}$  mm.

*Hab.* Zambezia (Upper Limpopo), Mozambique (Lourenço-Marquez).

Boheman has described this species from female examples, and, naturally enough, placed it in the genus *Harpalus*.

#### ANISODACTYLUS HARPALINUS.

Black, shining; antennæ, palpi, labrum, and legs rufescent; head smooth; prothorax a little attenuated in the anterior and posterior part, and thus amplified in the centre, smooth in the disk, very slightly aciculate in the basal part, the anterior transverse depression very noticeable in the male, lateral edges narrowly ferruginous; elytra hardly broader at the base than the prothorax at the middle, parallel, the base straight and the shoulders not rounded, hardly

convex, narrowly striate with the intervals plane, the second one with two or three punctures in the posterior part, and the third one with four, extending from the base to the median part; these punctures are situated almost in the stria, and are not always very well defined. Length 10–11 mm.; width  $3\frac{3}{4}$ –5 mm.

*Hab.* Cape Colony (Cape Town, Port St. John), Natal (D'Urban), Mozambique (Rikatla).

The species occurs also at Mombassa, East Africa. My examples from Mozambique are larger than those from Natal.

#### ANISODACTYLUS INCRASSATUS, Bohem.

*Harpalus incrassatus*, Insect. Caffr., i., p. 204.

Black, very shining in both sexes; antennæ, palpi, labrum, and legs ferruginous; prothorax broader at the apex than at the base, with the posterior part of the outer sides sinuate and the angle moderately sharp, smooth on the disk, with the base aciculate, lateral margins narrowly ferruginous; elytra broader than the prothorax at the base, parallel, hardly convex, narrowly punctato-striate, with the intervals convex but not carinate. Length 14–14 $\frac{1}{2}$  mm.; width 5–5 $\frac{3}{4}$  mm.

*Hab.* Zambezia (Middle Limpopo River).

#### ANISODACTYLUS NITENS.

Bright metallic green on the upper side; labrum, palpi, antennæ, legs, and under side ferruginous; head smooth; prothorax rounded laterally, a little narrower in the posterior than in the anterior part, smooth on the disk, but with the posterior depressed part densely punctured; elytra parallel, a little broader than the prothorax, nearly straight at the base, with the shoulders not rounded, depressed, narrowly striate with the striæ finely punctured, the punctures hardly noticeable on the posterior part of the four dorsal striæ; intervals distinctly plane. Length 10 mm.; width 4 mm.

*Hab.* Transvaal (Pretoria).

#### GEN. BRADYBÆNUS, Dej.,

Spec. Col., iv., p. 160.

Excavation of the mentum moderately broad; base straight; inner part of the lobes at first perpendicular, and then oblique towards the apical part, the angle of which is very acute; ligula long, triangular, and slightly sinuate at the tip, as broad there as the paraglossæ, which are rounded laterally, and have three or four short setæ on the outer side, united with the ligula, and with the apical angle hardly projecting; last joint of maxillary and labial palpi fusiform, truncate

at the tip; head moderately broad, smooth; prothorax broad, rounded laterally, sinuate behind, with the posterior angles sharp; elytra a little broader than the prothorax, elongato-ovate, with the humeral angle produced in a short tooth, somewhat convex, striate, with the intervals smooth, no puncture on the third one; anterior tarsi short in both sexes, those of the male slightly ampliate and with two rows of squamulæ underneath; joints triangular, not incised, the fourth one a little narrower than the two preceding ones; median and posterior tarsi longer than the anterior, the intermediate ones without squamulæ on each side and not at all dilated in the male; claws very long in both sexes.

BRADYBÆNUS PSEUDOSCALARIS, Bertol.,

Nov. Comm. Ac. Bonon., 1849; Klug, Peters' Reise n. Moss., 1862, p. 170, pl. 12, fig. 2.

*B. opulentus*, Bohem., Insect. Caffr., i., p. 194.

Light testaceous, almost flavescent; apical part of the mandibles infuscate; head smooth; prothorax ampliated laterally from the apex to about the median part, sinuate from there to the posterior angle which is acute, base as broad as the apex, lateral posterior sides of the disk slightly deplanate, base aciculate from side to side, a transverse median green band in the apical and basal part; elytra elongato-ovate, truncate at the base with the humeral angle produced in a very short tooth, slightly convex, narrowly striate, with the intervals subconvex and smooth, moderately shining, flavescent, with an elongated green dorsal band on each side, uninterrupted on the second and third intervals, and broadly and obliquely obliterated in the median part on the fourth and fifth, where it does not reach behind quite as far as on the second and third, where it extends from the base to a short distance from the apex. Length 11–12 mm.; width 5–5½ mm.

*Hab.* Natal (D'Urban, Escourt, Tugela River).

GEN. PSEUDOSELENOPHORUS.

Mentum short, deeply emarginate, with the median part straight, the inner lobes sloping a little, sharp at the tip, rounded laterally; ligula very narrow and slender; paraglossæ nearly three times as broad, straight, rounded apically, longer than the ligula, and almost joining above it; last joint of maxillary palpi ovate, truncate at the tip, plurisetose, as well as the preceding one; head short; basal suture of the clypeus hardly distinct; prothorax rounded laterally, attenuate behind, the posterior angles sharp; elytra sub-oblong, striate, with three rows of distinct punctures; the three joints of the anterior tarsi of the male slightly dilated, squamulose

underneath, the basal one glabrous, those of the intermediate ones neither subdilate nor squamulose; the basal joint of the hind tarsi as long as the next two together.

*Synopsis of Species.*

Prothorax ampliate in the middle, the base nearly smooth .. .. *imitator*.  
 Prothorax sinuate behind, thickly aciculate along the base .. .. *venator*.

PSEUDOSELENOPHORUS IMITATOR.

Piceous, or with a greenish tinge on the upper part; palpi, antennæ, and legs flavescent; under side ferruginous; margins of prothorax narrowly rufescent; head smooth, short, the two impressions above the suture of the clypeus absent; prothorax a little ampliate in the anterior part, narrowed behind, but not sinuate, and with the posterior angle acute, disk smooth, posterior lateral depressions very faint, base slightly aciculate; scutellum rufescent; elytra slightly oblong, narrowly striate, intervals plane, smooth, the third, fifth, and seventh each with a row of punctures running from the base to the apex. Length 7 mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Mozambique (Lourenço-Marquez), Natal (no exact locality), Ovampoland.

PSEUDOSELENOPHORUS VENATOR, Bohem.

*Harpalus venator*, Insect. Caffr., i., p. 211.

Piceous red, with the palpi and legs flavescent; labrum and antennæ rufescent; prothorax broadly edged with reddish brown; outer margin of elytra also reddish brown; under side piceous; head smooth, with the two impressions above the suture of the clypeus discernible; prothorax slightly rounded from the apex to about the median part and sinuate from there to the posterior angle, which is sharp, smooth in the anterior part of the disk, the lateral posterior part depressed, and the whole of the base thickly aciculate; elytra elongate, nearly parallel, slightly broader than the prothorax, narrowly striate; intervals plane, smooth, the punctures on the third, fifth, and seventh intervals not very conspicuous. Length 8 mm.; width 3 mm.

In one of my examples the suture of the elytra is as reddish brown as the outer margin.

*Hab.* Bechuanaland (Vryburg).

GEN. OMOSTROPUS.

Mentum moderately broad, emarginate, with a short median tooth, inner part of the lobes sloping, apex sharp, outer part rounded; ligula long, very slender, slightly emarginate at the tip; paraglossæ

nearly three times as broad as the ligula, disunited near the tip, much longer, and subtruncate diagonally; maxillæ ending in a very long hook; maxillary and labial palpi of *Harpalus*; head broad, with the suture of the clypeus very distinct; prothorax much sinuate behind, the posterior angles sharp and projecting; elytra elongate, moderately convex, deeply striate, with the intervals very convex or moderately raised, third interval with one puncture in the posterior part, equally shining in both sexes; anterior and intermediate tarsi of the male slightly dilated, the anterior ones a little more than the intermediate; short, the basal one triangular, and the following three cordiform, furnished beneath with squamæ disposed as in *Harpalus*, but the first joint and the basal part of the second one are glabrous; the joints of the anterior and intermediate tarsi are not so broadly dilated.

*Synopsis of Species.*

Intervals of elytra very convex.

Prothorax deeply sinuate behind, with the posterior angles sharp and projecting .. .. . *tersulus.*

Intervals of elytra convex.

Prothorax slightly sinuate behind, posterior angles not very sharp, lateral impressions of the prothorax not punctured .. .. . *vicarius.*

Intervals of elytra subconvex.

Prothorax sinuate behind, posterior angles sharp, projecting, base closely punctured .. .. . *angustus.*

Prothorax sinuate behind, posterior angles sharp but not projecting much, base non-punctate .. .. . *similis.*

OMOSTROPUS TERSULUS.

Black, shining; labrum and mandibles piceous red; palpi, antennæ, tibiæ, and tarsi rufescent; head smooth; prothorax truncate at the apex, slightly sinuate towards the apical angles, which project in front, amplified laterally in the anterior part, deeply sinuate behind, with the posterior angle projecting and acute, base nearly straight, disk smooth, hardly convex, base depressed and with a broad longitudinal impression filled with deep punctures on each side of the median longitudinal groove, which is deep and reaches from base to apex; elytra truncate at the base, with the sides straight, slightly oblong in the female, narrowly striate, with the intervals raised and very convex, the third interval with a faint puncture at the top of the posterior declivity; under side reddish brown or black. Length 10–11 mm.; width  $3\frac{1}{4}$ –4 mm.

*Hab.* Cape Colony (Sunday's River), Natal (D'Urban), Zambezia (Salisbury).

## OMOSTROPUS VICARIUS.

Smaller than the preceding species, and with the same colouring on the upper part, but the prothorax has a very narrow rufescent margin and the legs are brick-red; the shape of the head is similar, but the prothorax is much less sinuated laterally behind, the posterior angle, although sharp, does not project, and the basal lateral impressions are broader, shallower, and not punctured; the elytra are also sub-parallel, but the intervals, although very convex, are not so much raised; under side piceous. Length 9 mm.; width  $3-3\frac{1}{4}$  mm.

*Hab.* Cape Colony (Seymour), Natal (Escourt), Transvaal (Pretoria).

## OMOSTROPUS CONSANGUINEUS.

Piceous; elytra fuscous brown; antennæ, palpi, and legs rufescent; head smooth; prothorax amplified in the anterior part, deeply sinuate behind, with the posterior angles sharp and projecting, lateral depressions broad, deep, the whole of the base with a broad series of closely-set punctures extending from one depression to the other; elytra parallel, narrowly striate, with the intervals convex, but not so much raised as in the two preceding species, the puncture on the third interval very distinct; under side piceous red. Length 8 mm.; width  $2\frac{3}{4}-3$  mm.

*Hab.* Cape Colony (Griqualand West), Ovampoland.

## OMOSTROPUS SIMILIS.

Piceous black, with the palpi, antennæ, a narrow marginal band on the prothorax, the legs, and also the labrum brick-red; head smooth; prothorax amplified in the anterior part, narrowed behind but not sinuate, posterior angle sharp but not projecting, basal lateral depression narrow, shallow, and punctured; elytra not broader than the base of the prothorax, very parallel, narrowly striate, the striae faintly punctulate, intervals slightly convex. Length 11 mm.; width 4 mm.

As long as *O. tersulus*, but narrower, and with the elytra more parallel and the intervals almost plane in comparison; the prothorax is not so sinuate behind and the angles are not projecting.

I have only seen the female of this species, but I have no doubt that the species belongs to the present genus.

*Hab.* Ovampoland (Lake N'Gami).

## GEN. HYPOLITHUS, Dej.,

Spec. Col., iv., 1829, p. 166.

Mentum transverse, deeply emarginate, median part straight, inner side of the lobes subperpendicular, apex sharp; ligula

narrow; paraglossæ broad, rounded at the tip, hardly longer than the ligula and separated from it at a very short distance from the apex; last joints of the palpi fusiform, truncate at the tip; mandibles short; labrum with a deep puncture on each side of the base of the epistoma; antennæ filiform, reaching the base of the prothorax; prothorax transverse, a little rounded laterally from the apical part to the median part, a little narrowed behind with the posterior angles blunt, plane on the disk and depressed laterally in the posterior part; elytra oblong, nearly plane, narrowly striate with the intervals finely aciculate or shagreened, with always a series of spaced punctures on the eighth interval, and occasionally on the third or the alternate ones; anterior and median tarsi of the male dilated, triangular or slightly cordiform and clothed underneath with two series of diagonal squamulæ.

*Synopsis of Species.*

- Elytra black, pubescent, intervals not punctured.
- Prothorax and elytra with a very broad ferruginous margin; elytra with brown tessellation .. .. . { *saponarius.*  
*Escheri.*
- Disk of prothorax closely and densely punctured .. .. . { *porrectus.*  
*tomentosus.*  
*holosericeus.*
- Basal part only of the prothorax densely punctured .. .. . *caffer.*
- Prothorax much attenuate behind, covered with deep, moderately dense punctures .. .. . *puncticollis.*
- Elytra glabrous, more or less iridescent; prothorax finely aciculate in the posterior depressions.
- Intervals of elytra closely shagreened, no series of punctures on the intervals .. .. . *integer.*
- Very iridescent; elytra narrowly edged with ferruginous; third, fifth, and seventh intervals with a series of punctures .. .. . *glaber.*
- Elytra not edged with ferruginous, intervals broad, plane, third and fifth intervals with a series of punctures .. .. . *connexus.*
- Elytra narrow, not edged with ferruginous, intervals slightly convex, third and fifth intervals with a series of punctures.. .. . *interstitialis.*
- Prothorax with a moderately broad yellowish margin, intervals set with fine closely-set punctures, third interval with a series of punctures.. .. . *difficilis.*
- Prothorax narrowly edged with yellow, intervals subaciculate, third and fifth intervals with a series of punctures .. .. . *melancholicus.*
- Elytra with posterior yellow markings.
- Elytra subæneous, with the sutural part slightly piceous, and a subquadrate sutural reddish patch on the posterior part .. .. . *ornatus.*
- Elytra green, with a lateral apical flavescent patch on each side .. .. . *scitus.*

HYPOLITHUS SAPONARIUS, Oliv.,

Entom., iii., 35, p. 69, pl. 3, fig. 26.

Antennæ, palpi, labrum, and legs flavescent; head piceous, closely

punctured; prothorax a little attenuated in the anterior part, and very slightly in the posterior the angles of which are not acute, nearly plane on the disk, but broadly depressed on each side of the base, longitudinal groove distinct in the median part only, closely but distinctly aciculate all over, piceous red, faintly iridescent with a very broad light ferruginous outer margin deeply incised towards the base, with only the inner excised part reaching the posterior angle; median part of the base slightly ferruginous; elytra oblong, slightly broader than the base of the prothorax in the anterior part, and a little broader past the middle than the prothorax at its widest, nearly plane, narrowly striate with the intervals plane, broad, finely aciculate, not punctured, brownish black, subopaque with a very faint iridescent tinge, very briefly pubescent, with the alternating intervals broadly tessellated with light brown, outer margin entirely light brown, third interval without any punctures; under side light piceous. Length 12–13 mm.; width 5 mm.

*Hab.* Ovampoland (Cunene River).

Originally recorded from Senegal.

HYPOLITHUS ESCHERI, Dej.,

Spec. Col., v., p. 833.

Might be taken for a very small example of *H. saponarius*. The colour and sculpture are identical and the tessellation of the elytra is similar; the ferruginous outer margin of the prothorax is broader in proportion and not interrupted at the base; the elytra are not iridescent and are more oblongo-ovate than in *H. saponarius*. Length 9 mm.; width 3–3 $\frac{3}{4}$  mm.

*Hab.* Natal (D'Urban, Newcastle).

This species was also originally recorded from Senegal.

HYPOLITHUS TOMENTOSUS, Dej.,

Spec. Col., iv., p. 168.

Black, subopaque with a faint iridescence on the prothorax and elytra; palpi and legs yellowish, knees slightly infuscate; antennæ with the two basal joints yellowish, the others infuscate; head finely aciculate from the epistoma to the base; labrum subpiceous; prothorax gradually rounded from the base to the apex, and a little ampliate in the centre, posterior angles blunt, disk plane, very slightly depressed laterally behind, very closely punctured all over, extreme end of outer margin slightly ferruginous; elytra elongate, with the outer sides straight but one-fourth broader past the median part than at the base, which is slightly broader than that of the prothorax, plane, striate, intervals broad, finely aciculate, very briefly

pubescent and without any seriated punctures; under side subiridescent. Length 13–15 mm.; width 5–6 mm.

*Hab.* Mozambique (Lourenço-Marquez), Ovampoland (Cunene River).

HYPOLITHUS PORRECTUS.

Black, subopaque, with a very faint iridescence on the prothorax and elytra; antennæ, palpi, and legs light ferruginous; head finely aciculate from the epistoma to the base; prothorax a little attenuate in the anterior and posterior parts, posterior angles not acute, disk plane with a little lateral depression behind, closely punctured all over, extreme edge of the outer margins light ferruginous; elytra elongate, parallel, narrowly striate, intervals plane, closely aciculate, briefly pubescent, and without any seriated punctures; under side piceous, slightly iridescent. Length 13–14 mm.; width 5–5½ mm.

*Hab.* Ovampoland (Cunene River), Natal (Maritzburg, Eshowe).

Closely allied to the preceding species, but the prothorax is slightly less broad and the elytra more parallel, not at all ampliate past the median part; the pubescence on the elytra is also less dense, sometimes hardly discernible.

I have retained for this species De Chaudoir's collection name.

HYPOLITHUS HOLOSERICEOUS, Dej.,

Spec. Col., iv., p. 171.

*H. marginicollis*, Bohem., Insect. Caffr., i., p. 195.

Black, very briefly pubescent; elytra very faintly iridescent in the centre, palpi, labrum, antennæ, and legs yellowish red; head and prothorax finely and closely aciculate, the latter hardly impressed laterally behind, outer margin narrowly edged with ferruginous brown; elytra slightly broader than the base of the prothorax, elongate, nearly parallel, narrowly striate, intervals plane, and very finely shagreened; no seriated punctures on the intervals. Length 11–13 mm.; width 4½–5 mm.

De Chaudoir considers *H. marginicollis*, Bohem., as a variety of *H. holosericeus*, Dej.; the latter is a little larger than the former, but I am unable to differentiate the two.

*Hab.* Mozambique (Lourenço-Marquez).

HYPOLITHUS CAFFER, Bohem.,

Insect. Caffr., i., p. 196.

Black, moderately shining; elytra with a very faint iridescence and covered with an extremely short pubescence; palpi, labrum, antennæ, and legs light ferruginous; head smooth or very faintly aciculate; prothorax slightly impressed laterally in the posterior

part, anterior part of the disk smooth, posterior one finely shagreened, outer margins narrowly ferruginous; elytra elongate, subparallel, narrowly striate, intervals plane, very finely aciculate, and without any seriated punctures. Length  $9\frac{1}{2}$ –11 mm.; width  $3\frac{3}{4}$ –4 mm.

Less pubescent than *H. holosericeus*, and differing in the sculpture of the head and prothorax. I have not seen the male, but the eight females I have examined have no trace of any seriated punctures on the alternating intervals, as mentioned by Bohem., *loc. cit.*, in his description.

*Hab.* Zambezia (Salisbury), Natal (Newcastle, Maritzburg), Cape Colony (Grahamstown).

#### HYPOLITHUS PUNCTICOLLIS, Bohem.,

Insect. Caffr., i., p. 200.

Black, subopaque, briefly pubescent; palpi, labrum, antennæ, and legs ferruginous, under side piceous; head closely punctured, the punctures deep; prothorax slightly ampliate laterally from the apex to the median part, attenuate from the median part to the base which is narrower than the apex, posterior angles obtuse, disk plane, slightly impressed laterally behind and covered with closely-set, deep punctures, edge of lateral margins slightly recurved and ferruginous; elytra elongate, subparallel, intervals plane, finely shagreened; striae very narrow, third and fifth intervals with some indistinct seriated punctures. Length 8 mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Natal (D'Urban, teste Bohem).

Easily identified through the well-defined punctures, not aciculation, of the head and prothorax; the shape of the latter is also different from that of the other species, being much more narrowed behind, almost subcordiform.

I have seen only Boheman's type; this species might perhaps belong to the genus *Ophonus*, which has a few representatives in Morocco, Senegambia, Egypt, and Abyssinia.

#### HYPOLITHUS INTEGER.

Black, with a faint greenish iridescent tinge on the upper part, under side piceous; palpi, labrum, legs, and the two basal joints of antennæ flavescant, the other joints ferruginous; head finely aciculate; prothorax of the usual shape, very finely aciculate on the disk and shagreened along the base and in the lateral posterior depressions; elytra elongate, subparallel, plane, narrowly striate, intervals closely shagreened, the three juxta-sutural ones slightly convex and very slightly carinate, seriated punctures on the fifth and third intervals not visible. Length 11 mm.; width 4 mm.

*Hab.* Natal (? Maritzburg).

## HYPOLITHUS CONNEXUS.

Black, shining on the upper part; palpi, labrum, antennæ, and legs ferruginous; head smooth; prothorax smooth on the anterior part, finely aciculate in the posterior lateral depressions and in the basal part, outer margins narrowly ferruginous; elytra elongate, suboblong, striate, plane, deeply aciculate, the third, fifth, and seventh intervals with a conspicuous series of spaced punctures, less distinct, however, on the seventh interval. Length 10 mm.; width  $3\frac{1}{2}$  mm.

An intermediate form between *H. integer*, of which it has the more massive facies, and *H. glaber*, from which it differs by the more ampliate prothorax, the absence of iridescence on the elytra, and the deeper and much more conspicuous aciculation of the elytra.

*Hab.* Natal (D'Urban).

## HYPOLITHUS GLABER, Bohem.,

Insect. Caffr., i., p. 197.

Black, very iridescent on the upper part; palpi, antennæ, and legs flavescent, labrum ferruginous, under side piceous; head smooth; prothorax with a distinct light ferruginous outer margin, smooth with the posterior lateral depressions and the base finely aciculate; elytra elongate, subparallel, striate, intervals plane, slightly aciculate, the third and fifth with a series of distinct spaced punctures. Length 9–10 mm.; width  $3-3\frac{1}{2}$  mm.

*Hab.* Cape Colony (Stellenbosch, Seymour, Knysna, Transkei), Natal (Newcastle, D'Urban, Maritzburg), Transvaal (Rustenburg), Bechuanaland (Gaberones).

## HYPOLITHUS INTERSTITIALIS, Bohem.,

Insect. Caffr., i., p. 199.

Black, shining on the upper part, not iridescent, under side piceous; antennæ, palpi, labrum, and legs flavescent; head smooth; prothorax smooth, slightly aciculate in the lateral posterior depressions, outer sides narrowly ferruginous; elytra elongate, parallel, striate, intervals moderately plane and deeply aciculate, third and fifth with two conspicuous series of spaced punctures. Length  $8\frac{3}{4}$ –9 mm.; width 3 mm.

Closely allied to *H. glaber*, but a little narrower; the elytra are not iridescent, and the intervals are much more deeply aciculate.

*Hab.* Cape Colony (Grahamstown), Natal (D'Urban), Ovampoland (Omrramba).

## HYPOLITHUS DIFFICILIS.

Black, very iridescent on the upper part; palpi, apical part of the

labrum, legs and the two basal joints of antennæ flavescens, the other joints with an infusate line on the upper part; head smooth; prothorax smooth or very faintly aciculate laterally in the anterior part, the aciculation deeper and much more conspicuous along the base and still more so in the lateral posterior depressions, outer margins with a moderately broad flavescens edge; elytra elongate, subparallel, intervals very narrowly punctato-striate, closely and deeply aciculate, third interval only with a series of spaced punctures; under side piceous, iridescent. Length  $6\frac{3}{4}$ –8 mm.; width 3 mm.

*Hab.* Cape Colony (Umzimkulu), Natal (Frere), Transvaal (Potchefstroom), Zambezia (Salisbury).

HYPOLITHUS MELANCHOLICUS, Bohem.,

Insect. Caffr., i., p. 201.

Black, with a faint iridescence on the upper part; palpi, labrum, legs, and the whole of the antennæ flavescens; head smooth, prothorax aciculate in the lateral posterior depressions and along the base, outer margin narrowly flavescens; elytra elongate, subparallel, narrowly striate; intervals very faintly aciculate, third interval with a well-defined series of spaced punctures, and the fifth one also with a series of punctures, less well defined, however, than those on the third interval. Length 6–7 mm.; width  $2\frac{1}{2}$ – $2\frac{3}{4}$  mm.

Closely allied to the preceding species, but the sculpture of the intervals of the elytra is different, and there are two series of punctures instead of one as in *H. difficilis*.

*Hab.* Cape Colony (Hope Town), Natal (D'Urban), Zambezia (Salisbury).

One of my examples from Salisbury is not iridescent.

HYPOLITHUS ORNATUS, Pér.,

Trans. S. Afric. Phil. Soc., 1892, p. 21.

Black, with a faint greenish tinge on the upper side; palpi, legs and the two basal joints of antennæ flavescens, the other joints and the labrum ferruginous; head smooth; prothorax smooth, very slightly aciculate in the posterior lateral depressions and along the base, outer margins narrowly edged with light ferruginous in the anterior part, the ferruginous edge broadening in the posterior part; elytra elongate, subparallel, striate, intervals plane, faintly aciculate, third interval with a conspicuous series of spaced punctures, subopaque and with a sutural, posterior yellowish-red macula extending on each side as far as the third stria, and reaching from the posterior declivity to the apex; under side light piceous. Length 12 mm.; width  $4\frac{1}{2}$  mm.

*Hab.* Ovampoland.

## HYPOLITHUS SCITUS.

Metallic green, moderately shining; palpi, antennæ, and legs flavescens, elytra with a lateral posterior sinuate yellow patch; head punctulate; prothorax with the usual shape and sculpture, and with a flavescens lateral margin broadening from the median part to the base; elytra oblong, striate, the intervals not exactly shagreened but with two or three series of rough punctures, the third one has a row of equidistant deep punctures close to one another, and the fifth has also a row of punctures more distant from one another; the colour is brighter green than on the prothorax, and in the posterior part there is on each side a more or less deep yellow sinuate patch extending from the fourth stria to the outer margin, and produced along the margin to the apex, where it ascends along the suture to abreast of the lower part of the patch; under side piceous. Length 7 mm.; width 3 mm.

*Hab.* Mozambique (Lourenço-Marquez).

## GEN. AXINOTOMA, Dej.,

Spec. Col., v., p. 29.

Mentum with a median tooth rounded at tip and not so long as the lateral lobes (*A. obtuseangula*), or without any median tooth at all (*A. posticalis*); ligula extremely narrow, paraglossæ three times as broad as the ligula and disconnected from it near the tip; mandibles, labrum, and antennæ as in *Hypolithus*; head very short; prothorax nearly twice as broad as long, rounded laterally in the anterior part which is broader than the basal part, the sides of which are straight and the angles sharp, not rounded; elytra aciculate as in *Hypolithus* but with only one puncture in the posterior part of the third interval; anterior tarsi of the male dilated, the four joints cordiform, the fourth deeply incised, and all clothed underneath with two series of diagonal squamulæ, joints of intermediate tarsi not dilated, cylindrical.

The distinctive characters between *Axinotoma* and *Hypolithus* consists in the cylindrical shape of the joints of the tarsi of the intermediate pair of legs in *Axinotoma*; the elytra are also aciculate as in *Hypolithus*, but there is only one puncture in the third interval, instead of a series.

The genus is represented in Senegal and Abyssinia.

*Synopsis of Species.*

Prothorax with a narrow rufescent lateral band; elytra black	<i>obtuseangula</i> .
Prothorax broadly flavescens laterally; elytra with a sutural apical triangular yellow patch .. .. .	<i>posticalis</i> .

## AXINOTOMA OBTUSEANGULA.

Black, subopaque, with labrum, palpi, legs, antennæ, and a narrow lateral border on the prothorax flavescent; head very short, faintly aciculate, eyes large; last joint of palpi briefly bristly, fusiform and truncate at tip; prothorax short, nearly twice as broad as long, gradually amplified laterally from the anterior angle to the median part, and a little diagonally narrowed from there to the base, plane on the disk with a broad depression on each side of the median part of the base which is finely shagreened from side to side, while the anterior part is slightly aciculate; elytra oblong, slightly broader than the prothorax at its widest part, striate, intervals plane, closely aciculate, the third one with one puncture on the upper part; underside piceous red, slightly iridescent. Length 12 mm.; width  $4\frac{1}{2}$  mm.

*Hab.* Natal (D'Urban).

I have retained for this species the manuscript name it bears in De Chaudoir's collection.

## AXINOTOMA POSTICALIS.

Black, subopaque, with the labrum, palpi, antennæ, legs, and a very broad lateral border on the prothorax and an apical patch on the elytra flavescent; prothorax as in the preceding species but slightly less constricted laterally behind; elytra oblong, slightly broader than the prothorax at base, striate, intervals plane, closely aciculate, the apical flavescent patch is triangular, and extends as far as the third stria on each side; the ultimate joints of the palpi are not so swollen as in *A. obtuseangula* and are smooth instead of being briefly bristly; the puncture on the third interval is similar. Length  $10\frac{1}{2}$  mm.; width 4 mm.

*Hab.* Natal (D'Urban).

## GEN. SIOPELUS, Murray,

Ann. and Mag. Nat. Hist., 1859, p. 27.

Mentum transverse, deeply emarginate, with a short median tooth, inner part of the lobes nearly perpendicular, apex very sharp, ligula slender, paraglossæ also slender but broader than the ligula and longer, last joint of maxillary and labial palpi subfusiform and acuminate; head and antennæ as in *Hypolithus*; posterior angles of prothorax moderately acute, elytra elongate, subparallel, intervals plane, shagreened, divided by a double, very narrow, line; third interval with seriate punctures; second joint of the anterior tarsi of the male slightly broader than the others and as much elongate as in *Hypolithus*, intermediate ones not so broad as the anterior, fourth joint incised; wings under the elytra.

*Synopsis of Species.*

Black, a little iridescent; antennæ, palpi, legs, and a narrow lateral margin on the prothorax flavescent . . . . . *mashunus*.

Light ferruginous; head, median part of the prothorax, and a very broad sutural band on the elytra black . . . . . *natalicus*.

Black, slightly greenish; a moderately broad flavescent lateral marginal patches on the prothorax, and two subdiagonal ones on the posterior part of each elytron . . . . . *venustulus*.

## SIOPELUS INSUTUS.

Black, slightly iridescent, antennæ light ferruginous, palpi and legs flavescent, under side very iridescent; head aciculate; prothorax deeply aciculate, outer margin narrowly flavescent, slightly rounded laterally at the apex, with the sides nearly straight; posterior angle blunt but not rounded, disk moderately plane, posterior part very slightly impressed laterally along the suture midway between the outer angle and the longitudinal median groove, which reaches the base and is very distinct; elytra elongate, subparallel, hardly broader at the base than the prothorax at its widest, moderately plane with the intervals finely shagreened, plane and divided from one another by two narrow longitudinal, parallel lines; third interval with a series of distinct spaced punctures. Length 9 mm.; width 3½ mm.

*Hab.* Zambezia (Salisbury).

In spite of the peculiar sculpture of the elytra, the juxta-scutellary striæ, although very faint, can still be detected.

## SIOPELUS LIMBATUS.

Very light ferruginous, with the palpi, legs, prosternum, and the two basal joints of antennæ very light brick-red, the other joints infusate in the median part, meso- and meta-sternum, and also the abdomen black, iridescent; head smooth, black, labrum and mandibles ferruginous; prothorax a little ampliate from the apex to past the median part, very slightly narrowed behind, but not sinuate, and with the posterior angle blunt but not rounded, moderately plane on the disk, but more plane behind and with a hardly pronounced lateral depression, the median longitudinal groove reaching neither base nor apex, anterior part faintly, posterior part densely aciculate, light ferruginous with a very broad, median black, slightly iridescent, longitudinal band reaching from apex to base; elytra elongate, subparallel, ferruginous, with a very broad dorsal, black, iridescent band reaching on each side the fifth stria and extending from the base to the top of the posterior declivity, intervals plane, finely shagreened, separated from one another by two narrow longitudinal parallel lines, third interval with a series of distinct, spaced punctures. Length 8 mm.; width 3 mm.

*Hab.* Natal (D'Urban).

## SIOPELUS VENUSTULUS, Bohem.,

Insect. Caffr., i., p. 202.

Very dark bottle-green on the upper part, under side black, iridescent; palpi, legs, and the three basal joints of the antennæ flavescent, the other joints of the antennæ deeply infusate; head nearly smooth; prothorax ampliate laterally from the apex to the median part, very slightly narrowed from there, but not sinuated, to the posterior angle which is sharp, finely shagreened all over, slightly impressed behind between the posterior angle and the median longitudinal groove which reaches the base, lateral part with a broad, flavescent margin; elytra elongate, subparallel, intervals plane with two series of deep, seriate punctures often coalescing and separated by two narrow parallel lines, and having on each side in the posterior declivity a sinuate pale-yellow transverse patch extending from the fourth to the eighth interval, and a little below it two elongated ones filling respectively the first and second intervals and reaching the apex. In some examples the elongate, coalescing, narrow bands of which the transverse posterior patch consists, are much shorter on the fifth and seventh intervals than on the other two. Length  $6\frac{1}{4}$ –7 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Natal (Frere, D'Urban, Escourt), Transvaal (Leydenburg, Pretoria), Zambezia (Salisbury).

## GEN. HARPALUS, Latreille,

Hist. Nat., viii., 1804, p. 325.

Mentum broadly emarginate with a small median tooth, inner part of the lateral lobes oblique, sharp at the tip, outer part rounded; ligula long, narrow, disunited from the paraglossæ near the tip, emarginate at the apex and bearing a long seta on each side of the emargination; paraglossæ slightly longer than the ligula and twice as broad, slanting a little at the apex; ultimate joint of maxillary and labial palpi subfusiform and truncate at the apex, the labial one setulose; mandibles short, arcuate at the tip, the right one with a median inner tooth; labrum a little broader than long, not emarginate; head not narrowed behind, eyes moderately projecting; prothorax broader than long, with the outer sides more or less straight behind from the lateral seta to the posterior angle, seldom contracted at base, posterior angles always distinct, although sometimes blunted; elytra parallel or oblong, always less parallel in the female than in the male, striate, with the intervals slightly convex or plane, always more plane in the female when they are subconvex in the male, and also more opaque in that sex when the elytra are black, or less bright when æneous or brown with a metallic

tinge, third interval with a puncture above the posterior declivity; (there is one exception, *H. fulvicornis*); seventh interval with one apical puncture, outer margin with a series of punctures interrupted in the median part; tarsi of the anterior and intermediate legs of the male much dilated, broadly cordiform, the basal one of the intermediate tarsi less broad than in the fore-legs; under side with a series of squamæ *en chevron* on each side, fourth joint of the anterior and intermediate tarsi incised; in the female the joints of the fore tarsi are slightly dilated and subcordiform, the fourth one is not incised, those of the intermediate ones are elongate and both are glabrous underneath.

There can be little doubt that the larvæ of *Harpalus* are phytophagous but like most larvæ of Coleoptera they are seldom met with. In the imago state, *Harpalus* is found under stones or heaps of decaying vegetation. The great likeness of one species to another renders the identification of species very difficult indeed. The South African species are seldom intensely black, mostly piceous black, and occasionally with the elytra brown, light brown with an æneous tinge, and also, though seldom, metallic green, and even in that case there is a tinge of brown.

I am far from satisfied with my synoptic arrangement of the species, although I believe that, owing to their uniformity, the shape of the prothorax is worth consideration in the grouping of the South African species.

#### *Synopsis of Species.*

- Prothorax sinuate in the posterior part; posterior angle sharp.  
 Elytra oblong.  
 Head infuscate; prothorax and elytra light testaceous, the latter with two longitudinal infuscate lines on each side .. .. *xanthoraphus.*  
 Elytra without any infuscate lines .. .. .. *fallax.*  
 Elytra with a broad juxta-sutural infuscate band extending from the suture to the fourth interval .. .. .. *dorsiger.*  
 Elytra elongate.  
 Light testaceous with the median part of the elytra infuscate .. .. *miles.*  
 Upper part piceous, basal impressions of prothorax distinctly punctured .. .. .. *defector.*  
 Piceous red, basal impressions of prothorax not punctured .. .. *errans.*  
 Prothorax with the base as broad as the median part, outer sides nearly straight from the lateral seta to the posterior angle.  
 Elytra parallel.  
 Prothorax and elytra piceous red; intervals subconvex .. .. *dubius.*  
 Upper part black, shining, intervals of elytra plane .. .. *lugubris.*  
 Prothorax and elytra piceous, the former with a distinct rufescent outer margin; intervals plane .. .. .. *angustipennis.*  
 Outer margin of prothorax hardly rufescent; antennæ with the exception of the three basal joints infuscate; femora and apex of tibiæ piceous red .. .. .. *nanniscus.*

Prothorax amplified in the median part; piceous on the upper part .. .. . { *hybridus*.  
*exiguus*.

Prothorax slightly amplified laterally in the anterior part from the anterior angle to the lateral seta, and nearly straight from there to the posterior angle.

Body elongate; colour light piceous .. .. . *parvulus*.

Prothorax attenuate laterally from the anterior angle to the lateral seta; straight or nearly so from there to the posterior angle which is blunt.

Wings under the elytra.

Upper side intensely black .. .. . *clavipes*.

Upper part piceous .. .. . *natalensis*.

Upper part piceous; no puncture on the third interval .. .. *fulvicornis*.

No wings under the elytra.

Prothorax slightly amplify laterally in the middle and a little narrowed in front and behind; posterior angle moderately sharp but not projecting; legs, antennæ, and palpi flavescens; elytra subparallel .. .. . *capicola*.

Legs, antennæ, and palpi flavescens; elytra oblong .. .. *spurius*.

Legs piceous or piceous red; antennæ flavescens; elytra elongate .. .. . *congener*.

Legs and antennæ black or piceous; elytra narrow, subcostate .. .. . *spretus*.

Elytra piceous red, elongate or suboblong; antennæ and legs flavescens .. .. . *cursorius*.

Wings under the elytra.

Elytra piceous or piceous red; antennæ and legs flavescens *agilis*.

Elytra broad, short, parallel; antennæ and legs infuscate with the two basal and the last joint of the former flavescens .. .. *natalicus*.

Elytra brown.

Head and prothorax piceous red; antennæ infuscate, with the exception of the three basal joints; lateral impressions on the prothorax deep, and punctulate .. .. . *fuscipennis*.

Head and prothorax æneous; antennæ slightly infuscate, with the three basal joints flavescens; lateral impressions on the prothorax moderately deep and not punctured .. .. . *brunneipennis*.

Prothorax and elytra chestnut-brown .. .. . *phæopterus*.

Head and prothorax black; elytra light brown with a narrow sutural and outer marginal black band .. .. . *fulvipennis*.

Elytra æneous or æneous-green.

Elytra with a slight greenish tinge; antennæ and legs flavescens .. .. . { *nanus*.  
*subæneus*.

Elytra with a bright green tinge; antennæ and legs flavescens *fusco-æneus*.

Elytra dark green, nearly black; antennæ, with the exception of the three basal joints, the femora, end of tibiæ, and tarsi infuscate .. .. . *precarius*.

Elytra æneous-green, with a moderately broad rufescent outer margin.

Prothorax a little attenuate behind, with a conspicuous outer margin; elytra with a narrow sutural and outer marginal rufescent band .. .. . *rufo-cinctus*.

HARPALUS XANTHORAPHUS, Wiedem.,  
Zool. Mag., ii., 1, p. 55.

Labrum, antennæ, and legs very light testaceous, upper side very shining; head deeply infusate, with a metallic tinge, nearly smooth, the seta over the eye very long; prothorax truncate at the apex with the apical angles nearly rounded, the outer sides also rounded and slightly ampliate to about the median part, slightly narrowed and sinuate from there to the outer angle, which is acute, disk smooth with the basal impression well defined, testaceous all round with the median part æneous; elytra oblong, truncate at the base, narrowly striate with the intervals smooth, the third one with a distinct puncture close to the second stria on the posterior part, light testaceous with a more or less light æneous band extending across the base, and also longitudinally on each side on the second and third intervals; both these transverse and longitudinal bands are often very indistinct; under side piceous, abdomen reddish brown. Length  $6\frac{1}{4}$ – $6\frac{1}{2}$  mm.; width  $2\frac{1}{4}$ – $2\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Worcester, Malmesbury, Kimberley).

HARPALUS FALLAX.

The description of *H. xanthoraphus* is entirely suited to the present species, but it is a little larger, decidedly more plane on the elytra which are more flavescent and have no fuscous patch, the puncture on the third interval is nearly obliterated. Length 7 mm.; width  $3\frac{1}{4}$  mm.

*Hab.* Cape Colony (Cape Town).

I have not seen the male of this species, which is distinguished from the preceding one more by its depressed elytra and more massive body than by any other specific character.

HARPALUS MILES.

Very light yellow, testaceous, shining; antennæ and legs flavescent; head smooth; prothorax very slightly sinuate in the posterior part, posterior angles very acute, slightly projecting, smooth and with a median fuscous patch; elytra elongated, suboblong, narrowly striate, intervals nearly smooth or with an extremely fine aciculation, plane, very light testaceous yellow, subinfusate occasionally on each side of the suture as far as the fifth stria, prosternum and median part of abdominal segments light brown. Length 8 mm.; width 3 mm.

*Hab.* Cape Colony (Kimberley).

Elytra more parallel than in the two preceding species, and with the prothorax broader in proportion and less sinuate laterally behind. I was led to believe that owing to its light colouring *H. miles* was

an immature form, but I have captured and received numerous examples at different times of the year, and always of a uniform colour.

HARPALUS DORSIGER, Klug,

Monatsb. Berl. Ac., 1853, p. 249; Peters' Reis. n. Mossamb., 1862, p. 171, pl. 10, fig. 5.

Testaceous yellow on the upper and under sides; palpi, antennæ, and legs flavescent; elytra infuscate from base to apex and from the suture to the fourth stria; head smooth; prothorax much broader than the head, very slightly ampliate from the anterior angle to the median part, and sinuate from there to the posterior angle which is sharp, smooth in the anterior part but finely aciculate in the posterior part; elytra oblongo-ovate, broader past the middle than the prothorax, narrowly striate, with the intervals plane, the puncture on the third interval absent. Length 9–10 mm.; width 4–4½ mm.

*Hab.* Transvaal (Potchefstroom).

HARPALUS DEFECTOR.

Black, shining, the two basal joints of the antennæ and the base of the third reddish, the other joints infuscate; palpi and tibiæ reddish, apex of tibiæ and femora piceous red; head smooth; prothorax sinuate behind above the posterior angle, which is well defined, basal impressions narrow and distinctly punctured; elytra elongate, suboblong, striate, with the intervals plane; under side piceous. Length 7 mm.; width 2¼ mm.

*Hab.* Cape Colony (Worcester).

HARPALUS ERRANS.

Piceous red, with the elytra rufous brown; palpi, antennæ, and legs rufescent; in shape and size it is very much like *H. capicola*, but it is at once distinguished by the shape of the outer sides of the prothorax, which are much more deeply sinuate behind, and the posterior angle is much more sharp. Length 11 mm.; width 4 mm.

*Hab.* Zambezia (Middle Limpopo River).

I have seen the female only of this species.

HARPALUS DUBIUS, Bohem.,

Insect. Caffr., i., p. 208.

Piceous on the upper part, reddish brown underneath; antennæ, palpi, and legs flavescent; head and prothorax smooth, the latter with a very narrow rufescent outer margin, the outer sides very slightly attenuate in the anterior part, and nearly parallel from there to the posterior angle, which is well defined although not acute,

basal, lateral impressions hardly defined; elytra elongate, slightly oblong, not broader than the prothorax, pitchy brown, subopaque, striate, with the intervals very slightly convex, the puncture on the third interval hardly distinct. Length 11 mm.; width  $4\frac{1}{2}$  mm.

This and the two following species are noticeable on account of their elongate, subparallel shape, the elytra not being broader than the prothorax, and the outer sides of the prothorax being almost straight.

I have not seen the male, which is probably less opaque.

*Hab.* Caffraria, teste Bohem.

HARPALUS LUGUBRIS, Bohem.,

Insect. Caffr., i., p. 214.

Similar in shape to *H. dubius*, but pitchy black, shining on the upper and under side; antennæ, palpi, and legs rufescent; head smooth; prothorax with a faintly reddish narrow outer margin, the basal, sublateral depressions somewhat diagonal, broad, but not deep; elytra elongate, not broader than the prothorax, parallel, narrowly striate, with the intervals quite plane, the puncture on the third interval a little higher than usual. Length 8 mm.; width  $3\frac{1}{2}$  mm.

Seen Boheman's type only.

HARPALUS NANNISCUS.

Black, with the prothorax very narrowly edged with red, the three basal joints of antennæ flavescent, the others infusate; shape of the prothorax as in *H. angustipennis*, a little, but less attenuate in the anterior part, the lateral depressions well defined; elytra slightly oblong, striate in the usual manner, with the intervals plane and less parallel than in *angustipennis*. Length 6 mm.; width  $2\frac{1}{4}$  mm.

The general facies is not unlike that of *H. parvulus*, but the sides of the prothorax are almost straight.

*Hab.* Cape Colony (exact locality unknown).

HARPALUS ANGUSTIPENNIS, Bohem.,

Insect. Caffr., i., p. 212.

This species might be taken at first sight for a small example of *H. lugubris*; piceous black, shining; palpi, antennæ, and legs flavescent, under side piceous; prothorax a little more attenuate in the anterior part than in *lugubris*, but equally straight from the middle to the posterior angle, lateral and basal margin rufescent, lateral part of the base subdepressed and faintly aciculate from the outer side to the impression, which merges with the lateral depression; elytra elongate, not broader than the prothorax, nearly parallel, narrowly striate with the intervals smooth, the puncture of the third

interval placed as high as in *H. lugubris*, from which it mainly differs in size and in the sculpture of the basal part of the prothorax. Length  $6\frac{1}{4}$  mm.; width  $2\frac{1}{4}$  mm.

*Hab.* Cape Colony (Kimberley), Transvaal (Bocksburg).

HARPALUS HYBRIDUS, Bohem.,

Insect. Caffr., i., p. 209.

Piceous black, shining; palpi, antennæ, and legs flavescent; head smooth; prothorax rounded from the apical angle to the lateral seta, and from there nearly straight to the posterior angle, basal impressions narrow and deep; elytra oblong, shining, striate, intervals very slightly convex or almost plane; they are less piceous black than the head and prothorax, and the epipleuræ are rufescent. Length  $9\frac{1}{2}$ –10 mm.; width 4 mm.

I have not seen the female.

*Hab.* Cape Colony (Cape Town, Knysna).

HARPALUS EXIGUUS, Bohem.,

Insect. Caffr., i., p. 217.

Piceous black, shining; antennæ, palpi, and legs subrufescent, the two basal joints of the antennæ pale yellow; head smooth; prothorax a little ampliate laterally in the median part, with the extreme edge of the outer margin slightly rufescent, lateral basal impressions moderately broad and deeper in the median part; elytra oblong, narrowly striate, and with the intervals very slightly convex; under side piceous. Length 6 mm.; width  $2\frac{3}{4}$  mm.

*Hab.* Cape Colony (Burghersdorp).

HARPALUS PARVULUS, Dej.,

Spec. Col., iv., p. 393.

Head and prothorax piceous black, elytra slightly piceous brown; palpi, labrum, antennæ and legs rufescent; head smooth; prothorax a little ampliate from the anterior angles to the lateral seta, straight from there to the posterior angle, which is well defined, a little narrower at the base than in the median part, lateral basal impressions long, narrow, outer margin with a narrow rufescent margin; elytra elongate, nearly parallel, not broader than the prothorax, striate, with the intervals plane. Length  $8\frac{1}{2}$ –9 mm.; width  $3\frac{1}{4}$ – $3\frac{1}{2}$  mm.

*Hab.* Cape Colony (Worcester).

HARPALUS CLAVIPES, Bohem.,

Insect. Caffr., i., p. 207.

Intensely black on the upper and under sides; palpi and antennæ

rufescent; legs piceous brown; head smooth; prothorax a little attenuate from the anterior angle to about one-fourth of the length, nearly straight from there to the posterior angle, which is blunt, lateral basal depressions narrow, deep, and punctulate; elytra elongate or slightly oblong according to sexes, narrowly striate, with the intervals slightly convex. Length 12–13 mm.; width  $4\frac{1}{4}$ –5 mm.

*Hab.* Cape Colony (Cape Town, Grahamstown, Burghersdorp), Natal (D'Urban, Frere).

The typical specimen of this species which I have seen is a male, but I cannot agree with Boheman, who states that the femora are thickened, especially the anterior ones, in the male; they are quite normal.

HARPALUS FULVICORNIS, Thunb.,

Schönh., Syn. Insect., i., 1806, p. 200.

? *H. abdominalis*, Fabric. Mant., i., p. 201.

*H. impunctus*, Wied., Zool. Mag., ii., p. 53.

Piceous, with the under side piceous brown, and the elytra less dark than the head and prothorax in the female; antennæ, palpi, and legs rufescent; prothorax similar in shape to that of the preceding species, the lateral basal impressions not so deep nor punctulate; elytra oblong, narrowly striate; intervals nearly plane, the third one without any puncture in the posterior part; no wings. Length 10–11 mm.; width  $4-4\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town, Worcester, Stellenbosch, Ceres).

HARPALUS FIMETARIUS, Dej.,

Spec. Col., iv., p. 310.

“It is closely allied to *H. fulvicornis*, but it is usually smaller, and the colour is black, moderately shining on the upper side; there is always a puncture on the third interval; there are no wings under the elytra; the femora and legs are piceous black, sometimes piceous red; the tarsi are ferruginous.” Length  $4-4\frac{1}{2}$  lines; width  $1\frac{2}{3}-1\frac{3}{4}$  lines.

*Hab.* Cape of Good Hope.

In the specimen compared to Dejean's type there are wings under the elytra, and I am thus doubtful of the identity of *H. fimetarius*.

HARPALUS NATALENSIS, Bohem.,

Insect. Caffr., i., p. 205.

*H. promptus*, Bohem., Insect. Caffr., i., p. 206.

*H. testaceus*, Bohem., Insect. Caffr., p. 213.

Very similar to the preceding species, occasionally darker, pitchy

black; head and prothorax alike; elytra oblong; third interval with a well-defined puncture. Length 10–12 mm.; width 4–5 mm.

*Hab.* Cape Colony (Cape Town, Worcester, Stellenbosch, Fraserburg, Griqualand East), Natal (Escourt, Frere), Transvaal (Limpopo River, Pretoria).

The examples from Natal are larger than those from the Cape Colony; and *H. testaceus* is an immature specimen.

#### HARPALUS CAPICOLA, Dej.,

Spec. Col., iv., p. 309.

Black, with the palpi, antennæ, and tarsi rufescent; legs piceous black; prothorax as in the preceding species, the outer rufescent narrow margin hardly distinct, the lateral basal impressions very shallow; elytra elongate, or slightly oblong, striate, with the intervals hardly convex, but not plane; under side piceous. Length  $9\frac{1}{2}$ –10 mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Worcester).

#### HARPALUS SPURIUS.

Black, with the palpi, antennæ, and legs flavescent; head smooth; prothorax a little more attenuate diagonally from the lateral seta to the posterior angle than in the preceding species, lateral basal depressions narrow and deep; elytra oblong, striate, intervals a little convex, no wings under the elytra; under side piceous black. Length 8 mm.; width 3 mm.

*Hab.* Natal (D'Urban).

Female unknown.

#### HARPALUS CONGENER.

Closely allied to *H. spurius*, and also wingless; black on the head and prothorax; palpi and antennæ flavescent; legs piceous black, with the tarsi and the knees rufescent; prothorax a little more attenuate at the base than in the preceding species, but not quite so much as in *H. spurius*; lateral basal impressions broad and shallow; elytra oblong, piceous, striate, with the intervals a little convex. Length 8 mm.; width 3 mm.

*Hab.* Cape Colony (no exact locality).

#### HARPALUS SPRETUS.

Intensely black on the upper and under side; antennæ rufescent; prothorax a little attenuate behind, depressions moderately deep and broad, faintly punctulate, margins not edged with red; elytra elongate, not broader than the prothorax, subparallel, striate, intervals convex, but not high, no wings under the elytra; legs piceous black, tarsi rufescent. Length 8 mm.; width 3 mm.

*Hab.* Natal (Maritzburg), Transvaal (Potchefstroom).

## HARPALUS AGILIS.

Piceous black, antennæ, palpi, and legs rufescent or flavescens; head smooth; prothorax not attenuate behind, the lateral impressions broad, but not deep, the lateral and basal margin with a narrow rufescent band; elytra suboblong, not broader than the prothorax, striate, with the intervals slightly convex, wings under the elytra; under side piceous or piceous red. Length 8–8½ mm.; width 3–3½ mm.

*Hab.* Bechuanaland (Vryburg), Natal (Newcastle, D'Urban), Transvaal (Pretoria).

## HARPALUS CURSORIUS.

Very similar to the preceding species, from which it differs almost solely by the absence of wings under the elytra. Length 8–8½ mm.; width 3½ mm.

*Hab.* Natal (Escourt), Transvaal (Waterberg).

## HARPALUS NATALICUS.

Piceous black, broad, short; the apical part of the palpi, the two basal joints of antennæ, the basal part of the tibiæ and tarsi rufescent, the intermediate joints of antennæ infusate, the last one rufescent; legs piceous or piceous red; prothorax broad, with the lateral part very little attenuate, the lateral basal impressions narrow and deep; elytra slightly broader than the prothorax, parallel, striate, with the intervals nearly smooth; under side piceous or piceous red. Length 7–7½ mm.; width 3–3¼ mm.

*Hab.* Cape Colony (Somerset East), Natal (Frere).

## HARPALUS FUSCIPENNIS, Wiedem.,

Zool. Mag., ii., 1, p. 54.

Broad and short; head and prothorax piceous red, with a distinct metallic tinge; elytra light brown, with a metallic tinge; the three basal joints of antennæ and the tibiæ flavescens, the other joints fuscous and the femora piceous; prothorax a little attenuate behind, the basal impressions narrow, deep and distinctly punctured; elytra a little broader than the prothorax, oblong, striate; intervals moderately convex; under side piceous. Length 9–10 mm.; width 3¼–4 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Worcester).

## HARPALUS BRUNNEIPENNIS, Bohem.,

Insect. Caffr., i., p. 215.

Head and prothorax æneous green, narrowly edged with reddish brown, antennæ slightly infusate, with the three basal joints flaves-

cent; prothorax a little attenuate behind; basal impressions narrow, shallow, and not punctured; elytra chestnut brown, oblong, a little broader than the prothorax, striate, with the intervals plane; under side piceous black. Length 6–7 mm.; width  $2\frac{3}{4}$ –3 mm.

*Hab.* Cape Colony (exact locality unknown), Zambezia.

#### HARPALUS PHŒOPTERUS.

Dark chestnut-brown, with a faint metallic tinge in the median part of the prothorax; antennæ, palpi and legs light brown; head and prothorax smooth, the outer sides of the latter part not quite so much attenuate behind as in *H. fusco-æneus*, and although the discoidal part is darker brown than the margins and has a faint metallic tinge, it is neither so dark nor so metallic; basal impressions shallow and subaciculate; elytra elongate, not broader than the prothorax, striate, with the intervals a little convex, the puncture on the third interval distinct; under side fuscous brown. Length 7–7½ mm.; width  $2\frac{3}{4}$ –3 mm.

*Hab.* Cape Colony (Griqualand West).

#### HARPALUS FULVIPENNIS, Chaud.,

Bull. Mosc., 1846, iv., p. 789.

Head, prothorax, and under side piceous black, the antennæ infusate, with the exception of the three basal joints which are flavescent, like the palpi, legs very light brown, elytra also very light brown with a sutural and an outer marginal narrow black band; head and prothorax very smooth, the latter without any flavescent edging, the basal impressions narrow, shallow, and subpunctulate; elytra elongate, not broader than the prothorax, striate, with the intervals plane, and the puncture of the elytra altogether indistinct; the sutural black band extends on each side as far as the first stria, while the lateral one is confined to the outer margin. I do not know the male. Length  $6\frac{1}{4}$  mm.; width 3 mm.

*Hab.* Natal (Frere).

#### HARPALUS SUBÆNEUS, Bohem.,

Insect. Caffr., i., p. 216.

Head and prothorax black with an æneous tinge; elytra piceous or piceous red with a greenish sheen; antennæ and legs flavescent; prothorax slightly sinuate behind, basal impressions shallow, moderately broad and aciculate; elytra oblong, striate, intervals plane, the puncture on the third interval very distinct. Length 7 mm.; width 3 mm.

*Hab.* Natal (D'Urban).

Larger than *H. nanus*, and less metallic.

HARPALUS NANUS, Dej.,  
Spec. Col., iv., p. 393.

Subæneous; the elytra bronze with a greenish tinge; the three basal joints of the antennæ are flavescent and so are the tibiæ, while the other joints of the antennæ, and the tarsi are slightly infuscate; prothorax slightly sinuate behind, basal impressions shallow; elytra oblong, striate, the puncture on the third interval distinct; under side piceous. In some examples the femora are not infuscate. Length  $5\frac{1}{2}$ –6 mm.; width  $2$ – $2\frac{1}{4}$  mm.

*Hab.* Cape Colony (Cape Town, Worcester, Stellenbosch), Natal (Frere).

HARPALUS FUSCO-ÆNEUS, Dej.,  
Spec. Col., iv., p. 392.

Totally similar in shape and sculpture to *H. nanus*, but it is slightly smaller and much more metallic green on the prothorax and elytra. It is found in the same locality as *H. nanus*, and may prove to be a slight variety. Length 6 mm.; width 2 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Worcester).

HARPALUS PRECARIUS.

Size of *H. fusco-æneus* and *H. nanus*, but dark bottle-green, and with the antennæ, with the exception of the two basal joints, the femora, the apical part of the tibiæ and the tarsi deeply infuscate; the shape of the prothorax and elytra is the same as in *H. fusco-æneus*. Length 5 mm.; width 2 mm.

*Hab.* Cape Colony (Stellenbosch).

HARPALUS RUFOCINCTUS, Chaud.,  
Bull. Mosc., 1843, iv., p. 786.

*Selenophorus rufo-marginatus*, Bohem., Insect. Caffr., i., p. 191.

Piceous red, with the palpi, labrum, antennæ, legs, the margins of the prothorax, the suture of the elytra, and the edge of the outer margins rufescent, under side piceous red, elytra with an æneous tinge; prothorax slightly attenuate behind, with the posterior angle not rounded, the basal impressions broad, shallow, aciculate; elytra oblong, a little broader than the prothorax, striate, intervals plane, the puncture on the third interval conspicuous. Length 10–11 mm.; width  $4\frac{1}{4}$ – $4\frac{1}{2}$  mm.

*Hab.* Cape Colony (Griqualand West, Ebron, Kimberley), Transvaal (Pretoria).

GEN. BŒOMIMETES (Chaud. *in litt.*).

Mentum deeply emarginate, semi-circular, the apical part of the lobes slightly sinuate; ligula narrow; paraglossæ a little broader than the ligula, detached from it and much longer, straight and truncate at the tip; maxillæ hooked; last joint of the outer lobe very long and slender; mandibles longer than in *Harpalus*, and straighter outwardly; labrum elongate, but still broader than long; basal part of the epistoma very apparent; antennæ and palpi normal; prothorax ampliate and rounded laterally, narrowed behind and with the posterior angles sharp; elytra oblong, striate, those of the female not duller than the male; anterior and intermediate tarsi of the male dilated, the fourth one very slightly incised, the four basal ones densely squamose, and all with a dense, long pubescence; apical part of the four intermediate abdominal segments with a transverse series of closely-set setigerous punctures, the setæ forming a long fringe.

*Synopsis of Species.*

Ferruginous; elytra with a dorsal black band . . . . . *ephippium*.  
Totally black, shining . . . . . *atratus*.

## BŒOMIMETES EPHIPIUM, Bohem.,

*Harpalus ephippium*, Vet. Acad. Förh., 1860, p. 12.

Ferruginous, with the antennæ and legs flavescens and the knees infuscate; labrum emarginate; head smooth, with two deep punctures above the basal line of the epistome, which is very distinct; prothorax broadly ampliate from the apex to past the median part, narrowed diagonally behind; posterior angle acute, smooth on the disk, but punctulate along the base and in the lateral depressions, ferruginous, but often infuscate in the median part; elytra oblong, moderately plane, striate, intervals smooth, the third one with a distinct puncture in the posterior part, ferruginous, with an infuscate more or less ovate broad sutural patch extending as far as the fourth stria, running from the base to the apex, but oftener beginning at some distance from the base; under side light ferruginous or flavescens. Length  $10\frac{1}{2}$ –13 mm; width  $4\frac{1}{2}$ –5 mm.

*Hab.* Ovampoland, Damaraland, Mozambique (Rikatla).

In one of Boheman's type, from Lake N'Gami, the dorsal band is reduced to a small black sutural patch. My examples from Rikatla are smaller than those from Damaraland.

## BŒOMIMETES ATRATUS.

Size, shape, and sculpture of *B. ephippium*, and differentiated mostly by the colour, which is black and shining on the upper part, while the palpi, antennæ, and legs are rufescent, and the under side

piceous, with the last abdominal segments dark ferruginous; the prothorax is not quite so ampliate on the anterior part, but the aciculation of the base and of the lateral impressions is the same; the mandibles are not so suddenly hooked at the tip. Length 11 mm.; width  $4\frac{1}{2}$  mm.

*Hab.* Ovampoland.

#### GEN. HARPALOMORPHUS.

Mentum short, emarginate in the shape of a crescent and without any median sinuation, the apical part of the lobes very sharp; ligula short, narrow; paraglossæ lobate, ovate, not longer than the ligula, and slightly excised from it near the tip, last joint of the outer maxillary lobes not so slender as in the other *Harpalid*; head short in the anterior part; labrum and mandibles short, thus giving the head a very blunt look; prothorax short, more narrow behind than in *Harpalus*; elytra oblong, striate, intervals plane; anterior and median tarsi of the male dilated, the four basal joints cordiform, the fourth one slightly incised, and all four squamulose underneath; abdominal segments fringed with long hairs.

Less ovate than *Bæomimetes*; this genus is easily distinguished by the structure of the paraglossæ, which are not so long and more ovate; the apical joint of the outer lobe of the maxillæ is subfusiform, truncate at the tip, considerably thicker than in any other *Harpalid*, and the whole lobe shorter than the maxilla; the head is very blunt in front owing to the shortness of the mandibles, and the corresponding shortening of the labrum, which is truncate in front but deeply sinuate at the base; the mentum is emarginate in the shape of a crescent, without any dent or sinuation at the tip of the epilobes.

#### *Synopsis of Species.*

Third interval of elytra with a puncture in the posterior part.

Subæneous; sutural part of elytra rufescent .. .. . *capicola*.

Head, prothorax, and legs black; elytra brick-red .. .. . *rufipennis*.

Third interval of elytra without any apparent puncture.

Upper part very dark æneous green; legs rufescent .. .. . *æneipennis*

Upper part black, opaque .. .. . *modestus*.

#### HARPALOMORPHUS CAPICOLA.

Head and prothorax black, shining; the elytra with a faint æneous sheen, with the suture rufescent; antennæ, labrum, palpi, and legs rufescent; head smooth; prothorax ampliate laterally in the median part, narrow behind, slightly sinuate above the posterior angle, which is acute, lateral basal impressions normal, disk smooth; elytra oblong, narrowly striate; intervals plane, smooth, the third one

with a conspicuous puncture in the posterior part; under side dark piceous. Length  $8\frac{1}{2}$ –9 mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town, Worcester).

#### HARPALOMORPHUS RUFIPENNIS.

Head and prothorax black, very shining; antennæ, palpi, tibiæ, and tarsi rufescent; elytra brick-red; under side and femora piceous; head smooth, massive; prothorax ampliate in the anterior part, narrowed diagonally behind, not sinuate above the posterior angle which is acute, smooth, basal impressions well defined; elytra oblong striate, with the intervals nearly smooth, broad and plane, the puncture on the third one often obliterate or hardly distinct, the outer margin is darker, somewhat infuscate; in the female the elytra are not as shining as in the male. Length 9 mm.; width  $3\frac{1}{4}$ –4 mm.

*Hab.* Cape Colony (Cape Town, Malmesbury).

#### HARPALOMORPHUS ÆNEIPENNIS.

Very shining; head and prothorax black, with a faint metallic tinge; antennæ and palpi flavescent; legs and tarsi dark red; elytra æneous black or sometimes with a dark-green tinge; head and prothorax smooth and of the same shape as the two preceding species; elytra oblong, striate, with the intervals plane, third interval impunctate; under side black, subæneous. Female unknown. Length 11 mm.; width  $4\frac{1}{2}$  mm.

*Hab.* Cape Colony (Worcester).

#### HARPALOMORPHUS MODESTUS.

In shape, size, and sculpture very closely allied to *H. æneipennis*, of which it might perhaps eventually prove to be the female; the prothorax is a little broader and the elytra more oblong and dull black, and also impunctate on the third interval. Male unknown. Length 12 mm.; width 5 mm.

*Hab.* Transvaal (Potchefstroom).

#### GEN. DYORICHE, MacLeay,

Annul. Javan., p. 21.

#### PLATYMETOPUS, Dej.

Mentum deeply emarginate, without any median tooth, lateral lobes nearly perpendicular and very sharp; ligula narrow; paraglossæ very broadly dilated, singly rounded at the apex, and a little longer than the ligula which they seem to surround entirely; apical joint of the labial palpi, and also the preceding, thickly setose; head

short, thick; prothorax a little attenuate behind, posterior angles sharp; elytra elongate, parallel, striate, with the intervals plane, closely punctured or shagreened; anterior and median tarsi of the male dilated, subcordiform, fourth one very slightly incised.

The affinities of this genus are more with *Amblystomus* than with *Hypolithus* and *Harpalus*, although the sculpture of the elytra is somewhat similar to that of *Hypolithus*; but the shape of the ligula and paraglossæ is the same as in *Amblystomus*.

#### *Synopsis of Species.*

Elytra dark brown, with a pale yellow band running on the seventh and eighth intervals from the base to the posterior declivity .. .. *figurata*.  
Elytra totally black, densely pubescent .. .. .. *vidua*.

#### DYORICHE FIGURATA, Bohem., Insect. Caffr., i., p. 190.

Head and prothorax piceous, with a brassy tinge, very deeply and closely punctured and pubescent; the palpi, legs, and the three basal joints of antennæ flavescent, the others infusate; prothorax with a very narrow flavescent margin, rounded in the anterior part, a little attenuate behind, with the posterior angle well defined; elytra very parallel, deeply punctato-striate, intervals plane and closely aciculate, light bronze, with a yellowish sublateral band running on the sixth interval from the base to the declivity, invading the seventh near the base and also the apex as well as the apical part of the other inner intervals; under side piceous or deep ferruginous. Length 6-6 $\frac{1}{4}$  mm.; width 2-2 $\frac{1}{4}$  mm.

*Hab.* Cape Colony (Kimberley, Hope Town).

#### DYORICHE VIDUA.

Bronze black, densely pubescent on the upper part; palpi, antennæ with the exception of the two basal joints which are flavescent, femora and tarsi black, tibiæ flavescent; head and prothorax deeply and closely punctured, the punctures broader and deeper along the base; elytra parallel, striate, intervals quite plane and finely shagreened; under side black, shining. Length 6 $\frac{1}{2}$  mm.; width 2 $\frac{1}{2}$  mm.

*Hab.* Natal (D'Urban).

Very closely allied to *D. vestita*, from Senegal and the Gold Coast, but the intervals of the elytra are quite plane, instead of being subconvex, and the elytra are almost black.

Klug has described a third species from Mozambique which I have not seen.

DYORICHE PICIPES, Klug,  
Peters' Reise n. Mossamb., p. 168.

“Black, subæneous ; head and prothorax deeply and closely punctate ; elytra punctulate, striate, intervals with not very apparent series of punctures ; legs piceous black.”

“This species is very closely related to *D. interpunctatus*, Dej. ; it is somewhat smaller, however, and distinguished by the much more strongly punctate prothorax, the less distinctly visible rows of punctures alternating in the intermediate intervals of the elytra, and the absence of the sutural spot not far from the apex. The ground colour is black, a feeble greenish, metallic lustre is visible on the head and prothorax. The head is flat between the eyes on each side, continuously irregular, tolerably large, but not deeply punctate, the two basal joints of the antennæ, as well as the base of the third, are reddish yellow ; the prothorax is but little broader than long, not broader behind than in front, rounded at the sides, and thickly covered with deep punctures, the longitudinal median groove as well as the basal impressions are only feebly marked ; scutellum small and smooth ; elytra distinctly but finely punctured, the striæ deep and the intervals flat, and rows of fine punctures are easily discernible on the third and fifth ; under side shining black ; legs completely piceous black.” Length  $3\frac{1}{2}$  lin.

*Hab.* Mozambique (Inhyambane).

GEN. STENOLOPHUS, Dej.,  
Spec. Col., vol. iv., 1829, p. 405.

Mentum deeply emarginate, the base of the emargination narrow, straight, the inner part of the lobes a little slanting, sharp at the tip, outer sides rounded ; ligula narrow, parallel, slightly sinuate at the apex ; paraglossæ broader, excised at a certain distance from the apical part and produced in two lobes much longer than the ligula ; penultimate joint of the labial palpi with two setæ, the last one very briefly and sparsely setulose, both the apical joints of labial and maxillary palpi long, ovate, and subtruncate at the tip ; head and antennæ of *Harpalus* ; prothorax nearly straight laterally, truncate at base and apex and with the posterior angles rounded, hardly impressed laterally behind ; elytra elongate, subparallel, striate, third interval with a puncture in the posterior part ; anterior and median tarsi of the male dilated, the second and third joints cordiform, the fourth one bilobate, the first one short, less broad than the second, all densely squamose underneath, the squamæ biseriate ; the joints of the intermediate tarsi nearly as much dilated and lobate as the corresponding ones of the fore-legs.

The species of the genus can be divided in two sections. In the first one, the sub-gen. *Stenolophus*, the last joints of the palpi are truncate, and the fourth joint of the anterior and intermediate tarsi deeply lobate and with long hairs underneath; the species belonging to that section are piceous or piceous black on the upper side, iridescent, and the intervals of the elytra are more convex in the male than in the female. In the second one, the sub-gen. *Engadroma*, the last joints are acute at the tip, and the tarsi of the male less dilated; the species belonging to that section are small, with the prothorax sometimes red or flavescent, and the elytra sometimes variegated with reddish or yellowish bands or patches.

The species comprised in this genus are distributed over Europe, Asia, India, Africa, and North and South America.

*Synopsis of Species.*

Sub-Gen. STENOLOPHUS.

Elytra with a short scutellary stria.	
Scutellary stria very short; elytra not depressed at base .. ..	<i>nitidulus.</i>
Scutellary stria moderately long.	
Basal part of the suture much depressed .. .. .	<i>capensis.</i>
Basal part of the suture not depressed; elytra black, iridescent..	<i>fallax.</i>
Elytra chestnut-brown, with a dorsal black band .. .. .	<i>interruptus.</i>
Elytra without any scutellary stria.	
Elytra iridescent, with a very narrow flavescent margin .. ..	<i>gratus.</i>
Elytra with a broad flavescent lateral margin, and the apical part of the same colour .. .. .	<i>amœnulus.</i>
Elytra not much iridescent, intervals subconvex, third interval with five spaced punctures .. .. .	<i>agilis.</i>

STENOLOPHUS NITIDULUS, Bohem.,

Insect. Caffr., i., p. 248.

Head and prothorax piceous; labrum, palpi, antennæ, and legs light testaceous; head and prothorax smooth, the latter with a narrow flavescent margin, outer sides and posterior angles slightly rounded, the lateral basal impressions very slight and filled with moderately deep punctures; elytra slightly broader than the prothorax at the base, elongate, straight, a little rounded at the humeral angle, striate, with the intervals slightly convex in the male and smooth, the puncture on the third interval placed at the top of the posterior declivity, black iridescent, and with the edge of the outer margins light testaceous; under side brick-red. Length  $5\frac{3}{4}$  mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Natal (Escourt).

STENOLOPHUS CAPENSIS.

Black, very iridescent, labrum, clypeus, and posterior part of the head rufescent, palpi, the two basal joints of antennæ, and the legs

flavescent; head and prothorax smooth, the latter with a narrow lateral and basal flavescent margin, hardly ampliate laterally, with the posterior angles rounded, base impressed on each side of the longitudinal median groove, the impressions punctured; elytra elongate, subparallel, slightly broader than the prothorax, deeply striate, with the intervals more convex in the male than in the female, and with the sutural part, extending as far as the second stria conspicuously, depressed in both sexes from the base to about one-fourth of the length; posterior puncture on the third interval situated at the top of the posterior declivity; under side piceous red, iridescent. Length 8 mm.; width  $2\frac{3}{4}$ –3 mm.

*Hab.* Cape Colony (Stellenbosch, Clanwilliam), Mozambique (Rikatla).

#### STENOLOPHUS FALLAX.

Almost identical with *S. impressus*, but duller black and hardly iridescent; the shape of the prothorax is the same, but the elytra have no basal sutural depression; legs, palpi, labrum, and the two basal joints of antennæ flavescent, the other joints slightly infusate. Length 7– $8\frac{1}{4}$  mm.; width 3 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch), Zambezia (Salisbury).

#### STENOLOPHUS INTERRUPTUS, Chaud.,

Rev. Zool., 1876, p. 346.

More slender than *S. fallax* and much more iridescent; head black, antennæ, labrum, palpi, and legs flavescent; prothorax chestnut-brown, with the discoidal part darker and very iridescent, basal depressions hardly punctulate; elytra elongate, subparallel, striate, with two punctures on the third interval, the first one at about the median part, the other at the top of the declivity; the colour is light chestnut-brown, iridescent with a dorsal black band extending on from the base to a short distance from the apex, reaching the third stria, but extending in the median part as far as the fifth; under side flavescent. Length 7 mm.; width 3 mm.

*Hab.* Mozambique (Rikatla), Natal, teste Chaud.

#### STENOLOPHUS GRATUS.

Piceous or piceous black, brightly iridescent, labrum, palpi, basal joints of antennæ and under side brick-red; prothorax with a narrow flavescent margin, a little ampliate laterally in the anterior part, slightly narrowed behind but without any sinuation above the posterior angle which is rounded, basal part not impressed laterally and broadly aciculate; elytra elongate, subparallel, with the humeral angles slightly rounded, a little broader than the prothorax, striate, with the intervals very slightly convex in the male, plane in the

female, the basal sutural part depressed in the male as in *S. capensis*, but not, or hardly so, in the female, third interval with one conspicuous puncture situated at about two-thirds of the length, outer margin flavescens. Length 9 mm.; width 3 mm.

*Hab.* Mozambique (Rikatla).

Differentiated from *S. capensis* by the shallower depression in the posterior part of the prothorax, and the absence of the scutellary stria on the elytra.

#### STENOLOPHUS AMENULUS.

Palpi, labrum, the two basal joints of the antennæ, and the legs light flavescens, the other joints of the antennæ slightly fuscous; prothorax deeply fuscous on the disk and with a broad, flavescens margin, smooth, shining, with the posterior depressions aciculate, but the median part of the base smooth; elytra elongate, black, iridescent, with a flavescens band running on the sixth interval from base to apex, the eighth interval and outer margin and the apical part of the intervals are also yellow, the striæ are narrow, not deep, and the intervals plane, smooth. Length 7 mm.; width  $2\frac{3}{4}$  mm.

*Hab.* Cape Colony, Mozambique (Rikatla).

#### STENOLOPHUS AGILIS.

Very dark brown, with the dorsal part of the elytra piceous or black, and more or less iridescent, labrum, basal joints of antennæ, palpi, and legs rufescens; head smooth; prothorax a little ampliate in the anterior part, gradually narrowed behind, but without any lateral sinuation above the posterior angle, which is rounded, and the posterior part of the lateral margins recurved, basal depressions broad and not punctulate; elytra elongate, parallel, striate, with the intervals convex in the male, nearly plane in the female, more or less iridescent, with the outer margins flavescens, the third interval with five spaced punctures, the apical one of which is very indistinct; under side dark brown; abdomen rufescens. Length  $7\frac{1}{2}$  mm.; width 3 mm.

*Hab.* Mozambique (Rikatla).

#### Sub-Gen. ENGADROMA, Motsch.

Prothorax red; head and elytra black, the latter with a narrow sutural reddish band, and a short humeral, diagonal patch .. .. . *elegans.*

Head and prothorax red; elytra black, with a humeral and postical red patch on each side .. .. . *quadripustulatus*

Head fuscous; prothorax yellowish red; elytra black, with only a humeral diagonal patch on each side .. .. . *promptus.*

Head black; prothorax red; elytra black, subiridescent, with a narrow sutural reddish band and an outer marginal one *alacer.*

Prothorax fuscous; head and elytra black, iridescent, the latter with a narrow rufescens marginal edge .. .. . *simplex.*

## STENOLOPHUS ELEGANS.

Palpi, legs, the two basal joints of antennæ flavescens, the other joints infuscate, labrum reddish; head black, shining, smooth; prothorax brick-red, a little rounded laterally, with the lateral sides of the base depressed and aciculate; elytra a little broader than the prothorax, truncate at the base, elongato-ovate, narrowly striate with the intervals plane, black, shining with a sutural yellowish red band covering the first interval on each side and with a subdiagonal basal band of the same colour extending from the humeral part of the seventh interval to the fifth stria and reaching to about one-fifth of the length of the elytra, edge of outer margins flavescens; under side light piceous; prosternum yellowish red. Length  $4\frac{1}{2}$ –5 mm.; width 2 mm.

*Hab.* Natal (D'Urban, Tugela River), Zambezia (Salisbury).

It is worthy of note that the fourth joint of the anterior tarsi of some males are more lobate in some specimens than in others, yet the peculiar yellowish red markings being exactly alike in these examples, preclude the possibility of there being more than one species.

## STENOLOPHUS QUADRIPUSTULATUS, Dej.

*Acupalpus quadripustulatus*, Spec. Col., iv., p. 477; Klug, Peters' Reise n. Mossamb., pl. 10, fig. 7.

Oblong-ovate; head and prothorax brick-red; prothorax subtransverse, punctate in the anterior and posterior part and subfoveolate on each side with the posterior angle obtuse; elytra piceous black, striate, with the outer margin, the suture and two patches on each side, brick-red; legs and base of the antennæ light testaceous.

I have not seen the species but from the excellent figure given by Klug, *loc. cit.*, it may be said to differ from *S. elegans* merely by having four reddish patches on each elytron instead of two, and the head is red instead of being black. Length 5 mm.; width 2 mm.

*Hab.* Mozambique (Tette), according to Klug.

This species occurs in Senegal.

## STENOLOPHUS PROMPTUS, Klug,

Monastb. Berl. Ac., 1853, p. 249; Peters' Reise n. Mossamb., p. 172, pl. 10, fig 6.

Shape, size, and colouring of *S. elegans*, the diagonal humeral patch on the elytra is identical, but there is no sutural reddish band.

The diagnose of this species is made from the figure given by Klug, *loc. cit.*

## STENOLOPHUS ALACER.

Palpi, legs, the two basal joints of antennæ flavescens, the other joints slightly infuscate, labrum, clypeus and prothorax dark-red; head black, smooth, shining; prothorax with a broad lateral depression on each side of the base; elytra oblong, black, iridescent, suture and outer margin narrowly edged with red; under side flavescens, abdomen infuscate. Length 4 mm.; width  $1\frac{3}{4}$  mm.

*Hab.* Natal (Frere) Zambezia (Salisbury).

In some examples from Zambezia, the sutural reddish band is a little broader than in the Natal ones.

## STENOLOPHUS SIMPLEX.

Palpi, labrum, and legs, the two basal joints of the antennæ flavescens, the other joints slightly fuscous; prothorax light piceous with the sides rufescent, smooth, shining, with neither the posterior depressions nor the base aciculate; elytra oblong, black, iridescent, with the suture and the edge of the outer margins very narrowly rufescent; under side fuscous.

Closely allied to *S. alacer*, but the colour of the prothorax is different, and the sutural and marginal bands narrower and not so red. Length 4– $4\frac{3}{4}$  mm.; width  $1\frac{3}{4}$ –2 mm.

*Hab.* Natal (Escourt, Tugela River).

## GEN. ACUPALPUS, Latreille,

Régn. An., ed. 2, iv., 1829, p. 391.

The generic characters are almost entirely like those of *Stenolophus*. The difference is found in the shape of the ligula, which is more triangular at the apex, but it is doubtful if this character would hold good in all the species, and also in the shape of the joints of the intermediate tarsi, for, although in some species the fourth joint of the anterior tarsi of the male may be as lobate, in the intermediate ones this fourth joint is only incised; the terminal joint of the labial palpi is fusiform, much inflated in the centre, and very sharp at the tip; the last joint of the labial palpi of the male often shows a very peculiar depression, but I cannot say that I have found this a permanent character in the South African species.

The species contained in *Acupalpus* are found in Europe, Northern and Southern America, India and Africa.

*Synopsis of Species.*

Prothorax impressed laterally behind, posterior angle blunt, outer posterior margin slightly recurved.

Head, prothorax, suture and outer part of elytra dark red, dorsal part of elytra black, iridescent, intermediate joints of antennæ fuscous .. .. . *gracilis*.

- Head black, prothorax red, suture and sides of elytra pale red, dorsal part black, iridescent .. .. . *capicola*.
- Black on the upper part with the suture and lateral margins reddish .. .. . *egenus*.
- Totally black on the upper part .. .. . *insidiosus*.
- Totally ferruginous, elytra iridescent .. .. . *umbripennis*.
- Totally flavous, intermediate joints of antennæ fuscous .. .. . *pallidus*.
- Posterior angles of prothorax not blunt, outer posterior margins recurved, upper part piceous, iridescent, apical part of elytra flavescent .. .. . *terminalis*.
- Prothorax much rounded laterally behind, posterior impression very slight, posterior margin not recurved, upper part sub-æneous; prothorax and elytra with a narrow marginal reddish band, suture distinctly rufescent .. .. . *natalicus*.
- Basal part of prothorax deeply punctured.
- Piceous black; prothorax and elytra with a narrow flavescent margin, the latter with a small subhumeral yellowish patch, suture narrowly flavescent .. .. . *decoratus*.
- Upper side piceous; elytra with a discoidal longitudinal band reaching from base to apex .. .. . *elegantulus*.
- Upper side piceous; elytra with the suture and a broad dorsal band flavescent .. .. . *plagifer*.
- Prothorax red; head and elytra black, the latter with the flavescent suture and a discoidal longitudinal band very broad at the base and narrowing towards the apex .. .. . *vittiger*.
- Fuscous; elytra tessellate with flavescent and piceous patches .. .. . *tessellatus*.

ACUPALPUS GRACILIS, Bohem.,

Insect. Caffr., i., p. 225.

Palpi, legs, and the two basal joints of antennæ flavescent, the other joints fuscous; head and prothorax brick-red, very shining, the latter with a moderately deep lateral depression on each side of the base; elytra a little more parallel than in the two preceding species, striate, with the intervals slightly convex, dark red, with a black iridescent patch extending on each side from the first to the fifth stria, and reaching from a short distance from the base to nearly the apex; under side flavescent, abdomen slightly infusate. Length 4 mm.; width  $1\frac{1}{2}$  mm.

*Hab.* Zambezia (Salisbury), Mozambique (Rikatla).

ACUPALPUS CAPICOLA.

Allied to the preceding species but with the elytra a little shorter; intermediate joints of antennæ fuscous; head black; prothorax red, sometimes dark red; elytra with a broad, dorsal, slightly iridescent band, extending from base to apex and reaching on each side from the first stria to the outer margin which is reddish, likewise the suture; palpi, legs, and the two basal joints of antennæ flavescent. Length 3- $3\frac{1}{2}$  mm.; width  $1\frac{1}{4}$ - $1\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch).

I have seen examples of this species almost totally light testaceous, or with a faint iridescent black tinge. They are probably immature specimens.

#### ACUPALPUS EGENUS.

Shape of the preceding species, but a little more robust, totally black, slightly iridescent, suture of elytra and edge of the outer margin reddish; palpi, labrum, the two basal joints of antennæ and legs rufescent, intermediate joints of antennæ fuscous. Length  $3\frac{1}{2}$ –4 mm.; width  $1\frac{1}{2}$ – $1\frac{3}{4}$ .

*Hab.* Cape Colony (Cape Town, Grahamstown).

#### ACUPALPUS INSIDIOSUS.

Head, prothorax, and elytra black, shining, the latter with a marginal very narrow red band; palpi and legs rufescent; tibiæ and intermediate joints of antennæ infusate; under side piceous.

So closely allied to the European species *A. luridus* that it is extremely difficult to know the one from the other. Length 4 mm.; width  $1\frac{3}{4}$  mm.

*Hab.* Cape Colony (Cape Town).

#### ACUPALPUS PALLIDUS, Bohem.,

*Stenolophus pallidus*, Insect. Caffr., i., p. 219.

Pale yellow with the head and prothorax a little darker, intermediate joints of the antennæ slightly fuscous; posterior angles of the prothorax more acute than in any of the preceding species; intervals of elytra slightly convex. Length 4 mm.; width  $1\frac{1}{2}$  mm.

*Hab.* Mozambique (Rikatla).

#### ACUPALPUS UMBRIPENNIS.

Ferruginous red, palpi, the two basal joints of antennæ and the legs flavescent, the intermediate joints of the antennæ light ferruginous, base of prothorax and elytra iridescent. Length 4 mm.; width  $1\frac{3}{4}$  mm.

Shape of *A. pallidus* but darker, and iridescent on the elytra; the posterior angles of the prothorax are rounded instead of being acute.

*Hab.* Zambesia (Salisbury).

#### ACUPALPUS TERMINALIS.

Piceous black, iridescent on the upper part, prothorax piceous red with a narrow, light brown outer margin, legs, palpi, and the three basal joints of the antennæ flavescent, the other joints slightly

infusate; head and prothorax smooth, the posterior angles of the latter not rounded, and the posterior part of the outer margins much recurved, basal impressions slightly but closely punctulate; elytra elongate, parallel, striate, very iridescent, and with the apical part flavescent for about one-sixth of the length. Length  $5\frac{1}{4}$ – $5\frac{1}{2}$  mm.; width 2 mm.

*Hab.* Cape Colony (Cape Town).

#### ACUPALPUS NATALICUS.

Head and prothorax black, shining, the latter with a narrow flavescent margin, and the median part of the base narrowly rufescent, palpi, legs, and the two basal joints of antennæ flavescent, the other joints of the antennæ infusate, labrum rufescent; prothorax very slightly impressed laterally behind, with the median part of the base nearly smooth or very slightly punctured; elytra elongate, parallel, greenish black, with the suture and the outer margin narrowly rufescent; under side reddish brown, abdomen slightly iridescent. Length  $5$ – $5\frac{1}{4}$  mm.; width 2 mm.

*Hab.* Cape Colony (Transkei), Natal (Escourt, Newcastle), Zambezia (Salisbury).

#### ACUPALPUS DECORATUS.

Head and prothorax piceous, palpi, legs, the two basal joints of antennæ flavescent, the other joints and the labrum slightly rufescent; prothorax with a very narrow rufescent margin and a small median patch of the same colour in the base which is very distinctly punctured from side to side and has no lateral impressions; elytra elongate, parallel, black, shining, with a very narrow sutural and marginal yellowish red band, and a very short sub-diagonal humeral patch of the same colour extending from the margin to the fifth stria; under side subrufescent. Length 5 mm.; width 2 mm.

*Hab.* Natal (Frere, Escourt).

#### ACUPALPUS ELEGANTULUS, Pér.,

Trans. S. Afric. Phil. Soc., vi., 1892, p. 22.

Head black, antennæ slightly infusate with the two basal joints, the palpi, labrum, and legs subrufescent; prothorax very slightly impressed laterally behind and with the base punctulate from side to side, infusate in the median part of the disk, and broadly marginate with reddish brown all round; elytra suboblong, more or less dark brown, and with a dorsal yellowish band reaching on each side from the base to the apex, extending at the base from the outer margin to the third stria, but narrowing at the apex from the third

to the sixth stria, suture with a narrow yellow line; under side infusate. Length 4–4½ mm.; width 2 mm.

*Hab.* Ovampoland.

ACUPALPUS PLAGIFER, Klug,

Monatsb. Berl. Acad., 1853, p. 249; Peters' Reise n. Mossamb., 1862, p. 174, pl. 10, fig. 8.

Very closely allied to the preceding species, judging by the figure given, *loc. cit.*, and may prove to be identical with it; the sutural yellow line is replaced by a broad band, and the discoidal bands on the elytra appear to be wider. Length 4 mm.; width 2 mm.

*Hab.* Mozambique (Tette), teste Klug.

ACUPALPUS VITTIGER, Klug,

Monatsb. Berl. Acad., 1853, p. 249; Peters' Reise n. Mossamb., 1862, p. 173, pl. 10, fig. 9.

Shape and size of the preceding species; prothorax red; head and elytra black, the latter with a light testaceous suture, and on each side a discoidal longitudinal band which has invaded the whole of the base from side to side, but narrows considerably towards the apex. Length 4 mm.; width 1¾ mm.

*Hab.* Mozambique (Tette), teste Klug.

ACUPALPUS TESSELLATUS, Pér.,

Trans. S. Afric. Phil. Soc., vol. vi., 1892, p. 22.

Head reddish brown, smooth; palpi, labrum, antennæ, and legs flavescent; prothorax very slightly impressed laterally behind, and with the base broadly punctured from side to side, infusate or slightly reddish brown in the middle; elytra oblong, each one with a broad diagonal yellowish band beginning at the shoulder and a sinuate posterior patch connected with the humeral band by one, or sometimes two narrow straight black lines, outer margin with a very broad black band. Length 4½–5 mm.; width 2¾–3 mm.

*Hab.* Ovampoland, Zambezia (Upper Limpopo).

GEN. AMBLYSTOMUS, Erichs.,

Käf. d. Mark Brand, i., 1837, p. 59.

HISPALIS, Ramb.

Mentum short, semicircularly emarginate, without any median tooth; ligula very narrow, much shorter than the paraglossæ, which are considerably broader, either lobate or subtriangular, and seemingly united above the ligula; last joint of maxillary and labial palpi fusiform, acuminate; mandibles short, hidden by the labrum; eyes

moderately large; prothorax rounded laterally behind, and without any posterior angles; elytra elongate; legs moderately long, anterior tibiæ with only an apical outward spine, tarsi of the anterior and intermediate legs a little broader in the male than in the female, cordiform, the fourth joint incised, under part slightly squamulose and upper part glabrous, third interval of the elytra with a puncture in the posterior part.

*Amblystomus* occurs in Europe, Africa, and Eastern India.

*Synopsis of Species.*

Head broad; prothorax subangular behind; elytra black, with only one visible stria on each side of the suture; basal joint of the antennæ flavescent; legs black .. .. . *Promontorii.*

The two basal joints of the antennæ and the legs flavescent .. *natalicus.*

Head moderately broad; posterior angles of the prothorax rounded; upper part greenish; elytra with a flavescent dorsal band on each side, running diagonally from the shoulder to the fourth stria, and from there longitudinally along the fourth interval to the top of the posterior declivity, where it runs transversely as far as the first stria .. .. . *vittipennis.*

Upper part fuscous brown, the diagonal part of the dorsal patch very broad, reaching from the outer margin to the fourth stria, the longitudinal part broader than in the preceding species .. .. . *blandus.*

Upper part blue; elytra with two broad yellow patches on each side, sometimes connected with one another along the fourth interval .. .. . *ornatipennis.*

Elytra with two small yellowish bands on each side disconnected with one another .. .. . *scitus.*

Head and prothorax black; elytra testaceous yellow with a sutural black patch, disconnected from base and apex.. .. . *amabilis.*

Head and prothorax black; elytra flavescent from the base to two-thirds of the length, the rest deeply fuscous .. .. . *basalis.*

AMBLYSTOMUS PROMONTORII.

Black, very shining; basal joint of antennæ flavescent; head broad, smooth; prothorax broader than the head, amplified in the middle, gradually narrowed behind and the posterior angles rounded, truncate at the apex and base, the latter a little depressed transversely and without any lateral impressions, the median longitudinal groove hardly discernible; elytra a little broader than the prothorax, elongate, nearly parallel, smooth, very faintly striate except near the suture, where two striæ are less obliterated; legs, tarsi, and under side black. Length 3½ mm.; width 1½ mm.

*Hab.* Cape Colony (Cape Town).

AMBLYSTOMUS NATALICUS.

Black, shining; antennæ deeply infuscate, with the two basal joints of antennæ, the palpi, and the legs rufescent; head and

prothorax as in the preceding species; elytra elongate, smooth, faintly striate in the dorsal part, and the striæ obliterated laterally; under side piceous. Length 3 mm.; width  $1\frac{1}{4}$  mm.

Very similar to the preceding species, but smaller and with a less robust facies.

*Hab.* Natal (Escourt).

AMBLYSTOMUS VITTIPENNIS, Bohem.,

*Acupalpus vittipennis*, Insect. Caffr., i., p. 221.

*A. quadrisignatus*, Bohem., *loc. cit.*, p. 220.

Obscurely æneous or sometimes fusco-æneous on the head and prothorax, palpi, legs, and the two basal joints of antennæ rufescent, the other joints of the antennæ black; head smooth; prothorax subcordiform with the posterior angles quite rounded; base slightly depressed, without any lateral impressions, and with the median longitudinal groove nearly obliterate, smooth, and with a narrow flavescent outer margin; elytra elongate, parallel, striate, with the intervals smooth, dark metallic green with a subhumeral diagonal yellowish patch extending from near the outer margin to the fourth interval, where it unites with an equally broad longitudinal band reaching the top of the posterior declivity, where it is produced inwardly towards the suture, which it does not reach quite, edge of the outer margin slightly flavescent; under side fuscous, with the median part of the abdomen rufescent. Length 5–5½ mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Cape Colony (Hope Town).

AMBLYSTOMUS BLANDUS.

Fusco-æneous with the two basal joints of antennæ, the palpi, and legs flavescent; head and prothorax as in *A. vittipennis*, but both reddish brown; elytra elongate, striate, fusco-æneous with a broad subhumeral yellowish patch uniting near the fourth interval with a dorsal band reaching the top of the declivity, slightly broader behind and produced inwardly towards the suture, which it does not reach quite; under side rufescent with the lateral part of the abdomen infusate.

Very like the preceding, but the subhumeral yellowish patch on each side of the elytra is broader and longer, and the dorsal band extends behind from the third to the sixth stria. Length 3–5 mm.; width 2 mm.

*Hab.* Transvaal (Pretoria), Damaraland (Kookarrah).

AMBLYSTOMUS ORNATIPENNIS, Bohem.

*Acupalpus ornatipennis*, Insect. Caffr., i., p. 223.

Head and prothorax dark metallic green; the two basal joints of

antennæ, palpi, and legs flavescent; head smooth; prothorax slightly attenuate behind with the posterior angles slightly acute; elytra elongate, subparallel, striate, black with a faint metallic tinge and with a broad diagonal subhumeral yellow patch and a posterior oval one very nearly coalescing a little beyond the median part of the disk; under side piceous. Length 3 mm.; width  $1\frac{1}{2}$  mm.

*Hab.* Natal (Frere, Maritzburg), Bechuanaland (Vryburg), Damara-land (Kookarra).

#### AMBLYSTOMUS SCITUS.

Intermediate in size between *A. vittipennis* and *A. ornatipennis*; the colour is very dark green, and the legs and the two basal joints of antennæ are flavescent; the elytra have a subhumeral narrow oblique yellow band and a posterior one hardly extending beyond the fourth interval; these two bands are not connected by a longitudinal dorsal one. Length  $4-4\frac{1}{4}$  mm.; width 2 mm.

*Hab.* Natal (Escourt).

#### AMBLYSTOMUS AMABILIS, Bohem.

*Acupalpus amabilis*, Insect. Caffr., i., p. 222.

Head and prothorax black, shining; antennæ, palpi, and legs flavescent; prothorax much rounded laterally, attenuate behind with the posterior angles obtuse; elytra testaceous yellow with a sutural median black patch, narrowed in the anterior part, dilated and bifid behind, and reaching neither base nor apex, dorsal part striate, sides smooth; under side fuscous black. Length 5 mm.; width 2 mm.

*Hab.* Transvaal (Pretoria).

#### AMBLYSTOMUS BASALIS.

Head and prothorax black, shining; labrum, antennæ, palpi, and legs flavescent; head smooth; prothorax much rounded laterally from about one-third of the length to the posterior part, which is not angular, smooth all over; elytra elongate, slightly striate in the dorsal part with the striæ almost evanescent laterally, flavescent from the base to about one-third of the length, and fuscous black from there to the apex; under side piceous. Length 4 mm.; width  $1\frac{1}{2}$  mm.

*Hab.* Zambezia (Salisbury).

### TRIBE GEOBÆNIDES.

Mentum notched, median part with a very minute tooth; paraglossæ slightly excised from the tip of the ligula, a little longer, and curving inwardly; head with two supra-orbital setæ; elytra oblongo-ovate, striate, third stria with three punctures, the two anterior ones

situated on the stria; legs moderately long; anterior tarsi of the male dilated, and both anterior and intermediate ones spongy underneath; claws simple.

GEN. GEOBÆNUS, Dej.,

Spec. Col., iv., p. 402.

Mentum broadly notched, the median part with a very minute tooth, apical part of the lateral lobes sharp; ligula narrow, subtruncate apically and bearing two long setæ; paraglossæ not broader than the ligula, slightly excised from the tip, a little longer and curving a little inwardly; last joint of maxillary and labial palpi subfusiform and acuminate at tip; labrum transverse, truncate; antennæ moderately long, filiform, the three basal joints glabrous; head with moderately prominent eyes, and very short behind the eyes, two supra-orbital setæ; prothorax transverse, very slightly narrowed laterally in front and behind and not sinuate, and having an ante-median and a supra-postical lateral seta; elytra oblongo-ovate, subdepressed, striate, third stria with two ante-median punctures, and second and third intervals with a supra-postical one; legs moderately long, second, third, and fourth joints of the anterior tarsi of the male dilated, cordiform, the fourth one short and incised, all four spongy underneath, although in a lesser degree than in *Anisodactylus*; intermediate tarsi elongate and also spongy underneath, with the exception of the basal one.

This genus has been erroneously included by Lacordaire in his tribe "Anisodactyles," owing probably to the spongy under part of the tarsi of the male, but it belongs undoubtedly to the *Pterostichides*, owing to the presence of the two supra-orbital setæ, the three punctures on the third interval or stria, and the grooved posterior tarsi, although this last characteristic is not strongly marked.

De Chaudoir says that the nearest ally to *Geobænus* is *Antarctia*, and Dr. Horn suggests the addition of *Geobænus* and *Antarctia* to the *Platynides*, but as constituting a distinct group; I consider that the spongy covering of the under part of both the intermediate and anterior tarsi of the male is too important a character not to lead to the creation of a tribe for the reception of the genus.

The genus has only so far been met with in South Africa.

*Synopsis of Species.*

Prothorax and elytra fuscous, and with a broad flavescens marginal band; elytra with the lateral striæ distinct .. .. .	<i>lateralis.</i>
Head and prothorax red; elytra infusate, and with a very broad, flavescens outer margin, lateral striæ indistinct .. .. .	<i>incertus.</i>
Black; prothorax with a very narrow rufescens outer margin ..	<i>ingenus.</i>

## GEOBÆNUS LATERALIS, Dej.,

Spec. Col., iv., p. 403; Iconogr. d. Ins. d'Eur., iv., pl. 202, fig. 5.

Fuscous, and with a submetallic tinge on the upper side; palpi, antennæ, legs, a broad lateral band on the prothorax and one on the elytra reaching from the outer margin to the sixth interval, flavescens; head smooth; prothorax slightly wider on the anterior than on the posterior part, which is not sinuate; posterior angle a little rounded, base sinuate, disk with a narrow median longitudinal groove and two lateral basal impressions, shallow and not punctured; elytra oblongo-ovate, hardly convex, narrowly striate; intervals smooth, the third interval with two punctures on the third stria, the third one in the centre of the interval; under side fuscous. Length 7-7½ mm.; width 3 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch).

## GEOBÆNUS INCERTUS.

Head infusate, reddish in the centre; palpi, antennæ, and legs flavescens; prothorax pale red; elytra with a broad flavescens lateral band; head and prothorax smooth, the latter of the same shape as *G. lateralis*; elytra also of the same shape, less fuscous on the dorsal part, striate, but with the lateral striæ from the sixth one to the outer margin nearly obliterated, punctures on the third interval similar to those of the preceding species. Length 7 mm.; width 3 mm.

*Hab.* Cape Colony (Grahamstown).

## GEOBÆNUS INGENUUS.

Black, shining; antennæ slightly infusate, with the three basal joints and the legs rufescent; head and prothorax smooth, the latter with a very narrow, almost indistinct rufescent edging, it is slightly narrowed laterally in the anterior part, but straight from above the median part to the posterior angle, which is slightly rounded; elytra oblongo-ovate, a little more oblong than the two preceding ones, narrowly striate, with the striæ well defined; intervals smooth, the two anterior punctures on the third stria, and the posterior one nearly on the second; under side piceous. Length 8 mm.; width 3 mm.

*Hab.* Cape Colony (Grahamstown), Transvaal (Potchefstroom).

## TRIBE PANAGÆIDES.

Ligula fused with the paraglossæ as far as the lateral angle, sometimes a little longer, sometimes not, truncate at the tip, and diagonally laterally; maxillæ ending in a long hook; excavation of

the mentum more or less deep and with a median blunted tooth, last joint of maxillary and labial palpi cultriform or securiform, the last one of the labial pubescent (*Tefflus* excluded); labrum with only four setigerous punctures; a supra-orbital seta over the back part of the eye in *Tefflus*, two in the other genera.

*Synopsis of Genera.*

Body not punctured underneath.

Paraglossæ a little longer than the ligula.

Fourth joint of the tarsi incised.

The two joints of the anterior tarsi spongy underneath in the male, and the lateral part only of the joints of tarsi spongy in both sexes .. .. . *Tefflus*.

Body densely punctured underneath.

Tarsi similar in both sexes.

Fourth joint of the tarsi not incised, joints not spongy underneath.

Last joint of palpi cultriform or broadly securiform.

Head moderately long, antennæ moderately thick.. .. *Eudema*.

Head very much elongate before the eyes, antennæ with the joints compressed and subdilated in the inner part .. .. *Isotarsus*.

Anterior tarsi of male much dilated, spongy beneath .. .. *Epigraphus*.

Fourth joint of the tarsi bilobate.. .. *Dischissus*.

Paraglossæ fused with the lateral angle of the ligula and not longer .. .. *Euschizomerus*.

GEN. TEFFLUS, Latreille,

Icon. Col. Europ., ed. i., p. 87.

Mentum broad, inner part of the lobes nearly perpendicular, median part wide; the median tooth short, bluntly bifid; last joint of maxillary and labial palpi ensiform; ligula horny in the centre, emarginate at the apex, which bears two setæ, the outer sides diagonal and slightly sinuate, acutely carinate in the centre; paraglossæ incurved, short, hardly longer than the outer angle of the ligula; maxillæ ending in a very long hook; mandibles short, strong, acute; labrum truncate with two deep setigerous punctures, one in the outer angle the other near the median part; epistoma long; head parallel; eyes prominent; third joint of antennæ as long as the fourth and fifth together; prothorax hexagonal; elytra elongato-ovate, very convex, intervals carinate; legs long, the two basal joints of the anterior tibiæ dilated in the male and spongy underneath; joints of all tarsi sublobate, inner and outer sides of the lobe spongy underneath in both sexes.

*Hab.* *Tefflus* occurs in East Central Africa from Mozambique to Abyssinia, and also in West Central Africa from Ovampoland to the Guinea Coast. It is generally found in damp or mossy places and under stones.

*Synopsis of Species.*

Prothorax subhexagonal, moderately rugose; elytra very convex, black .. .. .	<i>Delegorguei.</i>
Prothorax broadly amplified laterally, and slightly rugose on the disk .. .. .	<i>molossus.</i>
Prothorax hexagonal, very rugose; elytra convex, black .. ..	<i>carinatus.</i>
Prothorax hexagonal, very rugose; elytra slightly depressed; elytra dark violaceous with a purplish tinge occasionally.. ..	<i>violaceus.</i>

## TEFFLUS DELEGORGUEI, Guér.,

Rev. Zool., 1845, p. 285.; Klug, Peters' Reise n. Moss., p. 160, pl. 9, figs. 4, 5.

*T. procerus*, Klug, Monatsb. Berl. Ac., 1853, p. 246; Peters' Reise n. Moss., p. 160, pl. 9, fig. 8.

Black, shining; epistoma with two deep impressions, a lateral and a median one, on each side; head with a deep impression in the anterior part, posterior part of the head and neck faintly plicate; prothorax as broad at its widest as long, hexagonal, but with the median part somewhat rounded, outer angles recurved, disk covered with dense, irregular punctures, often confluent, and the intervals of which are slightly raised; elytra elongato-ovate, very convex, acutely carinate, carinæ smooth, the intervals broad and filled with a double series of subtuberculated punctures; legs long; under side smooth. Length 40–45 mm.; width 15–16 mm.

This species is closely allied to *T. Megerlei*, from Calabar; but the outer sides of the prothorax are more diagonal from the apex to the middle and from the middle to the base, and also much less scrobiculate than in *Megerlei*.

*Hab.* Zambezia (Mazoe, Salisbury), Delagoa Bay (Rikatla, Lourenço-Marquez).

## TEFFLUS MOLOSSUS.

Shape and colouring of *T. Delegorguei* and *Megerlei*; head with two deep impressions on the epistoma and two deeper ones on the vertex over the eyes, posterior part and neck not plicate; prothorax about one-fifth broader than long, gradually amplified from the anterior angle to two-thirds of the length, with the posterior part slightly sinuate, and subdiagonal, disk slightly rugose; elytra elongato-ovate, very convex, broadly carinate with the intervals broad and filled with a double series of tuberculated punctures. Length 50 mm.; width 21 mm.

More closely allied to *T. Megerlei* than to *Delegorguei*, this species differs from the latter in the shape of the prothorax which is not subhexagonal, but gradually amplified laterally from the apex to past the median part, and with the angular part almost rounded (while

the prothorax of *Megerlei* is also less sharply hexagonal than in *Delegorguei*, it might be said to be hexagonal in comparison with that of *molossus*); the disk is less rugose than in *Delegorguei*, the carinæ of the elytra are broader and more convex, but the punctures of the intervals are alike, and thus less pronounced than in *Megerlei*.

Male unknown.

*Hab.* Ovampoland (? Cunene River).

TEFFLUS CARINATUS, Klug,

Monatsb. Berl. Ac., 1853, p. 247; Peters' Reise n. Moss., p. 161,  
pl. 9, fig. 7.

Shape and colour of *T. Delegorguei*, but much smaller in size; the sculpture of the head is identical; the prothorax is more hexagonal: that is to say the median part of the outer sides projects more, the disk is scrobiculate instead of being roughly punctured; the elytra are elongato-ovate, but less convex, and less narrowed in the anterior part; they are also costate, with the costæ narrow and smooth; the sculpture of the intervals is identical. Length 33–34 mm.; width 12–13 mm.

*Hab.* Zambezia (Manica), Mozambique (Antioka).

TEFFLUS VIOLACEUS, Klug,

Monatsb. Berl. Ac., 1853, p. 247; Peters' Reise n. Moss., p. 161,  
pl. 9, fig. 8.

A little smaller than *T. carinatus*, and with the elytra dark violaceous, and sometimes purplish laterally; prothorax of about the same size, but a little more plane and with the median part of the outer angles more rounded, the scrobiculation is also less deep; the elytra are less ovate, owing to the median part of the outer sides being but slightly ampliate, the discoidal part is also more depressed in the posterior part, the carinæ are identical, but the double series of tuberculated punctures of the intervals have coalesced and form transverse, almost regular ridges; under side black, shining. Length 29–32 mm.; width 11–12 mm.

*Hab.* Mozambique, Tette, teste Klug. Occurs also on the Zanzibar mainland (Bagamoyo).

GEN. EUDEMA, Castelnau,

Hist. Nat., i., 1840, p. 137.

*Craspedophorus*, Hope.

*Panagæus*, Dej. (part).

*Epicosmus*, Chaud.

Mentum short, lateral lobes short, rounded outwardly and in-

wardly, inner part deeply bisinuate between the apex and the base of the median tooth, which is nearly as high as the apical part of the internal lobes, truncate and obtusely bifid at the tip; ligula membranaceous at the base, horny at the apex, triangularly dilated with the outer sides of the apical part sloping, emarginate in the centre and with two long setæ, one on each side of the angular part; paraglossæ short, narrow, curving inward, with the tip free and projecting slightly beyond the outer apical part of the ligula; penultimate joint of the labial and maxillary palpi thickened at the tip, and bearing from five to eleven setæ, last joint either much elongate and cultriform or securiform, and obliquely truncate inwardly in both sexes, maxillæ ending in a long, sharp, hook; labrum emarginate and with two setigerous punctures, a median and an angular one on each side; head parallel with a distinct neck; eyes prominent; epistoma long; antennæ very long, all the joints pubescent, even the apical part of the basal one, the third one longer or as long as the fourth and fifth together; prothorax sinuate in the outer posterior part the margins of which are recurved, base truncate or with the median part subpedunculate; elytra elongato-ovate, seldom convex, striate, with the intervals slightly convex; legs moderately long; tarsi similar in both sexes, last joint twice as long as the penultimate one which is not incised, sometimes densely pubescent underneath, sometimes spinose.

*Hab.* *Eudema* are met with in damp places, under stones; *E. nobile* is sometimes captured on the branches of small trees or shrubs. Mons. Raffray informs me that he has once found *Isotarsus eustalactus* on a shrub, devouring a mollusc (*Helix* sp. ?). The species of this genus inhabit Africa, Madagascar, the two Indian peninsulæ, Ceylon, Java, and the southern part of China and Australia.

De Chaudoir in his 'Essai Monographique sur les Panagéides' published in the 'Annales de la Société Entomologique de Belgique,' vol. xxi., 1878, has grouped the species formerly included in the genus *Eudema*, in three genera, restricting the said genus to one Indian species, and adopting the genus *Craspedophorus* of Hope and retaining *Epicosmus*, one of his own genera, while he includes in *Isotarsus* of Laferté, two species with a very peculiar facies. I have in vain tried to detect characteristic differences between the South African species included by Chaudoir in these sundry genera, and, except for *Isotarsus*, I feel compelled to group them under one genus only. In *Craspedophorus* the last joints of the palpi are more elongated than in *Eudema*, and in *C. Zambezanum* they are almost similar in the male to those of *Tefflus*, while in *Eudema* the same joints are more securiform, but there is a good deal of variation in the size of these organs, which are more or less obliquely truncate.

*Synopsis of Species.*

Elytra without any yellow markings.

Outer sides of prothorax amplified from the anterior angle to the median part, produced diagonally from there to the posterior angle, and slightly sinuate above the angle; base truncate with the lateral parts sloping slightly; intervals of elytra moderately carinate; tarsi pubescent underneath . . . . . *impictum.*

Outer sides of prothorax broadly amplified from the anterior angle to two-thirds of the length, deeply emarginate from there to the posterior angle, median part of the base pedunculate; intervals of elytra highly carinate; tarsi spinose underneath . . . *Zambezanum.*

Elytra with two yellow patches on each side.

Tarsi not silky underneath.

Prothorax longer than broad, outer sides gradually amplified from the anterior angle to past the median part which is slightly rounded, not aculeate, and narrowed from there to the base which is truncate with the posterior angle slightly rounded; anterior yellow macula extending from the third to the eighth interval, posterior one from the third to the seventh . . . . . *nobile.*

Prothorax hexagonal, median part of the base pedunculate.

Elytra moderately convex . . . . . *gratiosum.*

Elytra very convex, almost gibbose . . . . . *Bonvouloiri.*

Prothorax as broad as the base of the elytra, slightly sinuate in the posterior part, base nearly straight from angle to angle . . . *pretiosum.*

Prothorax hexagonal, as broad as long, base truncate; elytra gibbose, patches on the elytra very broad . . . . . *gibbosum.*

Tarsi clothed with a silky pubescence underneath.

Yellow patches on the elytra narrow and consisting of narrow maculae not connected with one another in the intervals.

Outer sides of prothorax extending diagonally from the apex to the median part, which is sharp, and slightly narrowed and deeply sinuate from there to the posterior angle which is very sharp; base broadly pedunculate; anterior and posterior yellow maculae narrow and extending on the fifth, sixth, seventh, and eighth intervals . . . . . *ornatum.*

Prothorax broader, nearly as broad as the base of the elytra, base pedunculate . . . . . *difficile.*

Prothorax less hexagonal than in *E. ornatum*, base narrowly pedunculate, two short, elongated yellow maculae on the sixth and eighth intervals respectively in the anterior and posterior part . . . . . *Rikatlense.*

EUDEMA (CRASPEDOPHORUS) IMPICTUM, Bohem.,

Insect. Caffr., i., p. 124.

*C. aequalitas*, Thoms., Rev. Zool., 1856, p. 481, pl. 24, fig. 8.

Black, moderately shining; labrum emarginate, epistoma smooth; head roughly punctured, pilose, deeply impressed laterally, the outer sides from the eye to the point of insertion of antennae carinate, eyes very projecting, neck distinct; prothorax covered with

deep, confluent punctures, slightly broader than long, hardly convex on the disk, but with the sides recurved and the margin sharp, sub-hexagonal, but with the median lateral angle somewhat rounded, and the posterior margin slightly incised above the posterior angle which is sharp, base broad, truncate, lateral part briefly diagonal; elytra twice as broad as the prothorax past the median part, and one-third broader at the base which is sloping towards the rounded humeral part, not much convex, deeply and narrowly striate with the intervals convex, moderately carinate, and with a series of duplicate punctures on each side; tarsi densely hairy underneath, the hairs rufescent. Length 22 mm.; width 10 mm.

*Hab.* Zambezia (Victoria Falls), Mozambique (Lourenço-Marquez, Rikatla, Tembe).

#### EUDEMA (CRASPEDOPHORUS) ZAMBEZIANUM.

Shape, size, and colouring of *C. impunctus*, but the shape of the prothorax is very different; it is truncate at the apex, the outer sides are amplified in a semicircle from the anterior angle to past the median part, from there deeply sinuated above the posterior angle which is sharp, and the median part of the base is much produced behind, the disk is plane with the outer sides much recurved from the median part to the posterior angle, and the upper side is scrobiculate, and has a moderately dense pubescence; elytra a little less than twice as broad as the prothorax past the median part, and hardly one-third broader at the base, briefly pubescent, striate with the striæ foveate, and the intervals highly carinate, and having on each side a series of smaller foveæ coalescing with the broader ones in the striæ; tarsi spinose underneath. Length 23 mm.; width 10 mm.

*Hab.* Zambezia (Salisbury).

#### EUDEMA (EPICOSMUS) NOBILE, Dej.,

Spec. Col., ii., p. 285.

Black, moderately shining; head moderately large, eyes prominent, labrum and epistoma smooth, head and neck very rugose; third joint of antennæ longer than the following two put together; prothorax hexagonal with the median part not acute, very slightly indented in the posterior angle, base truncate, disk plane, very rugose, briefly pubescent, a little depressed laterally behind, outer posterior margins recurved; elytra elongato-ovate with the shoulders well rounded, moderately convex, narrowly punctato-striate, with the intervals moderately convex and closely and deeply pitted, covered with a short black decumbent pubescence, and having on each side two bright yellow patches, a sub-basal one extending from

the outer margin to the third interval and almost transverse, although a little wider on the seventh and eighth intervals, and a supra-apical, subdiagonal one reaching from the third to the eighth interval, with the posterior edge subarcuate; under side closely punctured, thickly pubescent; tarsi very bristly underneath, but not pubescent. Length 17–18 mm.; width 7–7½ mm.

*Hab.* Cape Colony (Tsomo, St. John's River), Natal (D'Urban, Maritzburg, Escourt, Newcastle), Transvaal (Potchefstroom).

EUDEMA (EPICOSMUS) GRATIOSUM, Chaud.,  
Monogr. Ann. Soc. Ent. Belg., 1878, p. 122.

Might be mistaken for a very small example of *E. nobile*, but the prothorax is broader in proportion, more hexagonal, and the median part of the base is produced behind, which is not the case in *E. nobile*, the disk is also more deeply rugose; the shape of the elytra and the yellow patches are identical, but the punctures in the striæ are broader and deeper. Length 11–13 mm.; width 4–5 mm.

*Hab.* Zululand (Eshowe), Transvaal (Potchefstroom).

EUDEMA (EPICOSMUS) BONVOULOIRI, Chaud.,  
Bull. Mosc., 1861, ii., p. 336.

Black, subopaque; head smooth above the epistoma, and very rugose from there to the base of the neck; outer sides of prothorax diagonal from the apex to two-thirds of the length where the width is equal to the whole length, sloping gradually from there to the posterior angle which is notched, posterior margins recurved, base truncate, disk a little convex in the median part, median groove distinct, punctures broad, deep and confluent, black pubescence short, but dense; elytra ovate, very convex, gibbose from the median to the posterior part, briefly pubescent, striate, with the intervals very convex and deeply punctured, and having on each side two broad yellow patches: a subhumeral subquadrate, one reaching from the outer margin to the third stria and visible also on the epipleura, and a post-median one nearly equally broad, but not quite so transverse, and reaching from the third to the eighth interval. Length 17 mm.; width 7 mm.

*Hab.* Mozambique (Antioka, Tembe).

EUDEMA (EPICOSMUS), ORNATUM, Bohem.,  
Insect. Caffr., i., p. 125.

Black, moderately shining, very briefly pubescent; head narrow, deeply punctured from the epistoma to the neck; prothorax not broader than the neck at the apex, amplified diagonally laterally

to past the median part, sinuated from the lateral post-median angle to the posterior one with the outer margins much recurved, and the median part of the base much produced behind, disk plane, impressed laterally on each side of the posterior part, and covered with broad, deep, confluent punctures; elytra broader than the prothorax at the base, which is subtruncate with the humeral angles slightly rounded, elongated, one-fourth broader past the middle than at the base, hardly convex, punctato-striate, with the intervals convex and punctured, very briefly pubescent, and with a supra-median yellow transverse patch consisting of an elongate spot on the fifth, sixth, seventh, and eighth intervals, of about the same length, but disconnected in the stria, and a supra-apical one consisting of four similar patches situated on the same intervals, but with the two outer ones shorter than the other two, and even with the one on the eighth interval reduced occasionally to a mere dot; under side closely punctured, densely pubescent; tarsi with a long, brown pubescence beneath. Length 17–18 mm.; width  $6\frac{1}{4}$ –7 mm.

*Hab.* Zambezia (no exact locality).

EUDEMA (EPICOSMUS), DIFFICILE, Chaud.,  
Monogr. Ann. Soc. Ent. Belg., 1878, p. 118.

Shape and size of *E. ornatum*, but the head is shorter and not so narrow, the neck is also shorter; the prothorax is short, one-third broader than long, amplified laterally from the apex to two-thirds of the length, sinuated behind, median part of the base produced behind; shape of the elytra similar to those of *E. ornatum*, but more parallel; the yellow patches are also similar. Length  $16\frac{1}{2}$  mm.; width  $6\frac{2}{3}$  mm.

*Hab.* Zambeze River, teste De Chaud.

EUDEMA (EPICOSMUS) RIKATLENSE.

Black, moderately shining, densely but briefly pubescent; head narrow, deeply and roughly punctured; prothorax not broader than the neck at the apex, gradually rounded from the anterior angle to two-thirds of the length, with the posterior part subdiagonal and slightly sinuate, median part of the base much produced behind, disk plane, and covered with broad, deep, confluent punctures, impressed laterally on each side behind, posterior outer sides raised; elytra elongated, subtruncate at the base which is one-third broader than the prothorax, a little amplified past the median part, very little convex, narrowly punctato-striate with the intervals convex, not much raised and irregularly punctured, very briefly pubescent, and with two small, ante-median oblong yellow patches on each

side, one on the sixth, the other on the eighth interval, the latter slightly nearer the shoulder than the one on the sixth interval, and two supra-apical ones on the same interval, the outer one of which is the smaller of the two and placed a little lower than the one on the sixth interval; tarsi set with dense, bristly pubescence beneath. Length 17–18 mm.; width  $6-6\frac{3}{4}$  mm.

*Hab.* Mozambique (Rikatla).

The shape of the prothorax is intermediate between that of *E. ornatum*, Bohem., and of *oxygonum*, Chaud., but the shape of the elytra is similar to that of *ornatum* and *difficile*; the four yellow oblong patches on each elytron are very peculiar. Captured near the small lake of Rikatla, not far from the town of Lourenço-Marquez, by the Rev. Junod, to whom I am greatly indebted for the communication of some rare or hitherto undescribed species of Coleoptera found in that locality.

EUDEMA (EPICOSMUS) PRETIOSUM, Chaud.,

Bull. Mosc., 1837, iii., p. 19.

Black, shining, very briefly pubescent; head moderately broad, with neck short, smooth in the anterior part above the epistoma, very rugose laterally and behind; third joint of antennæ a little longer than the two following; prothorax one-third broader than long, nearly twice as broad as the head at the apex, gradually rounded from the anterior angle to long past the median part, posterior one subdiagonal, very slightly sinuate, and with a slight indentation above the posterior angle, base not produced behind, disk very rugose, plane, with the posterior outer sides much recurved; elytra nearly truncate at the base, with the shoulders very slightly rounded, as broad as the prothorax, elongated, parallel, a little convex behind, narrowly punctato-striate with the intervals moderately convex and punctured, and having on each side two bright yellow patches, consisting of five elongated, coalescing yellow patches placed on the fourth, fifth, sixth, seventh and eighth intervals: in the anterior patch the two lines on the fourth and fifth intervals are shorter than the others, while in the posterior patch, which is narrower than the anterior, the first and second lines, as well as the fifth, are shorter than the other two; tarsi bristly underneath. Length 17 mm.; width  $7-7\frac{1}{2}$  mm.

*Hab.* Transvaal (Rustenburg), Natal (D'Urban).

GEN. ISOTARSUS, Laferté,

Ann. Soc. Ent. France, 1851, p. 217.

Most of the generic characters are identical with *Eudema*, but

the joints of the antennæ from the fourth to the last are broad, compressed, dilated in the inner part and pubescent, while the three basal are glabrous, and the third one as long as the two basal ones; the shape of the head is also very different, being very much elongated in the anterior part, and very highly carinate from over the eye to the outer angle of the base of the epistoma; the labrum is emarginate; tarsi pubescent underneath.

Besides the South African species, two more are recorded from Africa, one from Zanzibar mainland, the other from Abyssinia.

ISOTARSUS SOMMERI, Chaud.,

Bull. Mosc., 1861, ii., p. 394.

*I. eximius*, Sommer, Ann. Soc. Ent. France, 1852, p. 653, pl. 11, fig. 1.

Black, moderately shining, very briefly pubescent; head very long, labrum deeply emarginate, epistoma smooth, as is also a triangular apical patch of the head, the rest including the apical part of the neck, scrobiculate; prothorax very narrow, one-third longer than broad, hexagonal with the median angles acute, base slightly notched laterally, produced behind; disk slightly convex, deeply scrobiculate; elytra ovate, very convex, almost gibbose, deeply punctato-striate with the intervals raised, carinate and smooth, but with a series of deep and broad lateral punctures, and having on each side eight oblong yellow patches not broader than the interval on which they are respectively placed, and arranged as follows: two sub-basal ones on the eighth and ninth intervals, and coalescing in the stria, and one on the fourth, nearer to the median part than the other two, one on the sixth at about the median part of the disk, two nearly parallel on the fourth and sixth, at the top of the posterior declivity, the outer one the smaller of the two, and two more, a little lower down, on the seventh and eighth, the inner patch the smaller of the two. Length 18 mm.; width  $7\frac{1}{2}$  mm.

*Hab.* Mozambique (no exact locality).

GEN. MICROCOSMUS, Chaud.,

Monogr., *loc. cit.*, p. 139.

Mentum shallow, median tooth as long as the outer lobes, broad, subquadrate; ligula broad, paraglossæ free at the tips which curve in slightly, but are not longer than the ligula; last joint of labial palpi fusiform, much swollen in the centre and very acute inwardly, but obliquely truncate outwardly in the female, securiform in the male; antennæ moderately long, pubescent with the exception of the basal joint, third one a little longer than the fourth; prothorax

gradually amplified from the apex to three-fourths of the length, median part of base produced behind; elytra a little broader than the prothorax, subparallel, hardly convex; tarsi slender, the three median ones of the first and second pairs of legs, short, triangular, the anterior ones slightly dilated in the male, last joint not incised.

*Microcosmus* is also found in Senegambia, the West Coast of Africa, Abyssinia, and in India (Bengal).

#### *Synopsis of Species.*

- Anterior yellow patch reaching from the outer margin to the third interval, but not reaching the base laterally; posterior patch broad, somewhat ovate, and slightly sinuate on the posterior part .. .. . *tenuipunctatus.*
- Anterior yellow patch reaching the base from the outer margin to the fifth interval, posterior patch narrow, sinuate .. .. . *lætiusculus.*
- Anterior yellow patch reaching the base from the outer margin to the fifth interval, and extending on the disk as far as the second interval, posterior patch broad, sinuate.. .. . *aurantiacus.*
- Anterior yellow patch extending from the eighth to the fourth interval, entirely disconnected from the base, posterior patch narrow, bisinuate .. .. . *natalensis.*

MICROCOSMUS TENUIPUNCTATUS, Laferté,  
Ann. Soc. Ent. France, 1851, p. 221.

Black, moderately shining, briefly but densely pubescent; antennæ palpi, and legs reddish yellow; head deeply punctured; prothorax gradually rounded and amplified from the apex to two-thirds of the length, not much narrowed, but sinuated from there to the posterior angle which projects a little, base truncate with a slight sinuation on the lateral part, disk plane with the posterior outer sides a little raised, deeply punctured, black with the posterior outer sides yellow; elytra a little broader than the prothorax at the base with the shoulders not much rounded, parallel, hardly convex, deeply punctato-striate with the intervals broad, almost plane and densely punctured, black, and having on each side two yellow patches, the first one a subhumeral one, reaches from the edge of the outer margin to the third interval, and is longer on the seventh and eighth intervals, and also the outer margin, than on the sixth, fifth, and fourth, but do not reach the base in the anterior part, while behind they reach a little short of the median part; posterior part obtusely ovate, a little emarginate on the posterior edge, and reaching from the third to the eighth interval. Length  $8\frac{1}{2}$ –9 mm.; width  $3\frac{1}{2}$ –4 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Worcester, ? Natal).

MICROCOSMUS LÆTIUSCULUS, Chaud.,  
 Monogr., *loc. cit.*, p. 143.

Shape, size, colouring, and sculpture similar to *M. tenuipunctatus*; but the head is more densely punctured; on the elytra the patch extends from the edge of the outer margin to the third interval, but is connected with the base from the fifth stria outward; the posterior patch is much narrower, subdiagonal, and extends from the third to the eighth interval. Length  $8\frac{1}{4}$ –9 mm.; width  $3\frac{1}{4}$ – $3\frac{1}{2}$  mm.

*Hab.* Natal (Newcastle, Tugela River), Lake N'Gami, teste De Chaudoir.

MICROCOSMUS AURANTIACUS, Chaud.,  
 Monogr., *loc. cit.*, p. 143.

*Panagæus latus*, Bohem., Insect. Caffr., i., p. 126.

A close ally to the two preceding species. The head and prothorax are as closely punctured as in *M. lætiusculus*, but the elytra are more elongato-ovate, the punctures in the striæ deeper, the yellow patches have a redder tinge, the anterior one which reaches the base, as in *M. lætiusculus*, is produced inwardly as far as the second interval, the posterior one is as broad as in *M. tenuipunctatus*, but projects a little more towards the median part on the fifth interval, and extends from the second to the eighth interval. Length  $6\frac{1}{2}$  mm.; width  $2\frac{3}{4}$  mm.

De Chaudoir described this species from one specimen captured near Lake N'Gami. The only one I have seen is an example communicated by Prof. Aurivilius, of the Stockholm Museum, one of Boheman's types, and smaller than De Chaudoir's unique specimen.

MICROCOSMUS NATALENSIS.

Shape, size, and sculpturing of *M. tenuipunctatus*, but more densely pubescent; the anterior yellow patch is quite disconnected from the base and consists of five coalescing elongated longitudinal bands situated on the interval from the fourth to the eighth, longest on the eighth and seventh, half that length on the sixth, while the two on the fifth and fourth are very short; posterior patch narrow, extending also from the fourth to the eighth interval, the band on the fifth extends more towards the median part than the others, but is also shorter behind. Length 8–9 mm.; width  $3\frac{3}{4}$ –4 mm.

*Hab.* Natal (Maritzburg, Frere, D'Urban, Tugela River).

GEN. EPIGRAPHUS, Chaud.,  
 Monogr., *loc. cit.*, p. 147.

The two species included by De Chaudoir in this genus resemble

a little *Eudema pretiosum*, but they differ from all the *Panagæides* by the shape of the anterior tarsi of the male, the second, third, and fourth joints of which are moderately dilated and cordiform, and the fourth one a little incised, the basal one is triangular and thickly set underneath with hairs, at the end only, while the whole under part of the three following joints is so; the antennæ are slender, hardly longer than the humeral angle of the elytra, first joint cylindrical, glabrous, as long as the third, which is hardly longer than the fourth, the fifth and sixth set with a few short hairs, the others finely pubescent, the eleventh hardly longer than the preceding ones and sharp at the tip; mentum transverse, very little incised, broad at the base, the median tooth wide, hollow; labrum, palpi, mandibles, maxillæ, and legs as in most of the *Epicosmus* without pubescence beneath the tarsi; the posterior episterna longer than broad, abdomen subovate, finely punctured; head small, not longer than broad, not narrowed behind; prothorax broad, transverse, narrowed in front, rounded on the sides, ending in a small tooth in the posterior angles; elytra slightly rectangular, not pedunculate, and with the base sharply truncate, not fused, little convex, and not broader than the prothorax.

This genus is unknown to me, and the diagnosis, as here given, is the translation of that of De Chaudoir. Two species are known, one from the West Coast of Africa, the other from Natal.

EPIGRAPHUS AMPLICOLLIS, Schaum,  
Ann. Soc. Ent. France, 1853, p. 438.

Head with moderately dense punctures, smooth in the anterior part; antennæ a little longer than the thorax, and black; prothorax twice as broad as long, almost semicircular, subtruncate in front with the outer sides much rounded at its widest a little past the median part, truncate at the base with the posterior angles denticulate, little convex on the upper side, and closely and roughly punctured, grooved longitudinally in the centre, and impressed on each side of the base; elytra ovate, hardly wider in front than the prothorax, shoulders rounded, outer sides slightly ampliate, little convex, and having on each side nine punctured striæ with intervals closely punctured, and having on each side two short yellow fasciæ, the anterior one extending from the third striæ and the outer margin, the posterior one placed between the third and the eighth striæ; under side and legs deeply punctured. Length  $12\frac{1}{2}$  mm.; width  $5\frac{1}{3}$  mm.

*Hab.* Natal.

GEN. DISCHISSUS, Bates,  
Geodoph. of Japan, p. 243.

Mentum of *Microcosmus*, last joint of maxillary and labial palpi securiform; prothorax more ampliate in the median part and more narrowed in the posterior; antennæ with the joints a little more slender, the third one longer than the fourth; elytra elongated; legs moderately long, tarsi pubescent underneath, last joint of anterior and intermediate tarsi bilobate, that of the posterior ones incised.

The species included in this genus have a wide range; they occur in Africa (Gaboon, Senegal), Java, Japan, North China, and Hong-Kong.

DISCHISSUS AMÆNULUS.

Black, moderately shining, densely pubescent, pubescence long; labrum and antennæ reddish yellow; antennæ infuscate; head very rugose; prothorax gradually amplified from the apex to the median part, which is rounded, gradually narrowed from there to the posterior angle, which is very acute, lateral part of the base incised, median part broad and projecting behind, disk very rugose, plane with the posterior outer margins slightly recurved and yellowish; elytra elongated, parallel, truncate at the base with the shoulders sloping, broader by one-fourth than the prothorax at its widest, slightly convex, deeply punctato-striate, the punctures very broad and invading the sides of the intervals which are acute and punctured on the tip, the anterior yellow patch, a subhumeral one, extends from the third to the eighth interval, and is longer on the fourth, fifth, and sixth intervals, and the posterior one, which is not so broad, reaches from the third stria to the seventh, and is subdiagonal, and shorter on the seventh and eighth intervals than on the other three. Length 7-7½ mm.; width 3-3¼ mm.

*Hab.* Mozambique (Rikatla).

GEN. EUSCHIZOMERUS, Chaud.,  
Bull. Mosc., 1850, i., p. 413.

Mentum twice as long as broad, shallow in the median part, median tooth broad, truncate, nearly as high as the lateral lobes, the outer part of which is very sloping; paraglossæ adhering to the ligula and not longer, last joint of maxillary and labial palpi more or less securiform, and very hairy; antennæ moderately slender, hairy with the exception of the basal joint, third joint one-third longer than the fourth; prothorax more or less angular laterally past the median part; elytra elongated or elongato-ovate, striate, metallic, and with no dorsal markings; legs moderately long, tarsi thickly pubescent underneath, fourth joint dilated and deeply lobate.

This genus occurs also in the West Coast of Africa, Malacca, and India (Deccan).

*Synopsis of Species.*

Prothorax gradually amplified from the apex to a little past the middle, and deeply sinuate from there to the posterior angle; base not produced behind; elytra parallel .. .. . *elongatus.*

Prothorax almost crescent-shape from the apex to the posterior angle; median part of the base very narrow, much produced behind. *Junodi.*

EUSCHIZOMERUS ELONGATUS, Chaud.,

Bull. Mosc., 1861, ii., p. 354.

Moderately shining, thickly pubescent; head, antennæ, and legs black; prothorax bronze-green; elytra violaceous purple; head very rugose; prothorax also very rugose, amplified subdiagonally from the apical to past the median part, narrowed from there for a very short distance and then deeply sinuate towards the posterior angle which is not acute, base narrow, truncate from angle to angle, posterior outer sides not recurved; elytra nearly twice as broad as the base of the prothorax, elongated, parallel, slightly convex, striate with the intervals moderately plane and deeply and irregularly punctured; wings under the elytra; abdomen piceous. Length  $12\frac{1}{2}$  mm.; width 5 mm.

*Hab.* Natal (? D'Urban).

EUSCHIZOMERUS JUNODI.

Greenish bronze on the upper part, and very pubescent, darker underneath the basal joint of antennæ and the legs reddish brown, the other joints of the antennæ and also the tarsi fuscous; palpi very securiform; head short, very rugose, but smooth in the median anterior part, covered with dense, broad, deep punctures, outer sides amplified from the apex to the posterior angle, somewhat in the shape of a short, broad crescent, posterior angles recurved, very sharp, basal part much constricted, hardly broader than the apical one, and produced behind; elytra convex, truncate at the base, one-third broader than the prothorax at its widest, oblong, punctato-striate with the punctures, broad and deep, intervals slightly convex and roughly shagreened; wings under the elytra. Length 10– $10\frac{1}{2}$  mm.; width  $4\frac{1}{2}$ – $4\frac{3}{4}$  mm.

*Hab.* Mozambique (Rikatla).

TRIBE CHLÆNIDES.

Antennæ slender, head not narrowed behind into a neck, with one seta over the posterior part of the eye \* only, epistoma with or with-

\* *Melanodes* is an exception.

out a lateral seta, labrum transverse, truncate or emarginate; mentum broad, emarginate, toothed, with the inner lobes slanting; legs moderately long, the three basal joints of the anterior tarsi of the male dilated and densely spongy underneath, facies elongated.

This tribe may be divided in two groups.

- Each elytron with nine distinct striæ .. .. . *Chlænini*.
- Each elytron with eight distinct striæ .. .. . *Oodini*.

CHLÆNINI.

*Synopsis of Genera.*

Last joint of palpi not pubescent, nor sharply acuminate at the tip.

Last joint of palpi, securiform or cylindrical; apical part of the prothorax broader than the head .. .. . *Chlænius*.

Last joint of labial palpi pyriform, obliquely truncate; penultimate joint glabrous; prothorax elongato-ovate, not broader than the head.. .. . *Pleroticus*.

Last point of labial palpi sub-securiform; prothorax subcylindrical, very little broader than the head of the apex .. .. . *Zeloticus*.

Last two joints of palpi very long; prothorax cordate .. .. . *Ectenognathus*.

Last joint of palpi pubescent, ovate and very sharp at the tip *Callistomimus*.

GEN. CHLÆNIUS, Bonelli,

Observ. Entom. i., 1809, Tabl. synopt.

Ligula horny, bisetose at the tip, more or less disconnected from the paraglossæ, which are membranaceous, narrow, glabrous, slightly incurved and generally a little longer than the ligula; mandibles hooked, sharp, ciliate inwardly; palpi moderately long, generally moderately slender (*Epomis* and *Rhizotrachelus* excepted), the labial ones as long as the maxillary, the last one sometimes securiform in the male, oftener cylindrical, nearly always truncate, straight, or oblique; mentum deeply emarginate with the median tooth bifid in the South African species and slightly obtuse, the inner lobes diverging in most cases; labrum subtransverse, mostly truncate, seldom emarginate (*C. comes*, *vicinus*, *cyanipes*) or incised in the middle (*C. verecundus*), and with six setigerous punctures; antennæ more or less long, filiform; legs moderately long, tibiæ truncate at the apex, the anterior ones dilated, tarsi subtriangular, the three first joints of the anterior ones in the male more or less dilated and densely spongy beneath, glabrous on the upper part, claws not pectinate; head not narrowed behind, a setigerous puncture on each side of the basal part of the epistoma, and one over the back part of the eye; prothorax either cordate, rounded, or subquadrate, always marginate and with a seta mostly in front of the posterior angle, seldom close to it (*cribricollis*, *similatus*, *quadrisignatus*); elytra more or less elongato-ovate, never very convex.

*Synopsis of Species.*

Totally black, with the outer sides of the prothorax and sometimes the margin of the elytra cerulean; prothorax elongato-quadrate, narrower than the base of the elytra.

Elytra with a narrow marginal blue edge.

Prothorax very roughly and closely punctured .. .. .	<i>Zanzibaricus.</i>
Prothorax deeply but not roughly punctured .. .. .	<i>cæruleolimbatu.</i>
Prothorax with scattered punctures .. .. .	<i>lugens.</i>
Prothorax very rugose.. .. .	<i>Dohrni.</i>

Elytra without a marginal blue edging.

Prothorax with a few faint punctures .. .. .	<i>morio.</i>
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*(Rhizotrachelus.)*

Prothorax with the outer sides rounded in the anterior and posterior part, narrower than the elytra at the base, and very rugose.

Type *Chlænius quadrimaculatus.*

Elytra with two quadrate yellow patches on each side ..	<i>quadrimaculatus.</i>
Elytra with one median patch .. .. .	<i>sulcatus.</i>
Elytra without any patch; prothorax straight laterally ..	<i>immaculatus.</i>
Elytra without any patch; prothorax rounded laterally ..	<i>erudelis.</i>
Elytra with one posterior transverse yellow patch .. ..	<i>myops.</i>
Elytra with two posterior yellow longitudinal lines nearly contiguous .. .. .	<i>Erikssoni.</i>

*(Vertagus.)*

Prothorax slender.

Prothorax punctulate, as broad as long, more attenuate from the anterior part towards the middle than from the median part to the base, which is narrower than the base of the elytra.

Type *Chlænius Bohemani.*

Dark blue on the upper part; elytra without any dorsal yellow spot .. .. .	<i>Reichei.</i>
Greenish blue, with a small, post-median, ovate, yellow patch on each side .. .. .	{ <i>Bohemani.</i> <i>fenestratus.</i>
Elytra with a broad transverse yellow band reaching from one outer margin to the other .. .. .	<i>fasciger.</i>
Elytra with an oblongo-ovate post-median yellow patch on each side .. .. .	{ <i>perspicillaris.</i> <i>cribellatus.</i>
Elytra with a sinuate pale yellow patch .. .. .	<i>ovampo.</i>
Prothorax nearly as broad as the elytra at the base.	
Elytra with a suboblique yellow patch on each side .. ..	<i>bipustulatus.</i>

Prothorax with apex and base equally broad, broadest in the middle, with the outer sides gradually rounded.

Elytra with a yellow margin and a supra-apical yellowish patch.

Type *Chlænius fulvicollis.*

Prothorax red.	
Elytra with a supra-apical, subquadrate yellow patch on each side .. .. .	<i>fulvicollis.</i>
Elytra with a supra-apical sinuate transverse narrow band	<i>minus.</i>
Prothorax red, with two greenish bands.	

Type *Chlænius vitticollis*.

- Elytra with a supra-apical sutural yellow patch .. .. . *vitticollis*.  
 Elytra with the usual supra-apical sutural patch, and also  
 a subhumeral one connected with the outer margin .. .. . *pulchellus*.  
 Elytra with the usual supra-apical sutural patch, and a  
 subhumeral one disconnected from the outer margin .. .. . *fraternus*.  
 Prothorax with a broad, longitudinal black patch; yellow  
 margin of the elytra interrupted in the middle, a post-median  
 dorsal yellow patch on each side and a small sutural apical  
 dot .. .. . *Kirki*.  
 Prothorax dark green or black.  
 Elytra without any yellow margin.  
 Labrum deeply incised, post-median dorsal yellow patch  
 small, apical patch narrow, extending along the suture.. .. . *verecundus*.  
 Labrum truncate, post-median dorsal patch subquadrate,  
 apical patch extending along the apical margin .. .. . *quadrisignatus*.  
 Elytra without any yellow markings.  
 Head coppery; prothorax and elytra black .. .. . *nitidiceps*.  
 Head, prothorax, and elytra green .. .. . *puberulus*.  
 Elytra with a supra-marginal yellow line reaching from  
 the shoulder to the middle, dilated inwardly at the end, three  
 superposed dorsal yellow spots and an apical patch on each  
 side .. .. . *signatus*.  
 Prothorax with the median part not much dilated; apex  
 and base of equal width.  
 Elytra with a broad yellow margin dilating inwardly at  
 about the median part.

Type *Chlænius coscinioderus*.

- Inward dilatation of the median part of the margin broad,  
 an ovate apical yellow patch disconnected from the posterior  
 margin .. .. . *notabilis*.  
 Inward dilatation of the median part of the outer margin  
 broad, a narrow, elongate apical patch connected with the  
 posterior margin .. .. . *commistus*.  
 Median part of the outer margin produced in a very short  
 spur, apical spot very small and coalescing with the posterior  
 margin .. .. . *coscinioderus*.  
 Prothorax cordiform.  
 Yellow outer margin without any median inward spur or  
 patch broadening in the posterior part; prothorax with  
 scattered punctures .. .. . *limbipennis*.  
 Prothorax deeply and very closely punctured .. .. . *cribricollis*.  
 Prothorax broad.  
 Elytra with a yellow margin.

Type *Chlænius limbatus*.

- Lateral margin of the elytra reaching the fifth stria .. .. . *limbatus*.  
 Lateral margin of the elytra reaching the fourth stria .. .. . *marginipennis*.  
 Lateral margin of the elytra reaching the seventh stria .. .. . *marginicollis*.  
 Lateral margin of the elytra reaching the seventh stria,  
 and the posterior margin broad and serrulate on the upper  
 edge .. .. . *similatus*.  
 Prothorax broad, transversal, outer sides hardly rounded.

## (Dinodes.)

Elytra bright blue or green, without any yellow margin.

Elytra with intervals plane .. .. . *fulvipes.*

Elytra with intervals raised .. .. . *simplex.*

Prothorax narrow, cordiform.

Elytra without yellow margin.

Type *Chlænius cæruleipennis.*

Elytra striate, one series of punctures on each side of the stria .. .. . *cæruleipennis.*

Elytra striate, one series of punctures on each side of the stria, intervals of elytra closely punctured.. .. . *modestus.*

Elytra with pale yellow margins.

Elytra subparallel, lateral margin broadly dilated on each side of the posterior part .. .. . *sulcipennis.*

Prothorax globose.

Elytra subovate, with yellow margin .. .. . *leucoristus.*

Prothorax slender, hardly amplified in the middle, attenuated in front.

Type *Chlænius tenuicollis.*

No yellow margin.. .. . *tenuicollis.*

A yellow margin.

Intervals of elytra plane, smooth, lateral yellow margin reaching the seventh stria .. .. . *angustatus.*

Intervals of elytra raised, carinate at the tip and closely punctured on each side .. .. . *consobrinus.*

Intervals of elytra plane, smooth, lateral yellow margin reaching the seventh stria and dilated in the posterior part .. .. . *cylindricollis.*

Prothorax broad, nearly as wide at the apex as at the base, outer sides hardly amplified in the middle.

Type *Chlænius lætus.*

Head and prothorax coppery red; elytra with intervals raised.

Elytra without yellow margin.

Elytra black, intervals moderately raised; legs reddish .. .. . *lætus.*

Elytra black, intervals much raised, the third, fifth, and seventh broader than the others; legs reddish .. .. . *hypocritus.*

Elytra with the intervals moderately raised, black, edged with dark blue; legs black .. .. . *comes.*

Elytra cyaneous; intervals moderately raised; legs black.. .. . *cyanipennis.*

Head, prothorax, and elytra bottle-green; legs red .. .. . *robustus.*

Elytra with yellow margin.

Prothorax slightly sinuate towards the base.

Elytra with the intervals raised, lateral yellow band reaching the eighth stria .. .. . { *capicola.*  
*mendax.*

Lateral yellow band reaching.

Prothorax not sinuate laterally towards the base.. .. . *lacustris.*

Intervals of elytra plane, lateral band reaching the seventh stria .. .. . *senegalensis.*

## (Epomis.)

- Bottle-green on the upper part; elytra costate, lateral band reaching the eighth interval .. .. . *capensis*.
- Prothorax broader in the anterior than in posterior part, cyaneous on the upper side, no yellow margin .. .. . *caffer*.
- Prothorax broad, slightly amplified in the middle.
- Elytra subcostate, with a yellow margin, two yellow patches on each side .. .. . *Dussaulti*.
- Prothorax very rugose.
- Prothorax and elytra with a yellow margin, three alternate costæ narrower than the others .. .. . *costipennis*.
- Elytra with a posterior yellow margin, intervals equal, roughly shagreened... .. . *mashunus*.
- Prothorax nearly smooth.
- Prothorax and elytra coppery red; intervals of elytra nearly plane .. .. . *validicornis*.
- Prothorax and elytra dark green; intervals of elytra convex .. .. . *consors*.
- Prothorax very broad, more or less trapeziform.
- Head, prothorax, and elytra black.

Type *Chlænius trapezicollis*.

- Intervals of the elytra plane; prothorax punctulate, shagreened... .. . *dichrous*.
- Intervals of the elytra plane, roughly shagreened .. .. . *piceus*.
- Intervals of the elytra costate, costæ punctulate on each side .. .. . { *trapezicollis*.  
*erythrænemis*.
- Prothorax smooth.
- Intervals of the elytra costate, the costæ smooth... .. . *natalensis*.
- Elytra gradually narrowed from the base to the apex, outer sides straight .. .. . *aculeatus*.
- Prothorax sinuate laterally towards the base, facies of *Systolocranius* .. .. . *Cham*.

## CHLÆNIUS ZANZIBARICUS, Chaud.,

## Plate X., fig. 1.

Coleopt. Novit., 1883, p. 35.

*C. (Rhizotrachelus) giganteus*, Pér., Trans. S. Afric. Phil. Soc., 1885, iii., p. 79.

Black, moderately shining, extreme outer margin of the prothorax cerulean blue, apical part of the maxillary palpi reddish brown; head very closely and deeply punctured; labrum with a broad round median impression, the punctures broad and irregular; prothorax hardly broader at the apex than at the base, with the outer sides regularly arcuated, not much amplified in the middle, and about as broad as long; elytra elongated, nearly parallel for four-fifths of the length, then suddenly narrowed and produced diagonally towards the suture, very little convex, smooth, with the exception of the broad outer margin more or less covered with a greyish short

pubescence, moderately shining, the extreme edge of the outer margin with a cerulean tinge, hardly convex, narrowly striated with the intervals much raised, subcarinated in the middle and having on each side a series of deep, elongated punctures; under side and legs black, shining; pectus very closely punctured, the punctures setigerous. Length 33 mm.; width 12 mm.

This *Chlænius*, probably the giant of the group, occurs also on the Zanzibar mainland (Bagamoyo).

*Hab.* Zambezia (Victoria Falls).

#### CHLÆNIUS CÆRULEOLIMBATUS.

Black, moderately shining; elytra with a faint bluish-black tinge; lateral sides of prothorax and outer margins of the elytra with a moderately broad cerulean band; head closely punctured laterally and behind, the punctures moderately deep, regular, and leaving a frontal space smooth; prothorax not broader at the apex than at the base, and broader than long by one-fifth in the middle, very narrowly grooved in the centre, and covered with moderately deep irregularly arranged punctures; elytra elongated, nearly parallel, hardly convex, moderately shining, narrowly striated, the striæ with a series of narrow punctures on each side of the intervals, which are raised and subcarinate at the tip; pectus slightly pilose, cyaneous black; abdomen and legs black, shining.

Allied to the preceding species, but differentiated by the punctures on the prothorax, which are neither so deep nor so broad; the raised intervals on the elytra are not so much raised, and the punctures on each side of the carinæ are neither so well defined nor so deep as in *C. Zanzibaricus*. Length 33 mm.; width 12 mm.

*Hab.* Mozambique (Pungwe River).

#### CHLÆNIUS LUGENS, Chaud.,

Monogr. Chlen., p. 185; Ann. d. Mus. Gen., viii., 1876.

The description of this species agrees entirely with that of *C. cæruleolimbatus*, but it is only half the size; the head is punctate in the same manner, but there is no median impression on the labrum; the punctures on the prothorax are less densely set, and the outer margin is also cerulean blue; the elytra have the same shape, the intervals are equally raised, but the striæ are distinctly punctate, the outer margin has a narrow bluish band, and is somewhat pubescent, while the striæ have a few distant very short decumbent greyish-white hairs thicker towards the apex; under side and legs shining. Length 19–20 mm.; width 7 mm.

*Hab.* Delagoa Bay (Lourenço-Marquez, Rikatla), Ovampoland.

Occurs also on the shores of the White Nile, according to De Chaudoir.

## CHLÆNIUS DOHRNI, Bertol.,

Mem. Acad. Bologn., 1857, viii., p. 317, pl. 23, fig. 8.

Black, moderately shining, with the extreme edge of the outer margin of the elytra faintly bluish; the shape is that of *C. cæruleo-imbatus*; the labrum has an elongated basal median groove instead of a round impression; the sculpture on the prothorax is as rough as in *C. Zanzibaricus*, and the intervals of the elytra as well as the striæ are identical with those of *C. cæruleoimbatus*. Length 27–29 mm.; width 10–11 mm.

*Hab.* Delagoa Bay, Ovampoland; occurs also on the Zanzibar mainland (Bagamoyo).

## CHLÆNIUS MORIO, Bohem.,

Vet. Acad. Förh., 1860, p. 11.

Totally black, moderately shining; head not punctulate, nearly smooth; prothorax nearly smooth laterally, with only two irregular series of very shallow punctures on each side of the median groove, and also a few scattered ones along the base; elytra very nearly parallel, finely punctato-striate, with the intervals raised and sharply carinated in the middle, outer margin slightly pubescent and with a well-defined series of punctures reaching from the median part to the outer posterior angle; under side punctulate, shining; legs smooth, shining.

Resembles much *C. lugens*, but not only the punctuation on the head and prothorax is different, but also the latter has not the bluish outer margin, a noticeable feature of *C. lugens*, and the prothorax is also a little more amplified in front than in the last-named species; the costæ on the elytra are also more raised, more opaque, and the puncture on the striæ finer and shallower. Length 21 mm.; width 9 mm.

*Hab.* N'Gami, teste Bohem.

## CHLÆNIUS CRUDELIS.

Black, moderately shining, glabrous; elytra with a faint very dark blue tinge; the three basal joints of antennæ piceous black; head very closely and deeply punctured; prothorax broader than long by one-fourth, broadly ampliate laterally in the middle, and as broad in front as behind; elytra broader than the prothorax at base, slightly ampliate laterally from past the humeral part, narrowly striate with the intervals broad, convex, and the second, third, and fourth on each side narrower, carinate, and smooth at tip, while the others are closely punctured; no trace of yellow patch.

Considerably larger and a little less parallel than its ally, *C.*

*sulcatus*, and having no yellow markings on the elytra like *C. immaculatus*, but the prothorax is much amplified laterally in the middle, instead of being subtrapezoid, as in the two species alluded to. Length 26 mm.; width  $10\frac{1}{2}$  mm.

*Hab.* Zambezia (Mazoe).

CHLÆNIUS QUADRIMACULATUS, Bohem.,

Plate X., fig. 2.

Insect. Caffr., i., p. 133.

Black, moderately shining, hairless; the three basal joints of antennæ slightly rufescent; head very closely punctured; prothorax broader than long by about one-third, a little amplified in the middle, and very slightly broader at the base than in front, covered with very rugose, irregular deep punctures; elytra a little broader than the prothorax, elongated, nearly parallel for three-thirds of the length, narrowly striate with the intervals much raised, carinate at the tip, and roughly but not deeply punctured, while the carinated part is smooth, the third and sixth intervals slightly deflexed above the median part, black, moderately shining with a subquadrate bright yellow patch extending from the third to the sixth stria above the median part of each elytron, and a supra-postical one somewhat elongated extending from the fifth stria to the inner edge of the outer margin; under side hairless, shining, black, with a metallic tinge; legs black. Length 20–21 mm.; width  $8-8\frac{1}{2}$  mm.

*Hab.* Natal (D'Urban), Transvaal (Leydenburg, Rustenburg), Zambezia (Manica).

In one example from Rustenburg the dorsal yellow patches are very narrow.

CHLÆNIUS SULCATUS, Fabric.,

Ent. Syst., iv., Append., p. 443.

*C. porcatus*, Gory, Ann. Soc. Ent. France, 1833, p. 220.

*R. bimaculatus*, Bohem., Insect. Caffr., i., p. 135.

Black, moderately shining; the three basal joints of antennæ pale yellow with an inner and an outer streak of black; head closely punctured, rugose; prothorax hardly amplified in the middle, and a little narrower in the anterior than in the posterior part, covered with very deep and broad irregular punctures; elytra a little broader than the prothorax, nearly parallel, narrowly striate with the intervals raised, finely punctured, briefly hairy, with the third, fifth, and seventh more raised than the others, carinate at the top, the carina smooth, black, moderately shining, and having in the median part of the ditch a subquadrate bright yellow patch consisting of two narrow

elongated spots on the fourth and fifth intervals, united by a shorter one on the intervening raised interval, which said spot is sometimes hardly visible; under side and legs black, shining. Length 16–17 mm.; width 6–6 $\frac{1}{4}$  mm.

*Hab.* Cape Colony (Peddie), Natal (Newcastle, D'Urban), Transvaal (Potchefstroom).

Var. IMMACULATUS.

*C. immaculatus*, Pér., Trans. S. Afric. Phil. Soc., 1885, iii., p. 80.

This variety differs from the type merely in the utter absence of the dorsal yellow patch on the elytra; the three keeled intervals are a little more raised than in *sulcatus*. Length 15 mm.; width 6 mm.

*Hab.* Cape Colony (Cape Town).

CHLÆNIUS MYOPS, Gory,

Ann. Soc. Ent. France, 1833, p. 213.

*C. insignis*, Chaud., Ann. Mus. Gen., viii., p. 30.

Var. *C. Erikssoni*, Pér., Trans. S. Afric. Phil. Soc., 1892, vi., p. 18.

Black, briefly pubescent, the two basal joints of the antennæ rufescent; head closely punctured; prothorax very rugose, briefly pubescent, the outer sides much inflated in the middle, and with a faint bluish tinge; elytra a little broader than the prothorax at the base, amplified past the middle where they are about one-fourth broader than at the base, narrowly punctato-striate with the intervals convex but not keeled, and covered with subtransverse, closely-set setigerous punctures, making them appear briefly but thickly pubescent, black with a bluish tinge on the outer margin and having on each side a transverse supra-apical yellowish or yellowish-red patch reaching from the third to the eighth stria, and extending on the sixth interval further in front and behind than on the others; this patch is sometimes reduced to a short line on the fourth interval connected by a mere dot, sometimes wanting altogether, with a longer line on the sixth and a very minute spot on the seventh (it was from this variety that I described *C. Erikssoni*); under side punctulate; abdomen and legs nearly smooth, black. Length 18 mm.; width 7 mm.

Originally discovered in Senegambia; this species has also been captured in Abyssinia; the typical form with the broad macula on the elytra I have recorded from Natal (Maritzburg) only; the variety with two yellow lines (*C. Erikssoni*) is from Ovampoland.

CHLÆNIUS REICHEI, Chaud.,  
Ann. Mus. Gen., 1876, p. 41.

*C. stenotrachelus*, Chaud., Coleopt. Novit., p. 31.

Dark blue on the upper part, with the labrum, palpi, antennæ, and legs ferruginous; head faintly punctulate with a smooth central space; prothorax with the anterior part nearly as broad as the posterior, one-fourth longer than broad, and the median part slightly amplified, plane, very closely punctured; elytra broader than the prothorax, subparallel for half the length, amplified behind, where they are one-third broader than at the base, narrowly striate, with the intervals hardly raised, shagreened, and very briefly pubescent; under side piceous. Length 11 mm.; width 4 mm.

*Hab.* Cape Colony (Cape Town), Natal, teste Chaud.

CHLÆNIUS BOHEMANI, Chaud.,  
Bull. Mosc., 1856, ii., p. 195.

*C. bipustulatus*, Bohem., Insect. Caffr., i., p. 130.

Head, prothorax, and anterior part of the elytra greenish blue, posterior part violaceous; antennæ with the two basal joints red, the others more or less deeply rufescent or infusate; palpi slightly infusate; head closely punctulate; prothorax with the anterior part as broad as the posterior, slightly amplified in the middle, very little longer than broad, very closely and deeply punctured; elytra elongated, broader than the prothorax, amplified past the middle, narrowly striated with the intervals plane, shagreened, briefly pubescent, and having on each side a more or less ovate yellow patch extending above the apex from the third to the seventh stria; under side black, iridescent; legs pale yellow. Length 12–13 mm.; width  $4\frac{1}{2}$ –5 mm.

VAR. FENESTRATUS.

*C. fenestratus*, Chaud., Ann. Mus. Gen., 1876, p. 44.

Shape and size of the type; the colour on the upper part is dark greenish bronze; the joints of the antennæ, with the exception of the two basal and two apical ones, are black; the apical part of the femoræ and tibiæ are black, and so are the tarsi. Length 12–13 mm.; width  $4\frac{1}{2}$ –5 mm.

*Hab.* Natal (Maritzburg, D'Urban), Delagoa Bay (Rikatla).

CHLÆNIUS FASCIGER, Chaud.,  
Plate X., fig. 3.  
Coleopt. Novit., 1883, p. 32.

*C. egregius*, Pér., Trans. S. Afric. Phil. Soc., 1892, vi., p. 19.

Bright greenish blue turning to violaceous blue in the posterior

part of the elytra; palpi black, slightly reddish at the tip, the three basal joints of antennæ red, the others black; head closely but not deeply punctulate with a smooth space in the centre; prothorax as broad as long, amplified in the middle, as broad at the apex as at the base, very closely punctured; elytra broader than the prothorax at the base, not much amplified behind, very narrowly punctato-striate, with the intervals finely shagreened and briefly pubescent, and having on each side in the posterior part a broad transverse bright yellow band reaching from the suture to the eighth stria and broadening towards the outer side; this yellow band is edged with violaceous blue; under side bright green; legs yellowish red, with the apex of the tibiæ and the tarsi infusate. Length 11 mm.; width  $4-4\frac{1}{4}$  mm.

*Hab.* Natal (D'Urban), Delagoa Bay (Rikatla), Ovampoland.

CHLÆNIUS PERSPICILLARIS, Erichs.,

Wieg. Arch., 1843, p. 217.

Bronze-green, not shining on the upper side, three basal joints of the antennæ yellowish, the others black; head closely punctured; prothorax nearly as broad as long, slightly rounded outwardly, very nearly as wide at the apex as at the base, very densely and closely punctured; elytra elongated, nearly parallel, broader than the prothorax, narrowly striate, very briefly pubescent, intervals shagreened, dark green, less brilliant than on the head and prothorax, and having on each side of the posterior part an ovate yellow patch reaching from the third to the seventh, and even at times eighth stria; under side black, legs pale yellow with the apex of the femora and tibiæ, and the tarsi infusate. Length 14-14½ mm.; width 5-5¼ mm.

*Hab.* Cape Colony (Hope Town), Transvaal (Klerksdorp, Potchefstroom).

CHLÆNIUS CRIBELLATUS, Chaud.,

Ann. Mus. Gen., 1876, p. 45.

Very closely allied to *C. cæcus*, from Senegal. The colour is black, with the head and prothorax slightly bronzed; the elytra are somewhat opaque, and the under part is slightly iridescent; the head is distinctly punctured and rugulose, the punctures closely set, and the neck is almost smooth; the prothorax is a little amplified laterally in the middle, as broad as long, grooved longitudinally in the centre, punctulate with the punctures very closely set and regular; elytra somewhat plane with the intervals not much convex and closely punctured; in the posterior part there is on each side a yellow, slightly sinuate band extending from the third to the eighth striæ; palpi and antennæ black, with the apical part of the former,

the two basal joints and the base of the third rufescent. Length 13 mm.

*Hab.* Lake N'Gami, teste Chaud.

I have not seen Chaudoir's type, and the description I give is from comparison with *C. cæcus*, Dej.

CHLÆNIUS OVAMPO, Pér.,

Trans. S. Afric. Phil. Soc., 1892, p. 19.

Greenish bronze, not shining; the two basal joints of the antennæ, palpi, and legs pale yellow; tarsi slightly infuscated; the shape and sculpture of the head, prothorax, and elytra as well as the colouring are identical with *C. perspicillaris*, but the post-median pale-yellow patch is differently shaped; it extends from the third stria on each side to the seventh, invading a little the eighth interval, but consists of several coalescing longitudinal patches, those on the fourth and fifth intervals of equal length, that on the sixth produced further than the other two towards the apex and the other two much shorter than the others but not projecting beyond the one on the fifth interval; this dorsal patch is also placed a little nearer to the apical part than that of *perspicillaris*, and is paler; under side black, shining. Length 14 mm.; width 5 mm.

*Hab.* Damaraland, Ovampoland, Bechuanaland (Ramoutsa).

CHLÆNIUS BIPUSTULATUS, Bohem.,

Insect. Caffr., i., p. 138.

Greenish bronze, shining on the head and prothorax, disk of the latter much darker than the sides; elytra very dark green, nearly black; antennæ, palpi, and legs rufescent; head closely punctulate; prothorax broad, a little attenuated in front, hardly sinuated near the base, closely punctured in the basal and lateral parts, the punctures not so close on the median part of the disk; elytra elongated, subparallel, a little broader at the base than the prothorax, narrowly punctato-striate with the intervals slightly convex and roughly shagreened, very dark green, almost black, briefly pubescent, and with a posterior sinuate yellowish patch extending on each side from the third to the seventh interval, and twice longer on the fifth and sixth intervals than on the third and fourth; under side black, iridescent. Length 14–15 mm.; width 5–5¼ mm.

*Hab.* Cape Colony (Alexandria), Natal (Maritzburg, Frere), Transvaal (Potchefstroom).

CHLÆNIUS FULVICOLLIS, Chaud.,

Monogr., *loc. cit.*, p. 286.

Head metallic green; antennæ, palpi, and legs rufescent; head

punctulated; prothorax as long as broad, suborbicular laterally, closely punctured, briefly pubescent, brick-red, with the outer margins a little lighter; elytra broader than the prothorax at the base, elongated, subparallel, narrowly striate with the intervals shagreened, pubescent, black, with a narrow bright-yellow marginal border reaching the eighth stria and ascending slightly along the suture, and a supra-apical, subquadrate, small patch of the same colour extending from the third to the sixth stria; under side iridescent, with the lateral and apical edges of the abdomen yellow. Length 12 mm.; width 5 mm.

*Hab.* Ovampoland, also Caffraria and Delagoa Bay, according to Chaudoir.

#### CHLÆNIUS MIMUS.

Size, shape, and colour of *C. fulvicollis*, but the supra-apical, subquadrate patch is replaced by a transverse dull yellowish-red band consisting of three slightly elongated patches on the third, fifth, and seventh intervals, connected together by a short patch on the fourth and sixth intervals; the under side is also iridescent, and the abdomen narrowly edged with dull yellowish red. Length 13–13½ mm.; width, 5–5¼ mm.

*Hab.* Mozambique (Rikatla).

#### CHLÆNIUS VITTICOLLIS, Bohem.,

Insect. Caffr., i., p. 142.

*C. maculiceps*, Bohem., Insect. Caffr., i., p. 143.

Head bright green, finely punctulate; labrum, palpi, the two basal joints of antennæ, and the legs light brick-red; prothorax yellowish red, with a moderately broad greenish band reaching from the apex to the base on each side of the median groove, finely rugose, amplified laterally on the middle, and as broad at the apex as at the base; elytra broader at the base than the prothorax, elongated, hardly amplified behind, plane, narrowly striated with the intervals plane, shagreened, very faintly pubescent, black with an extremely faint green tinge, narrowly marginated with pale yellow (this yellow margin is broader from below the shoulder to about two-thirds of the length than in the posterior third part, where it sometimes disappears altogether), and having a supra-apical sutural short triangular yellow patch, the basal part of which extends on each side as far as the third stria; prosternum red; metasternum and abdomen black, iridescent. Length 7–7½ mm.; width 4–4½ mm.

*Hab.* Natal (Maritzburg, Newcastle, Eiscourt, D'Urban).

*C. maculiceps*, Bohem., differs from the type merely in having a broad greenish patch on the vertex of the head, which is testaceous instead of being entirely green as in the type.

## CHLÆNIUS PULCHELLUS, Bohem.,

Insect. Caffr., i., p. 144.

Head bright green; labrum, jaws, palpi, the three basal joints of antennæ and legs testaceous-red; prothorax of the same shape as *C. vitticollis*, with similar sculpturing and colouring; in the typical form, however, the discoidal green bands are obliterated in the anterior part; shape of elytra identical, and with the supra-apical yellow sutural patch similarly shaped, but the marginal yellow band is narrow and of equal width from base to apex, and there is also a long lateral yellow patch beginning on each side at a certain distance from the humeral angle, merged with the outer margin and reaching from there as far as the fifth stria. Length 7 mm.; width 3 mm.

*Hab.* Delagoa Bay (Rikatla).

Var. *fraternus*.

*Chlænius fraternus*, Pér., Trans. S. Afric. Phil. Soc., 1892, vi., p. 20.

I described as a species distinct from *C. pulchellus*, an insect from Ovampoland, which differ from the above-named species mainly in having the lateral anterior yellow patch on each elytron reduced to a very small, quadrate dot, extending on the fourth and fifth intervals and entirely disconnected with the lateral yellow margin. I have however received, since my description was published, examples from Mashunaland, where the green colour on the head is broadly edged with yellow, the discoidal bands on the prothorax are nearly entire, and where the anterior yellow patch on each elytron is more elongated (twice as long), and connected with the lateral margin by a narrower confluent patch, thus bridging the difference between the two typical forms. Length 9 mm.; width 4 mm.

*Hab.* Ovampoland (Cunene River), Zambezia (Salisbury).

## CHLÆNIUS KIRKI, Chaud.,

Monogr., *loc. cit.*, p. 276.

Head bronze-black; labrum, palpi, the two basal joints of antennæ reddish yellow, the others deeply infuscated; prothorax as broad at the apex as at the base, amplified in the middle, with the sides regularly rounded, finely pubescent, roughly shagreened, reddish yellow, with a very broad median black band reaching from apex to base; elytra elongato-ovate, hardly broader than the prothorax at the base and nearly twice broader past the middle, narrowly grooved with the intervals plane, pubescent, roughly shagreened, black, opaque, with a narrow marginal yellow band, interrupted from about

the median part to the rounded posterior part, and ascending the suture a little, and having also on each side a post-median, more or less rounded yellow patch extending from the third to the sixth stria; epipleuræ, prosternum, and legs pale yellow; the tibiæ and tarsi darker than the femora; pectus and abdomen black. Length 15 mm.; width 6 mm.

*Hab.* Zambezia (Manicaland).

CHLÆNIUS VERECUNDUS, Pér.,

Plate X., fig. 5.

Trans. S. Afric. Phil. Soc., 1892, vi., p. 103.

Head green, very shining; labrum, palpi, antennæ, and legs pale yellow; labrum incised; prothorax equally broad at apex and base, with the outer sides gradually amplified in the middle, very closely punctured with the punctures moderately deep, brassy green, a little shining in the middle, very dark on the sides, with a very narrow yellowish edge, and thickly pubescent; elytra elongated, a little broader than the prothorax at the base, not much amplified past the middle, punctato-striate with the intervals plane, finely shagreened, thickly pubescent, black, opaque, with a subquadrate, slightly post-median yellow patch on each side extending from the fourth to the seventh stria, and a narrow, acutely triangular sutural one, the basal part of which reaches the third stria on each side; epipleuræ slightly yellow; under side dark cyaneous. Length 13–14½ mm.; width 5–5¾ mm.

*Hab.* Natal (Maritzburg); Delagoa (Rikatla).

CHLÆNIUS QUADRISIGNATUS, Bohem.,

Vet. Ac. Förh., 1860, p. 11.

*C. Mamboianis*, Bates, Entom. Month. Mag., 1886, p. 11.

Head dark coppery green, a little brighter in the anterior part; labrum, first joint of antennæ and palpi flavescent, the latter infuscated at the tip, the joints of antennæ black; prothorax bronze-green turning a little to violaceous laterally, hardly pubescent, finely shagreened, not broader at the apex than at the base, and gradually amplified in the middle but with the posterior angles acute; elytra broader than the prothorax at the base, elongated, moderately amplified past the middle, narrowly striate, with the intervals plane, very briefly pubescent and finely shagreened, black, opaque, with the outer margin slightly cyaneous, and having on each side, at about two-thirds of the length, a more or less subquadrate yellow patch reaching from the third to the sixth stria, and an apical, diagonal one on each side of the suture, a little broader than the margin,

along which it runs without invading the suture; under side piceous; legs flavescens, with the knees and tarsi infusate. Length 15 mm.; width 6 mm.

*Hab.* Zambezia (Manicaland), N'Gamiland.

CHLÆNIUS NITIDICEPS, Dej.,

Spec. Col., ii., p. 342.

Head glowing red, seldom bright green; antennæ, palpi, and legs reddish brown or chestnut colour; prothorax very nearly as broad at the apex as at the base, with the outer sides regularly amplified in the centre, very closely punctured, pubescent, dark greenish bronze; elytra elongated, broader at the base than the prothorax, slightly amplified behind, deeply striated, with the intervals slightly convex, shagreened and thickly pubescent, black, opaque, without any yellow markings; under side cyaneous black, iridescent. Length 13–13½ mm.; width 5–5½ mm.

*Hab.* Cape Colony (Cape Town), Natal (Eshowe), Delagoa Bay (Rikatla).

CHLÆNIUS PUBERULUS, Bohem.,

Insect. Caffr., i., p. 156.

Head, prothorax, and elytra metallic green, moderately shining; the elytra with a short, very dense yellowish pubescence; the labrum, palpi, and three basal joints of antennæ yellowish red, the other joints light testaceous red; head shining; prothorax very slightly narrower at the apex than at the base, amplified laterally in the middle, but a little less than in the preceding species, closely and deeply punctured and slightly pubescent; elytra elongated, nearly subparallel, broader than the prothorax at the base, narrowly striate, with the intervals very plane, finely shagreened, subopaque green with a thick, short, yellowish pubescence, outer margin often cyaneous; under side cyaneous, iridescent. Length 11 mm.; width 5 mm.

In colouring and general facies this species approximates much *C. fulvipes*, but the prothorax is narrower and the elytra less roughly shagreened and more pubescent.

I have seen only one of Boheman's type (a female, the palpi of which are more acuminate at the tip than in the same sex of *fulvipes*) labelled Caffraria.

CHLÆNIUS SIGNATUS, Bohem.,

Insect. Caffr., i., p. 139.

*C. apiatus*, Klug, Peters' Reise n. Mossamb., p. 163, pl. ix., fig. 10. Head and prothorax dark green, moderately shining, very briefly

pubescent; labrum, palpi, legs, and the three basal joints of the antennæ yellowish, the other joints of the antennæ black; head very closely punctured; prothorax as broad as long, nearly as broad at the apex as at the base, rounded laterally, but more constricted in the posterior part than in the anterior, and having the outer margins recurved, deeply and closely punctured, greenish bronze, darker in the centre, and with the outer margin narrowly edged with yellow; elytra elongated, subparallel, broader than the prothorax by one-third, narrowly punctato-striate, with the intervals very roughly shagreened, and very briefly pubescent, dark olive-green, with a lateral yellow band on the eighth interval on each side, running from the shoulder to about the median part and expanding at the apex on the fifth and sixth intervals, three elongated superposed spots past the middle on the third, fourth, and fifth intervals, and a broad, diagonal, marginal patch of the same colour at the apex; under side piceous, shining. Length 11–12 mm.; width 5 mm.

*Hab.* Ovampoland, Mozambique (Tette), occurs also in Loanda and Angola according to De Chaudoir.

In some of my examples the post-median dorsal spots are not very distinct and are two in number, instead of three.

CHLÆNIUS NOTABILIS, Laferté,

Rev. et Mag. d. Zool., 1851, p. 221.

Head and prothorax bright metallic green, very briefly pubescent; labrum, palpi, antennæ, and legs yellowish or slightly rufescent; head with a few scattered punctures; prothorax a little broader and more amplified laterally in the anterior than in the posterior part, and covered with closely-set, regular, deep punctures; elytra a little broader at the base than the prothorax, elongato-ovate, narrowly punctato-striate, with the intervals plane, thickly pubescent and very finely shagreened, dark green with a yellow outer margin extending from the shoulder to about one-third of the length as far as the fifth stria, expanding from there to about the median part as far as the third stria, narrowing to the seventh stria from the middle to the suture, and having also an elongated, supra-apical patch on the third and fourth intervals, the point of which nearly touches the marginal yellow border; pectus and median part of abdomen piceous, subiridescent, the sides of the latter part pale yellow. Length 12–13 mm.; width 5 mm.

*Hab.* Transvaal (Rustenburg), Mozambique (Rikatla).

CHLÆNIUS COMMISTUS.

Colour, shape, and sculpture of head and prothorax as in the preceding species; the elytra, however, are less ovate, the yellow

outer margin is similar, and the median ramus it emits is, if anything, more quadrate, and reaches the fourth stria, the supra-apical patch instead of being elongated and extending on the third and fourth intervals is subquadrate, extends on the third, fourth, and fifth intervals and is further away from the marginal postical band; the intervals are also more closely shagreened; under side piceous; abdomen broadly marginated with yellow. Length 11–12 mm.; width  $4\frac{3}{4}$ –5 mm.

*Hab.* Natal (Escourt), Middle Limpopo, Matabeleland, Bechuanaland (Ramoutsa).

CHLÆNIUS COSCINODERUS, Chaud.,  
Bull. Mosc., 1856, p. 242.

*C. lateralis*, Bohem., Insect. Caffr., i., p. 149.

Shape, colouring, and sculpture of *C. commistus*, but the prothorax is more transverse, and in the elytra the outer margin extends from the shoulder to about the median part as far as the sixth stria only, the spur it emits there is very narrow, projecting a little beyond the fifth stria, below the spur the margin is narrowed to the seventh stria, and the supra-apical patch, an elongated one extending on the third and fourth intervals, coalesces with the postical marginal band; under side piceous, subiridescent; abdomen with a broad yellow marginal band. Length 13–13½ mm.; width 5–5½ mm.

*Hab.* Cape Colony (Enon, Pellah, Carnarvon, Kimberley), Natal (Newcastle), Transvaal (Bocksburg), Free State (Hoopstad).

CHLÆNIUS LIMBIPENNIS, Bohem.,  
Vet. Ac. Förh., 1860, p. 11.

*C. togifer*, Chaud., Monogr., *loc. cit.*, p. 143.

Head nearly smooth in the anterior part, very slightly rugose behind, bright green like the prothorax; palpi and legs pale yellow; the three basal joints of the antennæ pale yellow, the others testaceous; prothorax a little broader than long at its widest, much constricted near the base, the outer edges acute, covered with moderately deep, somewhat sparse punctures, and very briefly pubescent; elytra broader than the prothorax, elongated, narrowly punctato-striate, with the intervals finely shagreened and briefly pubescent, bottle-green, not much shiny, and with a yellow marginal band running from the shoulder to the suture, extending laterally as far as the sixth interval, broader in the posterior part, with the upper edge of the posterior margin somewhat jagged; under side piceous; abdomen with a very narrow yellow margin. Length 11–12 mm.; width 5–5½ mm.

*Hab.* Cape Colony (Klipfontein, Prieska); Great Namaqualand.

Chaudoir in his description of *C. togifer* says that the yellow margin reaches the seventh stria instead of the sixth; such is not the case in all the examples I have seen, including three type specimens captured by De Castelnau. Chaudoir's specimen was from Delagoa Bay. Dr. Gestro, of the Genoa Museum, has very kindly sent me the typical *C. togifer*. Chaudoir had not seen Boheman's type of *limbipennis*.

CHLÆNIUS CRIBRICOLLIS, Dej.,

Spec. Col., v., p. 644.

Head and prothorax bright green, thickly pubescent; labrum, palpi, and legs pale yellow; head deeply and closely punctured all over; prothorax gradually amplified laterally from the apex to about the median part, with the posterior part much narrowed, slightly convex in front, and with the outer margins rounded, and set with regular, deep, close punctures; elytra elongated, subparallel, narrowly punctato-striate, with the intervals somewhat shagreened and briefly pubescent, violaceous green, with a yellow outer margin reaching from the shoulder to the suture, extending laterally to the sixth stria, broader in the apical part, with the upper edge of the posterior margin somewhat jagged; under side black, very iridescent; abdomen with a moderately narrow lateral margin and a broader apical one. Length 9 mm.; width 4 mm.

*Hab.* Damaraland (Omaruru), Cape Colony (Grahamstown), Natal (Escourt).

CHLÆNIUS LIMBATUS, Wiedem.,

Germar's Mag. Entom., iv., p. 112.

*C. amictus*, Dej., Spec. Col., ii., p. 317.

Head and prothorax bright green, very briefly pubescent; labrum, palpi, antennæ yellowish; head finely aciculate behind; prothorax as broad as long, not much amplified on the sides and slightly narrowed in the posterior part, covered with closely-set, not very deep punctures, the edge of the outer margins flavescent; elytra very little broader at the base than the prothorax, elongato-ovate, narrowly punctato-striate, with the intervals finely punctulate and pubescent, greenish bronze, moderately shining, with a marginal yellow border reaching from the shoulder to the apex, extending as far as the fifth, seldom the sixth, stria, with the apical border broader than the lateral one and somewhat jagged on the upper edge; under side black, subiridescent; abdomen with a very narrow yellow apical margin. Length  $10\frac{1}{2}$ –11 mm.; width  $4\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Paarl, Worcester, Albany).

CHLÆNIUS MARGINIPENNIS, Gory,  
Ann. Soc. Ent. France, 1833, p. 127.

Head and prothorax light green, not much shining, the lateral edge of the prothorax yellow; elytra with the discoidal part green, subopaque, and with a broad yellow margin extending as far as the fourth stria, slightly incised inwardly a little past the median part, and with the upper edge of the posterior marginal band dented; abdomen with a moderately broad yellow margin; under side brownish black; labrum, palpi, and the three basal joints of antennæ pale yellow, the other joints slightly infuscate. Length 9 mm.

*Hab.* Cape of Good Hope.

I have not met with this species, which from De Chaudoir's description seems to be intermediate between *C. togifer* and *C. limbatus*.

CHLÆNIUS MARGINICOLLIS, Bohem.,  
Insect. Caffr., i., p. 150.

Head and prothorax dull green; palpi, legs, the three basal joints of the antennæ pale yellow, the other joints rufescent; head very closely but not deeply aciculated; prothorax broad, with the anterior part more narrowed than the posterior, thickly pubescent, punctured, with the punctures scattered and not deep; the lateral margins narrowly edged with yellow; elytra a little broader at the base than the prothorax, elongated, subparallel, narrowly punctato-striate, very finely shagreened and with a short, very thick pubescence, bottle-green, subopaque, and with a lateral yellow margin invading the eighth interval and not much broader in the posterior margin than in the lateral one; under side piceous, pubescent; abdomen with a moderately broad yellow margin. Length 11–11½ mm.; width 4–4¾ mm.

*Hab.* Cape Colony (Cape Town, Grahamstown).

CHLÆNIUS SIMILATUS, Bohem.,  
Insect. Caffr., i., p. 151.

Head and prothorax bright green, shining, densely pubescent; labrum, palpi, legs, and the three basal joints of the antennæ pale yellow, the other joints of the antennæ slightly infuscate; prothorax slightly broader than long, wider in the anterior part, which is gradually rounded, than in the posterior, very closely punctured, with the punctures moderately deep, lateral margins narrowly edged with yellow; elytra elongated, subparallel, broader at the base than the prothorax, narrowly punctato-striate with the intervals shagreened and densely pubescent, green, moderately shining in spite of the pubescence, with a yellow outer margin, narrow from

the shoulder to three-fourths of the length, reaching the eighth interval only, and broadening considerably in the posterior part, where it emits on each side three short spurs ascending the intervals; under side black, briefly pubescent; abdomen with a narrow yellow margin. Length 11 mm.; width 5 mm.

*Hab.* Natal (D'Urban), Delagoa Bay (Rikatla).

Closely allied to *C. limbatus*, but the prothorax is more constricted in the posterior part, and more broadly edged with yellow.

CHLÆNIUS FULVIPES, Chaud.,

Ann. Soc. Ent. France, 1835, p. 265.

*Dinodes affinis*, Dej., Spec. Col., v., p. 670.

*Dinodes beryllinus*, Bohem., Insect. Caffr., i., p. 159.

Bright blue with a violaceous tinge on the elytra, or green with a blue tinge, shining; labrum, the three basal joints of the antennæ and the legs yellowish red; apical part of the palpi and tarsi infuscate; joints of the antennæ, with the exception of the three basal ones, black; head finely aciculate; prothorax not broader at the apex than at the base, with the outer sides gradually rounded, very briefly pubescent and covered with moderately close, deep punctures; elytra elongated, subparallel, narrowly punctato-striate, with the intervals plane, finely shagreened and hardly pubescent; under side black, hairless, iridescent. Length 11–13 mm.; width 4–6 mm.

*Hab.* Cape Colony (Cape Town, Knysna, Kowie, Albany), Natal (Newcastle), Transvaal (Potchefstroom, Rustenburg).

CHLÆNIUS SIMPLEX, Wiedem.,

Germer's Mag. Entom., iv., p. 111.

Bright green, shining, turning to brassy green on the head and prothorax; labrum, palpi, legs, and antennæ testaceous red; head nearly smooth; prothorax not pubescent, and hardly punctate in the anterior part, broad, a little longer than wide, a little attenuated laterally from the median to the anterior part, but straight from the median part to the base; elytra elongated, subparallel, narrowly punctato-striate, with the intervals finely shagreened, convex and very briefly pubescent, green, shining, with the extreme edge of the outer margins behind testaceous, and occasionally a very narrow, transverse, yellowish line above the apical part on each side; under side piceous, iridescent, hairless, apical part of the last abdominal segment marginated with yellow. Length 12–13 mm.; width 5–5¼ mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Paarl, Worcester, Alexandria).

## CHLÆNIUS TENUICOLLIS, Fabric.,

Syst. Eleuth., i., p. 185.

*C. auricollis*, Gory, Ann. Soc. Ent. France, 1833, p. 224.

Head and prothorax glowing red, with the outer sides greenish; labrum, palpi, antennæ, and legs reddish brown; head nearly smooth in the anterior part, faintly punctulate behind, without any pubescence; prothorax narrow, a little attenuated laterally in front, not much amplified in the middle and very slightly sinuated behind, hardly pubescent, and with a few scattered, not deep punctures; elytra broader than the prothorax, subelongato-ovate, very narrowly punctate, striate, with the intervals convex, equal, smooth, almost without pubescence, except in the striæ and in the outer margin, black, moderately shining, but with a greenish-blue metallic tinge on the sixth and seventh intervals; under side dark piceous, subiridescent. Length 11–12 mm.; width  $4\frac{1}{2}$ –5 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Paarl, Worcester).

## CHLÆNIUS CÆRULEIPENNIS, Bohem.,

Vet. Ak. Förh., 1860, p. 11.

Head and prothorax bright metallic green; labrum, palpi, antennæ, and legs pale testaceous; head hardly punctulate; prothorax short, narrow, subcordiform, but not much narrowed behind, and with a small transverse impression in the anterior part, and the outer margins recurved, bright green and violaceous on the lateral and postical margins; elytra subelongato-ovate, broader at the base; the prothorax narrowly punctato-striate, with the striæ briefly pubescent and the intervals slightly convex and with a regular series of punctures alongside the striæ, black on the disk as far as the fifth striæ and dark green or very dark blue laterally; under side piceous, very briefly pubescent. Length 10–14 mm.; width 11–14 mm.

*Hab.* Cape Colony (Grahamstown), Damaraland (Walfish Bay, Svakop River).

## CHLÆNIUS MODESTUS, Bohem.,

Insect. Caffr., i., p. 157.

Size and shape of *C. cæruleipennis*; the colour of the palpi, antennæ, and legs is identical; the prothorax and also the head are glowing red in the centre and greenish on the sides, but the punctures are deeper and nearer to one another, although not closely set; the elytra are narrower, the intervals are raised and carinated, and instead of having only one series of punctures on each side along the stria are very closely and deeply punctured, and more thickly pubescent. Length 12 mm.; width  $4\frac{1}{2}$  mm.

The only example of this species I have seen is one of Boheman's type, a male, labelled *Caffraria*.

## CHLÆNIUS CONSOBRINUS.

An intermediate form between *C. angustatus* and *C. cylindricornis*, but more nearly related to the former, with which it agrees in colour; it is, however, more elongated; the prothorax is a little broader and somewhat more deeply punctured, but the distinctive specific character is found in the shape of the intervals of the striæ in the elytra, which are raised, carinated with the ridge smooth, and deeply punctured laterally; from all these punctures spring short yellowish hairs forming a thick pubescence; lateral yellow margin as in *C. angustatus*. Length 14 mm.; width  $5\frac{1}{2}$  mm.

*Hab.* Delagoa Bay (Rikatla).

## CHLÆNIUS CYLINDRICOLLIS, Dej.,

Spec. Col., v., p. 637.

Head and prothorax glowing red and bright green on the outer sides; labrum, palpi, antennæ, and legs yellowish; head nearly smooth; prothorax of the same shape as in *C. angustatus*, but slightly longer, and with the same sculpture; elytra broader than the prothorax, elongated, narrowly punctato-striate, with the intervals smooth, hardly raised, dark bottle-green, a little lighter laterally, and with a marginal yellow band encroaching on the eighth interval, where it reaches nearly the seventh stria, and broader behind, where the upper edge of the posterior band is dented and invades the apical part of the striæ; under side black, moderately shining; abdomen narrowly margined with yellow.

Examples from Delagoa Bay (Rikatla) and Middle Limpopo have the elytra and also the median part of the prothorax greener than in the Natal and Cape Colony specimens. Length 13–16 mm.; width  $5\frac{1}{2}$ –6 mm.

*Hab.* Cape Colony (Grahamstown, Somerset East), Natal, (Maritzburg), Delagoa Bay (Rikatla), Zambezia (Middle Limpopo River).

Closely allied to both the preceding species, but differentiated by a somewhat more elongated body, although *C. consobrinus* is a form of transition in that respect between *C. angustatus* and the present species, and also by the dilatation of the yellow margin in the posterior part.

## CHLÆNIUS ANGUSTATUS, Dej.,

Spec. Col., v., p. 637.

*C. cinctipennis*, Bohem., Insect Caffr., i., p. 148.

Head and prothorax bright green with a coppery tinge in the centre; labrum, palpi, antennæ, and legs pale yellow; head and prothorax nearly smooth, the latter narrow, a little attenuated laterally in

front, not much amplified in the middle and very slightly attenuated behind, hardly pubescent, and with a few much-scattered punctures; elytra broader at the base than the prothorax, subelongato-ovate, narrowly punctato-striate with the intervals slightly raised, smooth with a very brief pubescence in the striæ, bronze-green on the four intervals on each side, brighter green laterally, and with a narrow marginal yellow band reaching the eighth stria, and not broader in the posterior than in the lateral part; under side light piceous.

In shape, size, and sculpture, *C. angustatus* is almost like *C. tenuicollis*, the intervals on the elytra are not quite so much raised, and the presence of the marginal yellow band which is totally wanting in *tenuicollis* will facilitate its identification. Length  $11\frac{1}{2}$ –12 mm.; width  $5$ – $5\frac{1}{4}$  mm.

*Hab.* Cape Colony (Grahamstown, Umzimkulu, Griqualand East), Transvaal (Pretoria), Zambezia (Salisbury), Natal (Maritzburg, Frere).

CHLÆNIUS LEUCORISTUS, Chaud.,

Monogr., *loc. cit.*, p. 119.

Head and prothorax bright green, shining; labrum, palpi, antennæ, and legs very pale yellow; head smooth in the centre, plicated longitudinally alongside the eyes, and punctulated behind; prothorax as broad at the apex as at the base, amplified laterally from the anterior angle to two-thirds of the length and narrowed towards the base, somewhat convex in the anterior discoidal part, and faintly transversely plicate; hairless, and with a conspicuous transverse basal depression between the two sublateral impressions; elytra broader at the base than the prothorax, subovate, with the lateral sides somewhat rounded, narrowly striated, with the intervals a little raised but flat at the top, hardly pubescent even in the striæ, greenish black with a narrow marginal pale-yellow band reaching the eighth stria only, and of equal size on each side from the humeral angle to the suture; under side piceous, slightly iridescent. Length 12 mm.; width 5 mm.

Easily distinguished from the preceding species by the subovate shape of the elytra.

*Hab.* Cape Colony (Fraserburg, Grahamstown, Bedford).

CHLÆNIUS SULCIPENNIS, Dej.,

Spec. Col., ii., p. 307.

*C. sulcatulus*, Bohem., Insect. Caffr., i., p. 146.

Head and prothorax bright green or coppery; labrum, antennæ, palpi, and legs pale yellow; head nearly smooth; prothorax

ampliated from the anterior part to two-thirds of the length and narrowed in the posterior part, a little convex in the discoidal part, and without any punctures; elytra broader than the prothorax, but narrow, long, and almost parallel, punctato-striate with the intervals raised, convex, smooth, very dark green, almost black, and with a narrow, pale-yellow marginal lateral band extending as far as the eighth stria, and broadly dilated on each side of the posterior part as far as the second stria, but reaching the suture at the apical point; under side black, apical part of abdomen narrowly margined with pale yellow. Length 13 mm.; width 5 mm.

*Hab.* Cape Colony (Griqualand West, Transkei, Hope Town), Natal (D'Urban, Escourt), Delagoa Bay (Rikatla), ? Matabeleland.

Occurs also in Nubia and Southern Egypt.

CHLÆNIUS LÆTUS, Fabric.,

Ent. Syst., iv., Append., p. 443.

*C. quadricolor*, Dej., Spec. Col., ii., p. 337.

*C. ruficornis*, Bohem., Insect Caffr., i., p. 152.

Head and prothorax glowing red, with a greenish tinge occasionally on the sides; labrum, palpi, antennæ, and legs reddish brown; head very faintly punctured behind; prothorax broad, hardly rounded laterally, very little attenuated in the anterior part, and less still in the posterior, with base hardly broader than the apex, smooth, with a few shallow punctures on each side of the median groove, the lateral part and the base; elytra broader than the prothorax, elongated, slightly amplified behind, narrowly punctato-striate with the intervals convex, black, shining, with the striæ briefly, and the outer margin densely pubescent; under side black, iridescent. Length 17–18 mm.; width 7–8 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Worcester).

CHLÆNIUS HYPOCRITUS.

Head and prothorax glowing red; labrum, palpi, antennæ, and legs reddish brown; head hardly punctulate; prothorax of nearly the same shape laterally as *C. lætus*, but slightly more attenuated towards the base; the sculpture is identical; the elytra are similarly shaped, narrowly punctato-striate, with the intervals much raised, convex, and the alternate ones broader than the others, striæ briefly, outer margin densely pubescent; under side black, shining. Length 15½ mm.; width 6 mm.

*Hab.* Delagoa Bay (Rikatla).

## CHLÆNIUS ROBUSTUS, Bohem.,

Insect. Caffr., i., p. 155.

Shape, size, and sculpture of *C. lætus*, the colour of the labrum, palpi, and legs is darker brown; the head and prothorax are green, shining, and the elytra, instead of being opaque black, are olive-green with a moderate sheen, the outer margin is black, pubescent, and the epipleuræ dark reddish brown. Length 17 mm.; width 7 mm.

*Hab.* Transvaal (Maghalisberg) teste Bohem.

The only example of this species I have seen is Boheman's type.

## CHLÆNIUS CYANIPENNIS, Bohem.,

Insect. Caffr., i., p. 155.

Head and prothorax glowing red; labrum, antennæ, and legs dark brown, almost piceous; head nearly smooth; prothorax as broad at the apex as at the base, equally attenuated laterally in front and behind, with the median part slightly amplified, hairless, with a few scattered punctures; elytra only a little broader at the base than the prothorax, elongated, subparallel, narrowly punctato-striate, with the striæ hardly pubescent, intervals raised, convex, dark violaceous blue, with the basal and outer marginal part cyaneous or greenish blue; under side dark cyaneous, iridescent. Length 12 mm.; width 5 mm.

*Hab.* Natal (D'Urban, Frere).

## CHLÆNIUS COMES.

An intermediate form between *C. lætus* and *C. cyanipennis*; the head and prothorax are glowing red as in the last-named species, but the prothorax is a little more attenuated in front, thus approximating that of *C. lætus* in shape; the elytra are punctato-striate, with the intervals convex and pubescent only in the outer margin, which is distinctly dark blue; the labrum, antennæ, and legs are dark brown as in *cyanipennis*, but the prothorax and elytra are longer; under side piceous, iridescent. Length 15–16 mm.; width 6–6½ mm.

*Hab.* Mozambique (Rikatla).

## CHLÆNIUS CAPICOLA, Chaud.,

Bull. Mosc., 1856, pl. 11, p. 233.

*C. caffer*, Bohem., Insect. Caffr., i., p. 145.

Head and prothorax green, with a median glowing-red tinge; labrum, palpi, antennæ, and legs yellowish red; head slightly punctured behind; prothorax very little attenuated in front, not amplified

laterally in the middle, and very little sinuated behind, smooth, with a few scattered punctures; elytra elongated, subparallel, narrowly punctato-striate, with the intervals convex, carinated, nearly hairless, greenish black on the dorsal part, green on the sides, and with a yellow marginal band reaching from base to apex and extending as far as the eighth stria; under side piceous, iridescent; abdomen marginated with yellow. Length 16 mm.; width 7 mm.

This species is not unlike *C. cylindricollis*, but it is more robust, the prothorax is much broader and the costæ on the elytra are more raised. In general facies and also in colouring it resembles *C. (Epomis) circumscriptus*, but the last joints of the palpi of the male are cylindrical, instead of being securiform as in *C. capensis*. Length 16 mm.; width 7 mm.

*Hab.* Free State (Edenberg), Transvaal (no exact locality).

CHLÆNIUS LACUSTRIS, Chaud.,

Monogr., *loc. cit.*, p. 133.

Closely allied to *C. capicola*, from which it differs in the shape of the prothorax, the outer sides of which are straight from the base to four-fifths of the length, whereas in *capicola* they are a little narrowed and slightly sinuate from the median part towards the base; the head and prothorax are duller green, darker on the elytra. In general facies this species is also closely connected with *C. (Epomis) circumscriptus*, but the same remarks on the shape of the prothorax holds also good here, and the elytra have nearly plane intervals instead of carinated ones as in *circumscriptus*. Length 17 mm.; width  $6\frac{1}{4}$  mm.

The only example of this species I have seen is one of Chaudoir's types, collected by De Castelnau, and very kindly communicated by Dr. Gestro of the Genoa Museum.

CHLÆNIUS MENDAX, Chaud.,

Monogr., *loc. cit.*, p. 133.

Also a very close ally of *C. capicola*, but much broader and longer; the prothorax is shorter in proportion, the colour of the head and prothorax is brighter green, and only the median part of the elytra is dark green, while the sides are brighter. Length  $19\frac{1}{2}$  mm.; width 8 mm.

*Hab.* Mozambique (Rikatla).

CHLÆNIUS SENEGALENSIS, Dej.,

Spec. Col., v., p. 635.

Head and prothorax bright green; labrum, palpi, and legs yellowish red; head closely punctulate; prothorax hardly amplified

in the centre, a little more attenuated in the anterior part than towards the base, closely punctured, but not deeply; elytra elongated, nearly one-third broader at the base than the prothorax, subparallel, narrowly punctato-striate, with the intervals broad, plane, finely shagreened, thickly pubescent, dark olive or moderately bright green, with a broad marginal yellowish band reaching the median part of the seventh interval, and a little broader in the posterior part than laterally; under side piceous, iridescent; abdomen with a narrow lateral and apical yellow margin. Length 18–19 mm.; width 7–8 mm.

*Hab.* Upper Limpopo River, Ovampoland, Damaraland. Occurs also in Senegal and Kordofan.

CHLÆNIUS (EPOMIS) CAPENSIS, Gory,  
Ann. Soc. Ent. France, 1833, p. 229.

Head, prothorax, and elytra dark olive-green, moderately shining; labrum, palpi, antennæ, and legs rufescent; head nearly smooth in the centre, punctulate laterally and behind; prothorax slightly attenuated laterally in the anterior part, nearly straight from the median part to the base, and with three irregular longitudinal series of punctures on each side of the median groove, the basal impressions very deep; elytra about one-fourth broader at the base than the prothorax, elongated, subparallel, narrowly striated, with the intervals raised, carinated, hairless, and with a series of ill-defined punctures on each side of the basal part, dark green, with a narrow marginal yellow band reaching the eighth stria, and hardly broader in the posterior than in the lateral part; under side piceous; abdomen very narrowly margined with yellow. Length 20–21 mm.; width 7–8 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Paarl, Worcester), Mozambique (Rikatla).

De Chaudoir considers *E. capensis*, Gory, and also *E. senegalensis* of the same author, as doubtful varieties of *C. circumscriptus*; the same may be said of *C. senegalensis*, which is so closely allied with *C. velutinus*, also an European species, as to be almost identical.

CHLÆNIUS (EPOMIS) CAFFER, Bohem.,  
Insect. Caffr., i., p. 158.

Dark violaceous on the upper side, piceous underneath; palpi, labrum, antennæ, and legs reddish; labrum emarginate in the centre; head smooth, very slightly punctured in the anterior part; prothorax slightly broader than long, amplified and rounded from the apex to about the median part, and narrowed from there towards

the base, which is narrower by one-third than the median part, faintly punctured, very shining; elytra elongated, subparallel, narrowly punctato-striate, with the intervals convex, hardly pubescent, outer margin with a moderately thick pubescence. Length 19 mm.; width 7 mm.

*Hab.* Transvaal (Maghalisberg, teste Bohem.).

This handsome species is the only South African *Chlœnius* in which the lateral ampliation of the prothorax is almost apical, imparting to it, therefore, a very cordiform shape.

I have seen Boheman's type—a male—only.

CHLÆNIUS DUSSAULTI, Duf.,

Ann. Sci. Physiq., viii., p. 359, pl. 130, fig. 4.

*C. quadrimaculatus*, Motsch., Bull. Mosc., 1864, ii., p. 342.

Head and prothorax coppery red; labrum, palpi, legs, and the three basal joints of the antennæ red, the other joints black; head and prothorax very closely punctured, the latter nearly as broad as long, amplified in the middle, and hardly broader at the base than at the apex; elytra elongato-ovate, not much broader at the base than that of the prothorax, but a little amplified laterally, punctato-striate, with the intervals convex and shagreened, briefly pubescent, black, with a narrow yellow outer margin, and on each side above the middle a transverse more or less sinuate yellow patch reaching from the fourth interval to the outer margin, and a postical more or less ovate spot extending from the fourth to the seventh stria a little above the apical part; under side piceous, iridescent. Length 17–18 mm.; width 7–7½ mm.

*Hab.* Upper Limpopo, also Senegambia.

I have seen examples in which the anterior yellow patch of the elytron has disappeared entirely or been reduced to a very small dot. These examples were captured at the same time and in the same spot as the normal form.

CHLÆNIUS COSTIPENNIS, Bohem.,

Insect. Caffr., i., p. 149.

Head, prothorax, and elytra bottle-green, shining; labrum, antennæ, and legs yellowish red; head smooth in the middle, punctulated all round; prothorax with the apical part narrower than the basal, slightly amplified in the middle, with the posterior lateral part nearly straight, narrowly edged outwardly with yellow, and covered with deep, irregular, closely-set punctures; elytra subparallel, a little broader at the base than the prothorax, narrowly punctato-striate, with the intervals convex, but the suture as well as the three

alternate intervals are narrower than the intervening ones and smooth, while the others are shagreened; they are slightly pubescent, moderately shining, and have a yellow outer margin reaching the eighth interval. Length 13 mm.; width 5 mm.

*Hab.* Transvaal (Rustenburg).

#### CHLÆNIUS MASHUNUS.

Head and prothorax dark metallic green, shining; elytra dull green, with the lateral margin bright green and the apical one yellow; labrum, palpi, legs, and the basal joints of the antennæ pale yellow, the other joints infuscated; head closely punctured; prothorax broad, with the sides nearly straight, covered with closely-set punctures, outer margins brighter green than the rest of the disk; elytra hardly broader at the base than the prothorax, subparallel, somewhat convex from the median part towards the apex, narrowly punctato-striate, with the intervals convex, roughly shagreened, and briefly pubescent; under side piceous. Length 12 mm.; width 5 mm.

*Hab.* Zambezia (Salisbury).

#### CHLÆNIUS VALIDICORNIS, Bohem.,

Insect. Caffr., i., p. 154.

Head and prothorax bright green or coppery; elytra with a coppery tinge, greenish in the striæ and in the outer margins; antennæ, palpi, and legs reddish; head faintly aciculated, shining; prothorax a little attenuated from the median part towards the apex, nearly straight from the median part to the base, faintly and irregularly punctulate, and shining; elytra a little broader at the base than the prothorax, subparallel, punctato-striate, very slightly pubescent in the outer margins only, intervals almost plane; under side piceous, slightly iridescent. Length 13–14 mm.; width 5–5½ mm.

*Hab.* Bechuanaland (Ramoutsa), Upper Limpopo, Northern Transvaal.

*C. lucidicollis*, Lafert., from Senegambia, might prove to be identical with *C. validicornis*.

#### CHLÆNIUS CONSORS.

In shape and size this species is closely allied to *C. validicornis*, but only the two first joints of the antennæ and the basal part of the third are reddish, the others are infuscated, the colour of the upper part is very dark green with a bluish marginal band on the prothorax and elytra; the prothorax is less attenuated in the anterior part, the outer sides being nearly straight, it is closely although not

deeply punctured, and the intervals of the elytra are convex; under side piceous, iridescent. Length 12–12½ mm.; width 5–6 mm.

*Hab.* Zambezia (Salisbury), Damaraland (Kashona, Kookarrah).

CHLÆNIUS DICHROUS, Wiedem.,

Germar's Mag. Entom., iv., p. 111.

Black, opaque on the upper side, piceous and slightly iridescent underneath; palpi, antennæ, and legs reddish; head smooth in the centre, aciculated behind; labrum faintly reddish; prothorax subtrapeziform, a little attenuated towards the base, covered with minute closely-set punctures and briefly pubescent; elytra a little broader than the prothorax at the base, elongated, narrowly punctato-striate, with the intervals plane, very finely shagreened and with a dense, very short pubescence. Length 12–12½ mm.; width 5 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Paarl, Worcester).

CHLÆNIUS PICEUS, Chaud.,

Monogr., *loc. cit.*, p. 165.

Black, moderately shining, or subopaque; palpi, apical part of the labrum, legs, and the three basal joints of antennæ yellowish red; the other joints rufescent, and the tarsi infuscated, under side very iridescent; head faintly aciculated; prothorax with the outer sides nearly straight but slightly narrower at the apex than at the base; plane on the disk but slightly declivous in front and covered with closely-set, moderately deep, conspicuous punctures, and hardly pubescent; elytra fitting against the base of the prothorax, nearly parallel, narrowly punctato-striate, with the intervals almost plane, shagreened and almost non-pubescent. Length 12–14 mm.; width 4½–5 mm.

*Hab.* Cape Colony (Port St. John), Natal (D'Urban).

Easily distinguished from *C. dichrous* by the more trapezoid shape of the prothorax, the punctures of which are also much more pronounced, the elytra are more parallel, the intervals more roughly shagreened and the striæ deeper.

CHLÆNIUS TRAPEZICOLLIS, Chaud.,

Bull. Mosc., 1856, ii., p. 291.

*Oodes rufipes*, Bohem., Insect. Caffr., i., p. 162.

Colour, shape, and size of *C. piceus*, but is more shiny on the upper part; the sculpture of the head and prothorax is identical, but the elytra, which in *piceus*, are slightly amplified outwardly at a short distance from the humeral angle are here quite straight,

narrowly striate with the intervals costate; the costæ are smooth on the ridge, but have a regular series of moderately deep, closely-set punctures on each side; under side piceous, slightly iridescent. Length 11–12½ mm.; width 4–5 mm.

*Hab.* Cape (Peddie), Natal (Frere, Newcastle, Escourt).

Although Boheman's type of this species seems to have been lost, there is, I think, hardly any doubt that the insect described by me under that name, and which agrees very well with the description is the same as the original one.

CHLÆNIUS NATALENSIS, Chaud.,

Monogr., *loc. cit.*, p. 164.

Colour, shape, and size of *C. rufipes*, with the elytra nearly as parallel laterally; the prothorax however is quite smooth instead of being closely punctured; the elytra are narrowly punctato-striate with the intervals raised and smooth, with the exception of the two outer ones which are punctulated.

In some examples from Port Elizabeth the prothorax instead of being quite smooth has a few shallow, distant punctures along the edge of the outer margins, and a few deeper, irregular ones in the base. Length 12–13 mm.; width 5–5½ mm.

*Hab.* Cape (Grahamstown, Port Elizabeth).

CHLÆNIUS ACULEATUS.

Black, shining on the upper side; palpi, antennæ, and legs piceous; under side black, slightly iridescent; head and prothorax quite smooth, the latter trapezoid as in *C. natalensis*; elytra fitting against the prothorax, broadest at the base and narrowing gradually towards the apex, striate with the intervals very slightly convex and smooth.

Easily distinguished by its small size and the aculeate shape of the elytra posteriorly. Length 7 mm.; width 2½ mm.

*Hab.* Cape Colony (King William's Town).

CHLÆNIUS CHAM, Chaud.,

Plate X., fig. 4.

Monogr., *loc. cit.*, p. 169.

Black, shining on the upper side; slightly iridescent underneath; apical part of the last joint of the palpi and antennæ with the exception of the three basal joints which, like the legs, are black or piceous, slightly rufescent; head nearly smooth; prothorax subtrapeziform but slightly incurved above the basal angle, plane on the disk, but slightly sloping in the anterior part, smooth and without

any pubescence; elytra hardly broader than the prothorax at the base, with the outer sides straight, striated with the intervals very convex, and without any pubescence even in the outer margins. Length 20–21 mm.; width 8–8½ mm.

*Hab.* Natal (D'Urban).

CHLÆNIUS ERYTHROCNEMIS, Chaud.,

Monogr., *loc. cit.*, p. 166.

In shape and colouring this species, which I have not seen, seems from Chaudoir's description to be closely allied to *C. piceus* and *trapezicollis*.

Piceous black, more shining on the upper side; labrum narrowly edged with rusty-red, the two last joints of the maxillary palpi and the ultimate one of the labial lighter than the basal ones, the two basal joints of the antennæ and also the femora testaceous-red, the other joints, the knees, tibiæ and tarsi black; head as in *C. Cham*, but more rugulose; prothorax less broad and longer, slightly narrowed towards the basal part but less than in the anterior part, covered with moderately broad punctures a little more closely set round the sides and along the median groove than on the disk; elytra slightly broader than the prothorax not quite twice as long as broad, a little more ovate and more convex in the middle than in *C. Cham* with the intervals a little less convex and covered with small punctures, more closely set on the outer than on the inner ones; upper and under side faintly pubescent. Length 7 mm.

*Hab.* Zululand (teste Chaud.).

CHLÆNIUS OODIODES, Chaud.,

Monogr., *loc. cit.*, p. 164.

*Oodes puncticollis*, Bohem., Insect. Caffr., i., p. 164.

It is very probable that the species described by Boheman is not an *Oodes*, but a true *Chlænius* with an *Oodidous* facies, like his *O. rufipes*, (the specific names being preoccupied, were changed by Chaudoir), and belonging to the group of which *C. trapezicollis* is the type. Boheman's type is no longer in the Stockholm Museum; it must be closely allied to *trapezicollis*, from which it would seem to differ by the size, 15 mm. instead of 10 or 12; and by the base of the antennæ and the legs which are not rufotestaceous, but black with the tarsi piceous.

Comparing it to *Systolocranius validus* (*Oodes Goryi*, Bohem.) Boheman says that it is narrower, the prothorax is less broad, slightly rotundato-ampliate in the median part of the outer sides, and the intervals of the elytra are vaguely punctured, and the punctures remote.

## GEN. ZELOTICUS, Pér.,

Trans. S. Afric. Phil. Soc., 1872, vi., p. 17.

Ligula horny, disconnected from the paraglossæ at a short distance from the tip, truncate at the tip, very slightly sloping towards the outer angles, and with two long setæ at equal distance from the outer angle and the median part; detached part of the paraglossæ linear and not longer than the outer angle of the ligula; mentum deep with the inner lobes nearly perpendicular and the outer very little amplified, median part with a triangular tooth deeply incised at the tip, last joint of maxillary and labial palpi short, securiform; labrum truncate with six setigerous punctures, the two middle ones very close to each other; jaws of *Chlænium*, head with a seta on each side of the basal part of the epistome and one over the posterior part of the eye; eyes elongated not very prominent; antennæ moderately thick and with the exception of the four basal joints somewhat compressed; prothorax very long, almost subcylindrical; elytra elongato-ovate; the prosternum produced behind between the coxæ, but the cavity for the reception in the metasternum of the subaculeate process of the prosternum very shallow; legs of *Chlænium*, the three basal joints of the anterior tarsi of the male extremely broad and thickly spongy underneath.

## ZELOTICUS TRISTIS, Pér.,

Plate IX., fig. 10.

Trans. S. Afric. Phil. Soc., 1892, vol. vi., p. 17.

Black, with the head and prothorax hairless, the last joint of the maxillary and labial palpi reddish brown at the tip; head long, the eyes being elongated and not very prominent, impart a parallel appearance; prothorax elongated, hardly broader than the head at the apex and the elytra at the base, with the outer sides only one-fourth broader at its widest than the base, deeply and broadly punctured with the punctures nearly confluent; elytra very little broader at the base than the prothorax with the outer angles sloping, elongato-ovate, nearly twice as broad past the median part as the base, somewhat convex, deeply punctato-striate with the intervals raised, deeply punctured, briefly pubescent, black, not much shining, with a dirty white band running on each side on the eighth interval from the base to the median part and a supra-apical elongated irregular patch of the same colour situated between the fourth and seventh intervals; legs black, under side iridescent. Length 16 mm.; width 6 mm.

*Hab.* Ovampoland (Cunene River).

## GEN. ECTENOGNATHUS, Murray,

Ann. and Mag. Nat. Hist., 1858, ii., p. 340 ; List of Coleopt. from Old Calabar, &c., reprinted from the Ann. and Mag. Nat. Hist., 1857-71, p. 58, with fig.

Mentum with a median concave tooth rounded at the tip ; mandibles long, subfalcate ; labrum moderately emarginate, labial and maxillary palpi very long, the last one of the maxillary as long as the penultimate ones, quite cylindrical and truncate at the tip ; eyes very prominent, head with two round impressions on the vertex ; prothorax narrow, very cordiform, convex on the disk ; elytra nearly twice as broad as the prothorax, elongated, subquadrate and moderately convex ; legs of *Chlœnius*.

## ECTENOGNATHUS DISPAR.

Light testaceous on the upper and under parts ; apical part of the jaws infuscate ; head smooth, with a deep depression on each side of the basal part of the epistoma, and with a very distinct one near each eye ; anterior part of the head paler than the posterior ; prothorax truncate at the tip, cordiform, nearly smooth except at the base which is plicatulate, convex in the median part of the disk with the outer margins reflexed, narrowly grooved longitudinally in the middle and with two long supra-basal, lateral, narrow impressions ; elytra twice as broad at the base as the prothorax with the shoulders sloping ; elongato-ovate from the humeral angle, slightly convex, punctato-striate with the intervals plane, very finely aciculate, the first and alternate ones with a median series of regularly disposed punctures, light testaceous with a broad basal black band, leaving a clear space of the yellow background on the outer part of the base, and bisinuate in the posterior part, and a posterior one reaching the outer margins sending a long spur towards the middle and strongly bisinuate behind, suture and first interval on each side black ; under side and legs pale yellow, the pectus darker. Length 13 mm. ; width 5 mm.

I have seen only one female example of this species.

*Hab.* Middle Limpopo.

## GEN. PLEROTICUS.

Ligula long, horny, broadly triangular at the tip, which is sinuate and bears two setæ ; paraglossæ nearly as broad as the ligula, adhering to it with the tip slightly diverging and a little longer ; mentum moderately excavate, filled in the middle by a sharp tooth as high as the inner angle of the internal part of the lobe, the upper edge of which is very oblique ; last joint of the labial palpi almost pyriform

and subobliquely truncate at the tip, the penultimate one without setæ; the last of the maxillary palpi swollen, subobliquely truncate; labrum with six setigerous punctures, the two middle ones close to each other; head with a seta on each side of the apical part of the epistoma, and one over the posterior part of the eye; eyes prominent; prothorax cordiform with the basal angles indistinct, without any lateral setæ, and not impressed laterally above the base; elytra oblong, amplified in the posterior part; legs moderately long, tarsi very long.

It is doubtful if this genus is in its proper place among the *Chlænides*. The absence of lateral supra-basal impressions on the prothorax, the pyriform shape of the labial palpi, and also the sculpture of the elytra are very peculiar. It is not a "*truncatipenne*," as surmised by De Chaudoir, and the only example I have seen is Boheman's unique type, which I take to be a female; had the labrum four punctures instead of six, I would have included it in the *Panagæides*.

PLEROTICUS LUCIDULUS, Bohem.

*Vertagus lucidulus*, Insect. Caffr., i., p. 131.

Violaceous with the antennæ, with the exception of the three basal joints, and the legs black; head very closely punctured; prothorax ovate, a little convex, gradually narrowed towards the base and not constricted above the basal angle which does not project; deeply and closely pitted, almost glabrous, narrowly grooved longitudinally in the middle but without any lateral supra-basal impressions; elytra not broader than the prothorax at the base, rounded at the shoulders, gradually amplified from there to posterior part, where they are one-third broader than at the base; slightly convex in the posterior part, striate, with the intervals plane and covered with broad, nearly confluent punctures. Length 10 mm.; width 4 mm.

*Hab.* Caffraria.

GEN. CALLISTOMIMUS, Chaud.,

Bull. Mosc., 1872, p. 382.

Mentum deeply emarginate with the inner lobes straight, no median tooth; ligula in the shape of an inverted triangle and bearing two long setæ in the middle of the apex, paraglossæ slender, straight, and much longer than the ligula; last joints of maxillary and labial palpi ovate and very sharp and pubescent, outer maxillary lobe formed of one piece; mandibles long, slender; labrum transverse, plurisetose, clypeus with two distinct setigerous punctures; head with one supra-orbital setigerous puncture; antennæ with the four basal joints slender, and the others broadening gradually

inwards; prothorax cordiform, with the lateral part of the base slightly excised below the outer angle, which is very sharp; elytra elongato-ovate, striate, dark, with yellowish patches or bands; legs moderately long, slender, the three basal joints of the male broadly dilated and spongy underneath.

De Chaudoir has widely separated this genus from the *Chlænides*, and certainly the shape of the ligula and paraglossæ is very different from that of *Chlænienus* or other allied genera, but the head has only one supra-orbital posterior seta, as in *Chlænienus*; the dilatation of the three anterior tarsi, which are also spongy in the male, is identical, and the mode of life is the same.

The genus is represented in Senegal, India, and Southern China.

#### *Synopsis of Species.*

Head dark blue or metallic green.

The transverse yellow patches on the elytra not connected with the outer margin.

Elytra with an anterior and posterior patch on each side; basal joints of antennæ black .. .. . *quadripustulatus.*

Elytra with an anterior and posterior patch, and a median and apical juxta-sutural spots on each side; the two basal joints of antennæ flavescent .. .. . *amoenus.*

Anterior lateral band on the elytra connected with the outer margin; the three basal joints of antennæ flavescent.

Base of prothorax deeply incised below the posterior angle; elytra with a rounded sutural patch at the apex, besides the two lateral ones .. .. . *sempustulatus.*

Anterior lateral patch connected along the margin with the humeral angle, posterior one small, an apical sutural patch .. *elegans.*

Anterior lateral patch much more sinuate than the posterior one, and both connected with the suture, each elytron has besides a post-median juxta-sutural dot and a small apical sutural patch .. .. . *caffer.*

Outer margin of the elytra narrowly flavescent, anterior lateral margin hardly sinuate, juxta-sutural dot wanting, or nearly so, postical patch hardly noticeable .. .. . *gratus.*

Head and prothorax red.

Elytra with nine small yellowish dots on each side .. .. *insuetus.*

Elytra with one juxta-sutural post-median spot, a lateral sinuate band reaching from near the suture to the outer margin, and two dots on the posterior part of the third interval .. .. . *guttatus.*

#### CALLISTOMIMUS QUADRIPUSTULATUS, Gory,

Ann. Soc. Ent. France, 1833, p. 215.

Head very dark blue, almost black, closely punctulate; labrum and clypeus smooth, black; all the joints of the antennæ, the tarsi

and legs, with the exception of the median part of the tibiæ, which is flavescent, black; palpi infusate; prothorax cordiform, closely punctured, very briefly pubescent, brick-red above and beneath; elytra elongato-ovate, slightly striate, with the intervals shagreened, very dark blue, almost black, and with two white patches on each side; the first, a subhumeral one, is slightly sinuate and reaches from the fourth to the eighth interval, the other, a post-median one, is more transverse, of nearly equal width, and extends also from the fourth to the eighth stria; pectus and abdomen black. Length 5 mm.; width 2 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch).

CALLISTOMIMUS AMOENUS.

Size and shape of the preceding species; head light, metallic blue, closely punctured; clypeus and labrum black, the three basal joints of antennæ rufescent, the others infusate; palpi and legs very light yellow, with the apex of the femora and tibiæ black; prothorax brick-red, punctulate and briefly pubescent; elytra briefly pubescent, slightly striate, with the intervals finely shagreened, bottle-green, with two whitish lateral patches and two small dots on each side: the subhumeral patch is small, somewhat rounded, and extends from the fifth to the seventh stria, the post-median one is broader, transverse, and extends from the fourth to the eighth stria, the first dot is a median one on the third interval, and the other is at the apex, close to the suture; pectus and abdomen black. Length  $5\frac{1}{2}$  mm.; width 2 mm.

*Hab.* Natal (Frere, Escourt).

CALLISTOMIMUS SEXPUSTULATUS, Bohem.,

Insect. Caffr., i., p. 129.

Head dark blue, punctulate; labrum, mandibles, palpi, and the three basal joints of antennæ rufescent; legs flavescent, with the apex of femora infusate; prothorax brick-red, closely punctured, very briefly pubescent, lateral part of the base more incised than in the other species, and thus making the outer angle very conspicuous; elytra oblong, deeply striate, with the intervals slightly raised and very briefly pubescent, black, with two lateral yellow patches and an apical spot on each side: the anterior patch extends from the third stria to the outer margin, which is narrowly edged with yellow from the shoulder to the basal part of the dorsal patch, which is slightly acuminate on the fourth and fifth intervals, the post-median is subtransverse and extends from the third to the eighth stria, and the small sutural apical one extends as far as the second; pectus and abdomen black. Length 6 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Transvaal (Leydenburg).

## CALLISTOMIMUS ELEGANS, Bohem.,

Insect. Caffr., i., p. 127.

Head very dark blue, closely punctured; clypeus, labrum, palpi, legs, and the three basal joints of antennæ reddish, the other joints of the antennæ black; prothorax cordiform, brick-red, closely punctured and very briefly pubescent; elytra elongato-ovate, striate, with the intervals plane and shagreened, black, with a marginal yellowish band extending as far as the seventh, and sometimes the sixth stria, running from the shoulder to about one-third of the length, where it expands as far as the fifth stria, and reduced to a mere line from there to the apex; there is besides a post-median, transverse patch extending from the fourth to the eighth interval, with occasionally a small dot on the third, and a short sutural triangular apical one reaching the third stria; pectus and abdomen black. Length  $6-6\frac{3}{4}$  mm.; width  $3-3\frac{1}{4}$  mm.

*Hab.* Natal (D'Urban), Transvaal (Pretoria).

## CALLISTOMIMUS CAFFER, Bohem.,

Insect. Caffr., i., p. 128.

Head closely punctured, very dark, metallic blue; labrum, mandibles, palpi, the legs, with the exception of the apical part of the femora and tibiæ, which is infuscate, and the three basal joints of the antennæ flavescent, the other joints black; prothorax bright brick-red, closely punctured and hardly pubescent; elytra oblong, striate, with the intervals slightly shagreened, black, with two flavescent lateral bands, and two juxta-sutural dots on each side: the anterior band extends from the third stria to the edge of the outer margin and is much sinuate, that is to say projects on the intervals alternately towards the base and the median part, the post-median one is nearly transverse, hardly sinuate, and reaches from the fourth stria to the edge of the outer margin, the first juxta-sutural dot is situated past the median part, a little above the post-median transverse band, and extends from the second to the third interval, and the apical one, somewhat triangular, reaches from the suture to the third interval; pectus and abdomen black. Length  $5\frac{1}{2}$  mm.; width  $2\frac{1}{5}$  mm.

*Hab.* Natal (Escourt), Zambezia (Salisbury).

In the examples from Zambezia the anterior yellowish band is much more sinuate than in those from Natal.

## CALLISTOMIMUS GRATUS.

Head closely punctured, dark metallic green, closely punctured; labrum, palpi, legs, with the exception of the apical part of the

femora and tibiæ, which are infusate, and also the three basal joints of antennæ, light flavescent, the other joints black; prothorax dark brick-red, closely punctured, briefly pubescent; elytra elongato-ovate, striate, with the intervals slightly shagreened, black, with a narrow flavescent outer margin, two lateral pale-yellow bands and two ill-defined, or often wanting, juxta-sutural dots: the anterior band is narrow, slightly sinuate, and extends from the third interval to the outer margin, the post-median one from the fourth interval to the outer margin, the first dot is situated on the third interval above the post-median band, and the sutural apical one is very nearly obliterate; pectus and abdomen black. Length 5 mm.; width 2 mm.

*Hab.* Zambezia (Salisbury).

#### CALLISTOMIMUS INSUETUS.

Palpi, legs, the three basal joints of antennæ, head, and prothorax light brick-red; head and prothorax closely punctured, the former with a faint median infusate patch, the latter with two indistinct discoidal spots and very slightly pubescent; elytra elongato-ovate, striate, intervals slightly shagreened, dark green, and with nine flavescent dots on each side: one below the base on the third interval, three on the third, fifth, and seventh, a little before the median part, a fifth on the third interval slightly below the middle; three post-median on the fifth, seventh, and eighth, the two latter coalescing, and a triangular, sutural apical one, posterior margin with a narrow flavescent edging; pectus and abdomen black. Length 5 mm.; width 2 mm.

*Hab.* Mozambique (Rikatla).

#### CALLISTOMIMUS GUTTATUS, Chaud.,

Bull. Mosc., 1872, p. 38.

Head and prothorax brick-red above and beneath, the former with a frontal spot, the latter with two infusate bands; elytra bluish black, with the anterior part of the outer margin as well as the epipleuræ pale orange, and having also on each side a post-median spot near the suture, a smaller and apical juxta-sutural one of the same colour, and, sometimes, a very narrow and sinuate ante-median band which does not reach the suture and broadens as it reaches the outer margin, as well as two very small spots on the posterior part of the third interval; sternum black; abdomen deep brown; mandibles testaceous as well as the legs; palpi slightly infusate; the three basal joints of antennæ testaceous. Length 7 mm.

*Hab.* Natal, teste Chaud.

## GROUP OOIDINI.

*Synopsis of Genera.*

Head with one seta over the posterior part of the eye.

Penultimate joint of labial palpi glabrous.

Labrum with three setæ in the anterior margin .. .. *Systolocranius*.

Labrum with six setæ in the anterior margin .. .. *Oodes*.

Head with two setæ over the eye.

Penultimate joint of the labial palpi with two setæ.

Labrum with six setæ .. .. . *Melanodes*.

## GEN. SYSTOLOCRANIUS, Chaud.,

Bull. Mosc., 1857, ii., p. 23.

Ligula broad, truncate at the tip, with the outer angles slightly declivous, bisetose, with the setæ placed nearer to the median than the outer part, disconnected at a short distance from the tip from the paraglossæ, which are slender, slightly arcuated inwardly at the tip, and a little longer than the ligula; mentum narrow, not deeply emarginate, with a triangular tooth rounded at the top, and nearly as high as the inner lobes, which are extremely slanting; palpi slender, the penultimate joints of both maxillary and labial as long as the last ones, the ultimate one of the maxillary subfusiform, with the tip briefly acuminate; labrum twice as broad as long, slightly emarginate in front, and with three setigerous punctures, one in the middle and one at each angle; head subquadrate, with a puncture on each side of the basal sutural line of the epistoma, and without any in the apical angle, one seta over the back part of the eye; antennæ slender, although in a lesser degree than in *Oodes*, with the joints slightly compressed, pubescent, with the exception of the three basal joints, which are glabrous; prosternum produced between the coxæ in a conical process; legs as in *Oodes*, the three basal joints of the anterior tarsi of the male spongy underneath, dilated, the first triangular, the second one broader, wider than long, the third one nearly as broad as the second at the base but a little narrowed at the apex, the fourth one narrower, triangular in both sexes; prothorax much dilated behind and without any seta in the posterior angle; elytra fitting against the base of the prothorax and not broader, soldered together and costate; anal segment of the male with one setigerous puncture on each side of the median part, that of the female with two, the inner one smaller than the other; the four ventral segments of the South African species with two median punctures.

*Systolocranius* occurs in Eastern and Western Africa; one species is recorded from India (Bengal).

*Synopsis of Species.*

Prothorax much attenuated in front, not sinuated behind, intervals a little convex. . . . . *elongatus.*

Elytra without any lateral sinuation; prothorax slightly sinuate behind.

Elytra slightly sinuate laterally, costate, costæ equal, no punctures on the third interval . . . . . *validus.*

Elytra costate, third, fifth, and seventh higher than the others, no punctures on the third interval . . . . . *alternans.*

## SYSTOLOCRANIUS ELONGATUS, Chaud.,

Monogr., *loc. cit.*, p. 332.

Black, moderately shining; labrum and the three basal joints of antennæ piceous; head smooth, with two deep impressions between the eyes; prothorax plane behind, sloping laterally in front, outer sides straight from the base to two-thirds of the length, narrowed in the other third part, smooth, with a longitudinal median line and a moderately deep supra-basal impression on each side; elytra parallel, that is to say without any lateral curve, not broader than the prothorax, very little attenuated apically, somewhat convex, punctato-striate, with the intervals somewhat convex, the third one with a median and post-median puncture; under side iridescent; legs black. Length 15 mm.; width 7 mm.

Originally discovered on the Zanzibar coast (Bagamoyo), Zambesia (? Manica).

## SYSTOLOCRANIUS VALIDUS, Klug,

*Oodes validus*, Klug, Peters' Reise n. Mossamb., p. 164, pl. ix., fig. 11.

*Oodes Goryi*, Bohem., Insect. Caffr., i., p. 161.

Black, shining on the upper side, iridescent underneath apical part of the labrum, palpi, three basal joints of antennæ and tarsi piceous; head smooth, with two small punctures between the eyes and two well-defined impressions on the vertex; prothorax with the outer sides attenuated from the median part towards the apex, hardly sinuate behind, plane in the posterior part, slightly convex in the anterior, with the depression of the sides very well defined, median line with a faint plication on each side, supra-basal impressions deep and long; elytra not broader at the base than the prothorax, slightly and gradually amplified from the humeral angle to the posterior part, where they are one-sixth broader than at the base, but little convex, punctato-striate, with the intervals costate, smooth, and of equal size. Length 17-18 mm.; width 7 mm.

*Hab.* Natal (D'Urban), also Zanzibar coast (Mombassa), according to De Chaudoir.

SYSTOLOCRANIUS ALTERNANS, Chaud.,  
 Monogr., *loc. cit.*, p. 334.

Black, moderately shining on the upper part, slightly iridescent underneath; palpi and tarsi reddish brown, the three basal joints of the antennæ brownish; head smooth, with the two impressions between the eyes, but none on the vertex; prothorax of the same shape as *S. validus* on the upper part, but with the outer sides less attenuated in front and thus more elongato-quadrate; elytra as broad as the prothorax at the base, nearly straight for two-thirds of the length and then very slightly amplified, a little convex in the posterior part, punctato-striate, with the intervals convex, smooth, the third, fifth, and seventh wider than the others, more raised and united at the apex by a sort of ridge. Length 17 mm.; width 7 mm.

*Hab.* Transvaal (Potchefstroom).

GEN. OODES, Bonelli,  
 Observ. Entom., i., 1809.

LONCHOSTERNUS, Laferté.

Ligula broad, truncate at the apex with the margin sloping slightly from the median part to the outer angle, and with two long setæ placed nearer to the median than to the outer part, disconnected at about two-thirds of the length from the paraglossæ, which are slender, linear, and project a little beyond the ligula; mentum deeply excavate, with a triangular tooth slightly rounded at the tip, and half as long as the inner lobes, which are not much diverging and acute at the tip; mandibles moderately long, arcuated, bent in at the tip; palpi slender, the penultimate joints of the labial and maxillary palpi nearly of equal size, but sometimes shorter (*O. palpalis*, *O. angolensis*), the last one elongated and briefly truncate at the tip; labrum subtransverse, plane, very slightly emarginate in front, and with four setigerous punctures, the two median ones smaller than the others and set close to each other; head subquadrate, with a puncture on each side of the basal sutural line of the epistoma, and with only one seta over the back part of the eye; antennæ slender, reaching the base of the prothorax, pubescent with the exception of the three basal ones, which are glabrous; prosternum with either a more or less blunt conical process projecting between the coxæ (type *O. palpalis*), and developed sometimes in a long, sharp spine (type *O. angolensis*); legs moderately long, anterior tibiæ dilated apically, joints of the tarsi narrow, elongated, subconical, the three basal ones of the anterior pair in the male spongy underneath, dilated, the first one narrowed at the base, the second one not broader than the first but



close to the stria; these punctures are not always symmetrical, and are apt to disappear on one side. Length 15 mm.; width 8 mm.

*Hab.* Cape Colony (Kenhardt), Ovampoland, Transvaal (Barberton).

OODES PALPALIS, Klug,

Peters' Reise n. Mossamb. Insect., p. 164.

Black subopaque on the upper side, piceous and iridescent underneath; antennæ black, tip of palpi and the tarsi reddish brown; head almost smooth with two minute impressions, basal suture of the clypeus indistinct; prothorax one-third broader than long at the base, and one-half wider there than at the apex, with the outer sides gradually narrowing forward, slightly convex, and with the outer sides slightly declivous in the anterior part, smooth, with a very faint median longitudinal line, and without any supra-basal impression on each side; elytra not broader than the base of the prothorax, not amplified laterally, moderately convex, narrowly striate, with the intervals plane, smooth, the third one with the two usual punctures. Length 9 mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Mozambique (Rikatla), Cape Colony (Cape Town).

OODES NANUS.

Black, moderately shining; palpi, the three basal joints of the antennæ and legs rufescent; head and prothorax as in *O. palpalis*; elytra of the same shape, striate with the striæ punctulate, but with the stria alongside the scutellum very short—not reaching, in fact, the apical part, whereas in *palpalis* it reaches to one-fifth of the length. Length 5 mm.; width 2 mm.

*Hab.* Zambezia (Salisbury).

OODES SIMILATUS, Bohem.,

Insect. Caffr., i., p. 163.

Bronze, with an olive tinge on the upper side, piceous and iridescent underneath; palpi, three basal joints of antennæ, and legs reddish brown; head smooth with two small punctures; prothorax one-third broader than long at the base, and nearly one-half narrower than the base at the apex, with the outer sides gradually narrowing forward, hardly convex, but with the anterior part slightly declivous, smooth, with a narrow median longitudinal line and a small supra-basal impression on each side; elytra with the outer angles very slightly broader than the base of the prothorax, nearly parallel from the humeral angle to about the median part, and from there slightly amplified towards the posterior part,

moderately convex, narrowly punctato-striate, with the intervals plane and smooth, third interval with the two usual punctures. Length 9 mm. ; width 5 mm.

*Hab.* Natal (D'Urban).

OODES NATALENSIS, Chaud.,

Monogr. d. Oodides, Ann. Soc. Ent. France, 1882, p. 357.

In shape and size closely allied to *O. palpalis*; the labrum, palpi, three basal joints of the antennæ, and the legs are reddish brown; the prothorax is less convex, and has a supra-basal impression on each side of the median longitudinal line, which is also better defined, and the edges of the margins are reddish brown, the shape of the elytra is identical, but the black colour has a faint iridescent tinge, and they have a distinct reddish-brown margin. Length 9–10 mm. ; width  $3\frac{1}{2}$  mm.

*Hab.* Mozambique (Rikatla).

OODES LENIS.

Black, shining on the upper part, iridescent underneath the three basal joints of the antennæ, the apical part of the joints of the palpi and the tarsi piceous or reddish brown; head smooth, with two minute punctures above the basal part of the epistoma, which is hardly distinct; prothorax one-third broader than long at the base, and one-half narrower at the apex than at the base, with the outer sides gradually narrowing from about the median part forward, nearly plane on the disk but somewhat declivous in the anterior part; smooth, and without any median longitudinal line or supra-basal impressions; elytra not broader than the base of the prothorax, elongated, not amplified laterally, very little convex, narrowly punctato-striate, with the punctures shallow and closely set, intervals smooth, no puncture on the third one. Length 17 mm. ; width 7 mm.

*Hab.* Ovampoland.

OODES ANGOLENSIS, Erichs.,

Weigm. Arch., 1843, i., p. 219.

*O. lævicollis*, Bohem., Insect. Caffr., i., p. 164.

Black, shining on the upper side, iridescent underneath; legs piceous, with the tarsi, palpi, and the three basal joints of the antennæ reddish brown; head smooth, the two punctures as well as the basal line of the epistoma indistinct; prothorax one-third broader at the base than at the apex, and broader than long by nearly one-half, slightly convex, smooth, the median longitudinal line hardly discernible, no supra-basal impressions; elytra elon-

gated, very little broader than the base of the prothorax, not amplified laterally, somewhat convex, very finely striate; the striæ beginning at some distance from the base, but the sixth one on each side reaches nearer to the base, the intervals are plane and smooth. Length 7-9; width  $3\frac{3}{4}$ -4 mm.

*Hab.* Natal (Frere, D'Urban), Zambezia (Salisbury).

This species has a wide range; described originally from Angola; it has been found to occur also in Abyssinia, according to De Chaudoir. In my examples from Salisbury, the palpi and basal joints of antennæ are yellowish red.

OODES SUBSTRIATUS, Chaud.,  
Monogr., *loc. cit.*, p. 372.

Shape, size, and colour of *O. angolensis*, differs only in the elytra having each the two, or sometimes the three, inner striæ defined, while the others are evanescent, these inner striæ do not reach the base and are less distinct in the posterior part, the round basal puncture above the second stria is very well defined. The evanescence of the striæ seems to vary among examples from the same locality. I have seen a specimen from Rikatla, where the juxta-sutural stria alone is visible. Length 7-8½ mm.; width  $3\frac{1}{4}$ -4¼ mm.

*Hab.* Mozambique (Rikatla).

GEN. MELANODES, Chaud.,  
Monogr., *loc. cit.*, p. 545.

Ligula horny, long, broad, and with two long setæ set at some distance from one another at the tip, which is truncate; paraglossæ disconnected from the ligula at a short distance from the apical part, slender, subfalcate inwardly and longer; mentum with a short median tooth, broadly truncate and with two long setæ below the median part, shorter than the inner lobes, which are slanting, acute at the tip and gradually rounded outwardly from tip to base; labrum broader than long, truncate, with six setigerous punctures, the median ones close together and nearly obsolete, mandibles moderately long, arcuated; palpi moderately slender, penultimate joints of the maxillary and labial nearly as long as the last ones, which are elongated and briefly truncate at the tip; head with a lateral setigerous puncture, on each side of the epistoma, and two above each eye; antennæ reaching the base of the prothorax, with the three basal joints glabrous, the others pubescent, shorter and very much thicker than in *Oodes*; prosternum with a blunt, short process; legs of *Oodes*, the three basal joints of the anterior tibiæ in the male dilated and very spongy underneath, the first and third are of nearly equal size, but the first is cordiform, while the third is subquadrate,

and the third, the broadest of all is nearly twice as wide as long, the fourth joint is triangular and of the same size in both sexes; prothorax transverse, hardly convex, and with one setigerous puncture situated at the apex of the posterior angle; elytra truncate at the base, fitting against the prothorax and hardly broader, elongated, not amplified laterally, slightly convex and striate; the three penultimate segments of the abdomen with two median setigerous punctures, the last one with two equidistant ones on each side of the median part in the female.

*Synopsis of Species.*

Prothorax with the posterior angles acute.	
Prothorax slightly sinuate laterally behind, frontal grooves very slight .. .. .	<i>ebeninus.</i>
Prothorax sinuate laterally behind, two deep frontal impressions	<i>rectangulus.</i>
Prothorax not at all sinuate laterally behind, frontal grooves very slight .. .. .	<i>intermedius.</i>
Prothorax with the posterior angles rounded .. .. .	<i>aberrans.</i>

MELANODES EBENINUS, Erichs.,

Wieg. Arch., 1843, i., p. 219.

Black, iridescent on the upper and under sides, piceous underneath, with the labrum, palpi, legs, and median part of pectus and abdomen reddish brown; head smooth with two faint, short frontal grooves; prothorax one-fourth narrower at the apex than at the base, with the outer sides nearly straight from the basal angle to two-thirds of the length and gradually narrowed from there to the apex, plane behind, slightly declivous laterally in the anterior part, smooth, shining, narrowly marginate, with a long seta on the posterior angle, and having on the disk a narrow longitudinal median line, and a shorter one on each side reaching nearly the base; elytra very slightly broader than the prothorax at the base, elongated, not amplified laterally, moderately convex, narrowly striate, with the intervals plane and smooth. Length 10 mm.; width 4 mm.

*Hab.* Mozambique (Rikatla).

Occurs also in Natal, Zanzibar, Senegal, and Angola.

MELANODES RECTANGULUS, Chaud.,

Monogr., *loc. cit.*, p. 549.

A little larger than *M. ebeninus* and hardly iridescent; the head has two very deep frontal impressions, instead of a faint line; the shape of the prothorax is different, owing to the lateral part being more deeply sinuate past the median part; the shape of the elytra is

the same, but the striæ are deeper and the intervals more convex; legs piceous red. Length  $11\frac{1}{4}$  mm.; width  $4\frac{1}{2}$  mm.

*Hab.* Cape Colony (Grahamstown), Natal and N'Gamiland, teste Chaud.

#### MELANODES INTERMEDIUS.

Black, very shining, the three basal joints of antennæ, palpi, and tarsi piceous red; head with two frontal sinuate grooves or rather impressed lines; prothorax very slightly attenuated laterally in the anterior part, and straight from the median part to the base without any sinuation whatever, base truncate, with the angle sharp, longitudinal and basal grooves as in the other species; elytra similar in shape to those of *M. ebeninus*, the striæ are not deeper, nor the intervals more convex. Length 11 mm.; width 4 mm.

The shape of the prothorax is exactly like in *Oodes lenis*, Pér., and the general facies, allowing for the difference in size, is very similar, but the presence of the two supra-orbital setæ, instead of one as in *O. lenis*, is a distinguishing feature.

*Hab.* Natal (Isipingo).

#### MELANODES ABERRANS, Chaud.,

Monogr., *loc. cit.*, p. 551.

Size and colouring of *M. ebeninus*, but the prothorax is not so broad at the base and the outer sides are more rounded in the posterior part, imparting it a more quadrate look, the posterior angles are somewhat blunt and rounded, the basal lines on each side of the median longitudinal one are not so deep, and the anterior margin is not so deeply incised; the rest as in *M. ebeninus*.

*Hab.* Natal (D'Urban) and Lake N'Gami, according to De Chaudoir.

### TRIBE LICINIDES.

Antennæ long, or moderately long; head short, not narrowed behind, and with one supra-orbital seta, the labrum deeply emarginate with a long seta in each angle; mentum deeply emarginate, without any median tooth; ligula hardly free at the tip, truncate, with a long seta in each angle; paraglossæ moderately broad, much longer than the ligula; thorax with one or two lateral setæ; the three basal joints of the anterior tarsi of the male dilated, spongy underneath.

#### *Synopsis of Genera.*

Antennæ reaching the median part of the elytra; the two basal joints glabrous; prothorax with one lateral seta . . . . . *Badister*.

Antennæ shorter, the three basal joints glabrous; prothorax with two lateral setæ . . . . . *Rhembus*.

## GEN. BADISTER.

Mentum incised in a subquadrangular shape, and without any median tooth; ligula hardly free from the paraglossæ at the tip, and truncate, the paraglossæ slender and much longer than the ligula; last joint of palpi fusiform, sharply acuminate; antennæ long, the two basal joints glabrous; labrum short, deeply incised; head short, not narrowed behind, ridge in front of the eyes very pronounced; prothorax a little broader at the apex, which is hardly sinuate, than at the base, gradually rounded laterally, grooved longitudinally in the centre, depressed laterally near the base and with one lateral seta between the apex and the median part; elytra elongated, slightly broader past the middle than at the base, sides not inflexed, striate, with two punctures on the third interval, surface generally iridescent, eighth and ninth striæ not approximate; anterior tarsi of the male spongy underneath, and ciliate outwardly, the three first joints broadly dilated, the third one half the size of the second, which is shorter but broader and more transverse than the basal one.

## BADISTER PROMONTORII.

Head black, moderately shining, smooth; labrum and the two basal joints of the antennæ reddish, the others slightly rufescent; prothorax pale red, smooth, the anterior part of the disk raised and the lateral posterior part depressed on each side, outer margin much reflexed in the basal angle; elytra elongated, subparallel, not much convex, black, very iridescent and having a narrow marginal yellowish-red band reaching the eighth stria; metathorax and abdomen black, iridescent; legs pale yellowish red. Length 6 mm.; width 2 mm.

*Hab.* Cape Colony (Cape Town), Zambezia (Salisbury).

## GEN. RHEMBUS, Latreille,

## Icon. Col. d'Europe.

Mentum deeply and narrowly incised, with the inner lobes nearly perpendicular, the outer ones rounded, a very short triangular tooth in the middle; ligula very long and slender, slightly sinuate at the tip, with a long seta on each side of the sinuation and hardly disconnected from the paraglossæ, which are slender and much longer; last joint of palpi slightly fusiform, truncate at the tip; antennæ moderately long, the three basal joints glabrous; head deeply depressed in the anterior part; labrum deeply incised, epistoma short, the anterior part semicircular; prothorax transverse, slightly amplified laterally from the apex to the median part, sinuate behind, narrowly grooved longitudinally in the middle, deeply impressed on each side of the median groove and with two setæ

on each side, one at or near the median part, the other in the posterior angle; elytra elongated, subparallel, moderately plane, striate, and having one puncture on the third interval, eighth and ninth striæ approximate; anterior tarsi of male spongy underneath and ciliate outwardly, broadly dilated, the basal joint is triangular; the second transverse but not wider than the apical part of the first, the third one is half the size of the second.

#### RHEMBUS CAPENSIS.

Black, moderately shining, last joints of palpi and the three basal joints of antennæ piceous; head smooth; prothorax smooth, broader than long, plane, a little amplified laterally in the middle, with the anterior part rounded, and the posterior one slightly sinuate; elytra subparallel with the humeral angles rounded, nearly plane, striate, the striæ faintly punctured, the intervals plane, the third one with a puncture below the median part; under side and legs black. Length 14–15 mm.; width 5–5¼ mm.

*Hab.* Cape Colony (Cape Town), Mozambique (Rikatla).

#### TRIBE STOMIDES.

Mentum narrow, emarginate in the centre; ligula shorter than the paraglossæ; maxillæ lobate; mandibles long; eyes projecting and with two supra-orbital setæ; prothorax also with two lateral setæ; tarsi slightly more dilated in the male than in the female.

GEN. DISPHÆRICUS, Waterh.,

Trans. Entom. Soc. Lond., iii., 1842, p. 211.

DYSCHIRIDIUM, Chaud., Berl. Ent. Zeit., 1861, p. 130.

SPANUS, Westw., Proc. Entom. Soc. Lond., 1864, p. 3.

Mentum narrow, very shallow in the middle, with a small sharp tooth in the centre nearly equal in height to the lateral lobes which are moderately sharp and rounded externally; ligula short, parallel, truncate, and with two long setæ in the middle of the apex; paraglossæ narrow, united with the ligula, but much longer and slightly divergent; last joint of maxillary and labial palpi very broadly triangular and truncate; maxillæ lobate at the tip and with a dense, long fringe of hairs; mandibles long, a little bent downward, the tips arcuate, the left with one inner tooth and the right with one; labrum emarginate; eyes projecting; head constricted behind; antennæ reaching a little further than the base of the elytra, with the three basal joints nearly glabrous, the others slightly pubescent and gradually thickened from the fourth to the last, the three last joints more densely pubescent than the others; prothorax subglobular with the posterior part much constricted, and having one

setigerous puncture at about one-third of the length, and another above the constricted parts; mesothorax pedunculate; elytra ovate, convex; prosternum with a broad median groove; legs moderately long, the femora claviform; the outer apical spur of the tibiæ is absent, and the inner ones are small, the anterior tibiæ are a little curved, very deeply incised internally, the intermediate and posterior ones broaden towards the apex; anterior and intermediate tarsi dilated, cordiform, hairy and almost spongy underneath, those of the hind-legs elongate.

This genus occurs in Africa (Senegambia, East and West Central Africa) and India.

*Synopsis of Species.*

Elytra smooth, with one punctured stria along the suture and one in the outer margin

One basal puncture on the side of the juxta-marginal stria . . . . *ebeninus*.

One basal and one apical suture on each side of the marginal stria *natalensis*.

DISPHÆRICUS EBENINUS, Chaud.,

Berl. Ent. Zeit., 1861, p. 131.

Black, smooth, very shining; palpi, legs, and antennæ rufescent; head with two oblique, long, narrow impressions, and divided from the neck by a transverse, narrow groove; prothorax subglobose, a little broader behind than in front, slightly depressed on the median part which is distinctly grooved longitudinally; elytra ovate, not broader at the base than the peduncle, convex, but depressed along the suture which has on each side a narrow, deep stria filled with deep, round punctures, and reaches from a short distance from the base to the apex; at a short distance from the base and not quite in a line with the juxta-marginal stria there is a deep, conspicuous puncture, while the outer margin has also a series of deep punctures, interrupted in the median part, and broader and deeper in the posterior than in the anterior part; the three last segments of the abdomen have a transverse series of closely-set, deep punctures, setigerous on the last segment only. Length 8 mm.; width 3 mm.

*Hab.* Natal (D'Urban).

DISPHÆRICUS NATALENSIS, Westwood,

Proc. Entom. Soc. Lond., 1864, p. 3.

Colour and sculpture of the preceding species, but the prothorax is more parallel laterally and slightly narrower above the constriction than in the anterior part, and a little more elongate in the male than in the female; the juxta-sutural stria is, if anything, more deeply punctured in the anterior part than in *D. ebeninus*, and does not reach quite so far down the apex, the intra-marginal punctures are

identical, but instead of one basal puncture only near the juxta-sutural stria, there is also an apical one slightly above, but not connected with the last marginal puncture; under side piceous, the two last segments only of the abdomen have a transverse series of closely-set punctures. Length  $5\frac{1}{2}$ –6 mm.; width  $1\frac{3}{4}$ –2 mm.

*Hab.* Cape Colony (Umtata, Seymour).

### TRIBE APOTOMIDES.

Mandibles long, falcate; eyes with one supra-orbital seta; maxillary palpi long or very long, fusiform or cylindrical at apex.

#### *Synopsis of Genera.*

Maxillary palpi extremely long, labial ones very short; prothorax globose .. .. . *Apotomus*.  
Maxillary labial palpi long; prothorax elongato-cordate .. .. *Bascanus*.\*

#### GEN. APOTOMUS, Illiger,

Mag. Insect., vi., 1807, p. 348.

Mentum broad, slightly emarginate and without any median tooth; ligula narrow, rounded at tip; paraglossæ also narrow, adhering to the ligula, obtuse at tip and a little longer; palpi pubescent, labial very slender with the last joint very sharp, maxillary extremely long and slender, the ultimate one shorter than the penultimate; antennæ long, slender, the two basal joints glabrous; head broadening a little behind the eyes which are very prominent and have one supra-orbital seta; prothorax globose, and with only one median lateral setigerous puncture; body subpedunculate; elytra oblong, depressed in the dorsal part; legs long, moderately slender; tarsi slender in both sexes, claws small, simple.

The genus is represented in Southern Europe, Africa (Sennar, Abyssinia), Madeira, Madagascar, India, Ceylon, and Australia.

#### *Synopsis of Species.*

Antennæ pale flavescent; with the fourth, fifth, and sixth joints infusate .. .. . *annulaticornis*.  
Antennæ entirely ferruginous brown .. .. . *flavescens*.

#### APOTOMUS ANNULATICORNIS.

Ferruginous red, pubescent; palpi and legs flavescent; antennæ pale flavescent with the fifth, sixth, and seventh joints distinctly infusate; head very slightly aciculate; prothorax globose, much constricted behind, distinctly grooved longitudinally in the centre, densely pubescent; elytra oblong, slightly depressed in the anterior

\* I place the genus *Bascanus* temporarily only in the tribe *Apotomides*. The two genera contained in this tribe are very aberrant forms.

part, sloping behind and having on each side eight series of deep punctures turning to small foveæ on the dorsal part; the pubescence is long and erect; legs briefly pubescent. Length 4 mm.; width  $1\frac{1}{2}$  mm.

*Hab.* Cape Colony (Uitenhage).

APOTOMUS FLAVESCENS, Apetz.,

Col. Brehm., 1854, p. 9.

Closely allied to the preceding species; it is darker red, the antennæ are entirely ferruginous and so are the legs and palpi; the prothorax is similar, but the pubescence covering it, as well as the elytra is denser, but shorter and decumbent, the dorsal punctures on the elytra are not so broad and the discoidal depression is more marked in *A. flavescens* than in *A. annulaticornis*. Length  $3\frac{3}{4}$  mm.; width  $1\frac{2}{3}$  mm.

*Hab.* Transvaal (Pretoria).

This species was originally described from specimens found in Upper Egypt (Sennar).

GEN. BASCANUS.

Mentum transverse, trilobate, the median tooth broad, not as long as the outer lobes and nearly equally broad, deeply incised at tip, inner part of the lobes slightly diagonal, outer one not much slanting; ligula truncate at tip, a little broader than the paraglossæ, which are united with it and a little longer; last joints of maxillary palpi long, very fusiform, sharp at tip, that of the labial more ovoid at tip, also long, both densely spinulose, second joint of the maxillary palpi as long as the ultimate one; maxillæ blunt at tip, and very stiffly ciliate inwardly; antennæ thick, the three first joints glabrous, the first one thick, a little longer than the third, the second short, the others subequal, except the last one which is twice as long as the penultimate one, and subacuminate but not swollen in the middle; mandibles long, falcate, sharp; labrum moderately long, a little emarginate and with one puncture on each side of the emargination, and another at the basal angle; no trace of clypeus; head elongate, with a lateral ante-ocular ridge, and one supra-orbital seta; no neck; eyes prominent, set back; prothorax elongate, cordiform, with three median grooves, the two lateral ones a little shorter than the middle one; elytra ovate, moderately plane, not much sinuate behind, soldered; no wings; legs short, moderately slender, anterior tibiæ deeply incised inwardly, all of them without any spines outwardly; tarsi short, in the two anterior pairs, claws very small, simple.

The facies of the two species included in this genus is not unlike that of *Diaphorus elegans*.

*Synopsis of Species.*

Prothorax rufescent or piceous red, subfoveate; outer longitudinal discoidal grooves deep and reaching from the base to a short distance from the apex .. .. . *gracilis*.

Prothorax black, aciculate, a little more elongate, outer discoidal grooves shallow, nearly obliterate behind .. .. . *longicollis*.

## BASCANUS GRACILIS.

Mandibles, palpi, antennæ, and legs light ferruginous, labrum and anterior part of the head also ferruginous; head with a smooth shining ferruginous median space edged by two rounded carinæ reaching about the median part, lateral ridge very well defined and reaching a little short of the eye, posterior part of the head very closely and deeply punctured; prothorax cordiform on the anterior part, elongated behind and nearly parallel for one-fourth of the length, and with the posterior angle projecting, truncate at both ends, moderately convex, except at the base, roughly and closely punctured, piceous red or reddish brown; median longitudinal groove deep, moderately broad, reaching short of both apex and base, the outer discoidal grooves as deep and broad as the median one, a little shorter apically, but reaching to the same basal distance, basal part without any impressions; elytra black ovate, with the shoulders well rounded, nearly twice as broad as the prothorax, depressed along the suture for half the length and not much convex laterally nor behind, very little sinuated laterally in the posterior part, very slightly striate, with the intervals finely shagreened, and with a very short, greyish pubescence; under side piceous or piceous red. Length  $5\frac{1}{2}$ –6 mm.; width  $2$ – $2\frac{1}{4}$  mm.

*Hab.* Cape Colony (Caledon, Oudtshoorn).

## BASCANUS LONGICOLLIS.

Closely allied to the preceding species, from which it differs by the shape of the prothorax, which is less ampliate in the middle and therefore less cordiform, and parallel behind for one-third of the length, the median groove reaches from near the apex to the base, but the lateral discoidal grooves are not deep and only well defined in the median part of the disk, which is also less roughly shagreened, there is also a lateral depression near the posterior angle better defined than in *B. gracilis*; the elytra are similar in shape, equally shagreened and pubescent, but with the striæ a little deeper. Length 6 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Cape Colony (Grahamstown).

## TRIBE MASOREIDES.

Mentum broad, with or without median tooth in the base, jaws ending in a hook; paraglossæ longer than the ligula; joints of antennæ slightly moniliform; facies short, robust; elytra hardly truncate behind; legs with two long apical spines longer in the intermediate and posterior ones; claws not pectinate; anterior tarsi of the male with the three basal joints much dilated, and two series of lamellæ under each one, those of the female triangular.

*Synopsis of Genera.*

Mentum without any median tooth.

Body subpedunculate .. .. .	<i>Æphnidius.</i>
Prothorax fitting against the elytra .. .. .	<i>Anaulacus.</i>
Mentum with a median tooth .. .. .	<i>Somoplatus.</i>

## GEN. ÆPHNIDIUS, McLeay,

Annulos. Javan., p. 23.

Mentum broad, basal part without any median tooth, inner part of the lateral lobes straight, outer part very sloping, and with two long setæ, one at the base and the other near the apex; ligula moderately long, broadening towards the apex, which is slightly sinuate with two setæ on each angle, the outer one twice as long as the inner; paraglossæ transparent, adhering to the ligula, but nearly one-third longer, rounded outwardly, with the inner part arc-shaped and overhanging the apex of the ligula, ultimate joints of both labial and maxillary palpi cylindrical; labrum twice as broad as long, truncated at the apex, with three setiger punctures on each side; head moderately broad; antennæ moderately slender; prothorax subquadrate with the basal part a little broader than the anterior; elytra a little broader than the prothorax, parallel from the shoulder to near the posterior part which is gradually rounded, leaving the third part of the anal segment uncovered; legs with two long apical spurs, the inner one the longest of the two, the three basal joints of the anterior tarsi of the male broadly dilated, the fourth one triangular, but short and not incised.

*Hab.* Representatives of the genus are found in Africa (Madagascar, Senegal, Gaboon), in India, the Malayan Archipelago, and South America.

## ÆPHNIDIUS MADAGASCARIENSIS, Chaud.,

Bull. Mosc., 1850, i., p. 453.

*Masoreus acquinocialis*, Lafert., Rev. et Mag. Zool., 1853, p. 374.

*M. anthracinus*, Schaum., Berl. Ent. Zeit., 1863, p. 78.

Black, shining; palpi, the two basal and the four last joints of the

antennæ reddish brown; head quite smooth, a little broader between the eyes than in front or behind; prothorax one-third broader than long, the median part of the apex straight, and the outer parts projecting, but with the angles not very sharp, slightly rounded in the outer anterior part, a little broader at the base than at the apex, the basal part slanting from the outer angle and subpedunculate; scutellum very small, triangular; elytra very little broader than the base of the prothorax, with the anterior angles a little rounded, plane with gradually rounded behind, finely punctato-striate with the intervals broad, plane, very finely punctured, and with an extremely short, shot-silk-like pubescence; legs, tarsi, and claws piceous. Length 8–8¼ mm.; width 4 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch), Natal (D'Urban). This species occurs also in Madagascar, Senegambia and Gaboon.

GEN. ANAULACUS, McLeay,

Annulos. Javan., p. 22.

The difference between *Æphnidius* and *Anaulacus* is mostly one of general facies; the ligula however is round instead of sinuate at tip; the prosternum is not sulcate between the coxæ; the prothorax fit in the base of the elytra instead of being slightly pedunculate as in *Æphnidius*; the elytra are ovate, and have no punctures on the disk.

*Hab.* Species of this genus occur in Burmah and Siam.

ANAULACUS CAPENSIS.

Antennæ, palpi, labrum, and legs rusty red; head darker, smooth; prothorax rusty red, as broad as long, straight at the apex with the angles projecting, the lateral sides curving regularly from the anterior to the posterior angle, and the base sinuate above the scutellum, hardly convex, smooth, finely grooved in the centre; elytra elongato-ovate, depressed, smooth, with a very faint trace of striation and of silky sheen, dark reddish brown, with the suture and outer margin redder; under side and legs reddish brown. Length 5 mm.; width 2½ mm.

*Hab.* Cape Colony (Grahamstown).

GEN. SOMOPLATUS, Dej.,

Spec. Col., iv., p. 15.

Mentum broad, with a long, broad, triangular tooth filling the whole base, inner part of the lateral lobes nearly straight, outer part suborbicular; ligula short, horny, tapering towards the apex which is straight and bears two setæ on each side; paraglossæ entirely adhering to the ligula, and also horny for about two-thirds of the

length, transparent and projecting beyond the ligula in a broad oval shape; last joints of labial and maxillary palpi subcylindrical; head of *Æphnidius*; prothorax subquadrate with the basal part nearly straight; elytra a little broader than the prothorax, parallel from the shoulders to near the posterior part which is gradually rounded with the anal segment barely projecting; legs of *Æphnidius*, but the tarsi of the fore-legs in the female not so broadly triangular, those of the male identical, but with the lamellæ underneath longer.

SOMOPLATUS SUBSTRIATUS, Dej.,

Spec. Col., iv., p. 16; Icon. Col. Eur., iv., pl. 172, fig 4.

*Lophidius laticollis*, Bohem., Insect. Caffr., i., p. 188.

Brick-red; head smooth, a little darker than the prothorax, which is one-third broader than long, with the anterior angles projecting, the outer angles nearly straight, and the base very slightly obliquely truncate, nearly plane with a narrow median longitudinal groove, and two slight impressions in the median part of the base; scutellum small, triangular; elytra a little broader than the prothorax at the base, nearly parallel, rounded behind, plane above, faintly striate, and covered with a very short pubescence; legs and under side pale red with the tibiæ and tarsi darker. Length 7-7½ mm.; width 3½ mm.

*Hab.* Cape Colony (East London), Natal (Frere), Delagoa Bay (Rikatla), Zambezia (Salisbury), also Senegambia.

TRIBE PTEROSTICHIDES.

Mentum emarginate, with or without median tooth; ligula free at tip; paraglossæ disconnected at a short distance from the apex and not longer; last joint of palpi slightly fusiform and truncate at tip; head with two supra-orbital setæ; prothorax of various shape; elytra narrowly inflexed, margin strongly interrupted posteriorly, and with a well-marked internal plica; anterior tarsi dilated at tip, often subfossorial, the three basal joints of the anterior tarsi of the male rather broadly dilated and densely squamulose underneath.

*Synopsis of Genera.*

Mentum trilobate; antennæ long; prothorax with a deep lateral and a supra-marginal groove; elytra without any interrupted basal stria, one puncture on the third interval .. .. *Abacetus*.

Mentum without a sharp median tooth; prothorax without a supra-marginal groove; elytra with a short basal stria on each side between the first and the second intervals .. .. *Atimus*.

Mentum with a sharp median tooth; maxillæ not hooked at tip; antennæ short, intermediate joints subquadrate, the four last ones broader than the others .. .. *Drimostoma*.

Mentum with a sharp median tooth; maxillæ hooked at tip; intermediate joints of antennæ elongato-quadrate; anterior tibiæ without any terminal outer spines .. .. .

*Exocus.*

Mentum with a sharp median tooth; body convex, ovate; prothorax with very indistinct median and posterior basal groove.

*Cyrtomoscelis*

Mentum with a short, bifid median tooth; antennæ very slender and short; head broad, body robust; anterior tibiæ with two terminal outer spines.

Anterior tarsi of male dilated .. .. . *Pterostichus.*

Anterior tarsi of male not dilated .. .. . *Teratotarsus.*

Body broad, depressed; antennæ short; mandibles long, plane, and projecting; elytra with a basal stria between the first and second intervals on each side .. .. .

*Rhathymus.*

### GEN. ABACETUS, Dej.,

Spec. Col., iii., p. 195.

Mentum short, with a broad triangular median tooth as long as the two lateral lobes and bearing a long seta on each side of the basal part, the lateral lobes oblique outwardly, very sharp at tip, and slightly notched outwardly; ligula long, slightly triangular, broadest and slightly sinuate at tip, bisetose; paraglossæ half as long, moderately slender, disunited from the ligula near the apex; maxillæ curved, very sharp, outer lobe also much acuminate at tip; last joint of palpi fusiform, acute at tip or truncate; antennæ reaching beyond the shoulders, the three basal joints glabrous, the others pubescent, a little compressed, the apical ones slightly broader than the intermediate ones; head elongate; eyes moderately prominent and with two supra-orbital setæ; labrum transverse, subquadrate, frontal sulci more or less deep and arcuate; prothorax variable in shape, with a deep supra-marginal lateral groove, a median longitudinal one, and a basal one on each side not reaching the median part; elytra oblong or oblongo-parallel, sinuate laterally behind not much convex, striate but without any scutellary stria, and having in the third interval a distinct puncture; legs moderately long, tibiæ carinate or grooved inwardly; carination of the tarsi variable, claws large, slender, simple; the three basal joints of the anterior tarsi of the male moderately dilated, squamulose and hairy underneath, fourth joint not incised.

*Hab.* The genus has representatives in Europe, Morocco, Egypt, Africa (Senegal, White Nile, Guinea, Gaboon, Sierra Leone, Mozambique, Angola), Madagascar, India, Burmah, Siam, Ceylon, Australia, and South America (Martaban).

#### *Synopsis of Species.*

Intermediate and posterior tarsi plurisulcate on the upper part.

Inner spur of the anterior tibiæ trifid.

Black; frontal sulci hardly distinct; prothorax and intervals of elytra finely punctured .. .. . *palustris.*

Black ; frontal sulci arcuate ; prothorax and intervals of elytra smooth.

Antennæ filiform .. .. . *nigrinus.*  
 Joints of antennæ compressed dilated .. .. . *crassicornis.*

Inner spur of the anterior tibiæ simple.

Black ; prothorax trapezoid.. .. . *lucidulus.*

Black ; prothorax ampliate laterally in the anterior part, sinuate behind .. .. . *mashunus.*

Intermediate and posterior tibiæ unisulcate on each side .. .. . *rufipalpis.*

Posterior tarsi unisulcate on the outer side only.

Frontal sulci deep, more or less arcuate.

Prothorax cordate.

Black, shining ; basal joints of antennæ and legs infusate ; prothorax moderately cordate, no punctures at base .. .. . *natalensis.*

Black, shining ; antennæ dark rufescent ; palpi, the three basal joints of antennæ reddish ; prothorax very cordate, no punctures at base .. .. . *obtusus.*

Chestnut-brown ; with the antennæ, palpi, and legs flavescent ; prothorax elongato-cordate, no punctures at base .. .. . *alacer.*

Totally light testaceous ; prothorax very cordiform, no punctures at base .. .. . *nanus.*

Dark metallic green ; legs, palpi, and the three basal joints of antennæ red, the other joints infusate ; prothorax cordate, and with a transverse row of small punctures at base .. .. . *pygmæus.*

Metallic green ; palpi and legs infusate ; the three basal joints of antennæ and tarsi rufescent ; prothorax cordate, thickly punctured at base .. .. . *majorinus.*

Black ; antennæ totally black ; tarsi subrufescent ; prothorax cordate, thickly punctured at base .. .. . *aterrimus.*

Black, with a faint green tinge on the elytra ; the three basal joints of the antennæ and the legs red ; prothorax cordate, and slightly punctulate at base .. .. . *nanniscus.*

Dark olive-green on the elytra ; legs, palpi, and the three basal joints of elytra red ; prothorax cordate, closely punctured at base ; elytra not broader than the prothorax, both depressed on the upper part .. .. . *pumilus.*

Piceous brown ; legs and the three basal joints of antennæ red ; prothorax elongato-cordate and depressed ; elytra also depressed .. .. . *trechoides.*

Black ; legs dark red ; the three basal joints of antennæ red ; prothorax less cordate than in the preceding species and punctured at base .. .. . *confinis.*

Frontal sulci neither deep nor arcuate.

Prothorax nearly rounded.

Posterior part of the margin not recurved.

Black, shining ; basal joint of antennæ and legs red.

Basal part of prothorax impunctate .. .. . *minutus.*

Basal part of prothorax punctured .. .. . *perplexus.*

Posterior part of the margins recurved.

Black, ænescent ; elytra slightly ænescent ; the basal joint of antennæ and legs rufescent ; prothorax not punctured at base .. .. . *ænescens.*

Black, æneous ; antennæ and legs also black ; prothorax with a few basal punctures ; striæ of elytra punctulate .. .. . *agilis.*

Black, ænescent; first joint of antennæ red; femora piceous red; prothorax closely punctured at base; striæ of elytra smooth .. .. *chalcites*.

Bronze, shining; antennæ black; tibiæ rufescent; striæ of elytra smooth .. .. .. .. .. *chalceus*.

Prothorax nearly quadrate.

Pale brown; longitudinal median groove of prothorax reaching neither base nor apex .. .. .. .. .. *parvulus*.

#### ABACETUS PALUSTRIS.

Black, moderately shining; head and elytra densely pubescent; the three basal joints of antennæ, the palpi, and the legs piceous black; head very closely punctured; frontal sulci hardly defined; prothorax also finely and closely punctured, a little ampliate in the anterior part, narrowed but not sinuate laterally behind, no transverse impression, but the longitudinal median one is well defined, and also the basal one on each side, no puncture in the median basal part; elytra elongate, parallel, hardly broader at the base than the prothorax, moderately convex, deeply punctato-striate, with the intervals a little convex and very closely punctured; under side black, shining. Length 10–11 mm.; width 4 mm.

*Hab.* Mozambique (Rikatla), Upper Limpopo.

Probably allied to, if not identical with, *A. pubescens*, Dej., which I know from the description only.

#### ABACETUS NIGRINUS, Bohem.

*Omaseus nigrinus*, Insect. Caffr., i., p. 187.

*Abacetus angustatus*, Klug, Reise n. Moss., p. 43, pl. i., fig. 9.

Black, shining; the three basal joints of antennæ and the palpi piceous red; head smooth; frontal sulci arcuate, deep; prothorax also smooth, rounded in the anterior part, a little narrowed but not sinuate behind, and with the posterior angle moderately sharp, anterior transverse impression little or not defined, median longitudinal groove and basal ones well defined, no punctures in the median basal part; elytra oblong, much broader at the base than the prothorax, striate, intervals smooth, a little convex. Length 9–10 mm.; width 3–3 $\frac{1}{4}$  mm.

*Hab.* Zambezia (Upper Limpopo), Ovampoland (Cunene River).

#### ABACETUS CRASSICORNIS.

Black, shining; the basal joint of antennæ red; palpi slightly rufescent; head smooth; frontal sulci arcuate, deep; antennæ more massive than in the other species included in the genus, joints flattened, except the four basal ones, and inwardly dilated; prothorax smooth, rounded in the anterior part, a little narrowed but not sinuate behind, posterior angle moderately sharp, transverse im-

pression ill defined, median longitudinal groove and also the basal ones well defined, median part of the base deeply punctured; elytra oblong, broader at the base than the prothorax, striate, intervals smooth, a little convex. Length 9 mm.; width 3 mm.

*Hab.* Zambezia (Buluwayo).

ABACETUS LUCIDULUS, Bohem.

*Harpalus lucidulus*, Insect. Caffr., i., p. 213.

Black, shining; the three basal joints of the antennæ and the palpi reddish; head smooth; frontal sulci short, moderately deep; prothorax a little attenuate laterally in front, and almost straight from the apical part to the base, transverse anterior impression altogether indistinct, median longitudinal groove as well as the lateral basal ones very well defined, no basal puncture; elytra not broader at the base than the prothorax, striate, intervals smooth and slightly convex; under side black, shining; legs piceous; tarsi piceous red. Length 10 mm.; width 4 mm.

*Hab.* N'Gamiland, Zambezia (Salisbury).

ABACETUS MASHUNUS.

Black, shining; the three basal joints of antennæ black; legs also black; head smooth; frontal sulci deep, arcuate; prothorax rounded laterally from the anterior to the median part, a little narrowed and slightly sinuate from there to the outer angle which is moderately sharp, but not projecting, median and lateral grooves very distinct, no basal punctures; elytra oblong, not broader at the base than the prothorax, striate, and with the intervals smooth and distinctly convex; under side black, shining. Length 13 mm.; width 5 mm.

*Hab.* Zambezia (Salisbury).

ABACETUS RUFIPALPIS, Chaud.,

Essai Monogr. gen. Abacetus, Bull. Mosc., 1869, 365.

Black, shining, iridescent; knees, legs, tarsi, and palpi rufescent; the three basal joints of antennæ ferruginous; head smooth; prothorax a little less long than broad, slightly rounded laterally, the anterior angles more so in the median part, and straight from there to the base, the posterior angle is moderately blunt, smooth and punctured basally, the transverse basal impression is slightly noticeable; elytra one-third broader than the prothorax, twice as long as wide, parallel, with the shoulders curved; piceous black underneath. Length 9 mm.

*Hab.* Natal, teste De Chaudoir. I have not seen this species.

## ABACETUS NATALENSIS, Chaud.,

Bull. Mosc., 1869, p. 377.

Black, shining; basal joint of antennæ piceous, the other joints and also the legs black; palpi rufescent; head smooth; frontal sulci very deep; prothorax rounded laterally from the apex to past the middle, narrowed behind, slightly sinuate above the basal angle which projects slightly, median and lateral basal grooves very distinct, no punctures in the base; elytra oblong, slightly sinuate laterally in the middle, a little broader at the base than the prothorax, striate, with the intervals convex and smooth; under side and legs black. Length 6 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Mozambique (Rikatla).

## ABACETUS OBTUSUS, Bohem.,

Insect. Caffr., i., p. 184.

Black, shining; the three basal joints of the antennæ, palpi, and legs rufescent. Closely allied to the preceding species, from which it differs, however, by the more cordate shape of the prothorax, which is more suddenly narrowed behind above the base, the posterior angle is also more acute, there is no puncture in the base, the shape of the elytra is identical, but the elytra are a little more convex; under side black. Length 6 mm.; width  $2\frac{1}{4}$  mm.

*Hab.* Natal (Isipongo, Zambezia, Salisbury).

## ABACETUS ALACER.

Piceous black or piceous brown; antennæ, palpi, and legs flavescens; head smooth; frontal sulci moderately deep, arcuate; prothorax rounded anteriorly from the anterior part to the middle and a little narrowed laterally from there to the basal angle and very little sinuate, posterior angle sharp but not projecting, basal part impunctate; elytra as in the two preceding species, intervals smooth and a little convex.

Shape of the two preceding species, but a little narrower; it is easily distinguished from them by the shape of the prothorax, which is narrower, less amplified in the anterior part, and less suddenly narrowed behind. My specimens are probably immature, and this species will be found to be black on the upper part. Length 5 mm.; width 2 mm.

*Hab.* Zambezia (Salisbury).

## ABACETUS NANUS, Chaud.,

Bull. Mosc., ii., 1869, p. 379.

Light, testaceous, probably immature. In the type it is said to be brown and the basal joints of the antennæ and the legs ferru-

ginous; head with the frontal sulci deep and arcuate; prothorax ampliate laterally in the anterior part, rounded to past the middle, narrowed behind and sinuate above the base, with the posterior angles sharp and projecting slightly, base impunctate; elytra of the same shape as the three preceding species, intervals convex, smooth. Length 5 mm.; width 2 mm.

*Hab.* Mozambique (Rikatla), Natal, teste Chaud.

ABACETUS PYGMÆUS, Bohem.,

Insect. Caffr., vol. i., p. 183.

Dark metallic green on the upper side; under side piceous; legs, palpi, and the three basal joints of the antennæ red, the other joints infuscate; head smooth, the frontal sulci deep; prothorax rounded laterally from the apex to a very short distance from the base, posterior angle projecting, basal part between the two lateral basal grooves, with one series of punctures; elytra hardly broader at the base than the prothorax, oblong, very slightly sinuate laterally in the middle, striate, and with the dorsal intervals slightly convex. Length 5–6 mm.; width 2–2¼ mm.

*Hab.* Cape Colony (Somerset West, Grahamstown), Port Natal, teste Bohem.

ABACETUS MAJORINUS.

Dark metallic green, very shining; antennæ infuscate, with the three basal joints and the palpi rufescent; legs piceous red; tarsi slightly rufescent; head smooth, frontal sulci deep, arcuate; prothorax rounded laterally from the apex to a very short distance from the base and straight from there to the posterior angle which is sharp, basal part closely punctured between the two lateral grooves; elytra as in the preceding species, very little broader than the prothorax at the base, striate, and with the intervals a little convex in the dorsal part.

Larger than *A. pygmæus* and with a more robust facies, is distinguished by the colour of the legs and also by the denser and more numerous punctures at the base of the prothorax. Length 7 mm.; width 2¾ mm.

*Hab.* Mozambique (Rikatla).

ABACETUS ATERRIMUS.

Black, very shiny; legs black; antennæ also black, with the basal joint piceous; head smooth, frontal sulci deep, subarcuate; prothorax rounded laterally, ampliate in the middle and suddenly narrowed, but not sinuate at a very short distance from the base, posterior angle sharp, projecting, basal part between the lateral grooves deeply and closely punctured; elytra oblong, very slightly

broader at base than the prothorax, striate, and with the intervals plane and smooth. Length 6-7 mm.; width  $2\frac{1}{4}$ - $2\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town, Oudtshoorn).

I have seen one example from Cape Town in which the basal punctures were absent in the prothorax.

#### ABACETUS NANNISCUS.

Black, shining, but with the elytra less intensely black than the prothorax; antennæ black, with the exception of the three basal joints which are reddish; legs and tarsi more or less piceous red; head smooth, frontal sulci moderately deep and not arcuate; prothorax ampliate laterally in the anterior part, diagonal from past the median to near the posterior part, and not sinuate, posterior angle slightly sharp, basal part punctulate; elytra oblong, not broader at base than the prothorax, striate, intervals plane and smooth, the puncture on the third interval is hardly distinct. Length  $5-5\frac{1}{4}$  mm.; width 2 mm.

*Hab.* Cape Colony (Cape Town).

#### ABACETUS PUMILUS, Bohem.,

Insect. Caffr., vol. i., p. 185.

Head and prothorax black; elytra with a dark green tinge; legs and the three basal joints of antennæ red; head smooth, frontal sulci deep and arcuate; prothorax as in *A. aterrimus*, and also deeply punctured at base; elytra not broader than the prothorax, elongated, a little depressed, striate, the striæ very finely aciculate, intervals smooth. Length 6 mm.; width 2 mm.

*Hab.* Damaraland (Kookarra).

#### ABACETUS TRECHOIDES.

Piceous brown, shining; the three basal joints of antennæ and the legs ferruginous red; the prothorax and elytra are depressed, the former is cordiform, but as broad as long, not punctured at the base, the outer angles are very sharp; the elytra are oblong, deeply striate, with the intervals plane, and the puncture on the third interval is very distinct.

Differs from *A. pumilus* by the size and colour; the prothorax is not so ampliate in the anterior part and is thus more cordiform; both species are more depressed than any other South African *Abacetus*. Length 7 mm.; width 3 mm.

*Hab.* Cape Colony (Grahamstown, Uitenhage).

## ABACETUS CONFINIS, Bohem.

*Argutor confinis*, Insect. Caffr., vol. i., p. 182.

Black, with a very faint tinge on the elytra; legs, palpi, and the three basal joints of antennæ reddish or piceous red; prothorax more rounded laterally than cordate, depressed on the disk, basal part closely punctured; elytra elongated, nearly three times as long as the prothorax and not broader; slightly depressed on the disk, striate, with the intervals plane and smooth.

Closely allied to *A. pumilus*, but the prothorax is not so cordate; the elytra are also elongated and depressed, but the æneous tinge is not so apparent. Length 6 mm.; width  $2\frac{1}{4}$  mm.

*Hab.* Transvaal (Maghalisberg), Lake N'Gami.

## ABACETUS MINUTUS, Dej.,

*Argutor minutus*, Spec. Col., v., p. 756.

Black, shining; elytra with a faint ænescent tinge; legs and the three basal joints of antennæ reddish; head smooth, frontal sulci shallow and slightly arcuate; prothorax rounded laterally, basal part very slightly narrower than the apical one, no puncture between the lateral basal grooves; elytra oblong, not broader than the prothorax, not so intensely black as the prothorax, but equally shining and with a slight ænescent tinge, slightly plane on the disk and very sinuate laterally behind, striate, the intervals broad, plane and smooth, the puncture on the third interval very small. Length 8 mm.; width 3 mm.

*Hab.* Cape Colony (Oudtshoorn, Cape Town).

## ABACETUS PERPLEXUS.

Similar in shape to *A. capensis* and evidently closely allied to it. Head alike; prothorax more orbicular and punctured at base between the lateral grooves; elytra a little more ænescent, and with the puncture on the third interval better defined. Length 8 mm.; width 3 mm.

*Hab.* Cape Colony (Cape Town).

## ABACETUS ÆNESCENS.

Black, shining; elytra slightly ænescent; legs piceous red; basal joint of antennæ rufescent; head smooth, frontal sulci hardly defined; prothorax suborbicular, depressed behind, impunctate at base and with the posterior margin slightly recurved from past the median part to the posterior angle which is sharp, but not projecting; elytra

oblong, subdepressed, not broader than the prothorax, striate, nearly smooth except the two outer intervals, which are very finely aciculate, eighth stria punctulate all along. Length 8 mm.; width 3 mm.

*Hab.* Cape Colony (Cape Town).

#### ABACETUS AGILIS.

Black, with an ænescent tinge; antennæ, palpi, and legs entirely black; head smooth, frontal sulci hardly defined; prothorax ampliate laterally from the apical part to past the median part, and a little more attenuate from there to the base than in the anterior part, posterior angle conspicuous, lateral part of the posterior margins recurved, moderately plane on the disk and with a very few shallow punctures in the base; elytra oblongo-ovate, a little attenuate behind from the median part, depressed, striate, all the striæ punctured, the punctures on the eighth one a little larger than on the other intervals. Length 7 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Cape Colony (? Cape Town).

#### ABACETUS CHALCITES.

Black, with a slight ænescent tinge; basal joint of antennæ red; legs piceous, apex of femora piceous red; head smooth, frontal sulci hardly defined; prothorax rounded laterally, base nearly as broad as apex, posterior angle almost blunt, base punctured from side to side, and with a deep impression along the lateral grooves; elytra oblong, depressed, striate, the striæ smooth, the eighth one with a series of interrupted large punctures.

A near ally of *A. ænescens*, but distinguished by the shape of the prothorax which is not quite so orbicular and is deeply impressed along the basal lateral grooves, the base is densely punctured, whereas it is smooth in *ænescens*. Length  $7\frac{1}{2}$  mm.; width 3 mm.

*Hab.* Cape Colony (Cape Town).

#### ABACETUS CHALCEUS, Chaud.,

Bull. Mosc., 1869, p. 394.

Bronze, shiny on the upper part, black underneath; basal joint of antennæ slightly rufescent; femora black; tibiæ subrufescent; head smooth, frontal sulci neither deep nor much arcuate; prothorax much rounded laterally, a little less broad at base than apex, plane with the posterior margins recurved, posterior angle nearly blunt, a few scattered small punctures along the base, which is sometimes quite smooth; elytra elongate, not broader than the prothorax at the base, depressed, striate, the striæ smooth, the eighth one with an uninterrupted series of punctures from the base to three-fourths of

the length, dorsal intervals smooth, the four lateral ones very finely aciculate. Length 9-9½ mm.; width 3 mm.

*Hab.* Cape Colony (Cape Town), Natal, teste De Chaud.

In the same section with short frontal sulci, not arcuate behind, De Chaudoir includes two species unknown to me, two of which are apparently closely connected with *A. chalceus*.

ABACETUS STRIATUS, Chaud.,\*

Bull. Mosc., 1869, p. 393.

Bronze with an olive tinge, shiny on the upper part, almost black underneath; labrum dark, with a ferruginous edging; palpi, first joint of antennæ and legs light ferruginous, the second and third joints of antennæ piceous red; head smooth, frontal sulci very short and not deep; antennæ slender, reaching further than the shoulders; prothorax broader than long, with the four angles much rounded, moderately rounded laterally, discoidal part moderately convex in the anterior part, almost smooth and without any transverse impressions, median longitudinal groove very narrow but deeper near the base, lateral grooves reaching short of the median part of the disk, basal part with a few punctures between the lateral grooves; elytra a little wider than the prothorax, twice as long as broad, moderately parallel, base subtruncate, humeral angles not sharp, sinuate and acuminate apically, moderately convex on the upper part, striæ not deep but very distinct, intervals moderately plane, very finely shagreened, the puncture on the third interval placed towards the median part against the second stria, the series of punctures on the eighth stria interrupted towards the median part. Length 12 mm.

*Hab.* ? Cape of Good Hope.

ABACETUS TIBIELLUS, Chaud.,

*Loc cit.*, p. 395.

Colour nearly similar to that of *chalceus*, but darker and more shiny bronze. Is also much smaller; head a little longer and very smooth; prothorax narrower, which gives it the appearance of being more elongated, anterior angles projecting more, the basal ones more marked and straighter, discoidal part quite smooth except for a few punctures on the edge of the base, the recurved outer margin is a little narrower; elytra altogether similar in shape, striæ narrower, intervals hardly perceptibly shagreened. Length 6 mm.

*Hab.* Cape of Good Hope.

\* I am inclined to believe that *A. capensis* and this species are synonymous.

## ABACETUS PARVULUS, Klug.

*Argutor parvulus*, Peters' Reise n. Moss., 1862, p. 167, pl. 10, fig. 4.

Chestnut-brown, with light yellow antennæ and legs; prothorax nearly as broad at the base as at the apex with the sides hardly rounded, posterior angles sharp, surface of thorax smooth, slightly wavy, transverse lines very little defined, the median longitudinal one reaches neither base nor apex, the basal lateral grooves which are produced obliquely inwards are deep; elytra deeply striate, striæ, densely punctured, the intervals somewhat raised, smooth and impunctate, with the exception of the lateral margin, which has a row of punctures. Length 5 mm.

*Hab.* Mozambique (Tette), according to Klug.

## GEN. ATIMUS.

Mentum with a deep median notch without trace of any median tooth, lateral lobes straight at base and inwardly diagonal from the median part to the apex, which is sharp; ligula triangular, truncate at tip; paraglossæ slender, disunited from near the tip and much longer; last joint of palpi fusiform, truncate at tip; antennæ reaching a little below the shoulder, the three basal joints glabrous, the others from the fifth upwards subcylindrical and twice as long as broad; head and prothorax of *Abacetus*; elytra elongated, parallel, striate, the first stria sinuate inwardly at the base to admit of an accessory stria between the first and the second, and reaching from the base to one-fifth of the length, third interval with a median puncture; legs of *Abacetus*.

## ATIMUS CRENATO-STRIATUS.

Deep black, shining; palpi, basal joints of antennæ and legs piceous black; head smooth, with a short, moderately deep curved frontal impression; prothorax moderately ampliate laterally from apex to past the median part, and gradually narrowed from there to the base, which is a little narrower than the apex, median longitudinal line well defined and reaching from base to apex, the transverse lines being obliterated, no outer marginal groove, the basal lateral one is straight but not so deep as in *Abacetus*, and in the posterior angle there is on each side a shorter and shallower but very distinct groove; elytra very little broader than the prothorax at base, elongate, parallel, depressed, sinuate behind, striate, the striæ deeply and closely punctured, intervals smooth and very slightly convex, the third one with a median puncture. Length  $12\frac{1}{2}$  mm.; width  $4\frac{1}{4}$ - $4\frac{1}{2}$  mm.

*Hab.* South Africa (Dr. Holub).

## GEN. DRIMOSTOMA, Dej.,

Spec. Col., v., p. 745.

Mentum short, with a sharp median tooth, lateral lobes sharp at tip; ligula elongato-quadrate, paraglossæ very slender and much longer; last joint of palpi fusiform and sharp at tip, the maxillary one swollen inwardly; maxillæ not hooked, ciliate inwardly, and with three strong spines; labrum transverse; mandibles very long, falcate, and sharp; eyes large; head not narrowed behind, and having a deep long frontal groove on each side; antennæ short, joints subquadrate, gradually broadening from the fifth to the terminal one, which is the widest of all; prothorax not much amplified laterally and slightly sinuate near base; elytra subelongate, parallel, striate, without any puncture on the third interval; legs short, robust, tibiæ grooved inwardly, tarsi not grooved, joints of anterior ones in the male not very broadly dilated.

The general facies is shorter and more quadrate than in *Abacetus*, and the species included in the genus are easily distinguished by the short antennæ and the subquadrate shape of the joints.

*Hab.* The genus is represented in Africa (Guinea, Senegal, Sierra Leone), Madagascar, Ceylon, China, New Zealand, Australia, and North and South America.

*Synopsis of Species.*

Prothorax as long as broad, narrowed slightly laterally behind and subsinuate .. .. .	<i>laticolle.</i>
Prothorax as long as broad, not sinuate laterally behind .. .. .	<i>natalense.</i>
Prothorax broader than long, not sinuate laterally behind .. .. .	<i>amaroide.</i>

## DRIMOSTOMA NATALENSE.

Piceous brown, shining; palpi, legs, labrum, the three basal joints of antennæ ferruginous, the other joints densely pubescent; head smooth, the frontal groove reaching from the clypeus to the median part and slightly curved; prothorax smooth, hardly amplified laterally, but a little narrower above the base than at the apex, and not sinuate behind, posterior angle not projecting, median and lateral grooves deep; elytra parallel, slightly broader than the prothorax, hardly sinuate behind and not convex, narrowly punctato-striate, with the intervals narrow, smooth, and hardly convex. Length 5 mm.; width 2 mm.

*Hab.* Natal (D'Urban).

## DRIMOSTOMA LATICOLLE, Bohem.,

Insect. Caffr., p. 176.

Black, shining; femora, palpi, and the three basal joints of antennæ dark red; tibiæ and tarsi piceous black; the other joints of

antennæ fuscous ; head smooth, frontal sulci long, straight, diagonal ; prothorax as broad as long, very slightly rounded laterally in the anterior part, and much more so behind, where it is subsinuate, posterior angle sharp, but not projecting, disk smooth, dorsal grooves deep ; elytra a little broader at the base than the prothorax, parallel, depressed, striate, the striæ deeply punctured, and the intervals smooth, narrow, and almost carinate. Length  $6\frac{1}{2}$ –7 mm. ; width  $2\frac{3}{4}$ –3 mm.

*Hab.* Natal (D'Urban).

DRIMOSTOMA AMAROIDE, Bohem.,

Insect. Caffr., i., p. 177.

Black, shining ; palpi, labrum, the three basal joints of antennæ and the legs reddish, the other joints of the antennæ subflavescent ; head smooth, the frontal sulci diagonal ; prothorax a little broader than long, rounded laterally in the anterior part, straight, and not sinuate from before the median part to the base, where it is, however, not quite so broad as at the apex, posterior angle sharp but not projecting, disk smooth, median groove reaching from the base to a little short of the apex, lateral grooves deep ; elytra a little broader at the base than the prothorax, subparallel, but with the shoulders a little more rounded than in the two preceding species, narrowly striate, with the striæ faintly punctured and the intervals smooth and a little convex in the median part. Length 6 mm. ; width 3 mm.

*Hab.* Caffraria, teste Boheman, Natal (Isipongo).

GEN. EXOCUS.

Mentum of *Drimostoma* ; ligula and paraglossæ similar ; maxillæ arcuate at tip, very sharp, ciliate without any dentiform bristles ; palpi also similar ; joints of antennæ from fifth to last a little elongato-quadrate ; labrum long, subtruncate ; mandibles projecting much beyond the labrum, falcate, and sharp at tip ; head depressed on each side of the frontal part, but without any groove ; eyes large ; prothorax rounded laterally in the anterior part and a little narrowed behind ; elytra oblong, striate ; legs moderately long, intermediate and posterior tibiæ grooved inwardly, anterior ones not much dilated and without any external spines at apex ; anterior tarsi of male very little dilated, the three basal joints squamulose underneath, the intermediate and posterior tarsi slightly grooved on the upper part. Distinguished from *Drimostoma* by the absence of terminal spines on the anterior tibiæ ; the head also has no frontal groove.

EXOCUS FERRUGINEUS.

Ferruginous red, shining ; head with a broad frontal aciculate

depression on each side, extending from the clypeus to past the median part of the eye, and leaving only a narrow smooth median space, central and posterior part of head smooth; prothorax as long as broad, rounded laterally in the anterior part, a little narrowed and subsinuate behind, with the posterior angle sharp and projecting a little, moderately plane but depressed basally, median longitudinal line reaching from the anterior transverse impression to the base, and deeper and broader there, the lateral basal impressions are very broad and deep; elytra twice as broad as the prothorax, truncate at base with the shoulders rounded, parallel, not much sinuate behind, convex in the posterior part, but hardly so in the anterior, narrowly punctato-striate with the intervals convex and almost carinate in the dorsal part, no puncture on third interval. Length 9 mm.; width 4 mm.

*Hab.* Natal (Escourt).

GEN. CYRTOMOSCELIS, Chaud.,  
Bull. Mosc., 1873, p. 63.

Mentum deeply but narrowly incised with a sharp, convex, median tooth, much shorter than the lateral lobes which are slightly sloping inwardly; ligula triangular, apex broad, truncate, bisetose; paraglossæ narrow, a little longer than the ligula and disunited from it close to the apex, last point of palpi fusiform, very sharp at tip; mandibles sharp, curved, long; labrum transverse, truncate at tip; eyes moderately prominent, two supra-orbital setæ; head straight behind the eyes; prothorax trapeziform, without any transverse or median longitudinal impressions, but with two short lateral basal ones; elytra oblongo-ovate, fitting exactly against the base of the prothorax, striate, no juxta-sutural striæ; legs short, femora thick, strong; anterior tibiæ dilated at apex; the three basal joints of the anterior tarsi dilated in the male, cordiform, the basal one a little more elongate than the two following, squamose in the middle underneath; posterior tibiæ with one groove inwardly; tarsi of intermediate and posterior tarsi with one groove on the upper side. De Chaudoir mentions, as characteristic of this genus, the undulated upper side of the posterior tibiæ, "showing several undulations separated by little raised teeth which make them look as if they were tuberculated." This character, however, is not so apparent as De Chaudoir makes it to be.

*Synopsis of Species.*

Upper part black, iridescent .. .. .	<i>trivialis.</i>
Prothorax testaceous; elytra with a humeral and a supra-apical light brick-red patch on each side .. .. .	<i>amœnula.</i>

## CYRTOMOSCELIS TRIVIALIS, Bohem.

*Argutor trivialis*, Insect. Caffr., i., p. 179.

*C. natalensis*, Chaud., Bull. Mosc. 1873, p. 64.

Black, iridescent on the upper part; legs, palpi, labrum, and the basal joints of antennæ dark red, the other joints ferruginous; head smooth; prothorax also smooth, nearly straight, and without sinuation laterally, but a little narrower in front than behind, and a little convex on the disk for two-thirds of the length; anterior margin very slightly sinuate, posterior one straight; elytra as broad as the prothorax, convex, oblong, a little sinuate apically, narrowly but deeply striate, intervals smooth, no puncture on the third interval. The posterior supra-orbital seta is very long. Length 7–8 mm.; width 3–3¼ mm.

*Hab.* Natal (D'Urban).

## CYRTOMOSCELIS AMÆNULA, Bohem.

*Feronia (Argutor) amænula*, Insect. Caffr., i., p. 180.

Head, palpi, and legs light ferruginous; prothorax pale red; elytra fuscous black with two large ferruginous patches on each side, sufficiently large as to make them appear to be ferruginous with a cruciform dorsal black band; head smooth; prothorax similar in shape to that of *A. trivialis*, the median longitudinal line very faint; elytra oblongo-ovate, convex, striate, the striæ moderately deep and punctulate; under side piceous red or dark ferruginous. Length 5 mm.; width 2¼ mm.

*Hab.* Caffraria, teste Bohem.

I am rather inclined to believe that this species (I have seen Boheman's type only) will be found to belong to the genus *Metaxys*, Chaud.

## GEN. PTEROSTICHUS, Bonelli,

Observ. Entom., i., 1809.

FERONIA, Latreille, Régn. Anim., ed. 1, iii., p. 191.

CAMPTOSCELIS, Dej., Spec. Col., iii., 1828, p. 420.

Mentum broad with a median bifid tooth (except in *P. levis*, where it is long and sharp), lateral lobes sloping inwardly (*P. dichrous*) or perpendicular (*P. hottentotus*, *caffer*, &c.); ligula long, carinate in the middle, sinuate at tip; paraglossæ disconnected from it near the tip, and not longer; maxillæ strong, incurved, densely ciliate, outer lobe curved and not acuminate, last joint of maxillary and labial palpi a little fusiform and truncate at tip; labrum long, emarginate; antennæ very slender, filiform, short, the three basal joints glabrous; head elongato-quadrate, eyes not very prominent and with

two setigerous supra-orbital punctures ; prothorax variable in shape but nearly as broad as long, truncate at apex, sinuate at base ; elytra generally oblong or oblongo-parallel, moderately convex, sinuate laterally behind, with or without scutellary stria, and with or without puncture on the third interval ; legs moderately long, anterior tibiæ fossorial, tarsi not grooved, the three basal ones of the anterior pair broadly dilated, cordiform and densely squamulose underneath.

Tschischérine has established two sub-genera for the South African species in the Hor. Soc. Ent. Ross., but all the South African species cannot, however, be included in them.

### Synopsis of Species.

#### Sub-Gen. *Camptoscelis*, Dej.

Intermediate tibiæ of male curved, and with a broad apical inward lamina . . . . . *hottentotus*.

#### Sub-Gen. *Cophosomorphus*.

Intermediate tibiæ normal in male ; intervals of elytra plane, or very slightly convex.

Prothorax orbicular ; no puncture on third interval of elytra.

Head without frontal impressions . . . . . *degener*.

Head with the deep frontal impressions . . . . . *dichrous*.

Prothorax straight from the apex to the middle, and attenuate from there to the basal angle.

Two punctures on the third interval . . . . . *Anceyi*.

One median puncture on the third interval . . . . . *intermedia*.

Prothorax hardly rounded laterally, but narrower at the base than in front.

Elytra bisinuate behind with the apical part of the suture subdentate, one post-median and one supra-apical puncture on the third interval . . . . . *caffer*.

Elytra normally sinuate behind, no puncture on third interval.

Intervals narrow, convex . . . . . *natalensis*.

Intervals broad, plane . . . . . *congruens*.

Third interval with two punctures, a post-median and a supra-apical one . . . . . *capicola*.

Third interval with two punctures, a post-basal and a median one . . . . . *lugubrinus*.

Prothorax narrower behind than in front, but straight laterally in the posterior part.

Elytra parallel, seventh interval carinate, no puncture on the third interval . . . . . *Severini*.

Elytra a little ampliate past the middle, seventh interval carinate from the base to about the median part, intervals transversely plicate . . . . . *rugipennis*.

Prothorax almost parallel, anterior angles projecting.

Intervals of elytra carinate, no puncture on the third interval . . . . . *undulatorugosus*.

Sub-Gen. *Steropomorphus*, Tsch.

Mentum with a long, not bifid, median tooth.

Bronze on the upper part; elytra very convex; no scutellary stria, and no puncture on the third interval . . . . . *lenis*.

## PTEROSTICHUS DEGENER.

Black, shiny; labrum, palpi, and legs ferruginous red; antennæ rufescent; head smooth, frontal impressions almost absent; prothorax nearly round laterally, truncate at apex and very slightly sinuate at base, posterior angle with a small notch and lateral part of base quite rounded, median longitudinal line perceptible in the median part of the disk only, no lateral basal depression; elytra truncate at the base with the shoulders angular, a little narrower than the prothorax at its widest part, ovate, sinuate behind, convex, deeply striate, with the intervals smooth and a little convex, they have also a very faint and short juxta-sutural additional stria and no puncture on the third stria, the epipleuræ and the under side are piceous red or ferruginous. Length 10 mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Cape Colony (Stellenbosch).

## PTEROSTICHUS DICHROUS, Tschisch.,

Hor. Soc. Ent. Ross., xxv., 1891, p. 158.

Black, shining; palpi and antennæ ferruginous; tarsi and tibiæ piceous red; head smooth with two deep, sulcate frontal impressions; prothorax rounded laterally with the basal part a little narrower than the base, the outer margins are recurved, the disk has a very fine median longitudinal groove, and on each side of the lateral posterior angles there is a very deep and broad impression; elytra slightly sinuate at the base, oblongo-ovate, a little broader than the prothorax, convex, sinuate behind, striate, with the intervals plane or feebly convex, there is a juxta-scutellary additional stria, and no puncture on the third interval; under side piceous black. Length 14–15½ mm.; width 5–6 mm.

*Hab.* Cape Colony (Caledon, Knysna).

## PTEROSTICHUS ANCEYI, Tschisch.,

Hor. Soc. Ent. Ross., xxv., 1891, p. 156.

Black, shining; antennæ, palpi, and tarsi ferruginous, frontal impressions deep; prothorax truncate at apex, outer sides slightly diagonal apically, but straight, or nearly so, to about the median part, and gradually rounded from there to the basal angle, disk smooth with a median longitudinal line, posterior lateral impression very slight, and posterior part of the outer margin not much recurved; elytra sinuate at base, oblongo-ovate, humeral angle sharp,

but shoulders slightly rounded, striate, without any juxta-sutural stria, intervals nearly plane or very little convex, smooth, and with two equidistant punctures on the third interval; under side piceous black; legs piceous red. Length 15 mm.; width 5 mm.

*Hab.* Natal (D'Urban).

#### PTEROSTICHUS INTERMEDIUS.

Black, shining; antennæ, palpi, and tarsi rufescent; frontal impressions short, rounded; prothorax truncate at the base with the anterior angles projecting, almost straight laterally from apex to base, finely grooved in the centre, very faintly impressed laterally near the base, and with a slight longitudinal basal sulcus between the median line and the outer margin, the latter hardly recurved; elytra oblong with the humeral angles a little rounded, convex, normally sinuate behind, striate, with a juxta-sutural stria, intervals plane, smooth, and with only one median puncture on the third interval; under side and legs piceous red. Length 9 mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Cape Colony (Knysna).

#### PTEROSTICHUS CAFFER, Dej.,

*Feronia Caffra*, Dej., Spec. Col., iii., p. 292.

*Feronia Lalandei*, Brullé, Hist. Nat., iv., p. 373, pl. 15, fig. 2.

Black, shining; antennæ, palpi, and tarsi rufescent; frontal impressions deep and long; prothorax not much rounded laterally, but a little narrowed from past the middle to the base, posterior part of the outer margin a little recurved, disk smooth, median longitudinal line moderately well defined, a short, narrow sulcate impression between the central line and the outer margin; elytra oblong with the humeral angles prominent, deeply sinuate laterally above the apical part, which is also slightly sinuate with the apical part of the suture bluntly dentate on each side, striate, with a short juxta-scutellary stria, intervals convex, subcarinate in the male, third interval with a post-median and a supra-apical puncture; under side and legs piceous red. Length 17–20 mm.; width  $5\frac{1}{2}$ – $6\frac{1}{2}$  mm.

*Hab.* Cape Colony (Grahamstown, Queen's Town, Port St. John, Port Elizabeth, Somerset East, Seymour), Natal (D'Urban).

#### PTEROSTICHUS CONGRUENS.

Black, shining; antennæ, palpi, and tarsi ferruginous; head smooth, frontal impressions narrow, not deep; prothorax hardly narrowed behind and not deeply impressed in the posterior angle, and with the posterior part of the outer margin not much recurved, median discoidal line reaching from base to apex; elytra oblong, with the humeral angles prominent, normally sinuate behind, striate, with

the intervals plane and without any puncture on the third interval; under side and legs piceous red. Length 17 mm.; width  $5\frac{1}{2}$  mm.

Resembles *P. caffer*, but the prothorax is not so much rounded behind, and the intervals of the elytra are plane, and the third one has no puncture.

*Hab.* Natal (D'Urban).

PTEROSTICHUS NATALENSIS, Bohem.

*Feronia (Steropus) natalensis*, Insect. Caffr., i., p. 186.

Black, shining; antennæ, palpi, and tarsi ferruginous; head smooth, frontal impressions nearly obsolete; prothorax hardly rounded laterally, with the posterior part slightly attenuate and curved, with the outer margin very much recurved, longitudinal median line on the disk very fine, lateral posterior depressions very slight; elytra oblongo-ovate with the humeral angle sharp convex, striate, intervals a little convex, smooth, the third one impunctate, no scutellary stria. Length 4 mm.; width  $4\frac{1}{2}$  mm.

*Hab.* Natal (D'Urban, Frere).

PTEROSTICHUS CAPICOLA, Tschisch.,

Hor. Soc. Ent. Ross., xxv., 1891, p. 137.

The description of *P. natalensis*, applies also to this species, but the frontal impressions are much deeper, the lateral part of the prothorax is a little less attenuate behind, and the outer margin is not recurved, the median longitudinal line is well defined, and there is a sulcate posterior impression on each side between the median line and the outer angle; the elytra are oblong, convex, striate, with the intervals smooth and nearly plane, the third interval has two punctures, a post-median and a supra-apical one; there is a scutellary stria on each side. Length  $13\frac{1}{2}$  mm.; width  $4\frac{1}{2}$  mm.

*Hab.* Cape Colony (Grahamstown).

PTEROSTICHUS LUGUBRINUS.

Very closely allied to *P. congruens*; colour alike, shape of the prothorax similar, but the posterior impressions between the median discoidal line and the outer angle are very faint, and have no longitudinal sulcus; the elytra are nearly oblong, the striæ are well marked, the intervals plane, and the third one has two punctures, a sub-basal and a median one, no scutellary stria; under side piceous red. Length  $12\frac{1}{2}$ –13 mm.; width 5 mm.

The distinctive characters of this species, as differentiated from *P. congruens*, are the absence of a posterior lateral elongated sulcus, and the position of the two punctures on the third interval which are situated in the anterior instead of the posterior part.

*Hab.* Cape Colony (Somerset East).

## PTEROSTICHUS SEVERINI, Tschisch.,

Ann. Mus. Zool. Ac. Sc. St. Petersb., 1896, p. 2.

Black, subopaque; antennæ ferruginous; head with two deep frontal impressions; prothorax a little rounded laterally from the anterior angle to the median part, but straight from there to the posterior angle where the outer margin is a little recurved, median longitudinal line on the disk deep, and on each side of the posterior part a deep narrow groove between the median line and the outer angle; elytra subparallel, as broad as the prothorax, humeral angles sharp, normally sinuate behind, striate, the intervals plane, with the exception of the seventh, which is distinctly carinate from the base to past the middle and very much raised in the anterior part, there is a scutellary stria and the third interval is impunctate; under side and legs piceous; tarsi piceous red. Length 18–21 mm.; width 7–7½ mm.

*Hab.* Cape Colony (Cape Town, Slopes of Table Mountain).

## PTEROSTICHUS RUGIPENNIS, Dej.,

Spec. Col., iii., p. 394.

Black, shining; antennæ ferruginous, the three basal joints piceous; legs and under side black; head smooth, frontal impressions long, moderately deep; prothorax a little rounded laterally in the anterior part, but nearly straight from the median part to the posterior angle, which is acute and with the outer margin very slightly raised, median longitudinal line and basal grooves well defined; elytra as broad as the prothorax at the base, a little amplified laterally from about one-third of the length, sinuate normally behind, narrowly and deeply striate, with the intervals a little convex and transversely plicate, the plication is not deep, and the lines which are slightly wavy are nearly parallel. Length 20 mm.; width 8 mm.

*Hab.* Cape Colony.

## PTEROSTICHUS UNDULATORUGOSUS, Tschisch.,

Hor. Soc. Ent. Ross., xxv., 1891, p. 152.

Black, subopaque; elytra quite opaque; antennæ black, with the basal joints, palpi, and the tarsi piceous red; head smooth, frontal impressions faint and replaced by three short, shallow sulci; prothorax parallel laterally, with the posterior angles slightly rounded, and the outer margin not recurved, truncate apically, but with the angles projecting sharply, the disk has a faint, wavy plication, the posterior part is depressed, the median longitudinal line reaches the base, the median part of which is longitudinally plicate, and the basal impressions are shallow and not sulcate; elytra as broad as the pro-

thorax, parallel as far as the posterior declivity, humeral angles sharp, subdentate, normally sinuate behind, narrowly striate with the intervals convex and sharply carinate, there is a scutellary stria, and the third interval is impunctate; under side and legs piceous black. Length 16–18 mm.; width  $5\frac{1}{2}$ –6 mm.

*Hab.* Natal (D'Urban).

There is one more South African species which I have not yet been able to identify, and which was not among those Mr. Tschischerine kindly identified for me.

PTEROSTICHUS SOROR, Tschisch.,

Hor. Soc. Ent. Ross., xxv., 1891, p. 156.

“Is probably very near *P. (Feronia) caffer*, Dej.,\* but is distinguished by the intervals of the striæ of the elytra, which are more plane than in *Feronia (Cophosus) concinna*, Sturm. (an European species); the colour is also lustreless in the female. Head a little less large than in *P. hottentotus*; eyes projecting very little; prothorax quite similar, very slightly shorter; elytra a little less convex with the striation almost similar, dull black in the female, and with two punctures as in *P. Lalandei*; under side smooth, except the sides of the abdomen, which are hardly distinctly shagreened. The last abdominal segment has four setigerous punctures. The male is unknown to me. At first sight one would feel inclined to mistake this species for *P. hottentotus*, which it much resembles; but the more robust antennæ, the smaller head, and the normal intermediate legs induce me to include it among *Cophosomorphus*.” †

*Hab.* South Africa.

PTEROSTICHUS LENIS, Germ.,

Insect. Spec. Nov., p. 22.

Bronze on the upper part, shiny; palpi, antennæ, and legs ferruginous; under side piceous red; head smooth, frontal impressions shallow, rounded; prothorax truncate at apex, a little rounded laterally, slightly narrowed behind, posterior angles quite rounded; outer sides grooved, but the margin not recurved behind, median

\* Mr. Tschischerine would seem, judging from the description here given, not to be aware that the female of *P. (Camptoscelis) hottentotus* has intermediate tibiæ of a normal shape, and I would not be surprised if *P. soror* proved to be the female of *P. hottentotus*.

† I have subsequently forwarded to Mr. Tschischerine the typical *Feronia caffra*, which he had not seen and which is the same as his *F. Lalandei*. He was evidently not aware of the identity of the two at the time he published the present revision of the South African *Pterostichus*.

longitudinal line narrow, a round, deep, but not broad depression on each side of the base; elytra oblong, nearly truncate at base, with the shoulders subangular, deeply sinuate behind, convex, finely striate, the striæ very faint laterally, intervals smooth, no puncture on the third stria, epipleuræ and often the apical part of elytra ferruginous. Length 11 mm.; width 3 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Paarl, Worcester).

GEN. TERATOTARSUS, Tschisch.,

Hor. Soc. Ent. Ross., xxvii., 1893, p. 452.

Mentum broad with a median tooth, slightly bifid at tip, lateral lobes nearly perpendicular; ligula moderately broad, truncate at tip, with the lateral part oblique, paraglossæ moderately broad, disconnected from near the tip and hardly longer; maxillæ, palpi, labrum, and mandibles of *Pterostichus* (*Cophosomorphus*); prothorax elongato-quadrata; elytra nearly parallel, a little attenuate behind; joints of anterior tarsi not dilated in either sex.

I have not been able to confirm Tschischerine's statement that in the male the basal joints of the anterior tarsi are not dilated, as I have seen only four female examples. Were it not for that abnormal character, the species *T. Schouberti* could hardly be removed from the South African *Pterostichus*, in spite of its somewhat singular facies.

TERATOTARSUS SCHOUBERTI, Tschisch.,

Hor. Soc. Ent. Ross., xxvii., 1893, p. 454.

Black, subopaque; palpi, the three basal joints of antennæ and the tarsi piceous; head smooth, without any trace of frontal impression; eyes small; prothorax nearly parallel, although very slightly attenuate at the apex, marginate, disk smooth, not much convex, the base transversely depressed, slightly shagreened, moderately impressed laterally with almost no depression between the median longitudinal line and the outer angle; elytra almost parallel from the humeral angle which is sharp to three-fourths of the length, a little attenuate in the posterior part which is very slightly sinuate, not much convex in the anterior part, more so past the middle, and declivous behind, narrowly striate, with the median part of the ninth interval impunctate, there is a scutellary stria, and no puncture on the third interval; under side and legs piceous black. Length 19 mm.; width 8 mm.

*Hab.* Cape Town.

This species has only been met to my knowledge on the Table Mountain range.

## GEN. RHATHYMUS, Dej.,

Spec. Col., v., 1831, p. 783.

Mentum broadly incised, with a median tooth deeply grooved and slightly bifid at tip, lateral lobes sloping a little inwardly and very sharp at tip; ligula broad, narrow and truncate in the middle, and sloping slightly on each side of the apex; paraglossæ very narrow, disunited from the ligula near the tip and a little longer than the apical part; last joint of palpi subcylindrical, truncate at tip; labrum a little emarginate; mandibles plane, incurved at tip and long, carinate outwardly on the upper part; head short; eyes moderately large; antennæ short, terminal joints short, equal, subquadrate; prothorax transverse; elytra broad, depressed, parallel, a little sinuate behind; legs short, intermediate, and posterior tibiæ grooved inwardly, the three basal joints of the anterior tibiæ dilated in the male, short and cordiform, the basal one more elongate than the two following.

The genus is represented in Senegal by one closely allied, but more rotund and convex species.

## RHATHYMUS MELANARIUS, Klug,

Monatsb. Berl. Ac., 1853, p. 248; Peters' Reise n. Moss., 1862,  
p. 167, pl. 9, fig 14.

Head and prothorax piceous black; elytra black, shining; basal joints of antennæ and tarsi slightly reddish; legs piceous; mandibles long, depressed, subfalcate; labrum piceous red, emarginate; head closely but faintly punctulate; prothorax broader than long, a little sinuate in the apical and basal parts, nearly straight laterally but a little attenuate in the anterior part, outer margins a little recurved from the median to the posterior part, disk hardly convex and smooth, but the basal part broadly depressed and also the lateral margin, although less broadly, and both closely punctulate, no basal lateral impressions, the longitudinal median grooved line well defined; elytra a little broader than the prothorax, subtruncate at base, oblong or nearly so, depressed, punctato-striate with the punctures not very deep, a short basal stria next to the first, intervals plane, almost smooth, without puncture on the third one; under side piceous or piceous red. Length 14 mm.; width 6 mm.

*Hab.* Mozambique (Tette, teste Klug), Ovampoland.

## TRIBE PLATYNIDES.

Mentum deeply emarginate, with or without a median tooth; ligula free at tip (*Atrotus* excepted); paraglossæ more or less disunited

from the ligula at a greater or lesser distance from the tip, and longer; mandibles moderately prominent, arcuate and sharp; palpi moderately long, last joints more or less fusiform; antennæ long, slender, the three basal joints glabrous; head a little constricted behind the eyes, which are prominent, and have two supra-orbital setæ; prothorax with the posterior part of the lateral margins more or less recurved, with the exception of *Enoicus*; elytra with the margin entire and without internal plica; apex sinuate, sometimes very deeply; legs very slender; tarsi long, also slender; the intermediate and posterior ones very often grooved on the upper part; the three basal joints of the anterior tarsi of the male feebly dilated and squamulose beneath; claws simple in the South African species.

The characters differentiating this tribe from the *Pterostichides* are very slight, and consists more in the general facies and the slender legs; Dr. G. H. Horn has, however, found a good distinctive character in the absence of an internal plica in the non-interrupted margin of the elytra; this character seems to be constant in the South African species.

#### Synopsis of Genera.

- Mentum with a short obtuse median tooth, lateral lobes very long, straight, and sharp; paraglossæ disunited from the ligula at less than half the length, curving inwardly and slightly longer; ligula bisinuate at tip and distinctly carinate; last joint of labial, and the two ultimate ones of the maxillary palpi swollen, clavate at tip; prothorax quadrate; joints of anterior tarsi of male not dilated . . . . . *Rhopalomelus*.
- Last joint of palpi subcylindrical, truncate at tip; prothorax quadrate; joints of anterior tarsi of male dilated . . . . . *Procletus*.
- Mentum with a short triangular median tooth, bluntly bifid at tip; ligula broad, truncate; paraglossæ disunited from it near the apex, a little longer and incurved; last joint of maxillary palpi swollen and broadly truncate at tip . . . . . *Læmosthenes*.
- Mentum with a median tooth, long or moderately long, apical part of the lateral lobes very sharp; paraglossæ disunited from the ligula at either half the length (*Platynus*) or close to the apex (*Megalonychus*) or adhering to it (*Agonum*), longer and incurved; ligula slightly sinuate at tip; last joint of palpi fusiform . . . . . *Platynus*.
- Mentum without a median tooth; ligula long, truncate at tip; paraglossæ disunited from near the base, and longer than the ligula by one-fourth; last joint of palpi subfusiform . . . . . *Euleptus*.
- Mentum without a median tooth; ligula broad, bordered by the paraglossæ at tip; mandibles scooped internally at tip . . . . . *Atrotus*.
- Mentum with a long median tooth; posterior sides of prothorax not recurved; elytra without any dorsal puncture . . . . . *Enoicus*.
- Characters of *Platynus*; prothorax as broad behind as in front; claws straight, sharp, and close together . . . . . *Angionychus*.

## GEN. RHOPALOMELUS, Bohem.,

Insect. Caffr., i., p. 165.

Mentum very deeply emarginate, lateral lobes nearly straight, very sharp at the tip, median part narrow and with a short, well-defined slender median tooth, truncate at the tip; ligula carinate in the median part, triangularly ampliate towards the apex, slightly bisinuate at the tip, which bears two moderately long setæ, one on each side of the median slightly projecting part; paraglossæ very slender, disconnected from the ligula a little above the basal part, lobate, slightly incurved and hardly longer; second joint of labial palpi very short, third clavate, fourth fusiform and truncate at the tip, third and fourth of maxillary palpi slender at the base and then abruptly swollen, the fourth one truncate at tip; mandibles robust, arcuate; labrum long, deeply incised in the centre with one deep setigerous puncture in the angle, and two setæ on each side; clypeus broad, transverse, sinuate in the anterior part, with one broad puncture on each side; head much prolonged behind the eyes, elongato-quadrangle; eyes prominent, two supra-orbital setæ; antennæ filiform, grooved externally, the three basal joints glabrous, the third one nearly as long as the following two together; prothorax elongate, longer than broad, almost straight laterally; elytra oblong, broader than the prothorax, striate, and convex; legs long, slender, intermediate, and posterior tibiæ arcuate, deeply grooved externally; tarsi long, narrow, triangular, spinulose laterally underneath.\*

Recorded from South Africa only.

## RHOPALOMELUS ANGUSTICOLLIS, Bohem.,

Plate X., fig. 6.

Insect. Caffr., i., p. 167, pl. ii., figs. 1 to 7.

Black, moderately shining; labrum, palpi, and antennæ, with the exception of the three basal joints which are black, piceous red; head nearly smooth, with a semicircular impression above the clypeus, and a deep though short longitudinal one on each side; prothorax nearly straight laterally, but slightly attenuate in the anterior part, outer margins recurved, sharp, median longitudinal groove reaching from base to apex; posterior angular part slightly obliquely truncate; disk smooth; elytra one-third broader than the prothorax, with the basal part sloping towards the humeral angle, oblong, convex striate, faintly punctate with the intervals convex, subcarinate in the centre, the interval between the eighth stria and the outer margin subpunctulate; under side piceous black; abdomen

\* Herr H. J. Kolbe has suggested that *Rhopalomelus* should be included among the *Chlænides*, Arch. Naturg. lx., i.; I cannot, however, agree with him.

briefly pubescent and punctulate. Length 28–30 mm.; width 10–11 mm.

This remarkable Carabid is generally captured flying to the lights at nights. It emits a very offensive odour. In the daytime it is found in the nests of white ants (*Termes spec.*).

*Hab.* Natal (Escourt, D'Urban), Zambezia (Salisbury).

#### GEN. PROCLETUS.

Mentum deeply excavate, with the inner lobes very straight, nearly perpendicular in the basal part, and very slightly sloping from about the middle to the apex, which is sharp, outer part of the lobe gradually rounded, a short triangular tooth in the mentum obtuse and bifid at the apex; ligula horny, a little broader at the apex than at the base, truncate and bisetose at tip; paraglossæ disconnected from the ligula at about half the length, straight, slender, and slightly longer than the ligula; ultimate joints of palpi subcylindrical, truncate at tip; mandibles long, falcate at tip; labrum very long, broadly incised, epistoma also broadly sinuate; head long, slightly narrowed behind the eyes, six setigerous punctures on the labrum, and one over the anterior angle of the epistoma; antennæ, with the exception of the two basal joints, somewhat compressed, the basal joint short, thick, the second one subconical, very short, the third one as long as the two following, these three basal joints are nearly glabrous, the others pubescent; prothorax subquadrate, with a marginal seta inside the posterior angle; elytra truncate at the base, broader than the prothorax, parallel, almost plane in the anterior part, and very little convex in the posterior, prosternum produced into a short subtriangular process fitting in a deep groove in the mesosternum; legs long; the anterior tibiæ sinuate externally above the apical outer angle, the intermediate and posterior ones slightly incurved, conspicuously grooved inwardly, and less conspicuously outwardly in the upper part; tarsi long, joints triangular, convex, slightly bristly, hairy on the upper part, the three anterior ones in the male dilated inwardly, the basal one long, triangular, the second transverse, not so broad as the apical part of the first, the third one-half the size of the second, the three thickly papillose underneath; claws long, simple.

#### PROCLETUS SINGULARIS.

Plate X., fig. 8.

Piceous, with the elytra black; labrum smooth; epistoma with two slight longitudinal median linear impressions; head punctulate, the punctures scattered irregularly and at some distance from one another, the lateral, posterior, and also those underneath distinctly

setose; prothorax as broad as long, truncate at the apex, with the anterior angles projecting, outer sides much recurved, very slightly amplified from apex to past the median part and slightly sinuate above the base, thus imparting it a subquadrate shape, beset with irregularly set, briefly setigerous punctures; scutellum sharply triangular; elytra truncate at the base with the humeral angle not very sloping, one-third broader than the prothorax, parallel for four-fifths of the length, gradually rounded in the posterior part, hardly convex for two-thirds of the length, the convexity more pronounced towards the declivity, striate, with the intervals faintly convex in the median discoidal part, nearly plane laterally, with the eighth interval broader than the others, closely and regularly punctured, the punctures briefly setigerous; abdomen and tibiæ pubescent; legs dark red with the intermediate and posterior tibiæ and also the tarsi darker, nearly black. Length 22 mm.; width 8 mm.

*Hab.* Zambezia (Salisbury).

This insect, like *Rhopalomelus angusticollis*, emits, when captured, a fetid smell.

#### GEN. LÆMOSTHENES, Bonelli,

LÆMOSTENUS, Bonelli, *Observ. Entom.*, i., 1810, *Tabl. synopt.*

PRISTONYCHUS, Dej., *Spec. Col.*, iii., p. 43.

Mentum with a short median tooth triangular and bifid at tip; ligula triangular, broad at tip; paraglossæ disunited at a short distance from the tip of the ligula and projecting much beyond it, inner part of the lobes nearly straight, outer part rounded, tip very sharp; last joint of palpi fusiform, truncate at tip; antennæ not very slender, the three basal joints glabrous, the others densely pubescent; mandibles long; labrum a little broader than long, truncate; head slightly narrowed behind the eyes; prothorax broader in the anterior than in the posterior part and slightly sinuate above the posterior angle; elytra oblong, plane, narrowly striate, a little sinuate behind; legs moderately long; tarsi triangular, not grooved on the upper part, pubescent, those of the first pair a little dilated and cordiform in the male, and with two series of lamelliform scales under the three basal joints; these scales do not extend beyond the median part of the joints; claws long, not pectinate.

The genus is represented in South Africa by two species, one of which may be said to be cosmopolitan.

#### *Synopsis of Species.*

Elytra black with a faint greenish or bluish tinge, no punctures on the third interval . . . . . *complanatus*.  
Elytra very black, three punctures on the third interval . . . . . *nanniscus*.

## LÆMOSTHENES COMPLANATUS, Dej.,

Spec. Col., iii., p. 73.

Piceous black, with the palpi, antennæ, and tarsi reddish brown; elytra with a dark greenish or bluish tinge; head smooth and with two deep longitudinal impressions in the anterior part; prothorax a little amplified laterally in the anterior part, slightly attenuate behind but not sinuate, except above the posterior angle, nearly plane on the disk, narrowly grooved in the middle, deeply impressed longitudinally on each side of the basal part, lateral margins a little recurved; elytra oblong, very slightly broader past the middle than at base, subsinuate behind and nearly plane, narrowly striate, with the intervals moderately broad and very finely aciculate; under side piceous red. Length 15–15½ mm.; width 5¼–6 mm.

This species, originally described from Southern Europe, seems to have been spread by the agency of man, for I have seen in De Chaudoir's collection examples from Madeira, Algeria, Tanger, Mogador, Spain, Sicily, Southern France, Southern Russia, Comoro Islands (Anjuan), Australia (Adelaide), Magellan Straits and Chili. In South Africa I have recorded it from the neighbourhood of Cape Town and from Stellenbosch, thirty miles from Cape Town.

## LÆMOSTHENES NANNISCUS.

Black, shining; the three basal joints of antennæ and legs piceous; the shape is almost similar to that of *L. complanatus*, but the insect is very much smaller and deeper black, the impression on each side of the base of the prothorax is in proportion narrower and more of the shape of a groove, and the elytra have three equidistant punctures on the third interval; under side black. Length 6½ mm.; width 3 mm.

*Hab.* Cape Colony (Cape Town).

## GEN. PLATYNUS, Bonelli,

Observ. Entom., i., 1809, Tabl. synopt.

Mentum with a long median tooth, truncate or not at the tip; paraglossæ disunited from the ligula at some distance from the tip; palpi elongate, the last one subfusiform; antennæ slender; labrum slightly sinuate at the tip; prothorax more or less cordiform, sometimes subhexagonal with the posterior lateral margins recurved, the basal angle more or less oblique, seldom acute, with the posterior seta close to or at a little distance from it; elytra more or less elongato-ovate, slightly sinuate behind, hardly convex or only slightly so, striate and with three punctures, occasionally five, on the third interval; legs long, slender; the three basal joints of the anterior

tarsi dilated in the male, triangular or cordiform, the fourth one short, narrower than the others and deeply incised, all four with a double series of lamelliform squamæ and lateral long hairs underneath, grooved or not on each side of the upper part,\* while the intermediate and posterior ones, and all three in the female are always grooved; claws not pectinate; the male is a little more slender than the female, and has the median lateral part of the prothorax a little more aculeate.

This genus, with its numerous synonyms or sub-genera,† occurs in Europe, Asia, North and South America, Australia, and New Zealand.

The South African species can be divided in three sections, which, however, differ too little from one another to be entitled to rank as genera.

Mentum with a long median tooth; paraglossæ united with the ligula almost up to the tip, and curving inwards; the three basal joints of the anterior tarsi of the male elongate, triangular, and grooved on each side of the upper part, the fourth one short, subcordiform, deeply incised . . . . . Sub-gen. *Megalonychus*.‡

Mentum with a long median tooth; paraglossæ disunited from the ligula at about the median part, longer by one-fourth and slightly curving inwardly; second and third joints of the anterior tarsi of the male short, cordiform, not grooved laterally in the upper part . . . . . „ *Anchomenus*.

Mentum of *Anchomenus*; ligula broadening towards the apex, straight across the tip, but rounded laterally; paraglossæ adhering to the ligula and very slightly longer . . . . . „ *Agonum*.

*Synopsis of Species.*

Sub-Gen. MEGALONYCHUS.

Prothorax broad, cordiform, posterior angles not rounded; intervals of elytra plane; the second, third, and fourth joint of antennæ infusate . . . . . *gilvipes*.

Prothorax broad, cordiform, posterior angles rounded; intervals of elytra convex; antennæ black with the exception of the basal joint . . . . . *crenato-striatus*.

Prothorax suborbicular, roughly shagreened; intervals of elytra plane . . . . . *latipennis*.

\* There is a faint stria on the outer part of the third anterior tarsus in some species.

† Gemminger and Harold, in their 'Catalogus Coleopterorum,' give no less than seventeen synonymous names.

‡ In the South African species the last joint of the tarsi is not longer than in *Anchomenus* or *Agonum*.

## Sub-Gen. ANCHOMENUS.

- Prothorax very long, hardly ampliate in the anterior part, not attenuate behind; elytra nearly parallel, five punctures on the third interval .. .. . *gracilis.*  
 Elytra narrow, oblong, three punctures on the third interval .. *oblongus.*  
 Prothorax moderately ample, very little attenuate behind; elytra striate .. .. . *rufipes.*  
 Prothorax short, as broad as long; elytra striate .. .. . *pauper.*  
 Prothorax narrow, cordiform; elytra punctato-striate .. .. . *natalensis.*  
 Prothorax broad, cordiform, with the posterior angles nearly acute; stria of elytra slightly punctate .. .. . *capicola.*  
 Prothorax narrow, cordiform; striæ of elytra not punctate.. .. *striatitarsis.*  
 Prothorax subhexagonal in the male, cordiform in the female; elytra finely but distinctly aciculate .. .. . *alacer.*

## Sub-Gen. AGONUM.

- Upper part fusco-æneous; prothorax nearly as broad as long, subparallel.. .. . *namaquensis.*  
 Prothorax broader than long, ampliate in the median part, narrowed behind .. .. . *diversus.*  
 Prothorax a little narrower behind than in front, but not sinuate above the base; head and prothorax black; elytra dark brown .. .. . *harpaloides.*  
 Prothorax elongate, cordiform, sinuate behind, posterior margins not recurved .. .. . *caffer.*

## PLATYNUS GILVIPES, Bohem.,

Insect. Caffr., i., p. 170.

*Megalonychus gilvipes*, Bohem., *loc. cit.**Megalonychus interstitialis*, Bohem., *loc. cit.*, p. 171.

Black, moderately shining on the upper and under part; elytra of the female opaque and somewhat greenish; labrum, palpi, legs, and antennæ rufescent, the second, third, and fourth joints infuscate; head smooth, prothorax broad, subcordiform, but slightly more attenuate laterally in the anterior than in the posterior part and with the median part a little aculeate, the lateral margin recurved and rufescent, median part of the disk smooth, lateral and basal parts finely aciculate; elytra oblong, almost plane, one-third broader at the base than the prothorax at its widest part, and with the humeral angle rounded, striate, the striæ very slightly punctate and the intervals very finely aciculate, outer margin with a narrow rufescent band extending from the base to the apex, posterior margin much sinuate. Length 11–11½ mm.; width 4–4½ mm.

*Hab.* Cape Colony (Griqualand East, Albany, Umzimkulu, Port St. John) Natal (D'Urban, Escourt), Zambezia (Salisbury).

## PLATYNUS CRENATO-STRIATUS.

Black, shining; palpi, legs, and basal joint of antennæ flavescant,

the other joints black; head smooth; prothorax ampliate in the anterior part, very little attenuate behind, and with the lateral part of the base rounded from the posterior seta, margin recurved, disk nearly smooth in the centre only and deeply aciculate all round, lateral margin flavescent; elytra oblong, nearly plane, very distinctly punctato-striate, with the intervals convex, outer margin with a very narrow flavescent band.

I have not seen the male of this species, which is probably a little more slender and has a less rotund prothorax; in the female the lateral grooves of the anterior tarsi are not apparent.

Allied to the preceding species, but easily distinguished by the raised intervals of the elytra, the more rotund shape of the prothorax, and the colour of the antennæ. Length  $10\frac{1}{2}$  mm.; width 4 mm.

*Hab.* Zambezia (Salisbury).

PLATYNUS LATIPENNIS, Bohem.,

Insect. Caffr., i., p. 169.

Black, subopaque; palpi and legs flavescent; first basal joint of antennæ flavescent, the other four deeply infuscate and the others light brown; head smooth; prothorax very broad, suborbicular, lateral basal part rounded, outer margin recurved all round, and narrowly flavescent, the whole disk roughly shagreened; elytra oblong, broader than the prothorax, plane, sinuate behind, finely punctato-striate, intervals plane, outer margins very slightly flavescent.

Easily distinguished from the other species by the broad, rotund prothorax, the whole upper part of which is conspicuously shagreened, and by the more ovoid shape of the elytra. Length 11 mm.; width 5 mm.

*Hab.* Transvaal (Leydenburg).

PLATYNUS GRACILIS, Bohem.,

Insect. Caffr., i., p. 173.

Black, or piceous red; palpi and legs reddish; antennæ infuscate, the basal joint piceous; head smooth; prothorax elongate, very little ampliate laterally, only wider by one-fifth in the amplified part than at the base, outer margins recurved, edged with red brown, posterior angle rounded, median part of disk smooth, the basal, and also the lateral part, aciculate; elytra elongate, oblong, not broader in the male than the prothorax at its widest part, and hardly ampliate past the middle, hardly sinuate behind, opaque, edged with a narrow, rufescent band, narrowly striate, striæ without punctures, intervals

plane and finely aciculate, the third one with five punctures ; under side black or piceous black. Length 14 mm. ; width 4 mm.

*Hab.* Port Natal, teste Bohem.

PLATYNUS OBLONGUS, Bohem.,

Insect. Caffr., i., p. 173.

Size, shape, and colour of the preceding species, but the elytra are less parallel, the prothorax is of the same shape, that is to say little ampliate laterally, and finely punctured all over the disk ; the elytra are opaque, striate, with the intervals plane and finely aciculate, the third one with three distinct punctures. Length 14 mm. ; width  $4\frac{1}{2}$  mm.

*Hab.* Zambezia (Salisbury).

I am inclined to think that in spite of having three punctures instead of five on the third interval of the elytra, *M. oblongus* will prove to be the female of *M. gracilis*.

PLATYNUS RUFIPES, Dej.,

Spec. Col., v., p. 730.

Black, moderately shining ; palpi, antennæ, legs, and edge of prothorax red ; head a little narrowed behind the eyes, longitudinally impressed on each side in the anterior part ; prothorax as broad as long, a little sinuate at the apex, a little more rounded laterally in the anterior than in the posterior part, which is very little attenuated with the posterior angles obliquely rounded, nearly plane on the disk with a very well-defined longitudinal median groove and a long lateral sinuose one reaching on each side from the base to beyond the median part, outer margin slightly recurved in the posterior part ; elytra elongato-ovate, nearly one-third broader at the base than the prothorax at its widest part, very little convex and but slightly sinuate in the posterior margin, striate, with the intervals plane, the fourth one a little broader than the others ; under side black or piceous black. Length 11–11½ mm. ; width 4 mm.

*Hab.* Cape Colony (Cape, Stellenbosch, Worcester).

PLATYNUS PAUPER.

Olivaceous bronze on the upper part ; antennæ, outer sides of prothorax, outer margin of elytra and legs flavescens ; antennæ, with the exception of the three basal joints infusate ; head elongato-quadrangle, not narrowed behind the eyes, which are very prominent ; prothorax as broad as long, a little ampliate before the median part, and a little narrowed behind, posterior angles moderately sharp, recurved, median impression very well defined and reaching the

base; elytra elongate, hardly attenuate behind, and very strongly sinuate at apex, plane, striate; under side fuscous. Length 7 mm.; width 4 mm.

*Hab.* Natal (Isipongo).

Is distinguished from *P. capensis, natalensis, &c.*; by the shorter and broader prothorax and the more quadrate shape of the elytra.

PLATYNUS NATALENSIS, Bohem.,

Insect. Caffr., i., p. 174.

Obscurely æneous brown; palpi, with the exception of the apical joints, which are slightly infuscate, the three basal joints of antennæ, legs, and a narrow outer marginal band on the prothorax flavescent; prothorax moderately narrow, subcordiform, gradually attenuate behind but not sinuate, posterior angles obtuse; both head and prothorax smooth; elytra elongato-ovate, one-third broader than the prothorax at its widest part, a little convex, or, properly speaking, less plane than the other species, sinuate behind, striate with the intervals plane and smooth; the striæ distinctly punctate from the base to a short distance from the apex; under side piceous brown. Length 9 mm.; width  $3\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town), Mozambique (Rikatla), Port Natal, teste Bohem.

PLATYNUS STRIATITARSIS.

Reddish brown with a faint metallic tinge; palpi, legs, and the three basal joints of antennæ slightly rufescent; head smooth; prothorax narrow, elongate, cordiform, very distinctly sinuate laterally behind, and with the posterior angle very nearly sharp, disk smooth, but faintly plicate transversely on the posterior part; elytra elongato-ovate, nearly twice as broad as the prothorax, slightly sinuate behind, striate, the striæ impunctate; under side light brown. Length 7 mm.; width  $3\frac{1}{4}$  mm.

*Hab.* Natal, teste Chaud.

Mons. René Oberthur has given me one example of this species, for which I retain Chaudoir's collection name.

PLATYNUS CAPICOLA.

Black, shining, with the three basal joints of antennæ, the palpi, legs flavescent; prothorax with a broad flavescent band, and elytra with a narrow outer margin of the same colour; head smooth; prothorax broad, cordiform, as broad as long, posterior angles nearly acute; elytra oblong, one-third broader than the prothorax at the base, a little ampliate past the middle, sinuate behind, plane, striate, the striæ slightly punctate; under side piceous. Length 10 mm.; width 4 mm.

*Hab.* Cape Colony (Grahamstown).

## PLATYNUS ALACER, Bohem.,

Insect. Caffr., i., p. 175.

Bronze-green, opaque, on the upper part, piceous black, black underneath; the three basal joints of antennæ as well as the palpi and legs are flavescent, the other joints of antennæ are infusate; head smooth; prothorax narrow, elongate, ampliate in the anterior part, almost hexagonal in the male, more rounded laterally in the female, basal outer angles suboblique, finely plicate transversely on the disk, and with a very narrow flavescent edging; elytra oblong, nearly twice as broad as the prothorax, sinuate behind, plane, finely striate, with the intervals plane and very finely shagreened, outer margin flavescent; under side piceous red. Length 8-8½ mm.; width 3-3¼ mm.

*Hab.* Natal (D'Urban), Bechuanaland (Ramoutsa), Zambezia (Salisbury), Damaraland (Kookarrah).

## PLATYNUS NAMAQUENSIS.

Bronze, shining on the upper side, antennæ, palpi, and tarsi black; head and prothorax smooth, the latter is a little longer than broad, slightly ampliate laterally above the median part, but nearly straight from there to the basal angle, which is sharp, but the lateral part of the base is slightly oblique; posterior outer margin not recurved; elytra elongato-ovate, plane, hardly sinuate behind, faintly striate, with the intervals plane and indistinctly aciculate; under side bronze-black. Length 8 mm.; width 3 mm.

*Hab.* Cape Colony (Namaqualand).

## PLATYNUS DIVERSUS.

Bronze, shining on the upper side; palpi, legs, and the three basal joints of the antennæ rufescent, the other joints black; head and prothorax smooth, the latter is as broad as long, ampliate in the anterior part, very little attenuate and not sinuate behind, posterior angle blunt, and outer margin slightly recurved behind; elytra elongato-ovate, hardly sinuate behind, plane, distinctly striate, with the intervals nearly smooth; under side bronze-black. Length 8 mm.; width 3 mm.

*Hab.* South Africa. No exact locality. (Dr. Holub.)

## PLATYNUS HARPALOIDES.

Head and prothorax black, shining; palpi and antennæ, with the exception of the first joint which is red, deeply infusate; legs rufescent; head and prothorax smooth, the latter is a little rounded laterally from apex to about the median part, straight from there to the posterior angle, which is moderately sharp, basal part a little

narrower than the anterior one, and with a broad, closely punctured depression on each side; elytra piceous brown, oblong, not broader at the base than the anterior part of the prothorax, hardly convex, narrowly striate, with the intervals plane, smooth, the third one with three distinct punctures; under side black. Length 6-6½ mm.; width 2½-2¾ mm.

*Hab.* Cape Colony (Oudtshoorn).

#### PLATYNUS CAFFER.

*Feronia (Argutor) gilvipes*, Bohem., Insect. Caffr., i., p. 181.

Æneous on the upper side, black underneath; the legs and the three basal joints of the antennæ red, the other joints rufescent; head smooth, with a frontal impression on each side; deep but not arcuate; prothorax narrow, a little longer than broad, a little ampliate laterally in the anterior part, narrowed from past the middle, and with the posterior part almost straight, posterior angle not obtuse, but not projecting, median groove reaching the transverse impressions, lateral basal ones, narrow, straight, moderately deep; elytra oblong, narrowly striate, with the intervals plane and smooth, the three punctures are sometimes on the third stria instead of being on the third interval; outer margin narrowly rufescent. Length 6 mm.; width 2¼ mm.

*Hab.* Cape Colony (Grahamstown).

#### GEN. EULEPTUS, Lacord.,

Gen. Col., i., 1854, p. 353.

Mentum without a median tooth; ligula long, truncate at tip; paraglossæ disunited from it from near the base, and longer by about one-quarter of the length; palpi of *Platynus*; labrum long, slightly sinuate; eyes large; head narrowed behind; antennæ long, slender, the first joint as long as the third but thick, second one very short; prothorax narrow, subcordiform; posterior seta at the very apex of the posterior angle, which is always more acute in the male, posterior margin sharply recurved; elytra broader than the prothorax by one-half, oblong, strongly sinuate behind, nearly plane but somewhat convex along the suture, very finely and closely aciculate and narrowly striate; the aciculation is so closely set that it gives the elytra a silky appearance, three distinct punctures on the third interval; legs long and very slender, the three anterior tarsi of the male elongato-cordate, not grooved, the fourth very slender, long.

More slender than *Platynus*, although it is somewhat difficult to differentiate from *P. alacer*, &c.; the distinctive generic character is the total absence of the tooth in the mentum.

*Euleptus* occurs in Madagascar, and also in India (Himalaya).

*Synopsis of Species.*

Elytra black.

Prothorax subovate; antennæ flavescent; knees not infusate .. *elegans.*

Prothorax elongate; antennæ subflavescent; knees not infusate *intermedius.*

All the joints of antennæ and also the knees infusate .. .. *caffer.*

The four basal joints of antennæ infusate, the other joints whitish .. .. . *albicornis.*

Elytra dark green.

Antennæ very long, the three basal joints flavescent, the other joints and also the knees infusate .. .. . *gracilis.*

**EULEPTUS ELEGANS.**

Palpi, antennæ, and legs flavescent; head nearly smooth, dark green; prothorax a little longer than broad, subovate, finely plicate transversely, black, opaque; elytra oblong, with the shoulders broadly rounded, plane, sinuate behind, narrowly striate, with the intervals plane and very finely aciculate, black with a silky sheen; apical part of the femora very slightly infusate; under side black.

In the male the prothorax is probably less ovate. Length 8 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Natal (Frere).

**EULEPTUS INTERMEDIUS.**

Very closely allied to the preceding species, but distinguished by the shape of the prothorax, which is much more elongated and much narrower in the posterior than in the anterior part; the antennæ are less flavescent; the prothorax and elytra less intense black; the colour of the legs is, however, identical; the under side is piceous or light brown. Length  $8\frac{1}{2}$  mm.; width 3 mm.

*Hab.* Zambezia (Salisbury).

**EULEPTUS CAFFER, Bohem.,**

Insect. Caffr., i., p. 168.

Head dark green; all the joints of antennæ black, the three basal ones piceous; palpi infusate; prothorax elongate, with the lateral median part subaculeate, the posterior more attenuate than the anterior, disk finely plicate transversely, black, opaque; elytra elongate, one-third broader than the prothorax, parallel with the shoulders gradually rounded, sinuate behind, plane, narrowly striate, deep opaque black with a faint silky sheen; under side piceous black; legs flavescent; apical part of femora broadly infusate. Length 10 mm.; width 3 mm.

*Hab.* Natal (Frere, Escourt).

## EULEPTUS ALBICORNIS.

Head and prothorax dark green, not shining; labrum, palpi, and the four basal joints of antennæ deeply infusate, almost black, the other joints white; prothorax cordiform, longer than broad, not aculeate laterally in the middle and slightly sinuate above the posterior angle, which is very sharp, and the posterior margin much recurved; elytra oblong, deeply sinuate behind, plane, narrowly striate, opaque black, and less silky than the other species; under side piceous; legs flavescent; femora with a broad apical infusate band. Length 10 mm.; width  $3\frac{1}{4}$  mm.

*Hab.* Mozambique (Rikatla).

## EULEPTUS GRACILIS.

Head, prothorax, and elytra bottle-green; subopaque; labrum nearly black; palpi infusate; antennæ very long, reaching beyond the median part of the elytra, the three basal joints rufescent, the others deeply infusate; prothorax elongate, cordiform, a little aculeate laterally in the median part, sinuate behind with the posterior angle moderately sharp, and the posterior outer margin not much recurved, disk plicate transversely; elytra elongato-ovate, finely striate, with the intervals less plane than in the other species, very finely aciculate and faintly silky; under side piceous; legs flavescent, femora broadly infusate at the tip. Length  $7\frac{1}{2}$  mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Mozambique (Rikatla).

## GEN. ENOICUS.

Mentum with a long median tooth slightly truncate at the tip; ligula dilated at tip and nearly truncate; paraglossæ as broad as the ligula, disunited from near the tip only and a little longer; palpi, antennæ, and head of *Platynus*; prothorax attenuated laterally in the anterior and posterior part; elytra elongato-ovate, third interval without any puncture; first and second joints of anterior tarsi slightly grooved, intermediate and posterior ones distinctly so; the anterior tarsi of the male as in *Platynus*, fourth joint deeply incised, almost bilobate.

The distinctive characters of this genus consist in the peculiar shape of the prothorax very different from that of any South African *Platynus*, and in the absence of punctures on the third interval of the elytra. As iridescent as *Melanodes* of the tribe *Chlanides*, and with a ligula and paraglossæ nearly similar in shape, it is at once differentiated by the more slender antennæ as well as by the groove on the intermediate and posterior tarsi; the general facies is also less massive.

## EULEPTUS FALLAX.

Piceous black, shining, iridescent on the upper part; antennæ slender, pubescent, slightly rufescent, likewise the palpi and legs; head smooth; prothorax a little ampliate at about the median part, gradually narrowed laterally in front and behind, and sinuate above the base, which is as broad as the apex; disk smooth, with a narrow median longitudinal groove, the lateral basal depressions shallow, but very distinct; elytra oblongo-ovate, hardly convex, very slightly ampliate past the middle, striate, with the intervals plane, smooth with the exception of the first three bordering the suture, which are irregularly and faintly punctured; this may be, however, only accidental. Length 9 mm.; width 4 mm.

*Hab.* Cape Colony (Grahamstown).

## GEN. ATROTUS.

Mentum very broadly notched, the median part straight, lateral lobes nearly perpendicular inwardly and very sharp; ligula broad, horny, truncate, with a seta at each angle, broadly bordered in front by the paraglossæ which are not quite so broad as the ligula and project laterally a little beyond the membranaceous border; last joint of palpi fusiform and very sharp at tip; maxillæ hooked at tip, ciliate and with eight sharp, curved spines, apical part of the outer lobe swollen; mandibles straight, moderately long, scooped internally at tip, the apical part of which is curved and short; labrum very long, triangularly incised nearly from apex to base so as to look almost lobate; eyes moderately prominent; head not narrowed behind the eyes; antennæ long, slender, the three basal joints glabrous, the basal one nearly as long as the two following; prothorax transverse, with the outer sides nearly straight but slightly narrower at base than at apex, posterior angle a little slanting, base and apex truncate; elytra oblong, slightly sinuate behind, hardly convex, striate; legs moderately long, slender, the three basal joints of the intermediate and posterior tarsi grooved.

I have seen one specimen only of this very singular insect, and the supra-orbital setæ as well as the lateral ones on the prothorax are obliterated. The shape of the apical part of the mandibles, deeply grooved inwardly with the tip and posterior angle of the excavation forming two little hooks is as singular as that of *Hiletus*, while the labrum is as deeply and broadly incised as in *Periphobus* of the group *Cymindidæ*. In spite of these characteristics as well as of the ligula being broadly edged at tip by a membranaceous process similar to that of some South African *Callida* and to *Graphipterus*, the nearest affinities of the genus is with the *Anchomenides*. The example I have examined is a female.

## ATROTUS FORCIPATUS.

Black, shining; elytra slightly iridescent; antennæ reaching to about the median part of the elytra, rufescent; head smooth; labrum flavescens; prothorax transverse, nearly straight laterally, a little narrower at base than apex, posterior part of outer margin slightly recurved, deeply grooved longitudinally in the middle, bi-impressed at the base, black, with a very narrow rufescent margin; elytra oblong, broader by one-third in the median part than the prothorax, and deeply striate, with the intervals slightly convex, the third one with one median puncture, the others indistinct; posterior margin slightly sinuate; black, iridescent with a very narrow rufescent border on the outer and posterior margins; under side piceous, legs rufescent. Length 7 mm.; width 3 mm.

*Hab.* Cape Colony (Oudtshoorn).

## GEN. ANGIONYCHUS, Klug,

Monatsb. Berl. Ac., 1853, p. 248; Peters' Reise n. Moss., 1862,  
p. 165.

Although the characteristics of this genus, which Erichson considered to be new, are very slight, the peculiar form of the claws which has given the genus its name are sufficient to prevent the only known species from being included in the genus *Platynus* (*Anchomenus* and *Agonum*). The mouth does not show any important difference; the antennæ and mandibles are similar except that the latter are a little more incurved at tip; the labrum projects somewhat more and is more rounded; the mentum is as in *Agonum*, and has the same median tooth; the ligula is relatively somewhat longer and the paraglossæ project a little; the palpi show no perceptible difference; the prothorax is not cordate, but as broad behind as in front and rounded at sides and corners. The most important, if not sole difference of the genus consists in the peculiar shape of the tarsi and especially of the claws; the joints are of equal length in the anterior legs, while in the hind ones the two basal ones are longer than each of the two following, which again are of equal length; the nondentate claws are not, as in *Agonum*, curved, but straight and sharp, they lie so close together as to give the appearance of there being a simple claw cleft at tip.

## ANGIONYCHUS LIVIDUS, Klug,

Monatsb. Berl. Ac., 1853, p. 248; Peters' Reise n. Moss., 1862,  
p. 166, pl. 9, fig. 12.

Pale, brownish yellow; head infuscate; antennæ and palpi flavescens; prothorax moderately convex, rounded laterally, apical and basal

margins straight, transverse impressions and also the longitudinal median groove feebly indicated; scutellum triangular but very small; elytra nearly twice as broad as the prothorax, striate, median dorsal striæ reaching short of the apex, the third, fourth, fifth, and sixth nearing one another gradually and uniting above the apex; the under side is of the same colour as the apex, but the sides are darker. Length  $7\frac{1}{2}$  mm.

*Hab.* Mozambique (Sena), teste Klug.

### Tribe POGONIDES.

Mentum narrowly emarginate, and with a median bifid tooth; eyes moderately prominent; head with a deep curved longitudinal impression on each side; last joint of palpi as long or very little shorter than the penultimate one, which is truncate at the apex; labrum emarginate; epistoma with a long lateral seta; antennæ subfiliform with the two basal joints glabrous; prothorax cordiform; elytra elongato-ovate or oblong with the fifth stria sinuate apically; legs moderately long, anterior tibiæ deeply emarginate inwardly and slightly dilated apically; tarsi slender, claws not pectinate, the two basal joints of the anterior tarsi of the male dilated and squamulose underneath.

I find it necessary to divide the two genera included in this tribe into two groups, owing to the great difference in the shape of the ligula and the paraglossæ, and also in the structure of the anterior tibiæ.

#### *Synopsis of Genera.*

Ligula unisetose at the tip which is broad and truncate; paraglossæ very short; tibiæ spinulose externally, anterior ones truncate at the apex .. .. . POGONIDÆ.

Prothorax cordiform; dorsal intervals of elytra deeply punctured .. *Pogonus.*  
Prothorax trapezoid; elytra without any well-defined striæ .. *Extromus.*

Ligula plurisetose, triangular at the tip which is narrow and truncate; paraglossæ very long and slender; head with a deep frontal groove recurved behind the eyes; intervals of elytra well defined but not punctured; tibiæ not spinulose externally, often diagonally truncate outwardly at the apex .. .. . TRECHIDÆ.

Median tooth of the mentum bifid; fifth stria of elytra curved outwardly at apex .. .. . *Trechus.*

Median tooth of the mentum not bifid; fifth striæ of elytra not curving outwardly at apex .. .. . *Perileptus.*

#### GEN. POGONUS, Dej.,

Spec, Col., iii., 1828, p. 6.

Mentum broad, narrowly but deeply emarginate, the inner part of the lobes straight, acute at the tip, broadly rounded outwardly,

median part with a long deeply bifid tooth; ligula in the shape of a broad, inverted triangle very slightly sinuate in the apical part, glabrous but with two median setæ, so closely set as to look as one; paraglossæ slender, united with the ligula and slightly projecting beyond it, terminal joint of the palpi long, swollen at the base, sub-aculeate at the tip; labrum transverse, not incised; eyes prominent; head with a deep supra-orbital, straight groove; antennæ long, sub-filiform, the two basal joints and the greatest part of the third glabrous, the first one slightly swollen, the second one-half shorter than either the first or third; prothorax subcordiform with the posterior angles acute; elytra elongate, subparallel laterally, punctato-striate, with the sixth and seventh striæ less defined than the others, and the eighth one not reaching the base; legs moderately long, tibiæ spinulose outwardly, the anterior ones truncate at the apex; the two basal joints of the anterior tarsi of the male dilated and squamulose underneath.

*Hab.* The genus is represented in Europe, Transcaucasia, Africa (Senegal), the Canary Islands, Cuba, and South America.

*Synopsis of Species.*

Elytra with a broad, dorsal longitudinal green band, the rest light testaceous.

Elytra with the seventh stria quite indistinct, the eighth stria impunctate . . . . . *lamprus.*

Elytra with the seventh stria distinct, the eighth stria punctate . . . . . *apicalis.*

Elytra totally dark green.

Elytra with the seventh stria distinct, the eighth stria punctate . . . . . *senegalensis.*

POGONUS LAMPRUS, Wiedem.,

Zool. Mag., ii., 1823, p. 55.

Head and prothorax bright metallic green; antennæ, base of mandibles and palpi pale yellow; head nearly smooth; prothorax ampliate from the apical angle to two-thirds of the length, narrowed behind with the posterior angle sharp but not projecting, slightly convex in the anterior part of the disk with the base depressed and very closely punctured, median longitudinal groove narrow; elytra elongate, subparallel for three-fourths of the length; striate, the striæ decreasing in length the further they are removed from the suture, the first six dorsal striæ are deeply punctured, the seventh one is hardly distinct, and the eighth is not punctate; they are light yellow, with a broad dorsal bright green patch extending as far as the fifth stria on each side and extending to half the length or a little further; under side piceous red. Length  $6\frac{1}{2}$  mm.; width  $2\frac{1}{4}$  mm.

*Hab.* Cape Colony (Cape Town).

POGONUS APICALIS, Erichs.,  
Wieg. Arch., 1843, i., p. 219.

Much smaller but closely allied to the preceding species, and with the head, antennæ, and legs coloured alike; the prothorax is more deeply impressed laterally in the basal part, and the supra-marginal ridge which limits the impression conspicuous while it is hardly noticeable in *P. lamprus*; the elytra are light testaceous with a faint greenish tinge in the anterior and lateral parts; the striæ are similar but the seventh one is well defined, and the eighth one punctulate; under side light brown. Length  $4\frac{1}{2}$  mm.; width  $1\frac{1}{2}$  mm.

*Hab.* Damaraland (Kuisip River). Was originally described from Angola.

POGONUS SENEGALENSIS, Dej.,  
Spec. Col., v., p. 703.

*P. caffer*, Bohem., Insect. Caffr., i., 1848, p. 164.

Totally dark metallic green, with the antennæ, palpi, and legs flavescens, the apical part of the elytra with a faint flavescens tinge; base of the prothorax closely punctured, the lateral depression deep, and the posterior supra-marginal ridge very developed; elytra elongate, striate in the same manner as the two preceding species, but the striæ are better defined at the apex, the seventh one very narrow but punctulate, and the eighth one with elongated punctures; under side piceous. Length 5 mm.; width  $1\frac{3}{4}$  mm.

*Hab.* Eastern and Southern Caffraria, teste Bohem.; occurs also in Senegambia.

GEN. EXTROMUS.

Labrum long, emarginate; palpi of *Pogonus*, but with the ultimate one more acute at the tip; mentum narrowly emarginate and with a short median tooth; ligula apparently aculeate at the tip and plurisetose\*; paraglossæ broad and slightly shorter than the ligula; head without any lateral sinuate impression, bisetose above the eyes but without any conspicuous puncture as in *Trechus*; mandibles long, arcuate; first joint of antennæ long, the two following short and slender, the others submoniliform and gradually thickened, the ninth and tenth a little broader than the others, and the last one equally broad; but short and ovate; prothorax broader in the anterior than in the posterior part with the outer sides not sinuate, and the posterior angle not sharp; elytra elongato-ovate with one

\* I am not quite certain that the shape of the ligula is exactly true to my description, as I have not been at liberty to dissect the only example I had at my disposal; I used a high magnifying power to try and ascertain the contour of both ligula and paraglossæ.

or two faint juxta-sutural striæ, and three equidistant punctures on the second one.

Differs mainly from either *Pogonus* and *Trechus* in the shape of the joints of the antennæ and that of the prothorax; the striæ on the elytra are neither distinct nor punctured.

#### EXTROMUS PUSILLUS.

Antennæ, labrum, mandibles, palpi, legs and prothorax pale yellow; head black; elytra pale yellow, with a broad, sutural, elongato-ovate dark patch extending from near the base to about two-thirds of the length, and in width to about one-half of each elytron, and also with an apical, narrow, subtransverse patch of the same colour following the contour of the posterior margin; head quite smooth, slightly impressed on each side above the clypeus; prothorax truncate in front and behind, a little broader in the anterior than in the posterior part but with the posterior angle nearly blunt, narrowly grooved longitudinally on the disk, and faintly punctulate along the base; elytra broader at the base than the prothorax at its widest part, elongato-ovate, with two nearly obliterate juxta-sutural striæ, and with three equidistant punctures contiguous with the second stria; apical part of the elytra as well as the whole of the outer margin very briefly setulose; and the posterior marginal seta very long; under side piceous. Length  $2\frac{3}{4}$  mm.; width 1 mm.

*Hab.* Zambezia (Salisbury).

#### GEN. TRECHUS, Clairville,

Entomol. Helvet., ii., 1806, p. 22.

Emargination of the mentum narrow and with a median, short bifid tooth; inner part of lobes straight, outer part curving out, apical part ending in a sharp tooth; ligula broad, in the shape of an inverted triangle, the apical part of which is truncate and bears two long setæ, there are also four lateral ones on each side; paraglossæ very slender, twice as long as the ligula and curving inwards above it; maxillæ long, subfalcate with nine distant stiff bristles; last joint of the labial palpi long, slender, acute at tip and not narrower at the base than the apical part of the penultimate one, terminal joint of the labial very sharp and narrower at the base than the apical part of the penultimate one; antennæ long, subfiliform, basal joint moderately thick, glabrous, the second one smaller than the third and glabrous at the base; head with a deep, crescent shape longitudinal impression on each side; eyes large; mandibles long; labrum short, emarginate; prothorax more or less subcordiform with a median longitudinal groove and a supra-marginal lateral and

basal one, the latter much inflexed in the centre towards the discoidal part which is slightly raised, in the outer part a long seta equidistant from the apex and the middle and another at the posterior angle; elytra oblong, smooth, striate, with the lateral striæ often hardly defined or entirely absent, second interval with an apical setigerous puncture, the third one with a subbasal and a median puncture, the supra-marginal one either well defined or not, with a deep setigerous puncture at about two-thirds of the length, and the fifth one always curving outwardly at the apex; legs moderately slender, the two basal joints of the anterior tarsi of the male dilated a little more inwardly than outwardly, the basal one longer and a little broader than the second.

*Hab.* *Trechus* is found in Europe, the Canary Islands, Northern and Southern America, and India.

#### *Synopsis of Species.*

Anterior tibiæ not truncate diagonally externally.

Elytra with three dorsal striæ on each side, the outer one not sinuate .. .. . *atterrimus.*

Elytra with three dorsal striæ on each side, the third stria sinuate apically .. .. . *ambiguus.*

Anterior tibiæ diagonally truncate externally at the apex.

Elytra with five dorsal striæ on each side .. .. . *pallipes.*

Elytra with six striæ .. .. . *rufipes.*

Elytra with seven striæ, the two outer ones uniting at about three-fourths of the length .. .. . *virax.*

Elytra with seven striæ, the two outer ones not united at the apex .. .. . *affinis.*

#### TRECHUS ATERRIMUS.

Black, shining; palpi infuscate and tarsi pale flavescent; longitudinal grooves of the head and supra-orbital puncture very conspicuous; basal joint of antennæ reddish, the others black; prothorax cordiform, longer than broad; elytra elongate, parallel, broader than the prothorax at the base by nearly one-third; smooth and having on each side three discoidal striæ, not sinuate at tip, the outer one is the shortest of the three, and three punctures on the third interval, the first one is at the top of the third stria, and the median and posterior one in the centre of the interval, the first and second striæ do not reach further than the supra-apical puncture. Length  $3\frac{1}{2}$  mm.; width 2 mm.

Easily recognised from the other South African species on account of its more slender facies, which is not unlike that of a small *Abacetus*.

*Hab.* Cape Colony (Cape Town).

## TRECHUS AMBIGUUS.

Piceous black, shining; antennæ and palpi black; head and prothorax smooth, truncate at apex and base, amplified laterally in the anterior part, narrowed towards the base, with the posterior angles projecting; elytra elongato-ovate, smooth, broader at the base than the prothorax at its widest part, and having on each side, parallel and close to the suture, three striæ, the first one only reaches near the apex, and the second is a little longer than the third; under side and legs piceous; anterior tibiæ not truncate diagonally on the outer apical side. Length 5 mm.; width 2 mm.

*Hab.* Cape Colony (Stellenbosch).

The examples I have captured are all immature, and it is from surmise only that I describe them as piceous black; as a matter of fact they are of a livid colour, but the striation of the elytra, as well as the grooves on the head and prothorax, are very well defined.

## TRECHUS PALLIPES, Bohem.,

Insect. Caffr., i., p. 297.

Ferruginous brown; antennæ, palpi, and legs flavescent; head smooth; prothorax also smooth, not much narrowed towards the base, and with the posterior angles sharp; elytra subovate, smooth, and having on each side five dorsal, well-defined striæ, and a sixth one hardly noticeable or quite wanting; under side black or piceous black. Length  $5\frac{1}{2}$  mm.; width 2 mm.

*Hab.* Cape Colony (Stellenbosch, Ceres, King William's Town, Somerset East).

## TRECHUS RUFIPES, Bohem.,

Insect. Caffr., i., p. 226.

Longer and broader than the preceding species, and also darker; prothorax more ampliate laterally in the anterior part, and also more attenuate towards the base; elytra with six striæ well defined, the sixth one shorter than the others. Length 7 mm.; width 3 mm.

*Hab.* Caffraria, exact locality unknown.

## TRECHUS AFFINIS.

Ferruginous red, shining, and smooth; size and shape of *T. rufipes*, and closely allied to it; the elytra, however, are a little more oblong, the six dorsal striæ are very distinct, but there is also a seventh stria nearly as well defined as the sixth and nearly equally long, that is to say reaching to about four-fifths of the length, and also a more or less distinct supra-marginal one; under side piceous. Length  $6\frac{1}{2}$  mm.; width 3 mm.

*Hab.* Cape Colony (Stellenbosch).

## TRECHUS VIVAX.

Light reddish brown above and under, with the posterior part of the elytra infuscate; antennæ, palpi, and legs reddish brown; head smooth; prothorax as cordiform as in the two species preceding; elytra oblong, each with seven striæ, the five dorsal ones very distinct, the sixth and seventh not so deep but very easily discernible, shorter than the others and uniting at about four-fifths of the length. Length 7 mm.; width 3 mm.

*Hab.* Natal (Frere), Bechuanaland (Ramoutsa).

## GEN. PERILEPTUS, Schaum.,

Nat. Ins., i., 1860, p. 663.

Mentum with a median, not bifid tooth; penultimate joint of maxillary palpi thickened outwardly, ultimate one slender, subulate, shorter than the penultimate; the penultimate one of the labial palpi is thickened inwardly; eyes very briefly pubescent; prothorax cordate, with the posterior angles sharp; elytra pubescent, nearly parallel, plane, striate on the disk, and without any stria curving outwardly behind.

Differs from *Trechus* in having a simple tooth in the mentum, by the more slender penultimate joint of the maxillary palpi, the depressed and tomentose elytra, and the presence of a curved spine under the fourth joint of the anterior tarsi, which is not found in *Trechus*.

The genus has representatives in Europe, Teneriffe Island, Nubia, Abyssinia, and the island of Bourbon.

## PERILEPTUS PROMONTORII.

Fulvous brown, pubescent; labrum, the three basal joints of antennæ a little lighter testaceous; head apparently smooth, infuscate, frontal grooves very deep; prothorax cordiform, a little longer than broad, covered with an extremely fine aciculation, and with a moderately thick pubescence, not so dense, however, than on the elytra; the latter are parallel, and very faintly striate on each side of the disk, and with apparently no trace of a fifth stria; they are fulvous brown, with a triangular basal darker patch, the apex of which reaches along the suture to about one-fifth of the length, and there is also a moderately broad, equally dark border along the posterior margin. Length  $2\frac{4}{5}$  mm.; width 1 mm.

*Hab.* Cape Colony (Grahamstown).

Closely allied to the European *P. areolatus*, but the striæ are almost wanting, instead of being well defined; the prothorax is not infuscate, the basal triangular patch is much better defined, and the posterior marginal border is not so broad nor so deeply infuscate.

## Tribe BEMBIDIIDES.

Mentum with a median tooth moderately sharp and occasionally slightly bifid at tip, lateral lobes a little slanting and much longer than the median tooth; ligula broad and sinuate at tip; paraglossæ slender, adhering to it and longer; penultimate joint of palpi club-shaped, the last one small, subulate, seldom conical; mandibles falcate, sharp, the outer lobe biarticulated; labrum transverse, sexsetose; head not narrowed behind; eyes very large, or moderately large, sometimes absent (*Scotodipnus*), and with two supra-orbital setæ; antennæ filiform; prothorax subquadrate or cordiform, and with the posterior angles sharp; elytra oblong, oblongo-ovate or ovate, striate, with the dorsal striæ often obliterated; legs slender; claws simple; the two basal joints of the anterior tarsi dilated, the basal one elongato-quadrate and slightly squamulose underneath.

*Synopsis of Genera.*

Eyes large; anterior tibiæ not obliquely truncate at apex.. ..	<i>Bembidium.</i>
Eyes moderate; anterior tibiæ obliquely truncate at apex.. ..	<i>Tachys.</i>
Eyes entirely obliterated .. .. .	<i>Scotodipnus.</i>
Eyes with a few facets .. .. .	<i>Heterillus.</i>

## GEN. BEMBIDIUM, Latreille,

Hist. Nat. Ins., viii., 1804, p. 221.

## NOTAPHUS, Megerl.

Mentum with a median tooth; ligula and paraglossæ normal; labrum transverse, very little sinuate at tip, and with six setigerous punctures; head elongate, a little broader behind the eyes than in front; eyes large, and with two long, supra-orbital setæ; antennæ filiform; prothorax cordiform or subcostate, and with a deep puncture in the posterior angle, which is very sharp and slightly recurved; elytra oblong or oblongo-ovate, punctato-striate, with a deep puncture on each side of the base of the scutellum; legs slender.

The genus is represented in Europe, Asia, India, Ceylon, North and South America, the Malay Archipelago, and Africa (Senegal, Zanzibar mainland, Abyssinia).

*Synopsis of Species.*

Prothorax cordiform, much narrowed behind; elytra oblong.

Elytra olive-green, tessellated with elongated yellowish patches.. *variegatum.*

Elytra olive-green, with an apical transverse yellowish band .. *sobrinum.*

Prothorax ampliate laterally in the middle, not much narrowed behind; elytra elongato-ovate.

Elytra flavescent, with a sutural, olive-green, longitudinal band and two transverse ones .. .. . *amœnulum.*

## BEMBIDIUM VARIEGATUM, Bohem.,

Insect. Caffr., i., p. 231.

Greenish bronze; palpi infusate; the basal joints of antennæ reddish, the three following reddish at the base only, the others black or very deeply infusate; head smooth; prothorax as broad as long, cordiform, although slightly angular laterally near the middle, and much narrowed behind, smooth, with the median longitudinal groove and transverse impressions well defined; elytra, with humeral part straight, one-fourth broader there than the prothorax at its widest part, oblong, little convex, finely but deeply punctato-striate, the striæ are six in number on each side, besides the marginal one, the sutural one is curved at apex, and only punctate from the base to the posterior declivity, the other striæ barely reach the declivity, and on the third interval are two punctures, an ante-median occupying the whole width of the interval, and a post-median one small but distinct; the colour of the elytra is olive-green, tessellated with numerous elongated yellowish patches; legs rufescent. Length 4 mm.; width  $1\frac{1}{2}$  mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Worcester).

## BEMBIDIUM SOBRINUM, Bohem.,

Insect. Caffr., i., p. 232.

Shape, size, and colour of *B. variegatum*; the shoulders in the elytra are a little more sloping but not much, and the punctures in the striæ are a little less marked; in the type the elytra are dull greenish bronze, with a narrow apical transverse flavescent band, but I have seen many examples tessellate with pale yellow as much as in *B. variegatum*, of which it might prove to be a mere variety. Length 4– $4\frac{1}{2}$  mm.; width  $1\frac{1}{2}$ – $1\frac{4}{5}$  mm.

*Hab.* Cape (Hope Town, Barkly West, Prieska).

## BEMBIDIUM AMENULUM.

Head and prothorax greenish bronze, turning to dark cyaneous in the centre; the four basal joints of the antennæ flavescent, the other joints and also the apical ones of the palpi infusate; head and prothorax smooth, the latter ampliate and rounded laterally, not much constricted at the base, which is as wide as the apex, longitudinal groove reaching the base; elytra elongato-ovate, and owing to the humeral angle being rounded they are not broader at the base than the prothorax at its widest part, little convex, normally striate, the seven striæ on each side punctulate and reaching the apex, third interval with two punctures; the colour is pale yellow with a metallic sheen, and there is a sutural olive-green band dilated at the base,

and two transverse sinuate bands on the same colour, one, the broadest, at about the median part, the other in the posterior declivity; legs flavescent. Length  $4\frac{1}{4}$  mm.; width  $1\frac{1}{2}$  mm.

*Hab.* Natal (D'Urban).

It is probable that the prevalence of the yellow tint in the elytra where the greenish tinge is reduced to transverse bands will be found to vary much.

GEN. TACHYS, Schaum,  
Nat. Ins., i., 1860, p. 743.

General characters of *Bembidium*, but the anterior tibiæ are obliquely truncate at apex, and in the elytra the sutural stria is recurved in the posterior part of the disk, instead of being connected with the marginal stria.

*Tachys* is represented in Europe, and Northern America.

*Synopsis of Species.*

- Elytra with four or more dorsal striæ on each side, all the dorsal striæ beginning at the same distance from the base.
- Elytra with five dorsal striæ, the eighth deep and very distinct; margin of prothorax grooved in the anterior part; colour dark green . . . . . *crassiusculus.*
- Elytra with six dorsal striæ, eighth obliterated except at apex; colour light testaceous, hardly iridescent . . . . . *precarius.*
- Elytra with four dorsal striæ, eighth obliterated except at apex; colour ferruginous red and iridescent . . . . . *caffer.*
- Elytra with five dorsal striæ and a sixth ill-defined, eighth obliterated; colour brick-red, very iridescent, and with a broad, median, transverse, black fascia . . . . . *migrator.*
- Elytra with four dorsal striæ on each side, dorsal striæ beginning at some distance from the base.
- Elytra with the dorsal striæ smooth, the third short, and the fourth shorter, not extending beyond the two dorsal punctures . . . . . *capicola.*
- Elytra with the dorsal striæ smooth, second and third short and of equal length, fourth longer than either . . . . . *spurius.*
- Elytra with the dorsal striæ punctulate, third and fourth of nearly equal length and only a little shorter than the second, which reaches the declivity . . . . . *vagans.*
- Elytra with three dorsal striæ on each side.
- Elytra with the third dorsal stria reaching only the two punctures, eighth stria present; colour black, iridescent . . . . . *faustus.*
- Elytra with the dorsal striæ hardly defined and evanescent past the median part . . . . . *picinus.*
- Elytra very convex and with no puncture on the third stria, no eighth stria; colour testaceous red . . . . . *fartus.*
- Elytra with two dorsal striæ on each side.
- Elytra with two dorsal striæ, and two punctures alongside the second stria, eighth stria well defined; colour piceous, with two red spots on each side of the elytra.

- Elytra convex, striæ, deeply punctured . . . . . *apicalis.*  
 Elytra not much convex, striæ very slightly punctured . . . . . *imitans.*  
 Elytra not much convex, striæ smooth, a small posterior reddish patch on each side, often wanting . . . . . *exiguus.*  
 Elytra moderately convex, short, oblong; colour piceous red, no reddish patch . . . . . *crassescens.*

Elytra with only one sutural stria on each side.

Prothorax very cordiform; elytra ovate, with the humeral angles projecting; the five ultimate joints of antennæ whitish, eighth stria distinct; colour piceous red, with an occasional reddish round patch on each side of the posterior part . . . . . *humeralis.*

Prothorax broad, transverse, slightly sinuate at base; elytra oblongo-ovate; shoulders much rounded, no eighth stria; colour light testaceous; lateral part of posterior margin and also the apical one broadly infuscate . . . . . *humilis.*

Prothorax subcordiform, eighth stria obliterated and replaced by two subhumeral setigerous punctures . . . . . *nanniscus.*  
*pusillimus.*

#### TACHYS CRASSIUSCULUS.

*Acupalpus bisignatus*, Bohem., Insect. Caffr., i., p. 224.

Dark bronze-black; the elytra with a greener tinge; the four basal joints of antennæ pale yellow, the other joints infuscate; legs flavescens; penultimate joint of palpi in the shape of an elongated club, the last one very short; head smooth; prothorax broader than long, a little attenuated laterally, and more so behind, where it is a little sinuate above the apical angle which is sharp, the disk is smooth, the median longitudinal and the transverse lines well defined, and there is also a deep, supra-marginal groove running from the anterior angle to the first lateral seta and sinuate in the posterior part; elytra oblong, convex, a little broader than the prothorax, but with the humeral angles much sloping, sinuate at base, each one with five dorsal narrow but deep striæ, the intervals of which are almost carinate; these striæ, with the exception of the sutural one, begin at the same distance from the base and reach the top of the posterior declivity, except the fifth one which is a little shorter than the other three, the sixth and seventh striæ are wanting, and the eighth is very deep in the anterior part, sinuate, and has a few deep punctures in the posterior part, the punctures on the third interval are not very distinct, but there is a broad puncture at the base of the second stria and a smaller one on the fifth; the elytra are smooth with a dark green metallic sheen, and have nearly always a rounded, flavescens patch on each side of the posterior part. Length 3-3¼ mm.; width 1½ mm.

*Hab.* Bechuanaland (Ramoutsa), Zambezia (Salisbury).

## TACHYS PRECARIUS.

Light testaceous, hardly iridescent; head a little darker than the rest of the body; palpi, antennæ, and legs flavescent; shape of palpi and head similar to that of *T. crassiusculus*; prothorax broader than long, ampliate laterally in the middle, and deeply sinuate behind with the outer angle sharp, base and apex nearly equally wide, disk smooth or nearly so; elytra oblong, convex, with the humeral angle gradually rounded, and having on each side six striæ reaching the posterior declivity with the exception of the sutural one, but the sixth is almost obliterated, the seventh is absent, and there is only a faint apical trace of the eighth left, but it is replaced by two punctures, a basal and a post-median one; the median and posterior punctures on the third interval are distinct; the posterior declivity of the elytra is flavescent. Length 3 mm.; width  $1\frac{1}{4}$  mm.

*Hab.* Bechuanaland (Ramoutsa).

## TACHYS CAFFER.

Shape, size, and sculpturing of *T. precarius*, but the colour is ferruginous red and subiridescent; the elytra have four dorsal striæ only instead of six, and the eighth stria is obliterated in the same manner. Length  $3-3\frac{1}{4}$  mm.; width  $1\frac{1}{4}$  mm.

*Hab.* Cape Colony (Grahamstown, King William's Town).

## TACHYS MIGRATOR, Fauv.,

Rev. d'Entom.

Brick-red, very iridescent; head black; elytra with a broad, median transverse black band; palpi and legs flavescent; the three basal joints of antennæ and the two apical ones are also flavescent, the intermediate slightly infuscate; the palpi, head, and prothorax are similar in shape to those of *T. caffer*; the elytra are straighter at the base owing to the humeral angle being but slightly rounded, and have six dorsal striæ on each side; the striæ are punctured with the exception of the sixth which is not very well defined; the two adjoining the sutural one reach further back than the other three, which are not produced beyond the apical margin of the transverse black band, the seventh is wanting, and the eighth is as in the two preceding species. Length  $2\frac{1}{2}$  mm.; width 1 mm.

*Hab.* Cape Colony (Cape Town).

## TACHYS CAPICOLA.

Black, shining; the three basal joints of antennæ and the legs are flavescent, the other joints of the antennæ black; penultimate joint of palpi subpyriform; prothorax ampliated laterally in the middle,

more attenuate behind than in front with the posterior angles sharp but not projecting; elytra oblongo-ovate, slightly convex, and having four dorsal striæ on each side, and the eighth is entire and well defined, the second one begins at some distance from the base and reaches the top of the posterior declivity, the third one is shorter, and the fourth is shorter than the third, which has two moderately distinct punctures, and extends a little further on each side, while the fourth does not extend beyond the two punctures. Length  $2-2\frac{1}{5}$  mm.; width  $0.\frac{4}{5}-1$  mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch).

#### TACHYS SPURIUS.

Black, shining; shape and size of *T. capicola*; elytra oblongo-ovate, slightly convex, and having on each side four dorsal striæ, the eighth is entire and well defined, the second dorsal one begins at some distance from the base and barely reaches the top of the declivity, the third one is the shortest, beginning slightly in advance of the first puncture, but reaching no further than the second, and the fourth begins a little nearer to the base than the second and is also produced slightly further than the third one; legs pale flavescent. Length  $2-2\frac{1}{5}$  mm.; width 1 mm.

*Hab.* Zambezia (Salisbury).

#### TACHYS VAGANS.

Black, shining; shape of *T. capicola* and *T. spurius*, but a little more elongate; elytra with four dorsal striæ, and a well defined eighth one; the striæ are very closely punctulate, the sutural one begins, like the second, at some distance from the base, and the second reaches the top of the posterior declivity, the third and fourth begin at about the same distance from the base, a little lower down than the other two, are nearly of equal length and reach to a little short of the posterior declivity; the punctures on the third interval are indistinct. Length 2 mm.; width 1 mm.

*Hab.* Natal (Escourt).

#### TACHYS FAUSTUS.

Black, iridescent on the elytra; antennæ black with the two basal joints flavescent; legs flavescent; penultimate joints of palpi subpyriform; prothorax broader than long, a little ampliate in the anterior part and slightly narrowed behind, the basal angles sharp; elytra oblongo-ovate, slightly convex, but depressed in the discoidal part, and with three dorsal striæ, the second one extending as far from the base as from the apex, the third one shorter than the second and limited by two punctures, the anterior one of which is

alone well defined, the other striæ have disappeared, except the eighth one which is entire, but moderately deep. Length  $2\frac{1}{2}$ –3 mm. ; width  $1-1\frac{2}{5}$  mm.

*Hab.* Cape Colony (Grahamstown).

TACHYS PICINUS, Bohem.,

Insect. Caffr., i., p. 229.

Shape, size, and colour of *T. faustus*, the difference consisting in the striæ of the elytra which are very feebly indicated in the anterior part and disappear almost entirely past the middle. Length  $2\frac{1}{2}$  mm. ; width 1 mm.

*Hab.* Eastern Caffraria, teste Bohem.

Boheman's type is the only example of this species which I have seen.

TACHYS FARTUS.

Testaceous red, shining ; antennæ very slightly infuscate with the two basal joints rufescent ; legs flavescent ; prothorax nearly twice as broad as long, slightly narrowed near the base, posterior angles sharp ; elytra ovate, very convex, with three dorsal striæ, the second longer than the third, but beginning at the same distance from the base, all the other striæ have disappeared, but the outer margin is grooved and punctulate. Length  $1\frac{1}{2}$ –2 mm. ; width  $1\frac{4}{5}$ – $1\frac{1}{2}$  mm.

*Hab.* Cape Colony (Stellenbosch, Grahamstown), Natal (Escourt).

TACHYS APICALIS, Bohem.,

Insect. Caffr., i., p. 228.

Piceous, very shining, and with a basal and apical ovate reddish patch on each elytron ; antennæ infuscate with the exception of the three basal joints which are flavescent ; penultimate joints of the palpi elongated in a moderately thick club shape ; prothorax subcordiform with the posterior angles sharp ; elytra twice as broad at the base as the basal part of the prothorax, oblongo-ovate with the shoulders slightly rounded, convex, but depressed in the median part of the disk, with two dorsal, deeply punctured striæ on each side, the second of which reaches nearly to the top of the declivity, and has alongside two deep punctures, the other striæ have disappeared, except the eighth which is very well defined. Length  $3\frac{1}{2}$ – $3\frac{3}{4}$  mm. ; width  $1\frac{1}{2}$  mm.

*Hab.* Natal (D'Urban, Escourt), also Zanzibar, teste Chaud.

TACHYS IMITANS.

Black, iridescent, and with a basal and apical reddish patch on each elytron ; antennæ infuscate, except the three basal joints which

are flavescent, as are also the legs; prothorax as long as broad, sensibly narrowed laterally near the base and with the posterior angles sharp; elytra elongato-ovate with the shoulders moderately rounded, and having on each side two dorsal striæ very slightly punctured and two moderately deep punctures alongside the second stria, the other striæ have disappeared, but the eighth one is well defined.

It differs from the preceding species in the slightly less cordiform shape of the prothorax; the elytra are much less convex, and the striæ are not so deep nor so deeply punctured, and the two dorsal punctures alongside the second stria are not so conspicuous. Length  $3\frac{1}{5}$ - $3\frac{1}{2}$  mm.; width  $1\frac{1}{4}$  mm.

*Hab.* Cape Colony (Grahamstown), Natal (Escourt).

#### TACHYS EXIGUUS, Bohem.,

Insect. Caffr., i., p. 230.

Black, shining, and with an apical yellowish round dot on each side of the elytra and occasionally an indistinct basal one. Closely allied to the preceding species, but smaller; the prothorax is less cordiform; the striæ on the elytra are quite smooth and the punctures alongside the second one less distinct, the colour of the elytra is black, shining, but with a faint trace occasionally of a round apical reddish or yellowish spot on each side, and seldom of a basal one, in which case it is smaller and almost evanescent. Length 2- $2\frac{1}{2}$  mm.; width  $1\frac{1}{4}$  mm.

*Hab.* Natal (D'Urban, Escourt), Cape Colony (Kimberley, Grahamstown), Bechuanaland (Ramoutsa).

#### TACHYS CRASSESCENS.

Piceous red, very shining, and with a posterior subevanescent redder round patch on each side of the elytra; palpi, legs, and antennæ flavescent, the third, fourth, and fifth joints of the latter a little less flavescent than the others; head normal; prothorax subcordiform, but as broad as long; elytra short, broader than the prothorax, and with the humeral angles not much rounded, on each side there are two dorsal striæ and an eighth one well defined, the second stria begins at some distance from the suture and reaches a little beyond the top of the declivity, outside the second stria are two very shallow punctures.

The disposition of the striæ is the same as in *T. exiguus*, but the general facies is more massive; the prothorax is broader and the elytra are less elongato-ovate. Length  $2\frac{1}{4}$  mm.; width 1 mm.

*Hab.* Natal (Frere).

## TACHYS HUMERALIS.

Piceous red, shining; palpi, legs, and the basal joint of antennæ flavescient, the five following joints slightly infuscate and the five apical ones whitish; prothorax regularly cordate laterally for two-thirds of the length, posterior part elongate and much narrowed, the lateral basal impression long and deep; elytra very ovate, broader than the prothorax, and with the basal part sloping laterally, carinate and aculeate at the humeral angle, sutural stria hardly defined except in the posterior part, dorsal punctures quite indistinct, eighth stria deep and well defined; on each side of the posterior part there is occasionally a reddish round patch. Length  $2\frac{1}{2}$  mm.; width 1 mm.

*Hab.* Zambezia (Salisbury).

## TACHYS HUMILIS.

Light testaceous, shining; head and posterior part of elytra infuscate; palpi, antennæ, and legs flavescient; head normal; prothorax one-third broader than long, rounded laterally in the anterior part, very slightly narrowed in the posterior, basal angle sharp; elytra not much broader at the base than the prothorax, and with the shoulders much rounded, oblongo-ovate, a little ampliate past the median part, sutural stria distinct, and beginning at a short distance from the base, no eighth stria, and no trace of dorsal punctures. Length  $1\frac{4}{5}$ – $2\frac{1}{5}$  mm.; width  $1$ – $1\frac{1}{5}$  mm.

*Hab.* Natal (Frere), Zambezia (Salisbury).

## TACHYS NANNISCUS.

Piceous red with the prothorax rufescent, and the labrum, palpi, antennæ and legs flavescient; head and prothorax normal; elytra with the sutural stria distinct, and beginning at some distance from the base, two dorsal, sufficiently distinct punctures; eighth stria obliterated, but instead there are two subhumeral moderately deep setigerous punctures. Length 1.55 mm.; width 0.67 mm.

*Hab.* Cape Colony (Cape Town).

## TACHYS PUSILLIMUS.

Shape and sculpture of *T. nanniscus*, but it is more elongate, or rather narrower; the sutural stria on the elytra is not deep, and the two dorsal setigerous punctures are very nearly indistinct, the eighth stria is also obliterated and replaced by two subhumeral punctures; the colour is livid brown, but very often light testaceous. Length 1.40–1.43 mm.; width 0.6 mm.

This species is next to *Scotodipnus capensis*, the smallest South African Carabidous beetle.

*Hab.* Cape Colony (Grahamstown), Natal (Escourt, Frere), Zambezia (Salisbury).

GEN. SCOTODIPNUS, Schaum.,  
Nat. Ins., i., 1860, p. 667.

MICROTYPHLUS, Lind. Annal. Franc., 1863, p. 483.

Body elongate, depressed; head a little longer than broad; eyes entirely absent; two supra-orbital small setæ; labrum and epistome with a long bristle on each side; penultimate joints of the maxillary palpi very much swollen and densely pilose, the ultimate one so small and short that it looks like the acuminate point of the penultimate; antennæ massive, joints pubescent and bristly, moniliform, the first one thick, elongato-quadrate, second and third short, the ultimate one as thick as the penultimate and subconical; prothorax subcordiform but not much narrowed behind, truncate at the base and apex, angles of the former sharp; elytra elongate, subparallel, depressed; legs short; femora swollen; anterior tibiæ deeply incised inwardly and curved outwardly at apex; tarsi moderately slender, the two basal joints not dilated in the male.

The genus has been recorded from Southern Europe only.

SCOTODIPNUS CAPENSIS.

Plate X., fig. 11.

Pale testaceous; head nearly smooth but with a few setigerous punctures and two long setæ in a slight impression on each side of the vertex; prothorax as broad as long, truncate at base and apex and with the basal angles sharp, rounded laterally in the anterior part and a little narrower behind than in front, but with the sides not sinuate, not plane on the disk, yet hardly convex, distinctly grooved in the centre, irregularly and distantly punctured, each puncture setiform; elytra subparallel, abruptly rounded behind, punctulate, finely and briefly pubescent, and with longitudinal series of setiform hairs; on each side of the apical margin near the suture there is a long seta; under side, legs, and tarsi briefly bristly. Length 1.25-1.36 mm.; width 0.4 mm.

*Hab.* Cape Colony (Cape Town).

This interesting species was found by Mons. A. Raffray under stones deeply imbedded in the ground; its habitat is thus similar to *S. (Microtyphlus) Schaumi*, found in Southern France.

GEN. HETERILLUS.

Body elongate, depressed; head longer than broad; eyes small and consisting of 18 to 20 hemispherical, separated facets; penultimate joint of palpi and antennæ as in *Scotodipnus*; prothorax also subcordiform, and elytra elongated and depressed; anterior tarsi of the male with the basal and second joints dilated.

The difference between *Scotodipnus* and *Heterillus* consists in the presence of eyes in the latter, although of a very degraded character, and also in the dilatation of the two basal joints of the anterior tarsi of the male.

#### HETERILLUS ADVENTITIUS.

Light brown, with the antennæ and legs lighter; head with numerous scattered, short, more or less decumbent setæ; antennæ very pubescent, the joints very moniliform and bristly; prothorax as broad as long, cordiform in the anterior part, nearly straight in the posterior part from the second lateral setigerous puncture which is situated a little beyond the median part to the basal angle which is moderately sharp; elytra elongated, subparallel, abruptly rounded behind, quite plane, not covering the pygidium, densely pubescent and with three long discoidal bristles on each side; one below the base, one in the middle, and one at the apex; legs briefly pubescent. Length 1.55 mm.; width 0.58 mm.

*Hab.* Cape Colony (Cape Town).

# ADDENDA.

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## TRIBE BRACHINIDES.

### GEN. BRACHINUS.

#### BRACHINUS OBLITERUS.

Head, palpi, prothorax, scutellum, and legs reddish; antennæ infusate, with the exception of the two basal joints which are reddish; elytra briefly pubescent, slightly costulate on the dorsal part, black with a narrow lateral reddish margin and two round reddish spots in the posterior part, the first one is placed a short distance from the apex, where the second and third costæ end, and the other one a little lower down in the posterior angle where it unites with the lateral margin; under side rufescent, with the lateral and also the apical part of the abdomen infusate. Length  $6\frac{1}{2}$  mm.; width 3 mm.

*Hab.* Natal (Escourt).

Its nearest ally is *B. simulans*, but it is smaller; the joints of the antennæ, with the exception of the two basal ones, are infusate instead of red as in the latter; the costæ on the elytra are not so conspicuous, and in *B. simulans* there is no trace of the lateral posterior red patch found in *B. obliterus*.

### GEN. STYPHROMERUS, Chaud.

#### STYPHROMERUS PUBERULUS.

Pale yellow, briefly pubescent; second, third, and fourth basal joints of antennæ slightly infusate; head punctulate and with a central black longitudinal line reaching from the centre to the base; prothorax shagreened and with a moderately broad black longitudinal

median band slightly acuminate behind; elytra elongato-quadrate, costulate, shagreened and briefly pubescent; they have a narrow fuscous black lateral band, and on each side an elongated, acuminate basal longitudinal band of the same colour, beginning at the base between the humeral angle and the scutellum and extending to one-fifth of the length, and along the suture is a black line which begins a little before the median part and coalesces at the apex with a transverse narrow patch or band which does not unite quite with the lateral black margin; under side and legs flavescent; abdomen black. Length 7 mm; width 3 mm.

*Hab.* Cape Colony (Uitenhage).

A very distinct species.

#### GEN. CREPIDOGASTER.

##### CREPIDOGASTER NOTULATIPENNIS.

Brick-red, opaque; elytra with a slight post-median infuscation encircling an ovate spot of the background on each side; abdominal segments deeply fuscous.

Closely allied to *C. rufescens*, and having, like this species, the sixth carina much more raised than the others, but it is smaller; the antennæ are proportionally less massive; the intervals on the elytra not quite so closely shagreened, and in *C. rufescens* the elytra are deeply infuscate. I have seen two examples only of *C. rufescens* and one of *C. notulatipennis*. Length 7 mm.; width 3 mm.

*Hab.* Cape Colony (Touw's River).

### TRIBE LEBIIDES.

#### GROUP CYMINDIDÆ.

#### GEN. METAXYMORPHUS.

##### METAXYMORPHUS ATRICEPS.

Flavescent; antennæ a little darker than the rest of the background; head, with the exception of the labrum, black; prothorax faintly testaceous in the median part; elytra hardly striate, very finely aciculate and with a broad sutural infuscate band expanding near the median part into a quadrate patch, and stopping at a little distance from the outer and the posterior margins; under side and legs light testaceous; claws with two small basal teeth on each side. In the systematic arrangement this species should come after *M. vicinus*. Length 5 mm.; width 2 mm.

*Hab.* Cape Colony (Uitenhage).

## GROUP DROMIIDÆ.

## GEN. XENITENUS.

## XENITENUS ORNATELLUS.

Head, prothorax, and antennæ brick-red; elytra and legs pale testaceous; prothorax very narrow, elongate, nearly parallel, slightly sinuate above the posterior angle which projects a little, and has two dark infusate bands on the disk; elytra twice as broad as the prothorax, elongate, parallel, depressed, striate, alternate intervals regularly tessellate, with elongated black patches from base to apex, while the second, fourth, and sixth are generally totally black; legs flavescent. Length 6 mm.; width  $2\frac{1}{4}$  mm.

Allied to *X. tessellatus*; but the elytra are a little narrower, and much more tessellate; the prothorax is also a little more parallel.

*Hab.* Natal (Escourt).

## GEN. KLEPTERUS.

## KLEPTERUS MAJORINUS.

Allied to both *K. consobrinus* and *K. pallidicollis*, but larger as a rule; the colour and shape of the head and prothorax are identical, the antennæ are a little less pubescent than in *C. consobrinus*; the elytra are striate but the intervals are not so much carinate as in the last-named species, and the striæ are almost smooth, thus resembling *K. pallidicollis* to which it is more closely allied, but the sixth interval has a very well marked series of equi-distant punctures from near the base to close to the apex; this series is not discernible in *K. pallidicollis*, which species is also much smaller. Length  $6\frac{1}{2}$ – $7\frac{1}{4}$  mm.; width 3 mm.

*Hab.* Cape Colony (Stellenbosch, Cape Town).

## GEN. KLEPSIPHRUS.

## KLEPSIPHRUS APICALIS.

Piceous brown, shining; palpi, the two basal joints of antennæ, and the femora flavescent; head smooth, a little redder in the posterior than in the anterior part; prothorax one-third longer than broad, nearly parallel and equally broad at base and apex, narrowly grooved longitudinally in the centre and finely plicate transversely; elytra nearly twice as broad at the prothorax as at the base, slightly ampliate beyond the shoulders, deeply sinuate behind, plane and striate; the second, fourth, and fifth striæ have a regular series of deep, narrow punctures; the colour is piceous brown like the head and prothorax, but at the apex is a transverse subflavescent band

extending from side to side, ascending along the suture to about one-sixth of the length and reaching the third stria on each side; under side piceous. Length  $6\frac{1}{2}$  mm.; width  $2\frac{3}{4}$  mm.

*Hab.* Natal (D'Urban).

## TRIBE GRAPHIPTERIDES.

### GEN. GRAPHIPTERUS.

#### GRAPHIPTERUS PURCELLI.

Black; antennæ entirely black; head with a median pubescent yellowish patch, posterior part of the head very closely punctured; prothorax very little attenuate laterally behind and very little rounded in the anterior part, almost plane, marginate, and with the apical angles not sloping; it is deeply and roughly punctured, and has on each side a broad fulvous yellow pubescent band; elytra subelongate, not much broader at the base than the prothorax at the apex and with the shoulders moderately rounded, a little ampliate at about the median part, and hardly attenuate from there to the apex, nearly plane, covered with fulvous, yellowish hairs, with the suture and three slightly raised narrow lines denuded; the pubescence of the three intervals between the denuded lines is arranged in a double row *en chevrons*; under side piceous; legs black. Length 18 mm.; width 8 mm.

This interesting species, one of the largest of the South African ones, is easily distinguished by the shape of the prothorax which is less cordiform and more parallel than in any of the others. One wonders at it having escaped hitherto capture at the hands of collectors.

*Hab.* Captured at Matjiesfontein, Cape Colony, by my colleague, Dr. F. Purcell.

## TRIBE ANTHIADES.

### GEN. POLYHIRMA, Chaud.

#### POLYHIRMA TEMBENA.

The sculpture of the elytra resembles entirely that of *P. notata*, *i.e.*, they have on each side five sharp carinæ extending from the base to two-thirds of the length with the intervals foveate, the posterior part is faintly striate, and the basal and apical white pubescent patches are identical in both species, but in *P. tembena* the elytra are more convex and resemble those of *P. scrobiculata*; the neck is a little less slender than in this species, but much

narrower and more elongate than in *P. notata*, and the head is also narrower. Length 21 mm. ; width 6-6½ mm.

*Hab.* Mozambique (Tembe).

## TRIBE SCARITIDES.

### GROUP CLIVINIDÆ.

#### GEN. SPAROSTES, Putz.,

Ann. Soc. Ent. Belg., vol. x., 1866, p. 27.

Ligula horny, almost pyramidal, carinate in the middle and having two closely-set apical setæ ; paraglossæ much longer than the ligula, narrow and sharp ; third joint of palpi compressed, twice as long as the last which is attenuate on each side, truncate and a little ampliate past the median part ; maxillæ well developed, curved at apex and sharp ; the three joints of the maxillary palpi nearly of equal length, the second one thick, subcylindrical, the third narrower and clubbed ; lateral lobes of mentum obliquely truncate, and a little longer than the triangular, sublobate median tooth ; mandibles broad, plane ; antennæ short, thickened, basal joint equal in length to the two following, the second one conical and carinate, the others from the fifth to the tenth transverse ; labrum transverse, bisinuate ; clypeus truncate, foliation (alæ) prominent ; head convex, eyes projecting ; prothorax transverse, rounded at base ; elytra subcylindrical, truncate at base with the shoulders dentate, deeply sinuate before the apex, striate with the scutellary stria very short ; anterior tibiæ with long digits, intermediate ones with spurs ; first joint of the tarsi of the same length as the three following ; claws long, slender ; no wings under the elytra.

This genus, with which I am not acquainted, is represented in Northern China and Siam, and occurs also in Africa.

#### SPAROSTES AFRICANUS, Putz.,

Stett. Entom. Zeit., vol. xxxvi., 1876, p. 447.

Black, very shining ; palpi and antennæ brown ; clypeus truncate, the lateral lobes broadly rounded ; head with a long, narrow median fovea, and multistrigose longitudinally on each side ; eyes prominent, not distinctly petiolate ; prothorax very briefly transverse, parallel laterally, emarginate in the anterior part with the angles prominent and rounded ; rounded before the base, convex on the upper side, sulcate transversely in front and without any basal foveolæ ; elytra elongate, truncate at base, with the humeral part subdentate, narrowed at apex, punctato-striate with the third interval trifoveolate, the foveæ being behind the third stria ; the scutellary stria is long and parallel with the suture.

SPAROSTES BREVILOBIS, Bates,  
Entom. Monthly Mag., vol. xxii., p. 193.

“Cylindrical, piceous black, shining; antennæ and legs rufescent; labrum with a broad, triangular, median emargination; cheeks slightly rounded in front of the eyes, not tuberculated behind, and not much more raised than the occiput; elytra punctato-striate, with the suture not depressed at the base, and the scutellary striola much elongate; intervals little convex, the third one with five punctures; sides of metasternum and the whole of abdomen sparsely punctate. Length 20 mm.”

*Hab.* Zambeze.

The eighth elytral interstice, as in the other species of the genus, is narrow and cariniform at the extreme base and apex.

### TRIBE CHLÆNIDES.

CHLÆNIUS MAKALOLO, Bates,  
Entom. Monthly Mag., vol. xxiii., 1886, p. 12.

“Elongate, black with a dark-blue tinge; posterior part of the head and prothorax with rough, confluent punctures; elytra finely punctate; head gradually narrowed behind the eyes; palpi truncate at the apex and not dilated; front of labrum straight; prothorax subquadrate, with the outer sides not much rounded in the middle, and the posterior angles moderately sharp; elytra deeply punctulato-striate, with the intervals convex and alternately moderately smooth or closely punctured. Length 26 mm.”

*Hab.* Mozambique, Zambeze.

This species is probably allied to *C. cæruleolimbatus*.

### TRIBE PTEROSTICHIDES.

GEN. ABACETUS.

ABACETUS CONFORMIS.

Black, shining; palpi, the three basal joints of antennæ, and the legs reddish or reddish brown. It is closely allied to *A. natalensis* and *A. obtusus*; the shape and sculpture of the head and prothorax are the same as in the last-named species, but the elytra are a little more elongate and the humeral are more obliquely rounded; they are also striate, but the intervals are not quite so convex, and the median puncture on the third interval is more pronounced. Length  $6\frac{1}{2}$  mm.; width  $2\frac{3}{4}$  mm.

*Hab.* Cape Colony (Uitenhage).

Mr. Tschitschérine has published in the *Annuaire du Musée Zoologique de l'Académie des Sciences de St. Petersbourg* a 'Note sur les Féroniens de l'Afrique Australe,' in which he describes two new species and creates a "new group," for which he proposes the name of *Wahlbergia*. Having already proposed this name for a genus of the tribe *Lebiides*, and although some people might take exception to a generic name being applied to a group, which, however, I take in this case is intended to mean a subgenus, I propose to change *Wahlbergia amoenula* to *Abrodiaeta amoenula*.

GEN. PTEROSTICHUS, Bonelli.

PTEROSTICHUS HOTTENTOTUS, Oliv.,

Entom. iii., 36, p. 9, pl. 2, fig. 19.

*plantaris*, Germor. Ins. Spec. Nov., p. 22.

*minor*, Fairm., Ann. Soc. Ent. France.

Black, shining; labrum, palpi, antennæ, and legs piceous red or ferruginous; head smooth, frontal impressions deep; prothorax not rounded laterally except near the apical angle, a little attenuate from about the median part to the base, posterior part of the outer margin a little recurved, and rounded at the base; on each side of the basal angle there is a broad impression with a moderately deep fovea in the centre, the median longitudinal line is well defined but reaches neither apex nor base; elytra truncate at base with the shoulders angular, oblongo-ovate, not much convex, striate with the intervals plane and the striæ impunctate, no puncture on the third stria, seventh interval costate at the base in the male which is further distinguished by the greatly incurved intermediate tibiæ, which are slender for two-thirds of the length and have the remaining third dilated inwardly in a subquadrate, broad, apical lamina. Length 16–17 mm.; width  $5\frac{1}{4}$ –6 mm.

*Hab.* Cape Colony (Cape Town, Stellenbosch, Malmesbury, Paarl, Worcester).

PTEROSTICHUS SEVERINI, Tschisch.,

Ann. Mus. Zool. Acad. St. Petersb., 1896, p. ? 2.

Described in Catalog., *vid.* p. 564.

PTEROSTICHUS (OGMOPHORUS) PERINGUEYI, Tschisch.,

*Loc. cit.*, 1896, p. ? 5.

"The upper part of the body is black, shining (female), the legs piceous red, the antennæ brownish red, with the three basal joints a little darker; head normal; mandibles moderately long and strong, recurved and acute, strongly striate on the upper part; epistoma

with the three large foveæ extending all along the anterior part and causing it to look as if carinate in the centre; last joint of palpi sub-cylindrical, truncate at tip; frontal impressions moderately long, well defined, almost parallel, produced beyond the anterior part of the eyes which project much, surface smooth and shining; elytra reaching a little short of the base of the prothorax; tooth in the mentum bifid; prothorax transverse, hardly narrowed behind, nearly one and one-third as wide as long, almost truncate at apex, with the anterior angles rounded, not projecting, the sides are moderately curved, the posterior angles quite rounded, the base is almost truncate, the lateral groove is narrow, and the external rounded margin thin; the surface is moderately convex principally towards the sides and posterior angles which are deflexed, the base has a transverse depression, and has on each side an impression containing two longitudinal striæ; it is almost smooth, except for some wavy, irregular transverse lines; the anterior transverse impression and also the median line are well defined; elytra almost parallel, hardly subsinuate between the shoulder and the median part, and not ampliate beyond it; they are nearly one and two-thirds as long as broad, two and a half as long, and hardly more than one and one-fifth as broad as the prothorax; the shoulders are obtusely rounded, but the basal border, slightly sinuate, forms with the lateral fold a nearly straight angle; the striæ are deep and smooth, the intervals slightly convex, the third one has two punctures, the first one at about the median part, the second towards the end, and both are close to the second striæ, the scutellary rudiment is long, well defined, and situated between the two first striæ, the series of punctures on the eighth stria is interrupted in the middle; the prosternum is smooth, the intercoxal projection is not recurved, the episterna of the metasternum, also smooth, are longer than broad, and have a well-defined groove along the external border; the sides of the abdominal segments are irregularly plicate, and the folds moderately deep, the anal segment, simple in the female, and with two piligerous punctures on each side, has, as well as the two preceding ones, a transverse well-defined groove; the legs are moderately slender, the posterior tarsi, which are a little shorter than the tibiæ, have no lateral grooves, the fifth joint of all the tarsi is glabrous and without ciliæ underneath."

"There is no *Pterostichus* (*Feronia*) in Africa to which *P. Peringueyi* can be compared, and it seems to me necessary to create for it a distinct subgenus of which the essential characters are: *Ogmophorus*—Head normal, eyes protruding, tooth in the mentum

bifid; last joint of palpi subcylindrical; antennæ subfiliform, moderately short, not reaching quite the base of the prothorax; prothorax rounded in the posterior angles; elytra with a basal border and some distinct dorsal punctures on the third interval, intercoxal point of the prosternum not marginate; episterna of metasternum elongate, longer than broad in the anterior part, sensibly narrowed behind; three last abdominal segments with a transverse groove near the anterior edge; first joint of posterior tarsi without any distinct lateral grooves; fifth joint of all the tarsi glabrous, not ciliate beneath. The general facies is not unlike that of the European *Lyperosomus*, Motsch."

## TRIBE BEMBIDIIDES.

### GEN. TACHYS.

#### TACHYS GRATUS.

Head, prothorax, antennæ, with the exception of the two basal joints which are rufescent, black or deep fuscous; elytra flavescent, edged all round with a fuscous band; prothorax a little ampliate laterally in the anterior part, slightly attenuate behind, with the posterior angle sharp; elytra oblong, convex, and having on each side four dorsal, smooth striæ, the first and second ones begin at a short distance from the base, the former only reaching the apex, and the other two are of equal length, and much shorter than the second; legs flavescent. Length 2 mm.; width  $1\frac{1}{4}$  mm.

*Hab.* Cape Colony (Laingsburg).

Allied to *T. faustus*, but differs in colour; the prothorax is proportionally broader and less attenuate laterally behind, and the number of striæ on the elytra is different.

## TRIBE TRECHIDES.

### GEN. POGONUS.

#### POGONUS LUCTUOSUS.

Black, very shining; palpi, first basal joint of antennæ and legs piceous red; apical part of the last joint of palpi flavescent; longitudinal supra-ocular ridge short, head smooth; prothorax not much rounded laterally and slightly attenuate in the posterior part, smooth in the discoidal part, deeply and closely punctured along the base, and very slightly along the anterior margin; elytra truncate at base, parallel, narrowly striate, striæ smooth, third interval with an indistinct puncture in the posterior part. Length 4 mm.; width 2 mm.

*Hab.* Cape Colony (Cape Town).

## GEN. TRECHUS.

## TRECHUS SCITULUS.

Black, shining; antennæ, palpi, and tibiæ rufescent; prothorax as broad as long, a little ampliate in the anterior part and sinuate above the base; elytra ovate, a little depressed near the base, convex behind, and having on each side five striæ, the first two of which alone reach from base to apex, the third and fourth begin at or near the anterior puncture, and the fifth is hardly distinct; the third stria has two deep punctures, one at a short distance from the base, the other in the median part; under side piceous black. Length 5 mm.; width  $2\frac{1}{2}$  mm.

*Hab.* Cape Colony (Oudtshoorn).

This interesting species is very different from the other South African ones; the penultimate joint of the maxillary palpi is much more thickened and the ultimate one shorter, and the disposition of the dorsal striæ as well as the two dorsal punctures is similar to that of some species of *Bembidium*.

## CORRECTIONS.

Plate VII. fig. 9.—Instead of *THYREOPTERUS MACULATUS*, Chaud., read *THYREOPTERUS FLAVOSIGNATUS*, Dej.

### Page 210.—GENUS LACHANISSUS.

This genus must be dropped. I made it for the reception of some species of *Metaxymorphus*, the claws of which were not pectinate. I find, however, that the claws are very feebly pectinate, and have three very small teeth on each side. The absence of puncture on the third interval of the elytra is not sufficient to consider the species I included in this genus to be removed from *Metaxymorphus*, although in some species of the latter (*M. frenatus*, *pictus*, *agilis*, *Goryi*, &c.) the pectination is more abundant and the teeth are longer.

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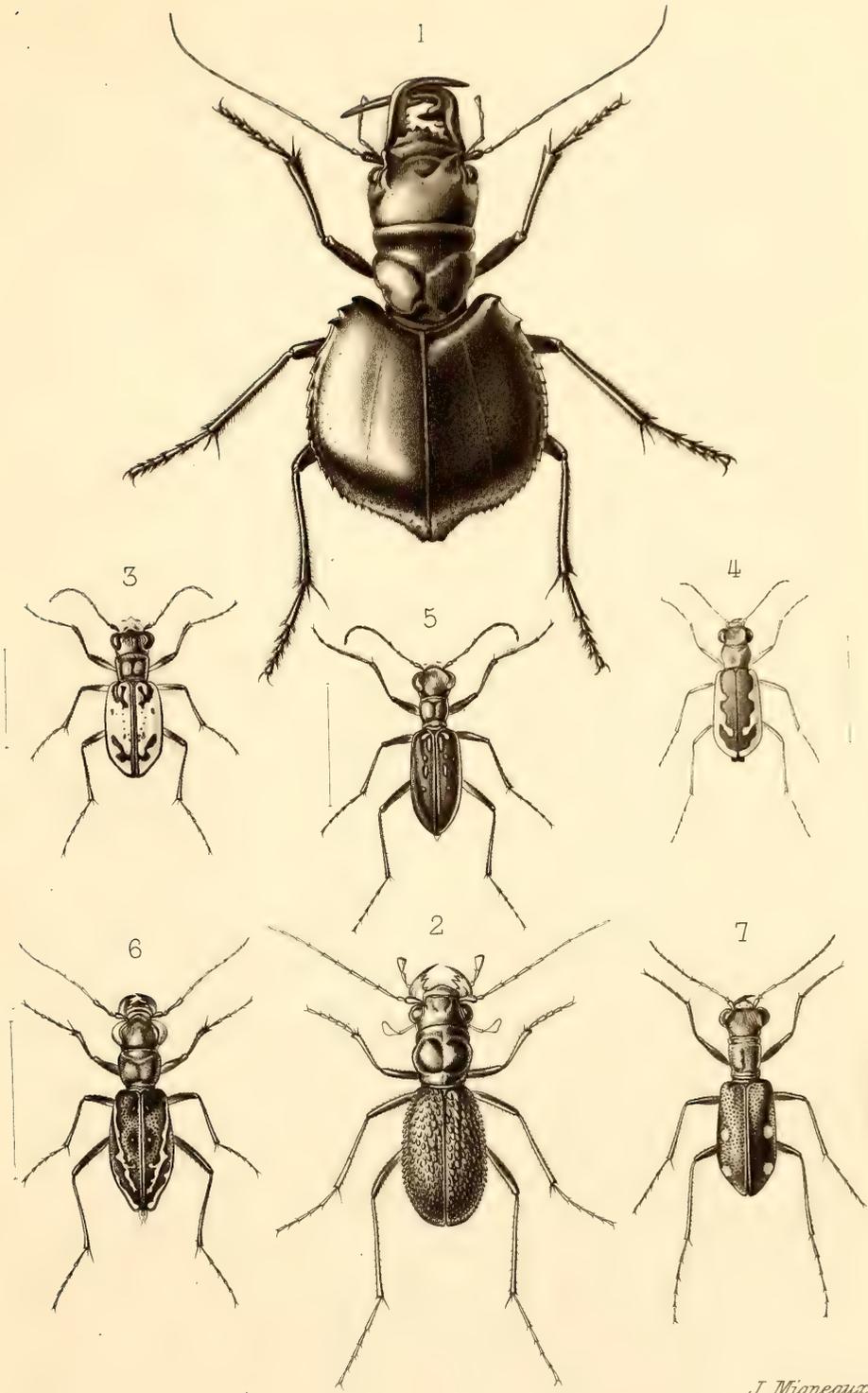
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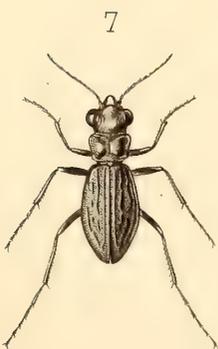
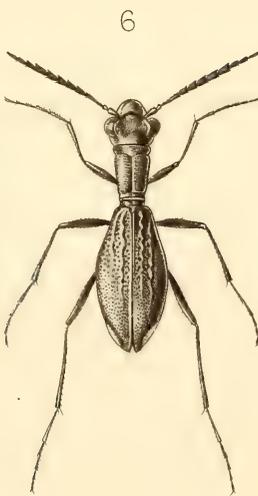
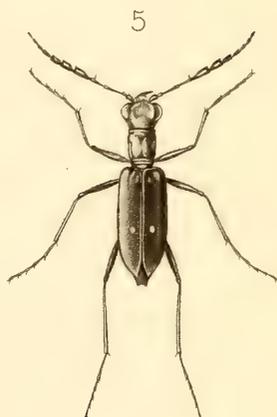
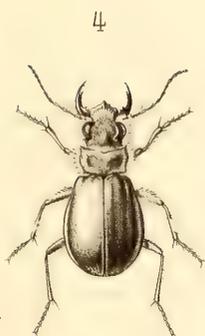
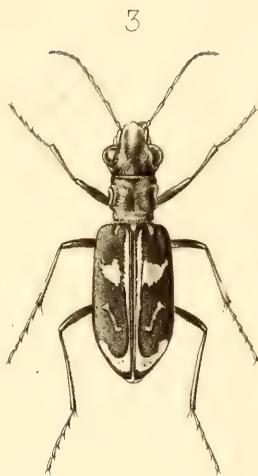
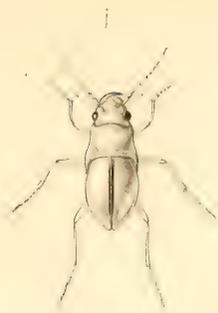
Poujade et Migneaux p<sup>t</sup>

J. Migneaux sc.

- |   |                                   |   |                            |
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| 1 | Mantichora Ludovici. Casteln.     | 4 | Cicindela longula. Pering. |
| 2 | Megacephala regalis. Bohem.       | 5 | "    notata. Pering.       |
| 3 | Cicindela damara. Pering          | 6 | Prodotes fatidica. Guérin. |
| 7 | Cicindela quadripustulata. Bohem. |   |                            |

Imp. R. Taneur.



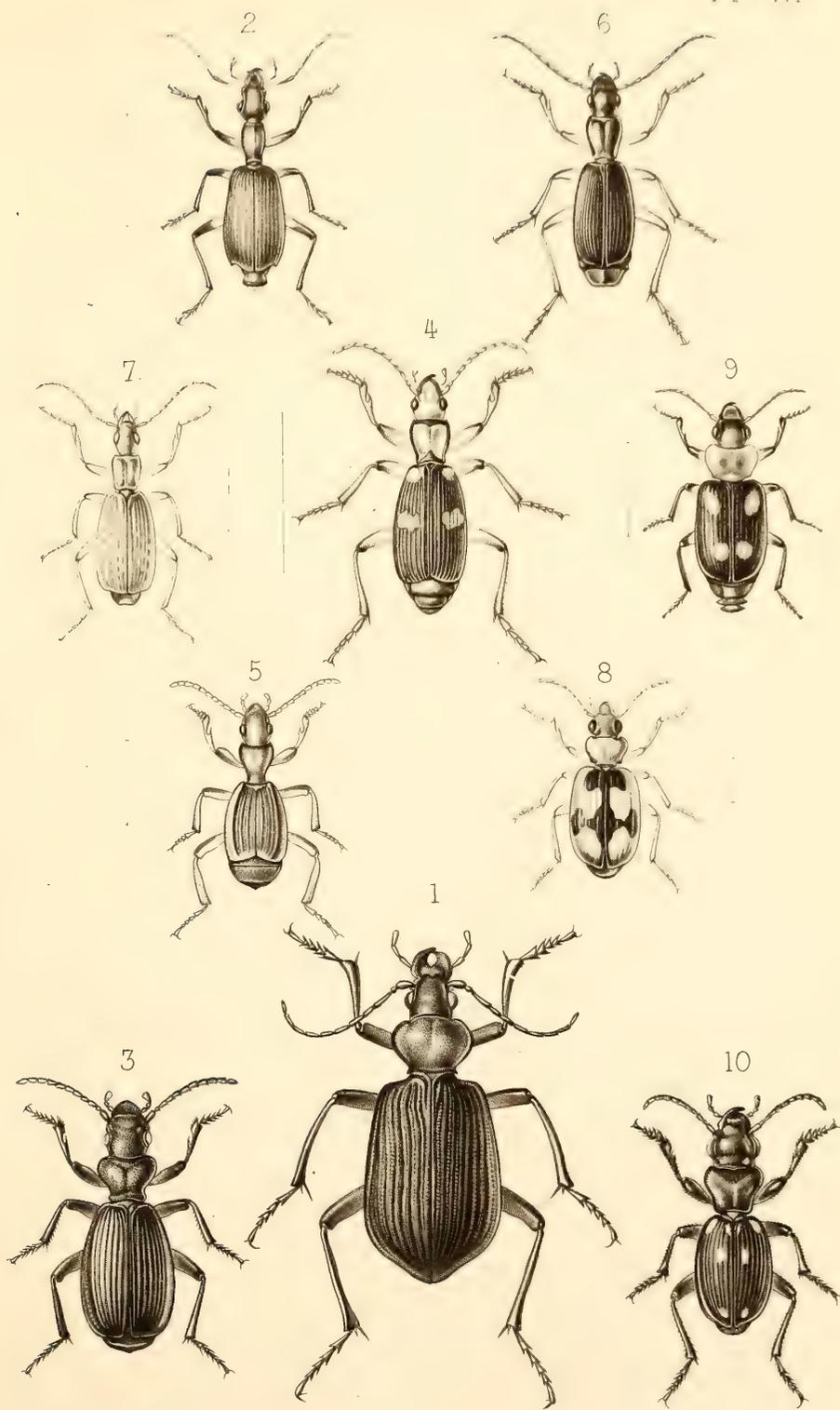


*Poujade et Migneaux p.<sup>t</sup>*

*J. Migneaux sc.*

- |   |  |   |  |
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| 2 | “ <i>plagiata</i> . <i>Pering.</i>             | 6 | <i>Dromica (Myrmecoptera) costata</i> . <i>Pering.</i> |
| 3 | <i>Ophrydera rufomarginata</i> . <i>Bohem.</i> | 7 | “ <i>immaculata</i> . <i>Pering.</i>                   |
| 4 | <i>Eurymorpha Moufleti</i> . <i>Fairm.</i>     | 8 | “ <i>sexmaculata</i> . <i>Chaud.</i>                   |

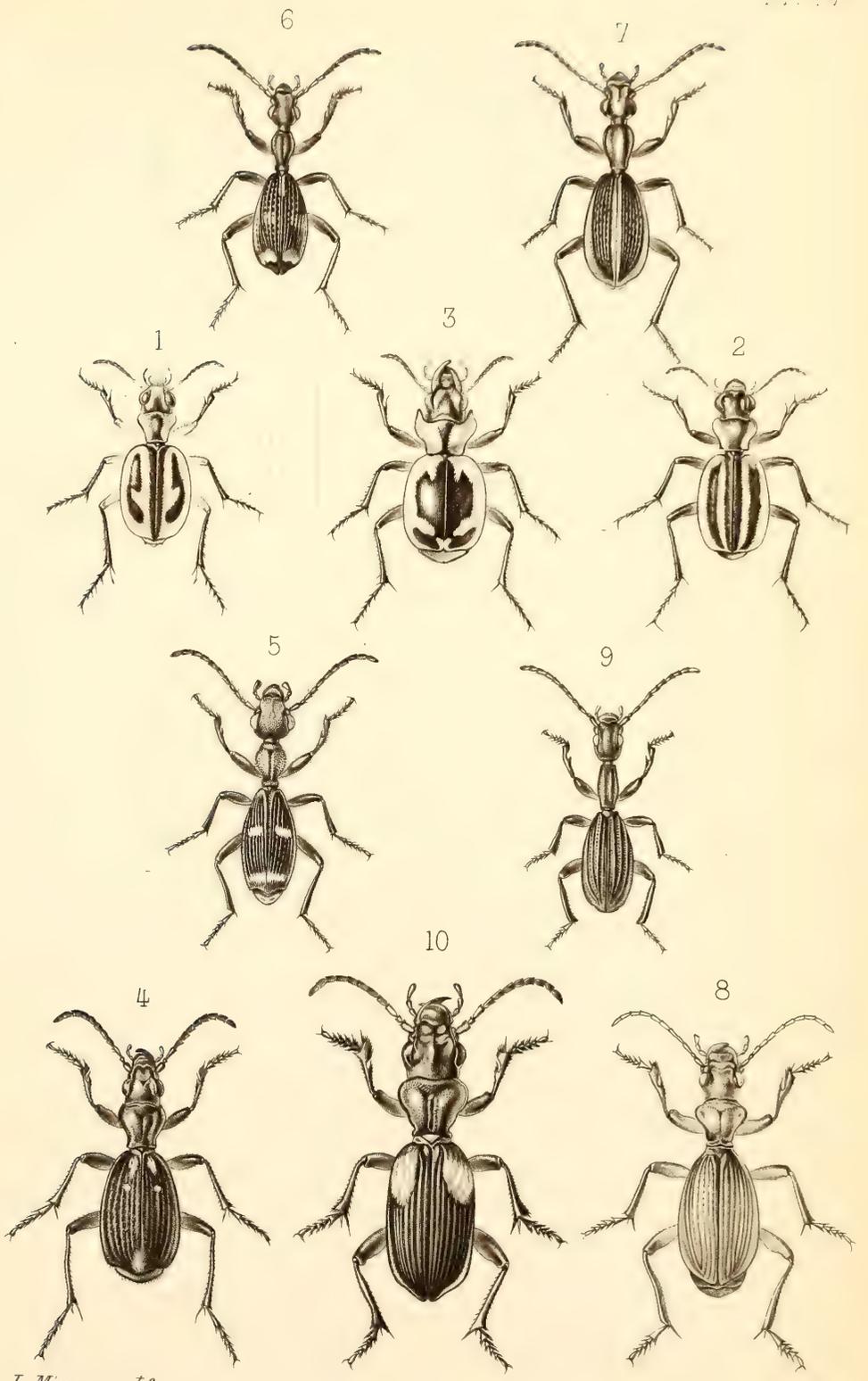




*J. Migneaux p<sup>t</sup> & sc.*

- |   |   |    |   |
|---|---|----|---|
| 1 | <i>Calosoma planicolle</i> , <i>Chaud.</i>      | 6  | <i>Xystrichopus agilis</i> , <i>Pering.</i>     |
| 2 | <i>Drypta ruficollis</i> , <i>Déj.</i>          | 7  | <i>Coptoptera angusticollis</i> , <i>Bohem.</i> |
| 3 | <i>Triænozenius corpulentus</i> , <i>Chaud.</i> | 8  | <i>Lebia adamantina</i> , <i>Pering.</i>        |
| 4 | <i>Pheropsophus Bohemani</i> , <i>Chaud.</i>    | 9  | <i>Arsinoe quadriguttata</i> , <i>Casteln.</i>  |
| 5 | <i>Crepidogaster rufescens</i> , <i>Motsch.</i> | 10 | <i>Cycloloba septemguttata</i> , <i>Fabr.</i>   |

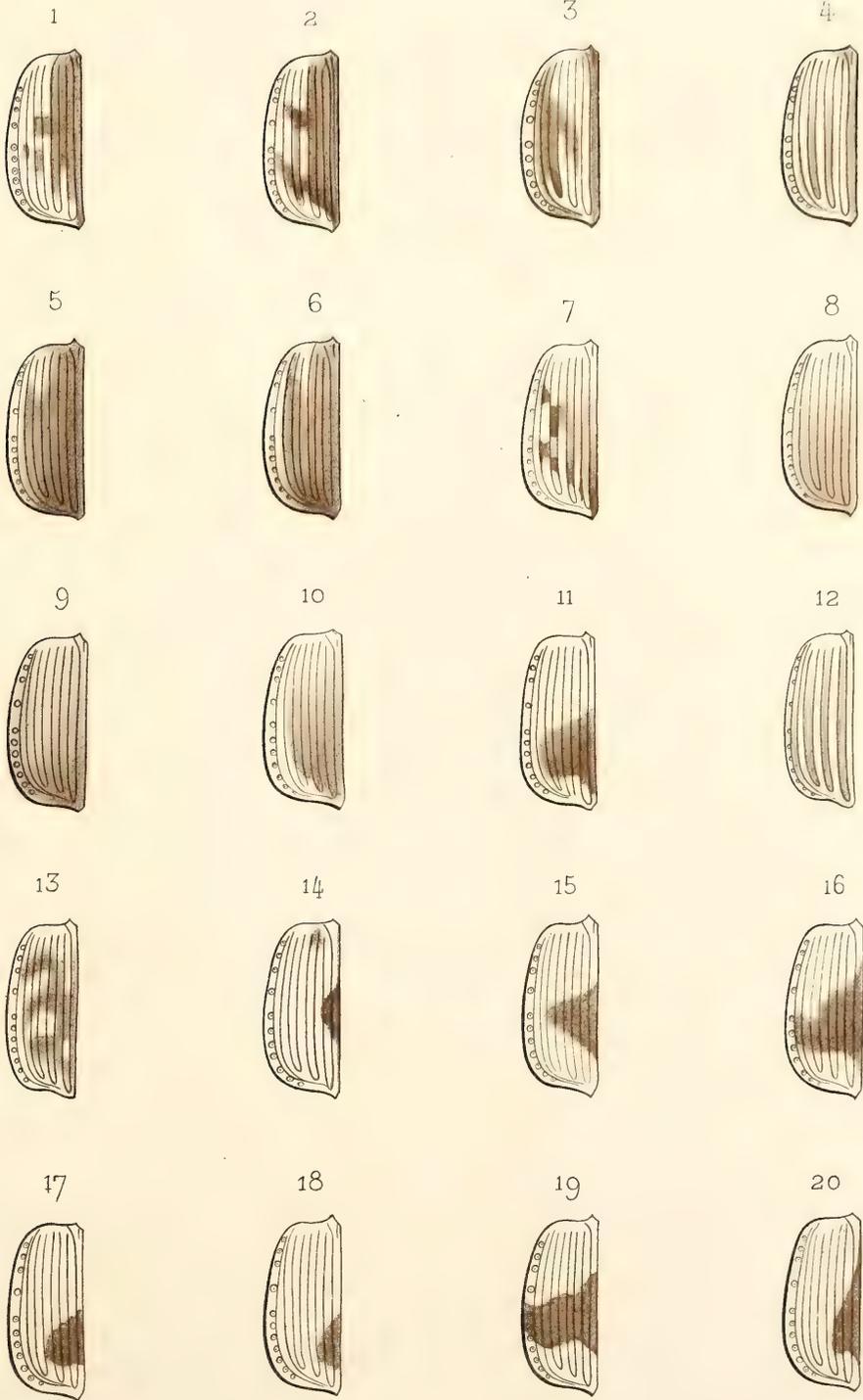




*J. Migneaux p.<sup>te</sup> & sc*

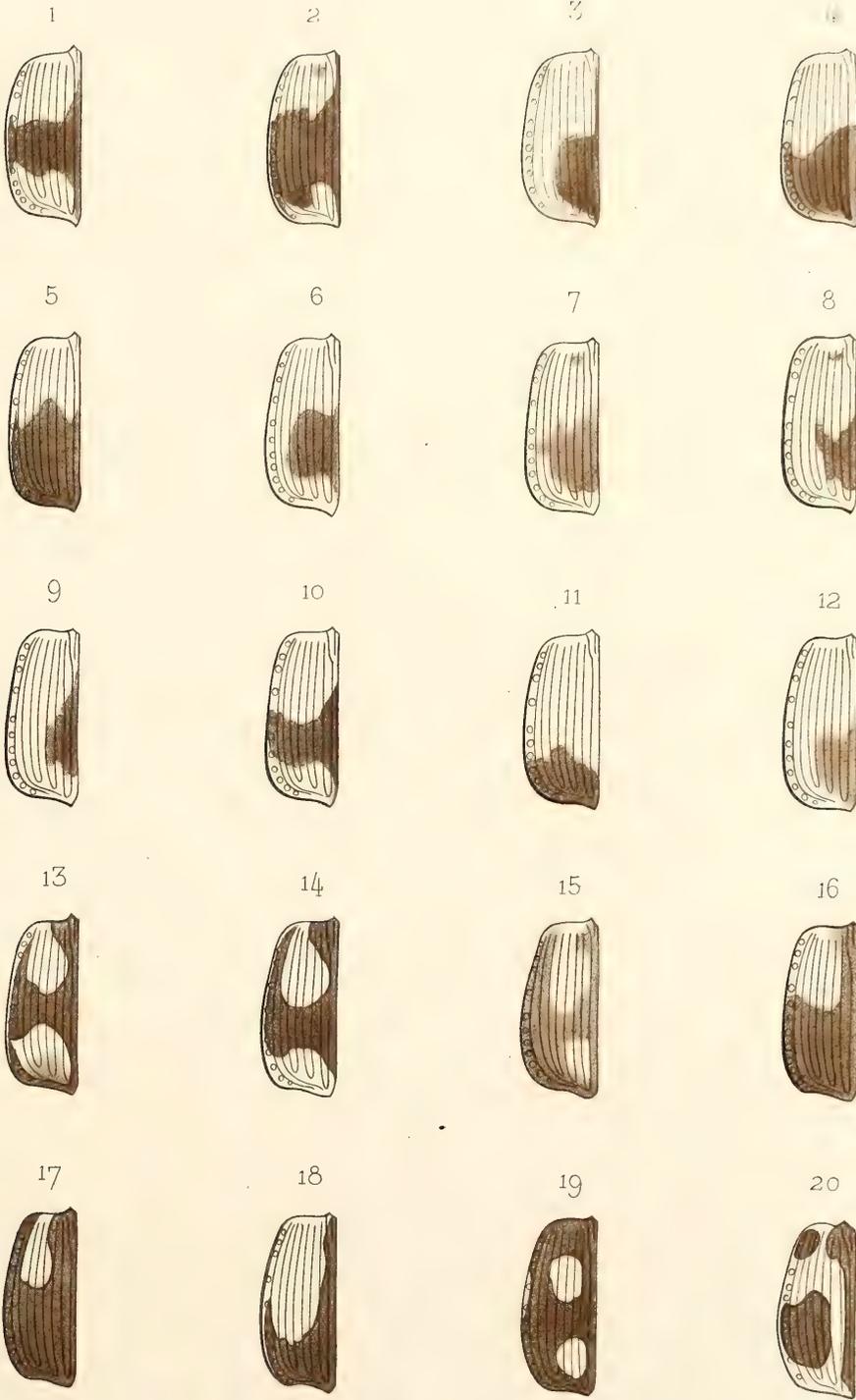
- |   |   |    |  |
|---|---|----|--|
| 1 | <i>Graphipterus femoratus</i> , <i>Cheor.</i> | 6  | <i>Polyhirma ænigma</i> , <i>Dorhn.</i>        |
| 2 | “ <i>vittiger</i> , <i>Péring.</i>            | 7  | “ <i>divisa</i> , <i>Bohem.</i>                |
| 3 | “ <i>egregius</i> , <i>Péring.</i>            | 8  | <i>Bœoglossa melanaria</i> , <i>Bohem.</i>     |
| 4 | <i>Piezia axillaris</i> , <i>Brulle'</i>      | 9  | <i>Atractonota formicaria</i> , <i>Erichs.</i> |
| 5 | <i>Eccooptera cupricollis</i> , <i>Chaud</i>  | 10 | <i>Anthia cephalotes</i> , <i>Guérin.</i>      |





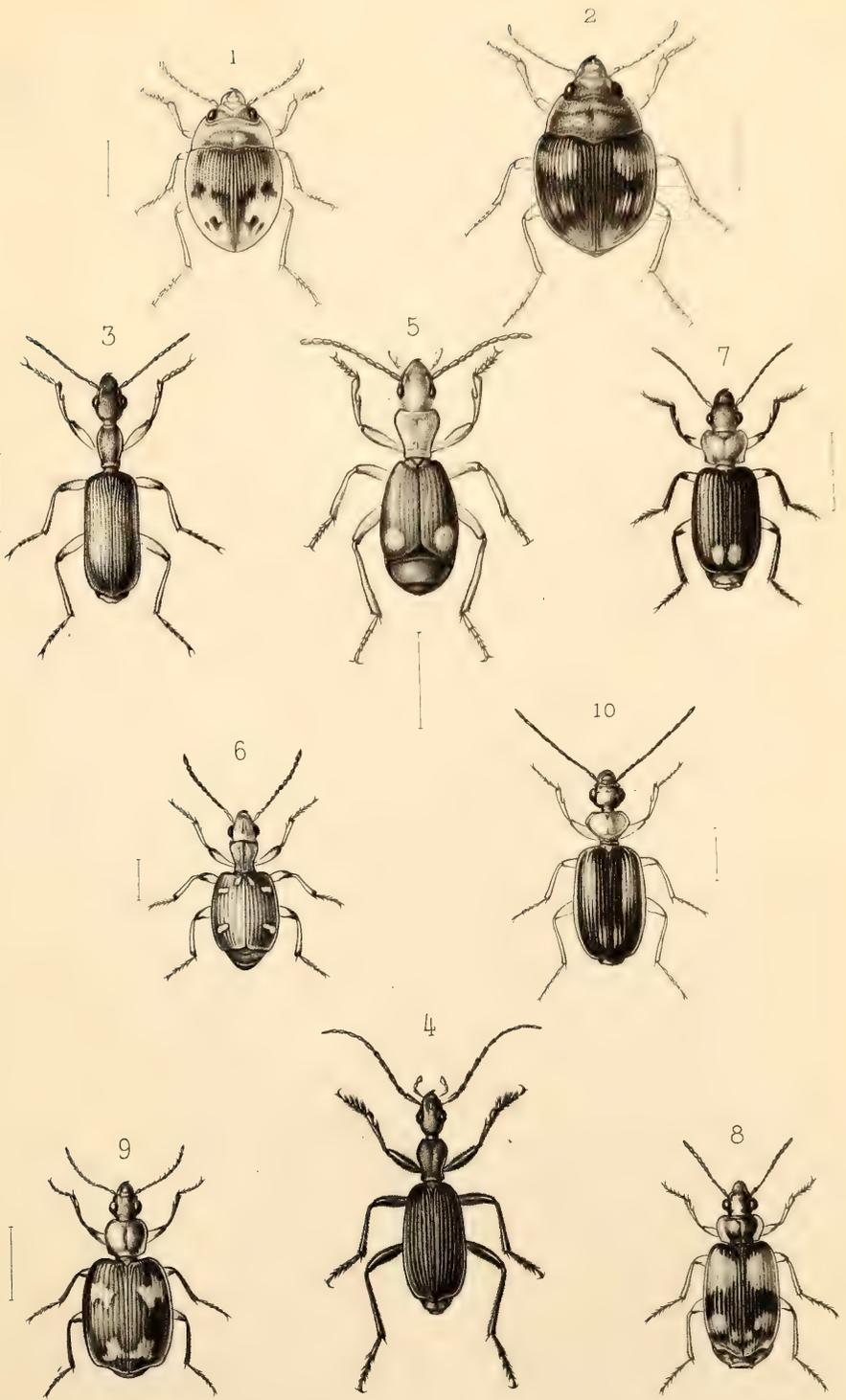
*J. Migneaux sc.*





*J. Migneaux sc.*

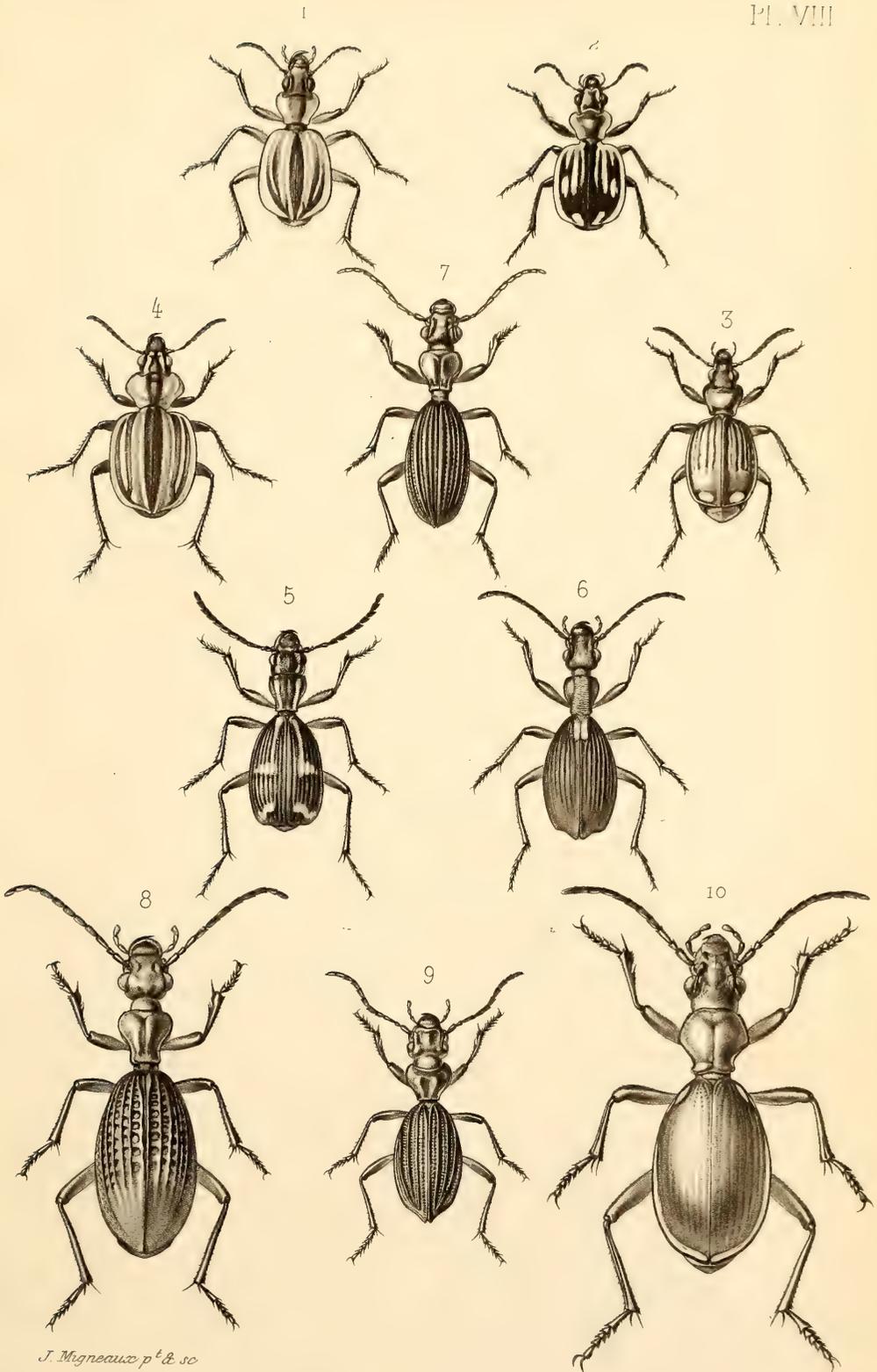




*J. Migneaux p.<sup>is</sup> & sc.*

- |  |   |
|--|---|
| 1 <i>Omopron capicola</i> , <i>Chaud.</i>        | 6 <i>Mastax ornatellus</i> , <i>Bohem.</i>      |
| 2 " <i>picturatus</i> , <i>Bohem.</i>            | 7 <i>Arsinæ egregia</i> , <i>Péring.</i>        |
| 3 <i>Stenidia jucunda</i> , <i>Péring.</i>       | 8 <i>Coptodera notata</i> , <i>Bohem.</i>       |
| 4 <i>Galerita leptodeura</i> , <i>Chaud.</i>     | 9 <i>Thyreopterus maculatus</i> , <i>Chaud.</i> |
| 5 <i>Crepidogaster insignis</i> , <i>Péring.</i> | 10 <i>Pentagonica elegans</i> , <i>Péring.</i>  |

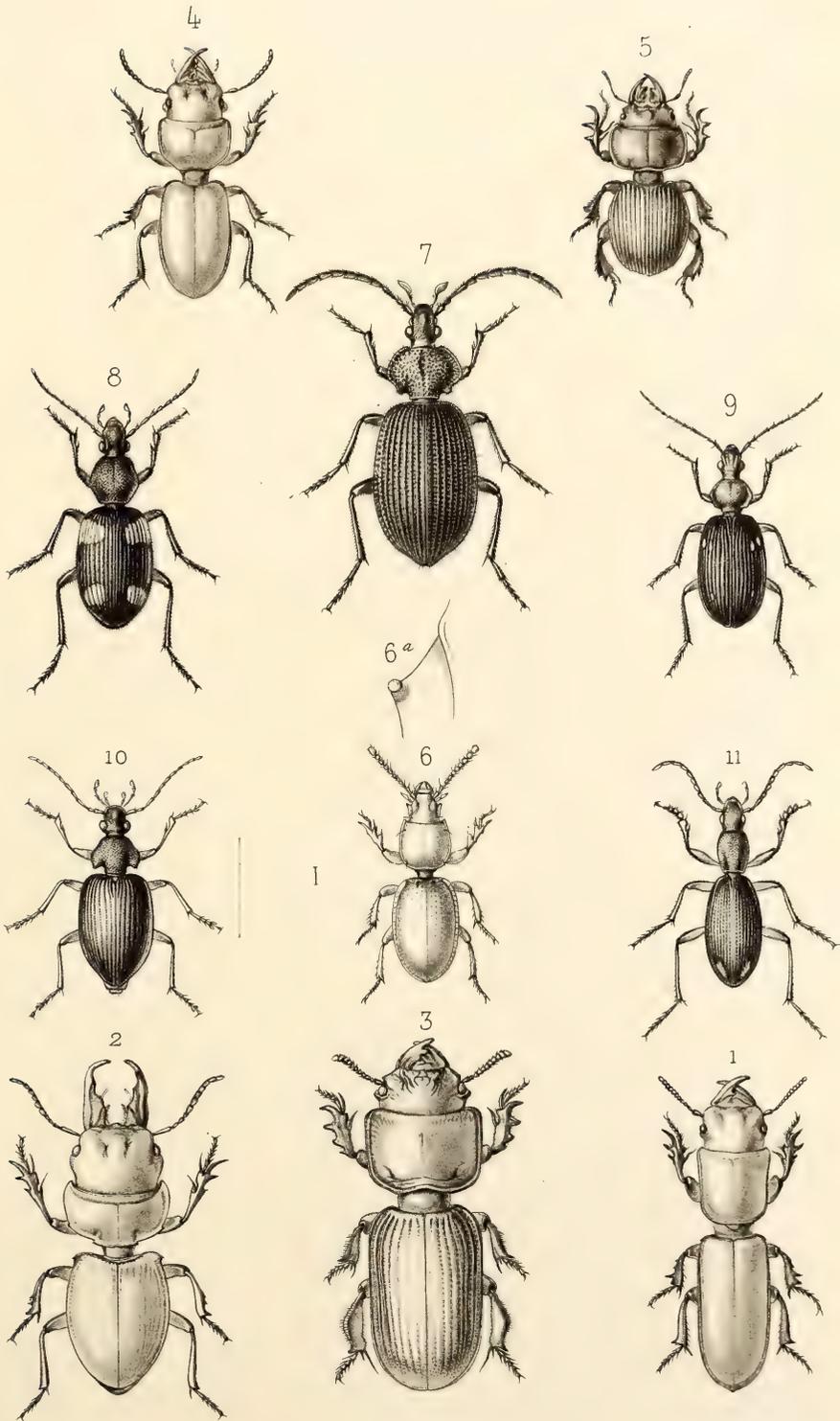




*J. Migneaux p<sup>t</sup> & sc*

- |   |  |    |                                    |
|---|--|----|------------------------------------|
| 1 | <i>Graphipterus obliteratus</i> , Bohem. | 6  | <i>Polyhirma opulenta</i> , Bohem. |
| 2 | " <i>Mashunus</i> , Pering.              | 7  | " <i>Alstoni</i> , Pering.         |
| 3 | " <i>albolineatus</i> , Walleng.         | 8  | " <i>Chaudoiri</i> , Pering.       |
| 4 | " <i>grandis</i> , Pering.               | 9  | <i>Microlestia tabida</i> , Fabr.  |
| 5 | <i>Piezia Selousi</i> Pering.            | 10 | <i>Anthia Æmiliana</i> , Porhc.    |

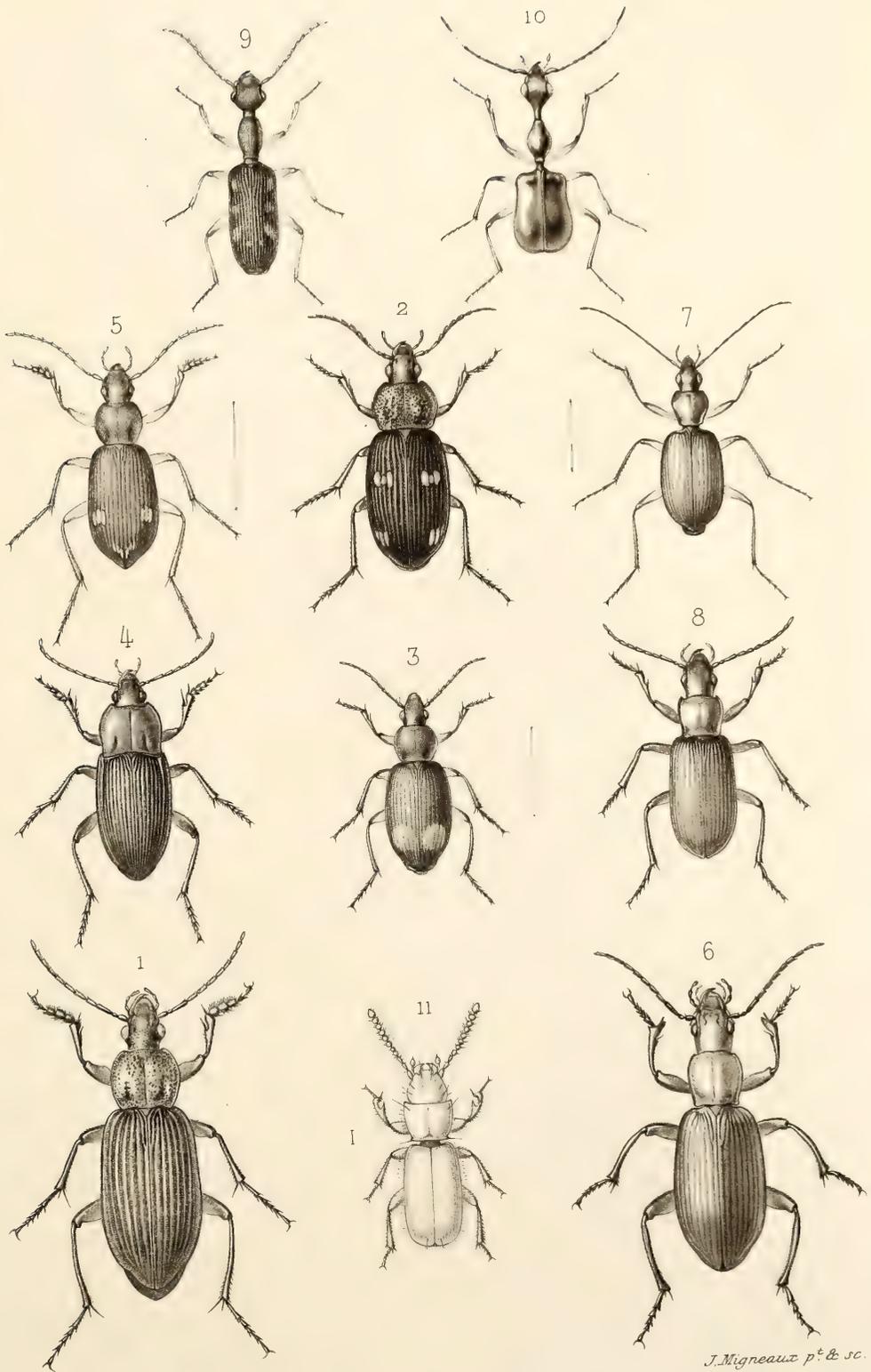




*J. Migneaux p<sup>l</sup> & sc.*

- |   |   |    |  |
|---|---|----|--|
| 1 | <i>Macromorphus elongatus</i> , <i>Chaud.</i> | 6  | <i>Reicheia Promontorii</i> , <i>Pering.</i>       |
| 2 | <i>Pachydontus languidus</i> , <i>Wied.</i>   | 7  | <i>Craspedophorus Zambebianus</i> , <i>Pering.</i> |
| 3 | <i>Passalidius fortipes</i> , <i>Bohem.</i>   | 8  | <i>Epicosmus nobilis</i> , <i>Dej.</i>             |
| 4 | <i>Otophthalmus politus</i> , <i>Wied.</i>    | 9  | " <i>Rikatlae</i> , <i>Pering.</i>                 |
| 5 | <i>Acanthoscelis ruficornis</i> , <i>Fab.</i> | 10 | <i>Euschizomerus Junodi</i> , <i>Pering.</i>       |
|   |   | 11 | <i>Zeloticus tristis</i> , <i>Pering.</i>          |





*J. Migneaux p.<sup>o</sup> & sc.*

- |   |  |    |   |
|---|--|----|---|
| 1 | <i>Chlaenius Zanzibarius</i> , <i>Chaud.</i> | 6  | <i>Rhopalomelus angusticollis</i> , <i>Bohem.</i> |
| 2 | " <i>quadrifasciatus</i> , <i>Bohem.</i>     | 7  | <i>Anchomenus alacer</i> , <i>Bohem.</i>          |
| 3 | " <i>fasciger</i> , <i>Chaud.</i>            | 8  | <i>Proctetus singularis</i> , <i>Pering.</i>      |
| 4 | " <i>Cham</i> , <i>Chaud.</i>                | 9  | <i>Lasiocera egregia</i> , <i>Pering.</i>         |
| 5 | " <i>verecundus</i> , <i>Pering.</i>         | 10 | <i>Ega natalensis</i> , <i>Pering.</i>            |
|   | 11   |    | <i>Scotodipnus capensis</i> , <i>Pering.</i>      |



