

THE
NATURAL HISTORY
OF
BRITISH INSECTS;

EXPLAINING THEM
IN THEIR SEVERAL STATES,
WITH THE PERIODS OF THEIR TRANSFORMATIONS,
THEIR FOOD, ECONOMY, &c.

TOGETHER WITH THE
HISTORY OF SUCH MINUTE INSECTS

AS REQUIRE INVESTIGATION BY THE MICROSCOPE.

THE WHOLE ILLUSTRATED BY
COLOURED FIGURES,
DESIGNED AND EXECUTED FROM LIVING SPECIMENS.

BY E. DONOVAN.

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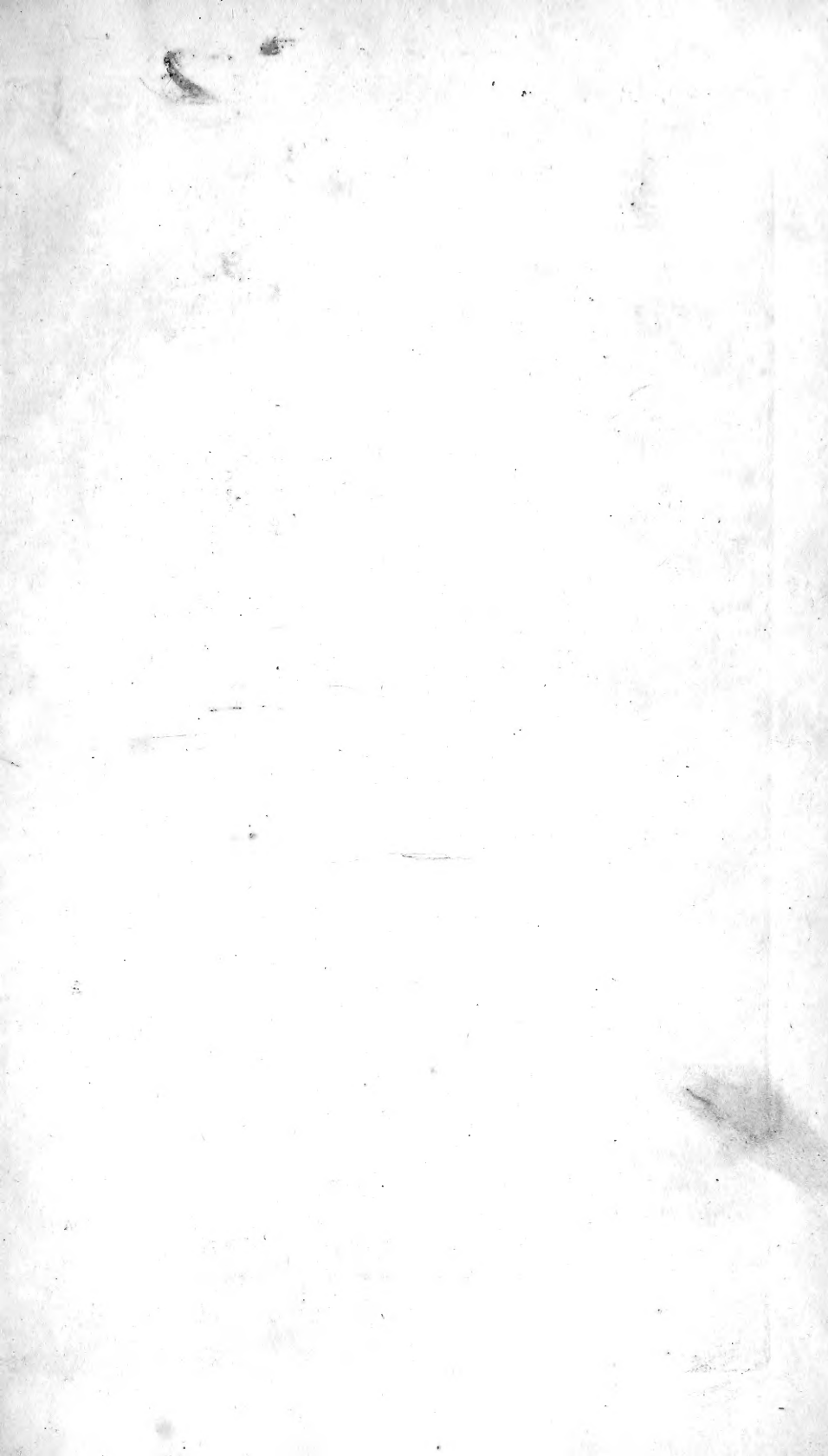
And for F. and C. RIVINGTON, N° 62, ST. PAUL'S CHURCH-YARD.

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THE
NATURAL HISTORY
OF
BRITISH INSECTS.

PLATE CCCXCVII.

FIG. I.

PHALÆNA ZEBU.

ZEBU, PROMINENT.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ gradually tapering from the base to the tip : wings in general deflected when at rest. Fly by night.

BOMBYX.

SPECIFIC CHARACTER

AND

SYNONYMS.

BOMBYX ZEBU. Wings deflected : back single toothed : thorax rufous : anterior wings pale rufous and fulvous varied, with two obsolete denticulate yellowish bands.

LE CHAMEAU. Chenille du Tremble, *var. e. f. Ernst. Fig.*
267.

BOMBYX DROMEDARULUS. Small iron prominent. *Haworth.*
Lep. Brit. p. 101. n. 29.

Our Zebu Prominent, or, as the Aurelians call it, the small Iron Prominent, is extremely scarce. It was discovered in the larva state upon the oak: in the month of September it went into the ground and became a pupa; the moth appeared in June following.

This insect differs from the Fabrician Bombyx Dromedarius, or what is termed with us the *Iron Prominent* in several respects, though at the first view it seems to bear a very strong resemblance to that species. We object to the trivial English name of small Iron Prominent, because it is only applicable, in a partial degree, to the insect. Our Zebu Prominent is certainly smaller than the insect known in this country by the name of Iron Prominent, but this is not invariably the case. We have seen the male of the Iron Prominent of a size nearly, if not entirely, as diminutive as our specimens of the Zebu Prominent; and if we may rely on the accuracy of the figures of the latter in the works of Ernst, the Bombyx Dromedarius is not an insect of much superior magnitude. We may truly infer from the figures above mentioned, that the diminutive size of our Zebu is no criterion of the species.

A decided difference in point of colour, and in some other particulars, prevails between the two insects. In Bombyx Dromedarius the colour of the superior wings is fuscous most delicately speckled, as it appears on close inspection, with grey; the spots of a deep rusty-iron colour, and the denticulated bands across the wings whitish,
distinct

distinct, and well relieved with fuscous, and ferruginous. In our insect the general colour is pale rufous slightly tinged with fuscous in the area of the wing, and varied towards the circumference with deep fulvous: the denticulated bands across are disposed in a similar manner to those on the wings of *Bombyx Dromedarius*, but are of a yellowish instead of whitish colour, and nearly obsolete. So far as our own observation extends there is a difference also in the posterior wings: in our *Bombyx Zebu* those wings are of a very pale fuscous with only a single fainter band; in *Bombyx Dromedarius* the wings are paler still; it has likewise a similar band, but which is rather more denticulated, and being bounded both above and below with a dusky band, the wings appear of a lighter colour next the posterior margin, and in the disk of the wing; the latter part has also a single short transverse dash of a dusky colour. A further difference is observable in the lower surface: the general tint in our *B. Zebu* is pale ferruginous; in *B. Dromedarius* greyish, with the lower pair whitish, and in both, the bands conspicuous: the tip of the anterior pair in *B. Zebu* testaceous-fuscous, in *B. Dromedarius* distinctly grey; and the central spot in the lower wings of the latter fuscous with a white speck in the center, but in *B. Zebu* plain testaceous without any central mark.

In the "*Lepidoptera Britannica*," Mr. Haworth describes our *Bombyx Zebu* as a species perfectly new, under the name of *Bombyx Dromedarulus*. The specimens from which his description is taken were those in the cabinet of Mr. Drury, and which are now in our possession. This insect was probably new to the Aurelians of this country, but certainly not so to the continental entomologists, and those should assuredly have been consulted previously to its being described as a nondescript insect. In the works of Ernst which this ingenious writer has overlooked, will be found a figure both of the upper and lower surface of the insect from a larger specimen than our own, and tolerably expressive; and with a description of the insect equally satisfactory. It appears from thence that the figures are copied by Ernst from a female specimen in the noble collection of M. Gerning, of Frankfort,

which contains besides the male of the same insect. Ernst is evidently in doubt whether to consider it as a variety of the *Bombyx Dromedarius* differing only from that insect in the gradations of colour, or as a distinct species; this he leaves for time and future researches to determine. He observes, however, and it is a strong argument in favour of its being distinct, that the males in M. Gerning's collection, are of the same colour as the female he represents, and the like circumstance is exemplified in our specimens*.

The variety fig. 1. of the *B. Tritophus* of Esper appears to be of the same species as our *B. Zebu*, but of this we cannot speak with confidence. Schneider certainly notices it. Fabricius probably considered it as a variety of *B. Dromedarius*.

F I G. II.

PHALÆNA CASSINIA.

TRILINEATED MOTH.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings deflected, grey with abbreviated scattered black lines: thorax with a black line each side, and in the middle.

* "M. Gerning qui possède dans sa collection l'individu femelle dont nous donnons le portrait en dessus et en dessous, fig. 267. e, f, le croit une variété de cette espèce, malgré la différence que l'on y remarque dans les nuances. Cependant comme il a des mâles de la même couleur, il n'ose affirmer que ce ne soit point une espèce différente. Le temps seul et les recherches peuvent nos en rendre certain." *Ernst*.

BOMBYX CASSINIA : alis deflexis griseis : lineolis abbreviatis nigris
 sparfis. *Fabr. Ent. Syst. T. 3. p. I. 460. n. 164.*
B. CASSINIUS. SPRAWLER. *Haw. Lep. Brit. p. 106. n. 40?*



Fabricius describes his *Bombyx Cassinia* as a native of Austria from the cabinet of Schieffermyller. It is found on the Lime. If this be of the same species as the *B. Cassinius* above quoted, it is also found in the larva state on the oak, and appears in the winged state in September.

This insect, considered as a British species, is almost equally as scarce as the preceding, *Bombyx Zebu*.

FIG. III.

NOCTUA AURICULA.

GOLDEN EAR MOTH.

SPECIFIC CHARACTER

AND

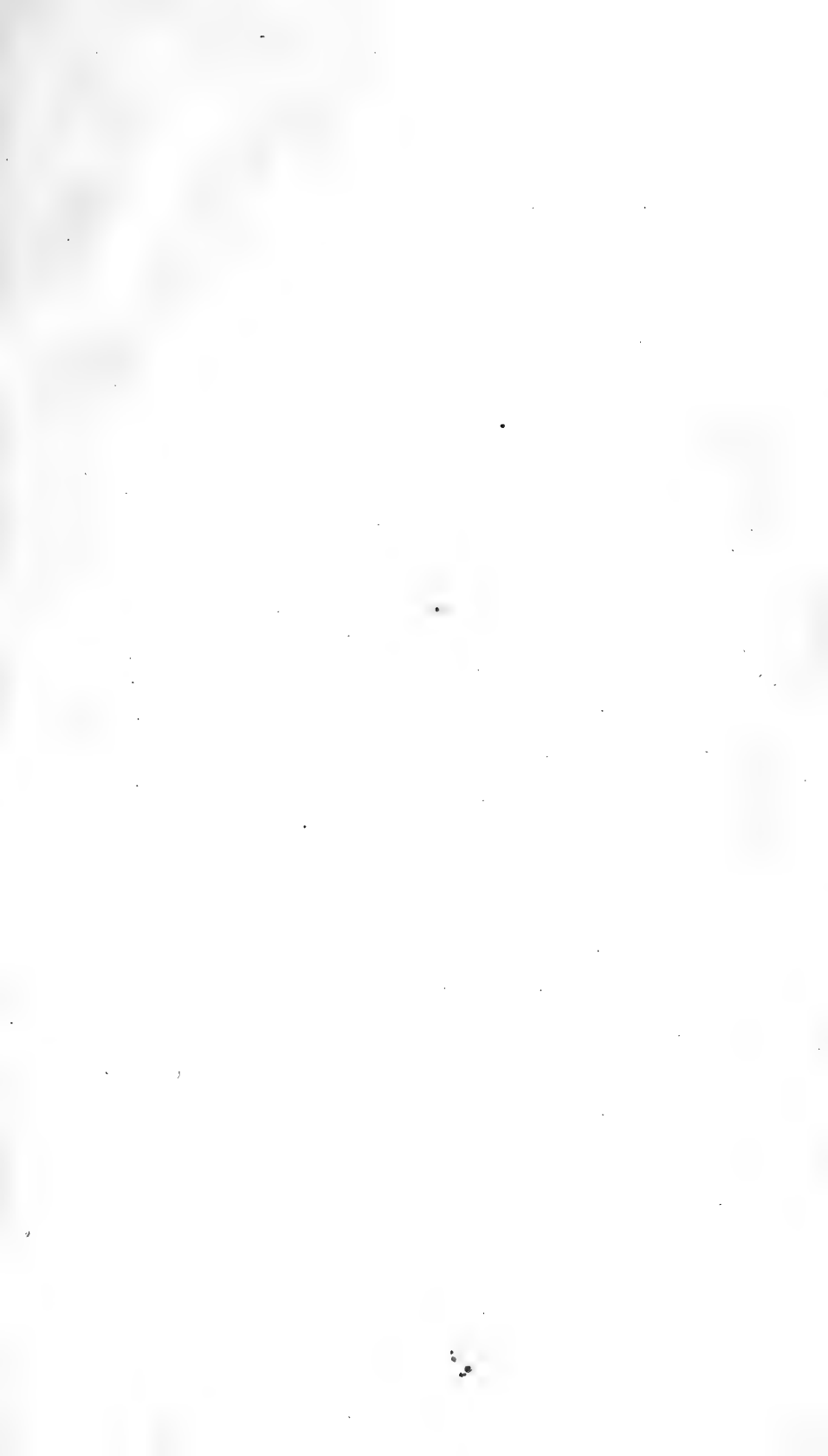
SYNONYMS.

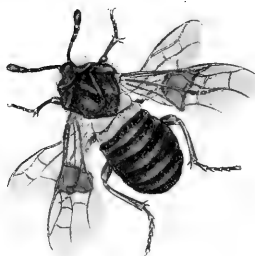
NOCTUA AURICULA. Anterior wings sub-ferruginous with a small fulvous spot, and in the middle a larger ear-shaped yellow spot enclosing a lunar ring.

L'ECLATANTE. *Ernst. II. part. v. 6. n. 394.*

This

This insect has been erroneously considered by Esper and others as the *Phalæna nictitans* of Linnæus, an insect which it pretty much resembles, but from which it differs specifically. This circumstance is mentioned particularly by Ernst, who describes and figures both the Linnæan species, and the insect mistaken for it. The specimens he delineates are in the cabinet of M. Gerning of Frankfort. Ernst describes our insect as a scarce species in Germany: in England we believe it is very rare; the only specimen we possess is in the cabinet of Mr. Drury.





P L A T E CCCXCVIII.

TENTHREDO FASCIATA.

BANDED SAW-FLY.

HYMENOPTERA.

GENERIC CHARACTER.

Mouth with a horny mandible, curved, and toothed within; jaw straight and obtuse at the tips: lip cylindrical and three cleft: feelers four unequal and filiform: wings flat and tumid: sting composed of two ferrated laminae and scarcely disclosed.

SPECIFIC CHARACTER

AND

SYNONYMS.

Deep black: antennae black: upper wings with a fuscous band.

TENTHREDO FASCIATA: atra, antennis nigris, alis primoribus fascia fusca. *Fabr. Sp. Inf.* 1. p. 407. N. 8.—*Gmel. Syst. Nat.* 2655. 7.

Tenthredo antennis clavatis nigris, abdomine glabro atro, alis superioribus fascia fusca. *Linn. Syst. Nat.* 12. 2. p. 921, n. 7.—*Fn. Suec.* 1538.

This is a rare insect in England. Linnæus describes it as a native of Sweden, Panzer as a German species, and by other writers it is mentioned as a general inhabitant of Europe.

Fabricius

Fabricius speaks of a small white band at the base of the first abdominal segment of this species: in our British specimen, the whole of this segment is of a pale or whitish colour instead of the base only, and it appears from the figure given by Panzer, *En. Germ.* that the same circumstance is observable in the individual he has delineated.

The larva, and metamorphoses of this species of *Tenthredo* has not hitherto been ascertained by any writer.



PLATE CCCXCIX.

FIG. I. I.

APIS DRURIELLA.

DRURY'S BEE.

HYMENOPTERA.

GENERIC CHARACTER.

Mouth horny: jaw and lip membranaceous at the tip: tongue inflected: feelers four, unequal, filiform: antennæ short, and filiform; those of the female somewhat clavated: sting of the females and neuters pungent, and concealed within the abdomen.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black with cinereous down: antennæ fulvous beneath: last joints of the abdomen mucronated on each side.

APIS DRURIELLA: nigra, hirsuto cinerascens; antennis subtus fulvis; abdomine segmentis posticis utrinque mucronatis. *Kirby. Ap. Angl. v. 2. p. 285. n. 62.*

This very uncommon species of *Apis* is not mentioned by any entomological writer, except Mr. Kirby, whose "Monographia Apum Angliæ" affords a minute description of it. Mr. Kirby described it from a specimen in the cabinet of the late Mr. Drury, and assigned it the name of *Druriella*, in compliment to that zealous collector and writer; and we are perfectly disposed, for the same reason, to adopt it. It is almost needless to add, that being in possession of the English entomological cabinet of the late Mr. Drury, our figures are delineated from the individual insect Mr. Kirby described.

The smallest insect at fig. I. I. represents *Apis Druriella* in its natural size, that above exhibits its magnified appearance.

FIG. II. II.

APIS VARIEGATA.

VARIEGATED BEE.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax and abdomen variegated with white: legs ferruginous.

APIS VARIEGATA: thorace abdomineque albo variegatis, pedibus ferrugineis. *Linn. Fn. Suec.* 1699.

NOMADA VARIEGATA: *Fabr. Ent. Syst. T. 2. p. 347. n. 5.*

APIS VARIEGATA: nigra; trunco, abdomineque, albido variegatis; pedibus ferrugineis. *Kirby Apium Angl. p. 222. n. 36.*

Panzer. Fn. Inf. Germ. Init. n. 61. tab. 20.

Forst. Cat. Brit. Inf. n. 1033.

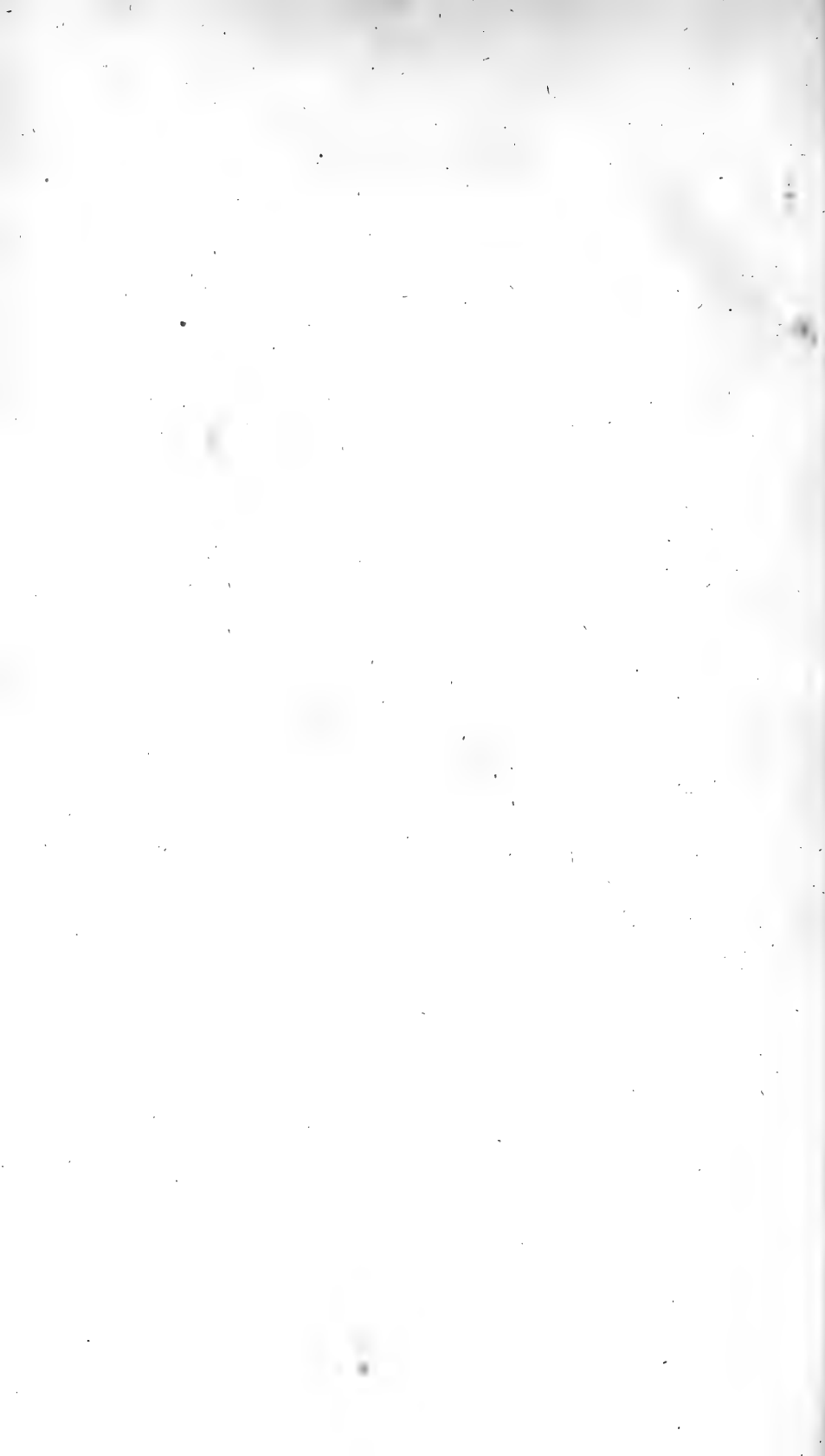
Apis. n. 26.

Apis muscaria, Christii. Hymenop. p. 195. tab. 17. fig. 5.

Apis

Apis variegata, though an insect of a small size, is interesting for its rarity and elegance. This pretty species was first introduced to observation, as a British Insect, by Dr. Forster, in his "*Nova Species Insectorum Centuria prima.*" Since his time, it seems to have been mentioned only by Mr. Kirby, who, in his work entitled *Monographia Apum Angliæ*, observes, that he first saw this bee in the cabinet of Mr. Drury, and afterwards found it, but by no means common, in the autumn of two succeeding years, 1797 and 1798, flying about sunny banks; it is remarkable, that after the time last mentioned he never met with it.

This insect is liable to vary a little in colour in different individuals; and it is further observable, that the English specimens are smaller than those found in other parts of Europe.



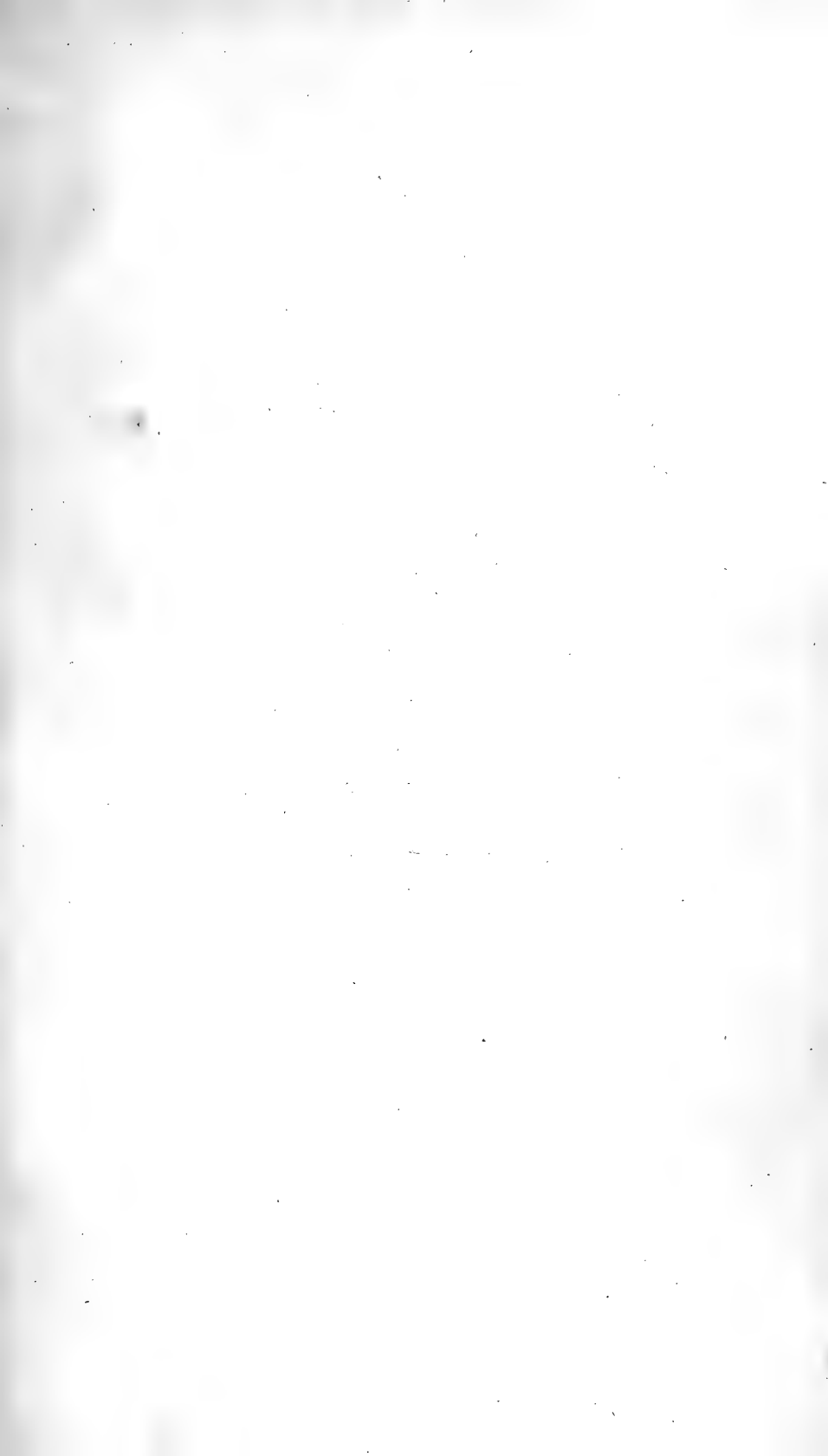




PLATE CCCC.

LUCANUS INERMIS.

SHORT-HORNED STAG BEETLE.

SOLEOPTERA.

GENERIC CHARACTER.

Antennæ clavated, the club compressed and divided into pectinated leaves: jaws projecting and dentated: two palpigerous tufts under the lip: body oblong: anterior shanks dentated.

SPECIFIC CHARACTER

AND

SYNONYMS.

Convex, brown: jaws short, with raised lateral teeth.

LUCANUS INERMIS: convexus brunneus, maxillis brevibus, dente laterali elevato. *Marsh. Ent. Brit. T. I. p. 48. n. 2.*

LUCANUS CERVUS. *Linn. Faun. Suec. 405.*

Lucanus Cervus. *Var. β. Gmel. 1588. I. Fabr. Ent. Syst. 1. p. 2. 236. 2. Var. β.*

Lucanus Dorcas. *Harr. 5. 2.*

Platycerus. *La Grande Biche. Geoffr. I. 62. 2.*

The Short-horned Stag-beetle is considered by almost every writer either as the female, or as a variety of the Linnæan *Lucanus Cervus*. This opinion is controverted by Mr. Marsham, who informs us in his *Entomologia Britannica*, that he has taken the two sexes of the *Cervus Lucanus* together, in a state that can admit of no doubt, that they were really the two sexes of that species; or, at least, that there are both males and females of the long-horned kind. At the same time the evidence of Geoffroy is adduced to prove still further, that there are two distinct sexes of the Short-horned Stag Beetle, the insect hitherto believed by many to be the true female of *Cervus Lucanus*.

The accuracy of the observations, upon which the assertions of the above mentioned authors are founded, admits of little dispute: that the insects in question have been found in the situation before intimated we must readily believe; but as this might happen whether they were in reality of the same species or not; and as the opinion generally supported by authors of the first respectability is in favour of the Short-horned Stag Beetle being the female of the other kind, it is proper we should say a few words further respecting them.

Roefel, in his description of the *Cervus Lucanus*, expressly tells us, he has found the male of that insect and the Short-horned Stag together, and concludes that they are of the same species. To this may be added the authority of Linnæus, who caught them in the same situation, and naturally inferred, for the same reason, that they were the two sexes of an individual species. Neither are those the only writers, who mention the same circumstance; and besides those, the fact is sufficiently well known to many practical collectors, who have observed them in the same state, without in the least suspecting that they were in reality the male and female of two distinct, though very analogous species.

When

When two insects, however dissimilar in appearance, occur together in this state, it is a natural conclusion, that they are the two sexes of the same species. This is pretty generally, but not invariably the fact. It requires only a very cursory attention, for example, to the genera of Cicada and Coccinella to prove, that the most promiscuous intercourse prevails between the two sexes of the greater number of species in those extensive genera; and that the varieties arising from this intercourse of the sexes are the source of inexplicable confusion to the entomologist; a spurious brood being by that means introduced, that cannot easily be reduced to either of the parent species. The same applies, though certainly with a less degree of latitude, to some larger insects, especially in the Coleoptera tribe. We must allow, that, though it is almost a conclusive evidence, when we find insects of the two sexes coupled together, that they are of the same species; but it does not follow, as a matter of certainty, that they are such: the conclusion is specious, and in general correct, but we cannot always depend on it. Even so it appears with regard to the Long-horned and Short-horned Stag Beetles: when we find, as is not unfrequently the case, those two insects connected together, we conclude, they are the true male and female of the same species; and probably without further examination assent to the popular notion, that the horned kind is the male, and the hornless sort the female, whereas perhaps the very reverse might with a slight attention be sometimes discovered; we might detect the horned female with the hornless male. It is a little remarkable we must indeed confess, in admitting that there are males and females of both kinds, that those rovers should so rarely occur in connection with the insects, which nature has ordained as their respective mates.

It has been previously remarked, that we may rest assured at least, that there are males as well as females both of the Short and the Long-horned Stag Beetles. Geoffroy is believed to have been the first writer, who discovered the error of confounding the former with the female of the latter: he describes the Short-horned kind under the

the name of *La Grande Biche*, and tells us he has frequently seen both sexes of this insect coupled together*. He observes, however, that he has never seen the two sexes of the long-horned kind in the same state, a circumstance that in our mind rather weakens than confirms the strength of his former remark. Neither does Geoffroy take notice of any difference of appearance between the male and female of his *Grand Biche*, which leaves us in further doubt. If, notwithstanding, we can rely upon this writer, one disputed fact may be collected from the result of his remarks, namely, that there are both males and females of the *Short-horned Stag Beetle*.

This point attained, our attention is next directed to discover the true female of *Cervus Lucanus*; and this, if we are not mistaken, has been noticed only by Mr. Marsham. This gentleman, as it appears from the *Entomologia Britannica*, was so fortunate as to take the two sexes together, some years ago. The female is described as being in no respect different from the male, except in size, which is smaller; the horns are as large in proportion, they are beset with about seven nearly equal and approximate teeth, and have not one larger and remote from the rest. The discovery of the female of the *Lucanus Cervus* was a desirable circumstance; not merely as being the means of ascertaining the history of that insect, but as adding a further confirmation to the observations of Geoffroy, with regard to the *Short-horned Stag*, which they seem to us to require†. We have no doubt, that Geoffroy discovered both sexes of the *Grande Biche*, but it would have been more satisfactory had he been acquainted with the true female of the *Cervus Lucanus*. We need

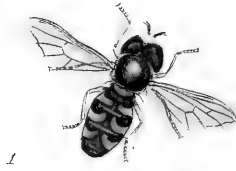
* " Cette animal (*La Grande Biche*) ressemble beaucoup au précédent; quelques personnes même ont cru qu'il n'en différerait que par la sexe, prenant celui-ci pour la femelle, et le cerf-volant pour la mâle: mais quoiqu'ils se ressembleraient beaucoup pour la forme, la grandeur, et la couleur; il est prouvé par le sexe, ayant rencontré plusieurs fois des biches accouplées ensemble, et jamais avec des cerfs volans.

† " Et nos etiam Geoffroyii sententiam comprobamus, cornutos enim copulâ conjunctos cepimus." *Marsh. Ent. Brit. T. I. p. 48. n. 2.*

only add, that no doubt can remain as to the two Long-horned Stag Beetles, taken by Mr. Marham, being a male and female, as they were dissected by Mr. Leman to determine the fact with precision.

The Short-horned Stag Beetle has the same haunts as the *Cervus Lucanus*, being found chiefly in the trunks of old or rotten trees, and is not uncommon.





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PLATE CCCCI.

FIG. I.

MUSCA PYRASTRI.

DIPTERA.

GENERIC CHARACTER.

Mouth with a soft exerted fleshy proboscis, and two unequal lips: sucker beset with bristles: feelers short and two in number, or sometimes none: antennæ usually short.

*. Antennæ a naked bristle.

SPECIFIC CHARACTER

AND

SYNONYMS.

Almost naked, black: thorax immaculate: abdomen with three pair of recurved whitish lunules.

MUSCA PYRASTRI: nudiuscula, nigra, thorace immaculato, abdomine his tribus lunulis albis recurvatis. *Linn. Fn. Suec.* 1817.

Scop. Ent. Carn. 931.

Gmel. Linn. Syst. Nat. 2875. *sp.* 51.

SYRPHUS PYRASTRI. *Fabr. Spec. Inf.* 2. p. 432. n. 58.—*Mant. Inf.* 2. p. 340. n. 67.—*Ent. Syst. T.* 4. 305. n. 102.

MUSCA ROSÆ. *De Geer. Inf. 6. p. 108. n. 5. t. 6. fig. 18.*

Musca thorace nigro-viridi, abdomine atro ovato, tribus paribus lunularum albicantium.—La mouche à fix taches blanches en croissant sur le ventre. *Geoffr. Inf. 2. 517. n. 46.*

Frisch. Inf. 11. t. 22. f. 1.

Reaum. Inf. 3. t. 31. f. 9.

The larva of this Insect feeds on the species of aphid that infests the common pear; it is of a fine green colour, with a single yellowish white dorsal line, extending the whole length, from the head to the extremity of the tail. The winged insect occurs in gardens.

FIG. II.

MUSCA CAEMETERIORUM.

SPECIFIC CHARACTER

AND

SYNONYMS.

Brassy black: abdomen depressed, black, and shining: wings blackish.

MUSCA CAEMETERIORUM: nigro aeneus abdomine depresso atro nitido, alis nigricantibus. *Linn. Fn. Suec. 1842. Syst. Nat. 2. 992. 82.*

SYRPHUS CAEMETERIORUM: *Fabr. Ent. Syst. T. 4. p. 303. n. 94.*

Inhabits Sweden, and other parts of Europe, as well as England.

FIG,

FIG. III.

MUSCA RIBESII.

RED CURRANT-LOUSE FLY.

SPECIFIC CHARACTER

AND

SYNONYMS.

Almost naked: thorax immaculate: abdomen with four yellow belts, the first interrupted.

MUSCA RIBESII: nigra nudiufcula, thorace immaculato, abdomine cingulis quatuor flavis: primo interrupto. *Linn. Fn. Suec.* 1817.—*Gmel. Linn. Syst. Nat.* 2875. n. 50.

Feeds on the aphides ribis, or plant-lice, that infests the red currant.

This insect agrees with the Linnæan specific description of Ribesii; yet we must observe, that the extreme segment of the abdomen being yellow, seems to form a fifth, or additional yellow band, to the four, described by that author and by Fabricius.

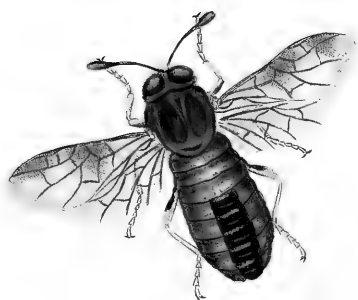


PLATE CCCCII.

TENTHREDO SERICEA.

SILKY SAW-FLY.

HYMENOPTERA.

GENERIC CHARACTER

Mouth with a horny mandible, curved and toothed within: jaw straight and obtuse at the tips: lips cylindrical and three cleft: feelers four unequal and filiform: wings flat and tumid: sting composed of two ferrated laminæ, and scarcely disclosed.

SPECIFIC CHARACTER

AND

SYNONYMS.

Antennæ clavated, reddish, or black; abdomen green, or dusky, and bronzed.

TENTHREDO SERICEA: antennis clavatis luteis, thorace atro: abdomine aeneo. *Linn. Syst. Nat.* 2. 921. 8.—*Schaeff. Elem. Tab.* 51. β *Tenthredo nitens* antennis clavatis luteis, abdomine viridi cœrulescente nitente. *Linn. Syst. Nat.* 2. 922. 10.—*Fn. Suec.* 1532.—*Sulz. Inf. tab.* 18. fig. 109.

The two sexes of *Tenthredo Sericea* differ so greatly from each other, that some authors have mistaken them for distinct species.

Linnaeus

Linnæus describes the male as a variety of the female. The male insect, which we have represented, is of a beautiful silky greenish colour, glossed with a brassy lustre, the antennæ clavated and brown: legs yellow, except at the base of the thighs, which are black, and the five last joints of the abdomen marked in the center with a broad stripe of dark, or velvety black. The female has the colours throughout more obscure, the antennæ are dusky, approaching black; the thorax dark, and the abdomen brassy, but tinged with a fombrous hue instead of green, and the wings are rather darker than in the male.

This elegant species is inserted among our British Insects upon the authority of two specimens, which we are credibly informed were found in England. Fabricius describes it as the offspring of a short green-coloured larva, which is marked with two yellow lines, and has a cinereous head, with a reddish brown band. It feeds on the alder.



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PLATE CCCCIII.

FIG. I.

APIS IRICOLOR.

IRICOLOR BEE.

HYMENOPTERA.

GENERIC CHARACTER.

Mouth horny: jaw and lip membranaceous at the tip: tongue inflected: feelers four, unequal, filiform: antennæ short, and filiform; those of the female somewhat clavated: sting of the females and neuters pungent, and concealed within the abdomen.

SPECIFIC CHARACTER

AND

SYNONYMS.

Violaceous, above glabrous: wings blackish.

APIS IRICOLOR: violacea, supra glabra; alis nigricantibus. Kirby,

Ap. Angl. T. 2. p. 310. n. 72.

Drury Inj. Vol. I. p. 108. tab. 45. fig. 3.

APIS VIRENS: *Christii Hymenop. p. 123. tab. 6, fig. 2.*

Apis Iricolor is, a large and beautiful species, but which, we are almost persuaded, has been introduced into the British Catalogue without sufficient reason. Mr. Kirby found it in Dr. Latham's

cabinet among his English apes; but Dr. Latham did not recollect where it was taken, or upon what authority he considers it as British. Notwithstanding this, Mr. Kirby has inserted the species in his "Monographia Apum Anglia", and, in compliance with this authority, we have ventured to introduce it into the present Work; conceiving, that after this explicit avowal of our only motive for enumerating it among the British Insects, we shall not be deemed entirely responsible for the accuracy of our information. *Apis iricolor* is well-known as a native of the West Indies. Mr. Drury's work on Exotic Insects contains the figure of a specimen he received from the island of Jamaica. It very much resembles the Linnæan *apis violacea*, but has the body violaceous instead of black, and the wings blackish instead of violet. We should observe, that the wings in our specimen of *Apis Iricolor* does not appear to be so dark or blackish in colour as in the individual figured and described by Drury; they are dusky, rather inclining to brown, and slightly glossed with green: the thorax fine blue, and very glabrous; abdomen inclining more to greenish, and the segments edged at the base with fine reddish purple.

FIG. II. II.

APIS BANKSIANA.

BANKSIAN BEE.

SPECIFIC CHARACTER

AND

SYNONYMS.

Deep black, shining, glabrous; claws rufous.

APIS BANKSIANA: atra, nitida, glabriuscula; digitis rufis. Kirby
Ap. Angl. T. 2. p. 179. n. 3.

Very

Very similar to the *Apis Linnæella* of Kirby, but twice its size: *Apis Linnæella* is likewise distinguished by having the extreme half of the antennæ rufous; whereas in the *Apis Bankiana*, the whole of the antennæ is black. This new species is named after Sir Joseph Banks, Bart. It is a rare insect.

The smallest figure denotes the natural size.

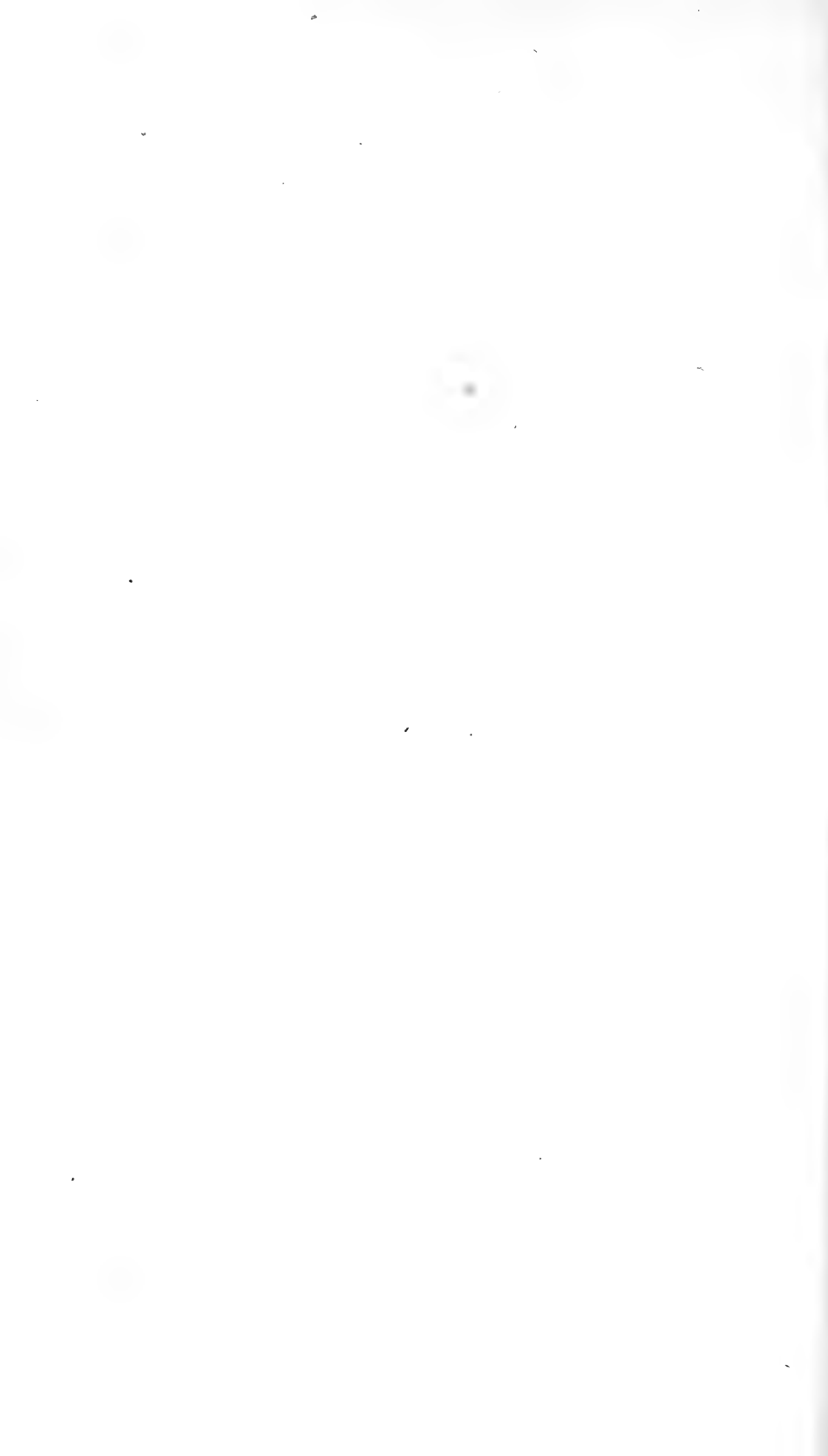




PLATE CCCCIV.

FIG. I.

SCARABÆUS FIMETARIUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ clavated, the club fissile: shanks of the anterior legs generally dentated.

SPECIFIC CHARACTER

AND

SYNONYMS.

Head tuberculated: wing-cafes red: body black.

SCARABÆUS FIMETARIUS: capite tuberculato, elytris rubris, corpore nigro. *Marsh. Ent. Brit. T. 1. p. 10. n. 7.*

SCARABÆUS FIMETARIUS: ater, capite tuberculato, elytris rubris. *Linn. Fn. Suec. 385.—Syst. Nat. 548. 32.—Fabr. sp. Inf. 1. p. 16. n. 64. Ent. Syst. 1. 27. 84.*

Scarabæus pilularius nonus. *Raj. Inf. p. 106. n. 9.*

LE SCARABÉ BEDEAU: *Geoffr. Inf. 1. p. 81. n. 18.*

Very common in the dung of cattle.

In

The head of this insect is black: the shield of the head subrotund: thorax punctured and black, with a large anterior testaceous spot on each side. The colour of the wing-cases vary from rufous brown to reddish: the legs are black, except the tarsi, which are rufous.

F I G. II.

S C A R A B Æ U S S O R D I D U S .

S P E C I F I C C H A R A C T E R

A N D

S Y N O N Y M S .

Head tuberculated: thorace black: margin pale with a black dot on each side: wing-cases testaceous.

S C A R A B Æ U S S O R D I D U S : capite tuberculato, thorace nigro: margine pallido: puncto nigro, elytris testaceis. *Marsh. Ent. Syst. T. 1. p. 10. n. 6.*

S C A R A B Æ U S S O R D I D U S : capite tuberculato, thorace nigro: margine pallido, puncto nigro, elytris griseis. *Fabr. Spec. Inf. I. 17. 68.—Syst. Ent. 16. 55.—Ent. Syst. I. 29. 90.—Schaeff. Icon. t. 74. f. 3.*

This insect is the same size as the preceding, the figure in our plate being magnified; and, like that species, it is found in horse-dung, but less frequently.

The antennæ are pale: head pale with three tuberculations: thorax punctured, black, with an entire pale or reddish border, which is broadest

broadest at the sides, and a single lateral dot of black: wing cases
 fordid testaceous, and marked in general with two black dots each,
 but which in some specimens are scarcely visible.

F I G. III.

SCARABÆUS SORDIDUS. *Var.*

Among other varieties of *Scarabæus sordidus*, we sometimes
 observe it without any of those black spots, which appear so con-
 spicuous on the wing-cases of the insect delineated at No. 2. An
 enlarged figure of this immaculate variety is represented at fig. 3.

F I G. IV.

SCARABÆUS COPRINUS.

SPECIFIC CHARACTER

AND

SYNONYMS.

Deep black, wing-cases testaceous with dotted striæ, and black
 suture.

SCARABÆUS COPRINUS: ater, elytris punctato-striatis testaceis:
 futura nigra. *Marsh. Ent. Syst. T. 1. p. 12. n. 11.*

SCARABÆUS SORDENS. *Gmel. 1546. 413?*

Found in dung. This is a scarce species, and has not been noticed
 by Fabricius.

PLATE





PLATE CCCC.V.

PAPILIO PILOSELLÆ.

LARGE HEATH, OR GATE-KEEPER BUTTERFLY.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ terminated in a club : wings erect when at rest : fly by day.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings indented, fuscous, with fulvous disk : anterior pair with a bipupillated black spot near the tip ; and snowy dots on the posterior wings beneath.

PAPILIO PILOSELLÆ : alis dentatis fuscis : disco fulvo, anticis utrinque ocello nigro : pupilla gemina, posticis fubtus punctis ocellaribus niveis. *Linn. Syst. Mant. I.* 537.

PAPILIO PILOSELLÆ : *Fabr. Ent. Syst.* 3. 240. 748.—*Syst. Ent.* 497. 233.

Papilio Tithonus. *Fabr. Spec. Inf.* 80. 355.

PAPILIO PILOSELLÆ : *Gmel. Linn. Syst. Nat.* 2300. n. 552.

PAPILIO PILOSELLÆ, LARGE HEATH. *Haworth Lep. Brit.* p. 24. n. 28.

PAPILIO HERSE. *Wien Schmetterl. p. 320. n. 24.*

PAPILIO TITHONUS: *Lewin. Pap. 22.*

This is one of the most abundant of the European Papiliones. In England it literally swarms about the hedges in the month of July, when it appears in the winged state. The larva is greenish, with a white line, and brown head: it is found in this state in June.—The male of this butterfly is rather smaller than the female, and is distinguished further by having an oblique dusky band across the fulvous disk of the anterior wings.



PLATE CCCCVI.

PHALÆNA CHI.

CHI MOTH.

LEPIDOPTERA.

Noctua.

GENERIC CHARACTER.

Antennæ gradually tapering from the base to the tip: wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings hoary grey: anterior pair marked with a black χ .

PHALÆNA CHI: *alis canis: superioribus χ nigro notatis.* Linn.
Fn. Suec: 1180.

NOCTUA CHI: *Fabr. Spec. Inf. 2. p. 236. n. 130.—Mant. Inf. 2.*
p. 174. n. 258.—Ent. Syst. T. 3. p. 2. p. 107.
n. 321.

Phalena feticornis spirilingius, alis deflexis, superioribus cinereo fuscoque nebulosis, lineis undulatis et omicro nigris, inferioribus cinereis. L'OMICRON NÉBULEUX *Geoffr. Inf. 2. p. 156. n. 93.*

Albin Inf. t. 83. f. C. D.

Roe. Inf. 1. Phal. 2. t. 13.

F 2

During

During one of our summer excursions through the northern parts of the principality of Wales, we discovered by accident a solitary specimen of *Phalæna Chi*, resting among the lichens that encrust the side of that venerable memorial of Druidical antiquity, the larger *Cromlech*, at *Plas Newydd* in the isle of Anglesea. We observed it in a perfectly quiescent state, apparently just as it had emerged from the pupa in the open day time. This was on the 17th day of August: we conceive it requisite to mention this precisely, as the time of its appearance in the winged state has been stated by one writer to be July instead of August, and that on the authority of the individual specimen above mentioned*.

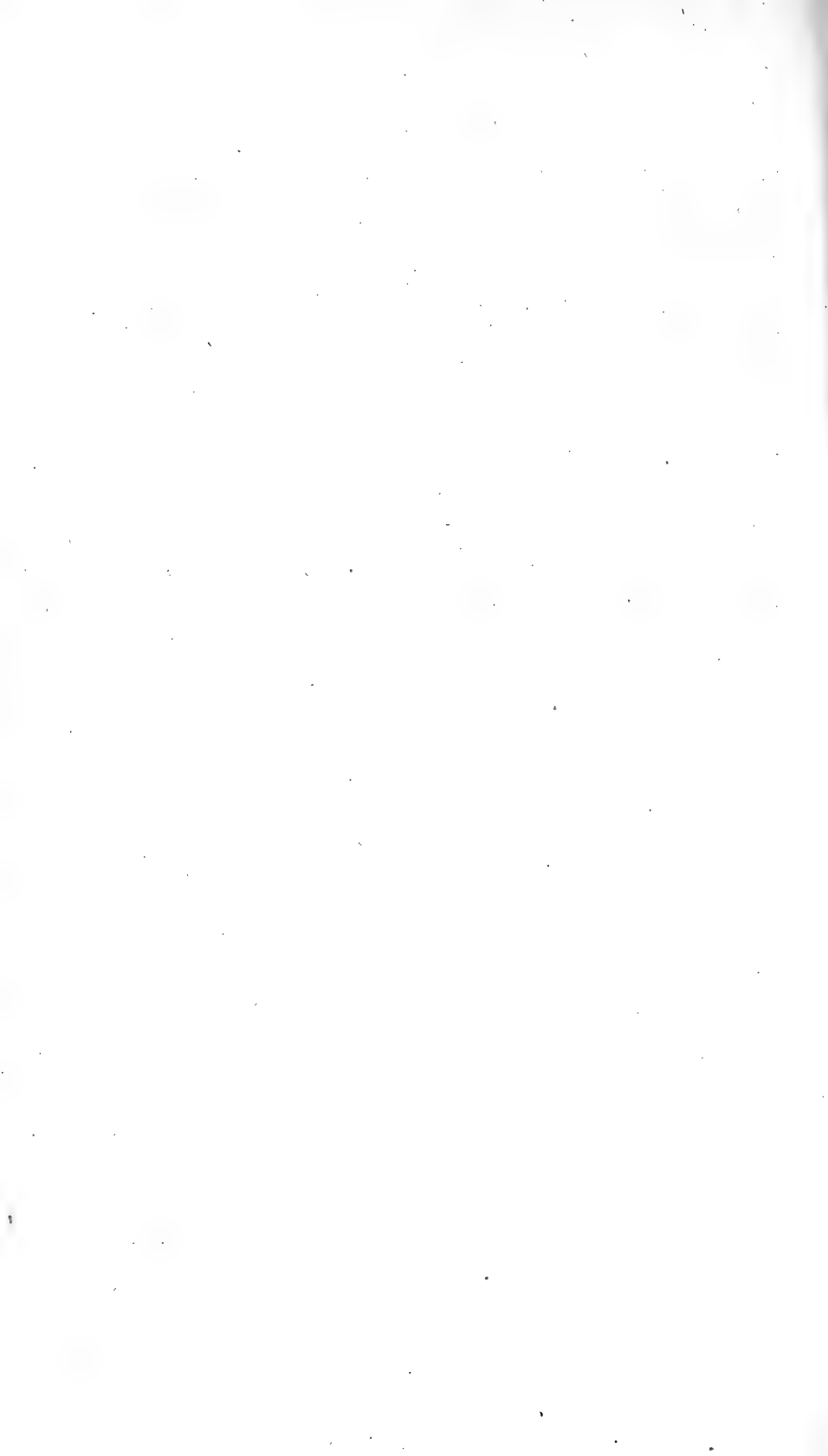
An erroneous reference among the Fabrician synonyms of *Phalæna Chi*, to the work of Albin (Plate 83), had long since induced the English collectors to consider the *Phalæna Chi* as a native of this country; but under this impression they mistook a very different insect for the *Chi* of Linnæus. Indeed the insect figured in Plate 83 of the work of Albin is no other than the common Sycamore Moth (*Phal. Aceris* of *Brit. Inf.*). It is therefore clear, this incautious reference has been productive of considerable misunderstanding, and that the *Phalæna Chi*, though really British, was not introduced with propriety as such, till we discovered it in Anglesea. We should however add, that among a number of insects found in Yorkshire, and communicated for our inspection by Mr. Rippon, of York, we found an insect very analogous, and apparently a variety of the same species, though of a darker colour than our Cambrian specimen, which in this respect accords extremely well with the Linnæan expression, "*alis canis.*" It should be remarked, that Geoffroy, who describes *Phalæna Chi*, as an insect by no means uncommon in France, tells us, it varies much in size, and speaks of varieties that are reddish, and others

* *Noctua Chiina*, *Jul. Septis*, *Haworth Prod. Lep. Brit.*

blackish *, though they agree in the markings; and he further observes, that the female is of a more cinereous colour than the male, but has the same kind of spots on the wings.

Our figure of the larva is taken from a well-preserved specimen lately obtained by us from Germany as the larva of this species, and which agrees so exactly with the Linnæan description, and the figure in the plate of Roefel, that we cannot hesitate to admit it as such. The pupa delineated in our plate is also from the same source. The food of the *Phalæna Chi* is the columbine and the thistle.

“ Il y a des variétés de cette Phalène, qui sont rougeâtres et d'autres noirâtres : mais toutes ont les deux taches ronde et carrée sur les aîlés.



Geoffroy speaks of this species of Dragon-fly as a rare insect in France, and we believe it to be very uncommon in England. The only specimen we have seen is one we possess in the cabinet of Mr. Drury, but from whence he obtained it we cannot ascertain. Ray appears to have described this insect as a native of Britain*.

This species bears some resemblance to the female of *Libellula Depressa* †, in size and general appearance; but on the slightest inspection will be found entirely distinct. The abdomen is less depressed on the back and narrower, and being besides somewhat compressed at the sides, assumes a much more linear form in the middle than *Libellula Depressa*. The wings are totally different, and afford an excellent characteristic by which the species may be distinguished. Each of those wings are marked on the anterior or costal rib, with two small brown spots, the one of which is situated near the apex, as in most of the tribe; the other about the middle on the anterior part of each wing: all the wings are yellowish at the base, and in the posterior pair, that part is distinguished further by having a large brown spot, contiguous to the body.

* *Ray Inf. p. 49. n. 3.*

† *Brit. Inf. Vol. I. pl. 24.*

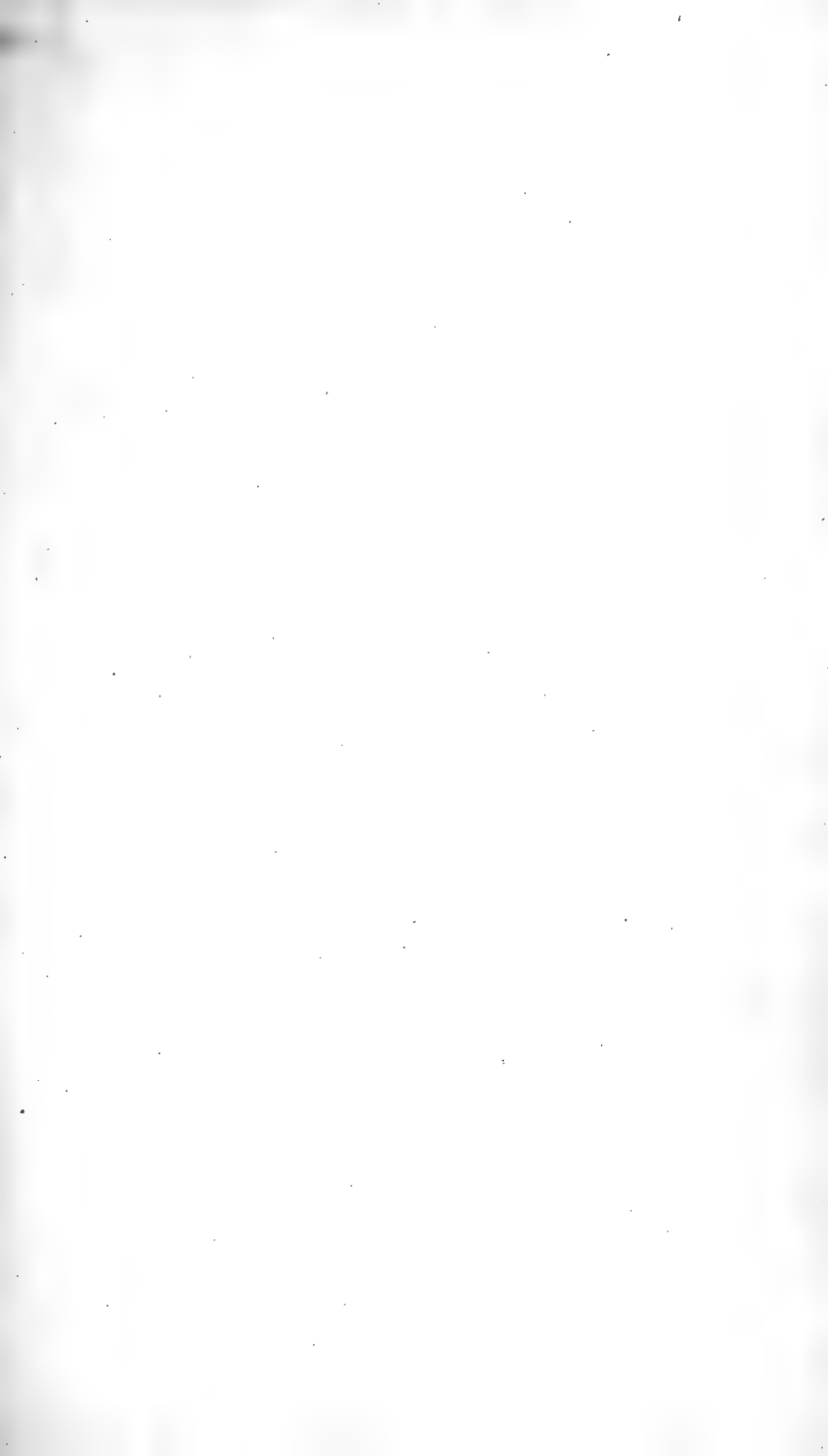




PLATE CCCCVIII.

FIG. I. I.

APIS CORNIGERA.

HYMENOPTERA.

GENERIC CHARACTER.

Mouth horny: jaw and lip membranaceous at the tip: tongue inflected: feelers four, unequal, filiform: antennæ short, and filiform; those of the female somewhat clavated: sting of the females and neuters pungent, and concealed within the abdomen.

SPECIFIC CHARACTER

AND

SYNONYMS.

Deep black: lip somewhat cornuted: first abdominal segment with yellow spots on the back: beneath ferruginous: abdomen variegated with yellow bands.

APIS CORNIGERA: atra, labio subcornuto; abdominis ventre basi ferrugineo, tergo maculis, faciliſque flavis variegato. *Kirby Ap. Angl. T. 2. p. 190. n. 11.*

In the *Apum Angliæ* above quoted it is observed, that when this insect is alive, it emits a very agreeable scent. We have never

taken this individual species alive ourselves; but we have observed a similar odour emitted by other insects of the same family.—*Apis Cornigera* is an insect liable to considerable variations; we possess several insects in our own cabinet, which appear to be varieties, as they possess the same characteristic specific marks in general, though they differ in some other particulars. It is an elegant and interesting insect.

FIG. II. II.

A P I S J A C O B Æ Æ .

S P E C I F I C C H A R A C T E R

A N D

S Y N O N Y M S .

Deep black: legs ferruginous: abdomen with six yellow bands, the three first interrupted: antennæ above black.

A P I S J A C O B Æ Æ : atra; pedibus ferrugineis; scutelli punctis, abdominisque maculis fasciisque, flavis; antennis supra nigris. *Kirby Ap. Ang. T. I. p. 201. n. 20.*

N O M A D A J A C O B Æ Æ : nigra; abdomine fasciis sex flavis, primis tribus interruptis, antennisque flavis. *Panz. Fn. Inf. Germ. Init. n. 72. tab. 20.*

Found in spring on the flowers of the gooseberry.

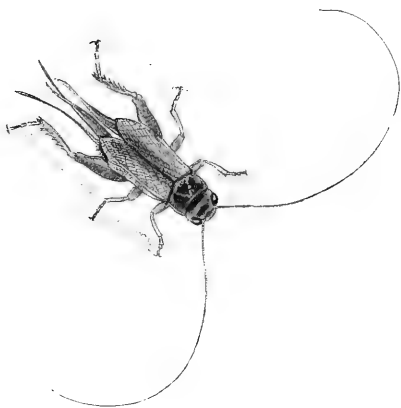


PLATE CCCCIX.

GRYLLUS DOMESTICUS.

HOUSE CRICKET.

HEMIPTERA.

GENERIC CHARACTER.

Head inflated, armed with jaws: feelers filiform: antennæ usually fetaceous, or filiform: wings four, deflected, convolute, the lower ones plaited: posterior legs formed for leaping: claws double.

** *Section* Acheta. Antennæ fetaceous: feelers unequal; thorax rounded: tail with two bristles.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings tailed, and longer than the wing-cafes: body glaucous.

GRYLLUS DOMESTICUS: alis caudatis elytro longioribus, pedibus simplicibus, corpore glauco. *Linn. Fn. Suec.* 868.—*Scop. Ent. Carn.* 318.

Acheta Domestica: *Fabr. Ent. Syst. T. 2. p. 29. n. 3.*

GRYLLUS DOMESTICUS: *Mouffet. Inf. p. 135.*

Grylli Mouffeti. *Jonst. Inf. 12.*

Le Grillon, *Geoffr. T. I. p. 389, n. 2.*

Few insects are more familiar than the common Cricket. It frequents houses, and is superstitiously esteemed by many a welcome inmate.

This little animal is not only fond of warmth, but, as though an almost intense and suffocating heat were absolutely necessary to its very being, it is constantly found most abundantly in bakehouses, kitchen chimnies, and other places where the greatest heats prevail. Besides the inaccessibility of its lurking places in general, nothing has more fully contributed to the preservation of those insects than the silly veneration which the vulgar entertain for it; interpreting its presence as an omen of good fortune, and conceiving it would be unpropitious to harm or destroy it.

The Cricket is indeed an animal of inoffensive manners; it is troublesome only from the incessancy of its chirping, which continues without intermission night and day. Some think its note louder before rain than at any other time; a circumstance asserted both by Linnæus and Fabricius. Geoffroy says, this noise is occasioned by the friction of its thorax against the head and wing-cases. According to Poda, the Cricket deserts houses infested with the cock roach, and is destroyed by pills of arsenic and the fresh root of the daucus mixed with flour, or the root of the nymphæa boiled in milk.

2



1



1

PLATE CCCCX.

FIG. I.

APIS PICIPES.

HYMENOPTERA.

GENERIC CHARACTER.

Mouth horny: jaw and lip membranaceous at the tip: tongue inflected: feelers four, unequal, filiform: antennæ short, and filiform; those of the female somewhat clavated: sting of the females and neuters pungent, and concealed within the abdomen.

SPECIFIC CHARACTER

AND

SYNONYMS.

APIS PICIPES. Black, covered with pale down: thorax tinged with fulvous: abdomen fuscous: legs rufous, pitchy.

MELITTA PICIPES: nigra, pallido-villofa; thorace fulvescenti; abdomine fusco; pedibus rufo-piceis. Kirby. *Ap. Angl. T. n. p. 127. n. 66.*

Described by Mr. Kirby as a new species of his genus *Melitta* from the individual specimen (*Apis*, n. 65, of Mr. Drury's cabinet),
figured

figured in the annexed plate. It appears, the species has not been observed in any other collection.

This insect is of a moderate size, as the line describing its length at fig. 1, in the lower part of the plate is intended to shew. The prevailing colour is black, but assumes a greyish aspect from the pale downy hairs with which it is partially covered: the thorax is more villous than the body, and this villosity partakes in a slight degree of a fulvous tint; a few hairs of the same colour is also observable about the head; the antennæ are blackish; wings hyaline with the nerves pale testaceous.

FIG. II.

APIS DISJUNCTA.

SPECIFIC CHARACTER.

AND

SYNONYMS.

Black: posterior part of the thorax, and anterior part of the abdomen yellow downy: wings fuscous.

APIS DISJUNCTA: nigra thorace postice abdominisque antice tomento flavo, alis fuscis. *Fabr. Ent. Syst. T. 2, 328. n. 61.*

ANTHROPHORA DISJUNCTA. *Fabr. Syst. Piez. 374. n. 10.*

Among the British Apes in the cabinet of Mr. Drury (No. 38), we possess a specimen of this remarkable insect, and which we think
 toe

so interesting to be omitted. We cannot pretend to determine on what authority it was introduced into that collection, neither are we inclined to pledge our opinion in favour of its being a genuine British Insect; we consider only that it might have been found alive in England, and under this idea may be noticed with propriety in the present work. Mr. Kirby did not consider it as an English Insect, or he would have introduced it into his *Apum Angliæ*. This insect, like *Apis Iricolor*, inserted as British in Mr. Kirby's work on the authority of a specimen in Dr. Latham's collection, is known as a native of the West Indies, and may possibly, as well as that insect, have been brought into England with some West Indian cargoes, and been afterwards discovered by accident at large in the country. Many well authenticated instances of this kind have occurred within our own knowledge. Aware of this, we cannot consistently admit an extra European insect as an aborigine, but as an occasional wanderer from the tropic regions found alive in this country; and which, from its habits of life, might even become the origin of a future British species.

We should rather suspect from the appearance of the insect, that it has been introduced in some piece of timber imported from the American islands, for it is of the same natural family as the *Apis Centuncularis*, or Carpenter Bee, which is well known to undergo its various transformations in centunculi, or small cells formed of leaves, and deposited in large hollow cavities bored through the timber by the parent female: this is not in the least unlikely, as this tribe of insects remain for a considerable period of time in the egg, larva, and pupa state, that the insect might have been deposited in the egg state in the West Indies, and was not liberated from its confinement till the timber, in which it was concealed, arrived in England. —The insect is shewn of its natural size in the annexed plate.

This species seems to be the insect described by Fabricius, as above referred to; and has not, we believe, been figured by any author.

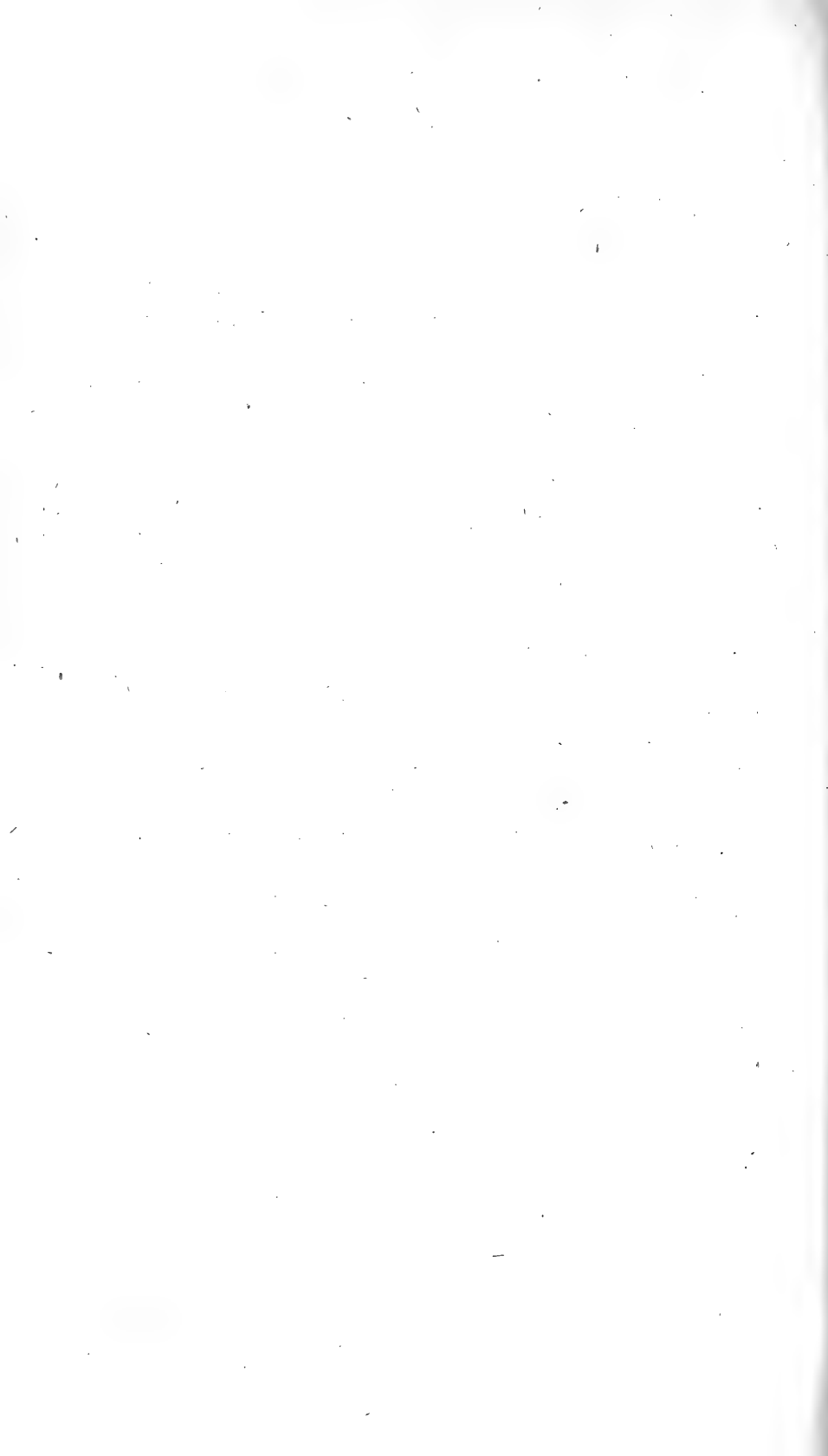




PLATE CCCCXL

FIG. I. I.

CLERUS MOLLIS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ moniliform, with the three extreme joints largest: head bent down: thorax convex and attenuated behind: wing-cafes flexile, body elongated and somewhat oblong.

SPECIFIC CHARACTER

AND

SYNONYMS.

Grey and pubescent, with three paler bands on the wing-cafes.

CLERUS MOLLIS: griseus pubescens, elytris fasciis tribus pallidis.
Marsh. Ent. Brit. T. I. p. 322. n. 2.

ATTBLABUS MOLLIS: *Linn. Syst. Nat. 621. n. 11.—Fn. Suec. 642.*

NOTOXUS MOLLIS: *Fabr. Syst. Ent. 158. 1.—Spec. Inf. I. 203. I.—Mant. I. 127. 3.—Ent. Syst. I. p. 211. 5.*

NOTOXUS MOLLIS: *Gmel. Linn. Syst. Nat. 1813. 3.*

DERMESTES MOLLIS: *Schrank. 37.*

Curculio. *Udd. Diff. 28. t. I. f. 9.*

Le Clairon porte-croix. *Geoffr. I. 305. 3.*

A rare insect in England. Inhabits woods. The smallest figure denotes the natural size.

FIG. II. II.

TILLUS BIMACULATUS.

GENERIC CHARACTER.

Antennæ filiform and ferrated: head somewhat declinaing: thorax convex, oblong and attenuated both before and behind: body linear and elongated.

SPECIFIC CHARACTER.

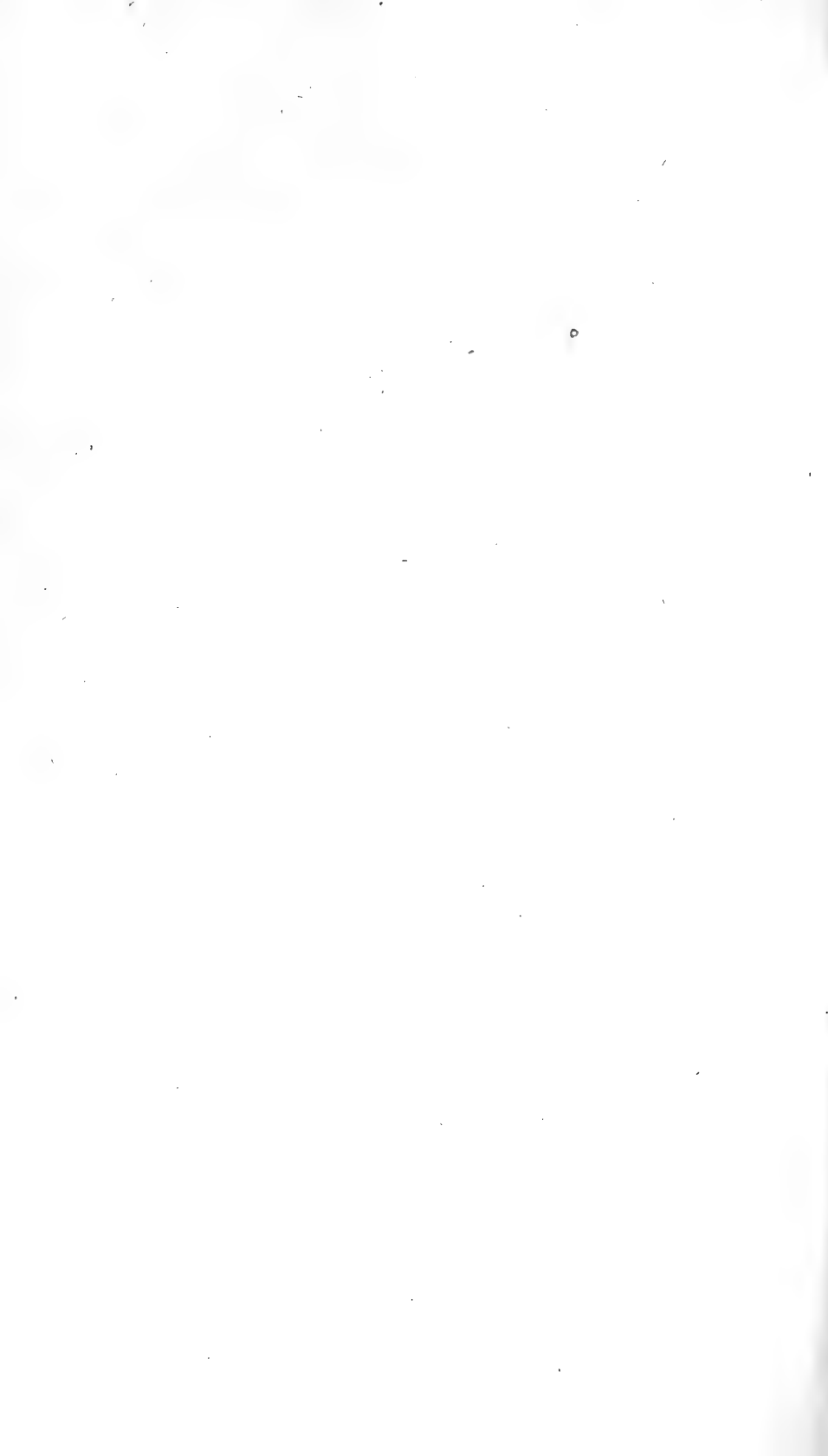
TILLUS BIMACULATUS: blue-black: with a pale ferruginous spot on the wing-cases.

Fabricius describes three species of the genus *Tillus* in his *Entomologia Systematica*, *elongatus*, *ambulans*, & *ferraticornis*; all which are found in Europe, and the two first in this country. To these Mr. Marsham adds two other British species, *æneus* and *vireus*; including at the same time, as a fifth species, the *Clerus unifasciatus* of Fabricius. Thus it appears, we possess five described species of this genus in Britain, neither of which agreeing with our present insect, we presume to offer it as a sixth and new species.

Besides the five species of *Tillus* above mentioned, the late Fabrician work, *Supplem. Ent. Syst.* contains two more species, *damicornis*, a native of America, and *Weberi*, a German insect. Neither of those, however, correspond with our insects; and we have therefore

therefore no hesitation in admitting it as a non-descript, as well as new British species.

We have once seen this insect alive in the woods of Kent, but accidentally lost it: the only specimen we now possess is in the cabinet of the late Mr. Drury: and we do not recollect to have ever seen it in any other.



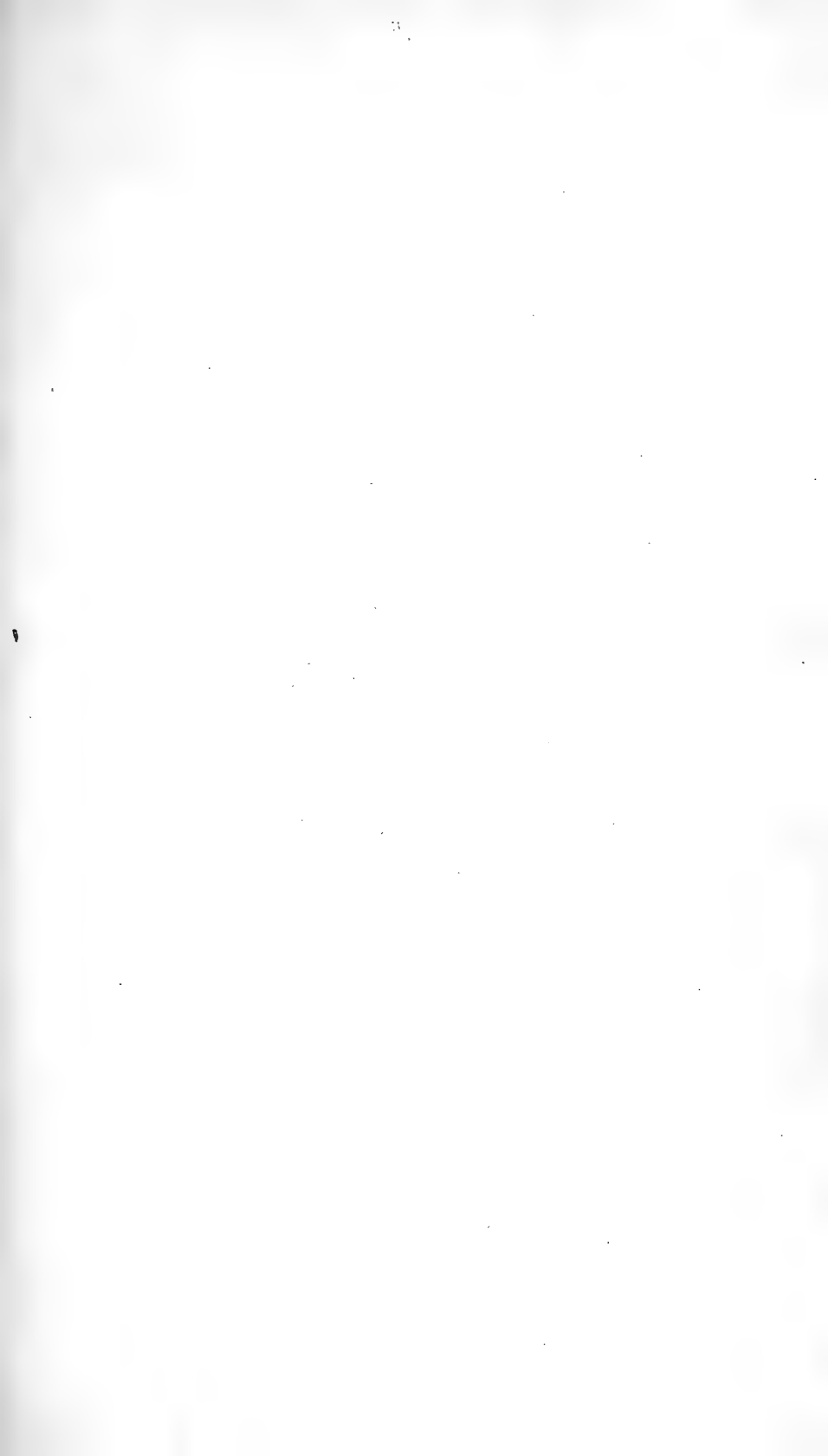




PLATE CCCCXII:

PHALÆNA FLEXUOSA.

YORKSHIRE Y MOTH.

LÉPIDOPTERA.

GENERIC CHARACTER.

Antennæ gradually tapering from the base to the tip: wings in general deflected when at rest. Fly by night.

* *Noctua*.

SPECIFIC CHARACTER.

NOCTUA FLEXUOSA. Anterior wings reddish-grey varied with sub-ferruginous: in the middle a flexuous white streak inclosing a pale lobiform spot.

This species of *Noctua* is described upon the authority of an unique British specimen in the cabinet of Mr. Drury, that has not been hitherto described by any writer. It was taken in Yorkshire, and has been denominated among English collectors to whom the circumstance was known, the Yorkshire Y Moth. We name it *Flexuosa* from the whitish flexuous line, which originates at the inner edge of the first wings near the base, and passing from thence
in

in a circuitous direction to the middle of the wing, encircles a small lobe-shaped spot of a pale clay colour; in other respects this species is not unlike the common Y Moth *Phalæna Interrogationis*, but in this very striking character it is totally distinct.

Our *Noctua Flexuosa* is very different from either of the analogous species, except that above mentioned; neither does it accord with any others described in foreign entomological works with which we are acquainted. The figures which represent it both in an incumbent posture, and with the wings expanded, are sufficiently correct to render any further description of this interesting insect unnecessary.



PLATE CCCCXIII.

BANCHUS PICTUS.

HYMENOPTERA.

GENERIC CHARACTER.

Feelers four, elongated, with the joints cylindrical: lip at the base cylindrical and horny, tip membranaceous, rounded, and entire: antennæ setaceous.

SPECIFIC CHARACTER

AND

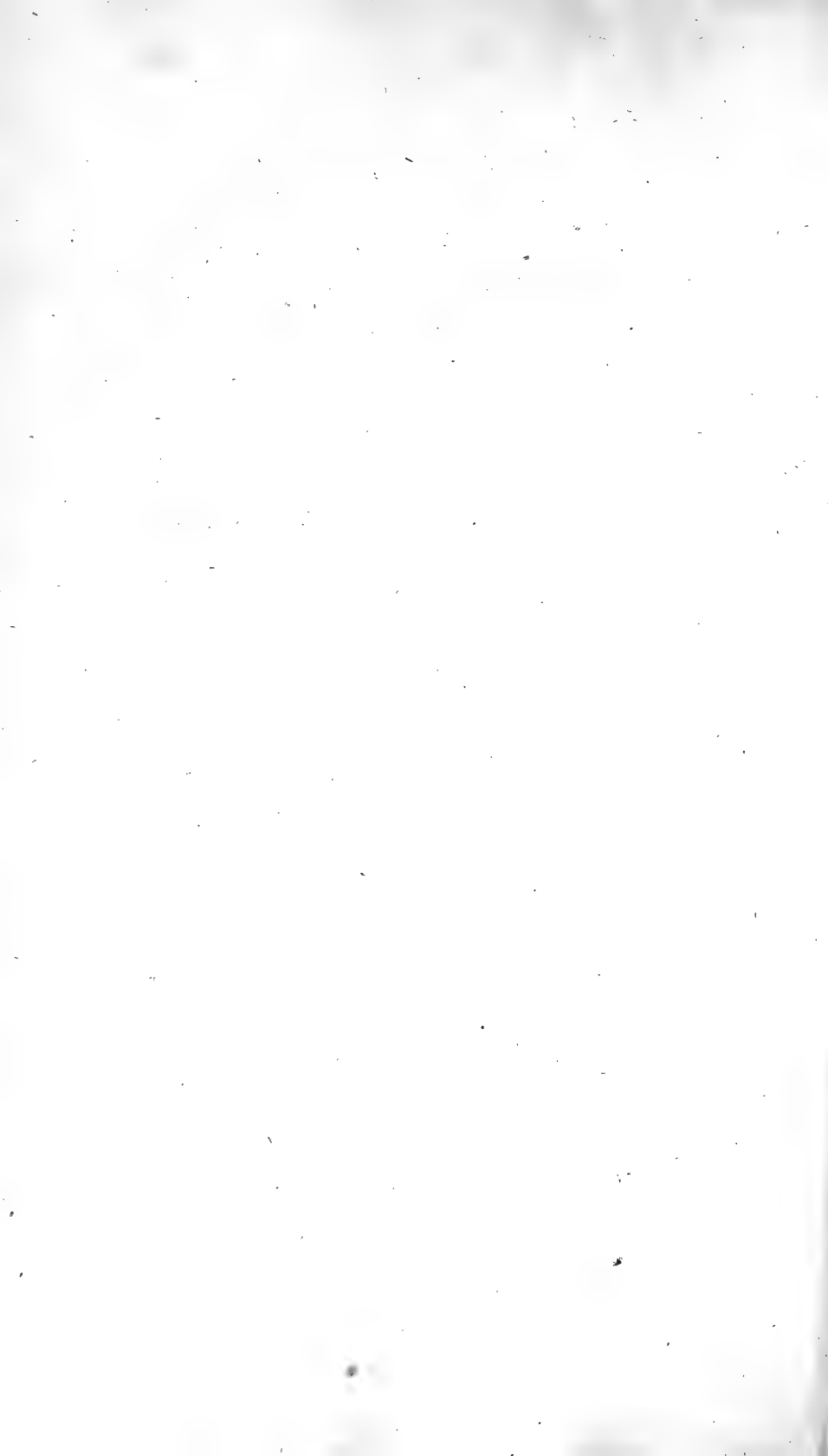
SYNONYMS.

Black varied with yellow; scutellum somewhat spinous.

BANCHUS PICTUS: niger flavo varius scutello subspinoso. *Fabr. Supp. Ent. p. 234. n. 7.*

Described by Fabricius as a native of Germany from the cabinet of Smidt.—Not before noticed as a British species.

The smallest figure denotes the true size of this curious insect.



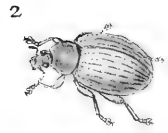


PLATE CCCCXIV.

FIG. I. I.

CURCULIO VAU.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ clavated, and feated on the snout, which is horny and prominent: posterior part of the head thick.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wing cafes with a spot, and common V-mark of white.

CURCULIO VAU: elytris macula et figura V communi albis. *Marsh.*
Ent. Brit. T. 1. p. 299. n. 177.—*Schrank,*
227.—*Vill. I. 214. 174.*

The body of this insect is rather downy, and of a cinereous colour; the figure somewhat oblong, and the snout thick. The common V-like mark, formed by the union of two oblique whitish lines on the posterior part of the future, and the single anterior white spot in the middle of each of the wing-cafes, are very characteristic of this species.—The smaller figure denotes the natural size.

FIG. II. II.

CURCULIO EXARATUS.

SPECIFIC CHARACTER.

Fuscous: wing-cafes cinereous, and rather deeply marked with dotted friæ.

CURCULIO EXARATUS: fuscus, elytris cinereis profundiuscule friatis: friis punctatis. *Marsh. Ent. Brit. T. 1. p. 303. n. 188.*



The snout is rather broad and thick: wing-cafes pale fuscous, or cinereous, and marked with moderately deep dotted lines: the whole of the under surface covered with very short down.

FIG. III. III.

CURCULIO FASCIATUS.

SPECIFIC CHARACTER

AND

SYNONYMS.

Ferruginous-fuscous: wing-cafes fasciated with white: legs rufous.

CURCULIO

CURCULIO FASCIATUS: fusco-ferrugineus, elytris albo-fasciatis, pedibus rufis. *Marsh. Ent. Syst. T. I. p. 236. 144.*

Curculio Incurvus? *Panz. Faun. Germ. 36. t. 7.*



Found on the leaves of the *Cratægi Oxyacanthæ*.

The antennæ, snout, and legs rufous: thorax ferruginous-brown, with a thin white dorsal line: scutell white: wing-cases ferruginous brown and striated; the striæ impressed with dots.—When in fine preservation, this is an elegant species, being variegated, though in a slight degree only, with white, besides the broad whitish common and towards the posterior part of the wing-cases.

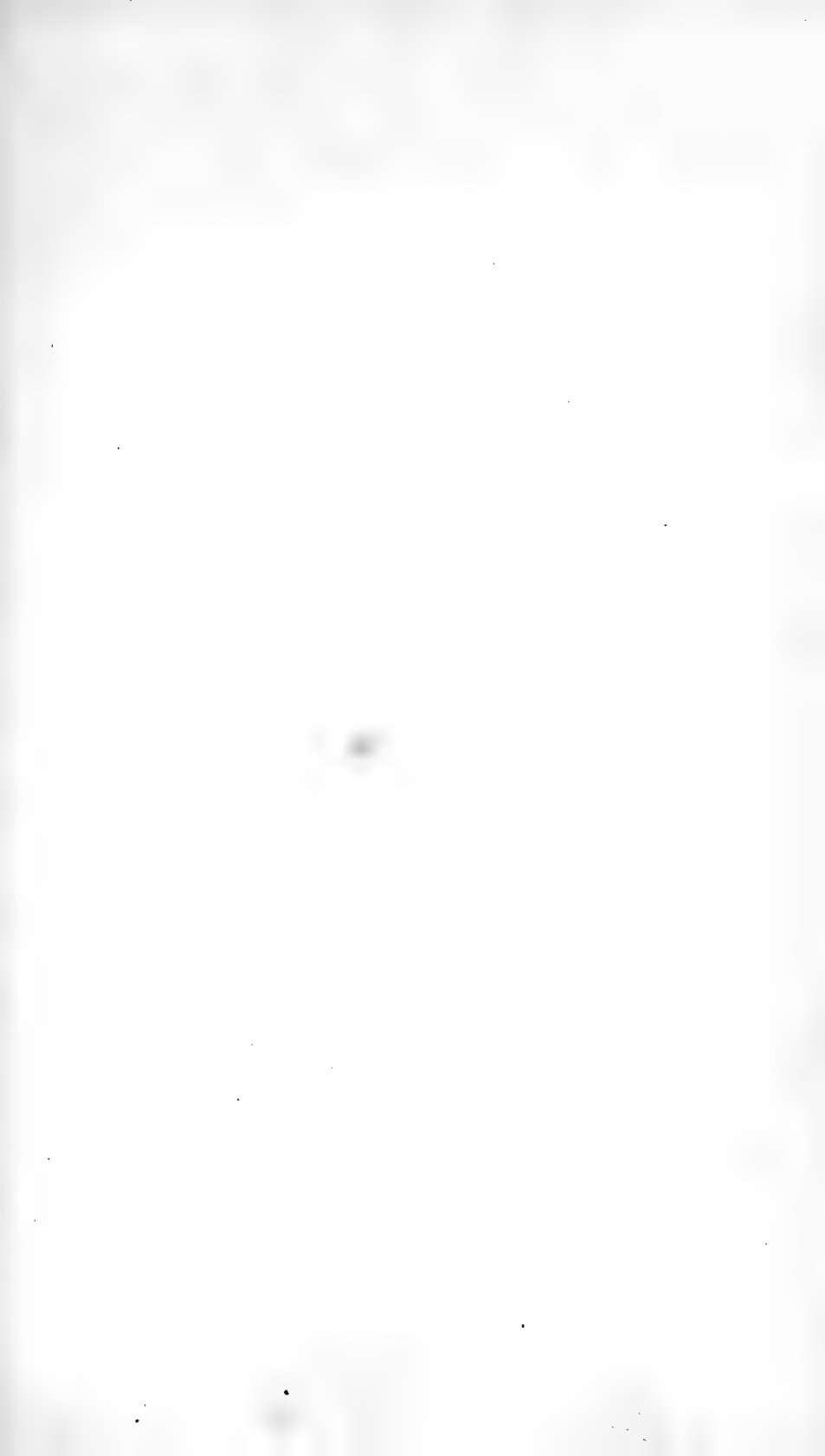




PLATE CCCCXV.

LIBELLULA ÆNEA.

BRASSY-GREEN DRAGON-FLY.

NEUROPTERA.

GENERIC CHARACTER.

Mouth armed with more than two jaws: lip trifold: antennæ shorter than the thorax, very thin, and filiform: wings expanded: tail of the male furnished with a furcated process.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings transparent: thorax brassy-green.

LIBELLULA ÆNEA: alis hyalinis, thorace viridi æneo. *Linn.*
Fn. Suec. 1466.—*Gmel. Linn. Syst. Nat.* 2622.
n. 8.

Fabr. Spec. Inf. I. p. 524. *n.* 27.

Libellula viridi aurata capite rotundato, pedibus nigris, abdominis
medio inflato. *Degeer. Inf.* 2, 2. 52. *tab.* 19.
fig. 8.

Libellula viridi nitens, alis pallidis, pedibus nigris. *L'Amianthe.*
Geoffr. Inf. 2. 226. 10.

Roef. Inf. 2. *aqu.* 2. *t.* 5. *f.* 2.

Schaeff. Ic. t. 113. *f.* 4.

Raj. Inf. p. 49. *n.* 5.

Libellula

Libellula Ænea has been recently observed in swampy grounds in the neighbourhood of Hampstead. It is recorded as a British Insect by Ray; but since his time appears to have become very scarce till lately, when a small number of them were observed in the above-mentioned situation. We possess two varieties taken in this place, in the summer of 1805, which differ in some slight particulars only. Both insects have the eyes of a brown colour, and the thorax of a brilliant green with a brassy lustre: the principal difference consists in the colour of the wings, which in one specimen are hyaline, while on the contrary the wings of the other are tinged with testaceous yellow. This yellow-winged variety is further distinguished by having the body glossed with fine golden purple; in the other, the body is of a brassy green colour, with only a slight inclination to reddish brown*. Both insects are figured in the annexed plate in their natural size.

This species is not peculiar to England. Linnæus describes it as a native of Sweden; from Geoffroy we learn, that it is a native of France; and from Roefel, as being found in Germany.

* An indifferent figure of a species of *Libellula*, much resembling this, occurs in the work of Schaeffer, *Icon. Ratif. pl. 167, fig. 4*, and which is probably intended for our yellow-winged variety.



PLATE CCCCXVI.

VESPA CRIBRARIA.

HYMENOPTERA.

GENERIC CHARACTER.

Mouth horny, with a compressed jaw: feelers four, unequal and filiform: antennæ filiform, the first joint longest and cylindrical: eyes lunar: body glabrous: sting pungent, and concealed within the abdomen: upper wings folded in both sexes.

SPECIFIC CHARACTER

AND

SYNONYMS.

Black: abdomen banded with yellow, the middle ones interrupted: anterior flanks with concave shields.

VESPA CRIBRARIA: *Linn. Syst. Nat.* 12. 2. p. 945. n. 23.—*Fn. Suec.* 2. n. 1675.

CRABRO CRIBRARIA: nigra, abdomine fasciis: intermediis interruptis, tibiis anticis clypeis concavis. *Fabr. Sp. Inf.* I. p. 470. n. 8.—*Mant. Inf.* I. p. 296. n. 13.

Apis tibiis anticis lamella cribriformi. *Uddm. Diff.* 94.

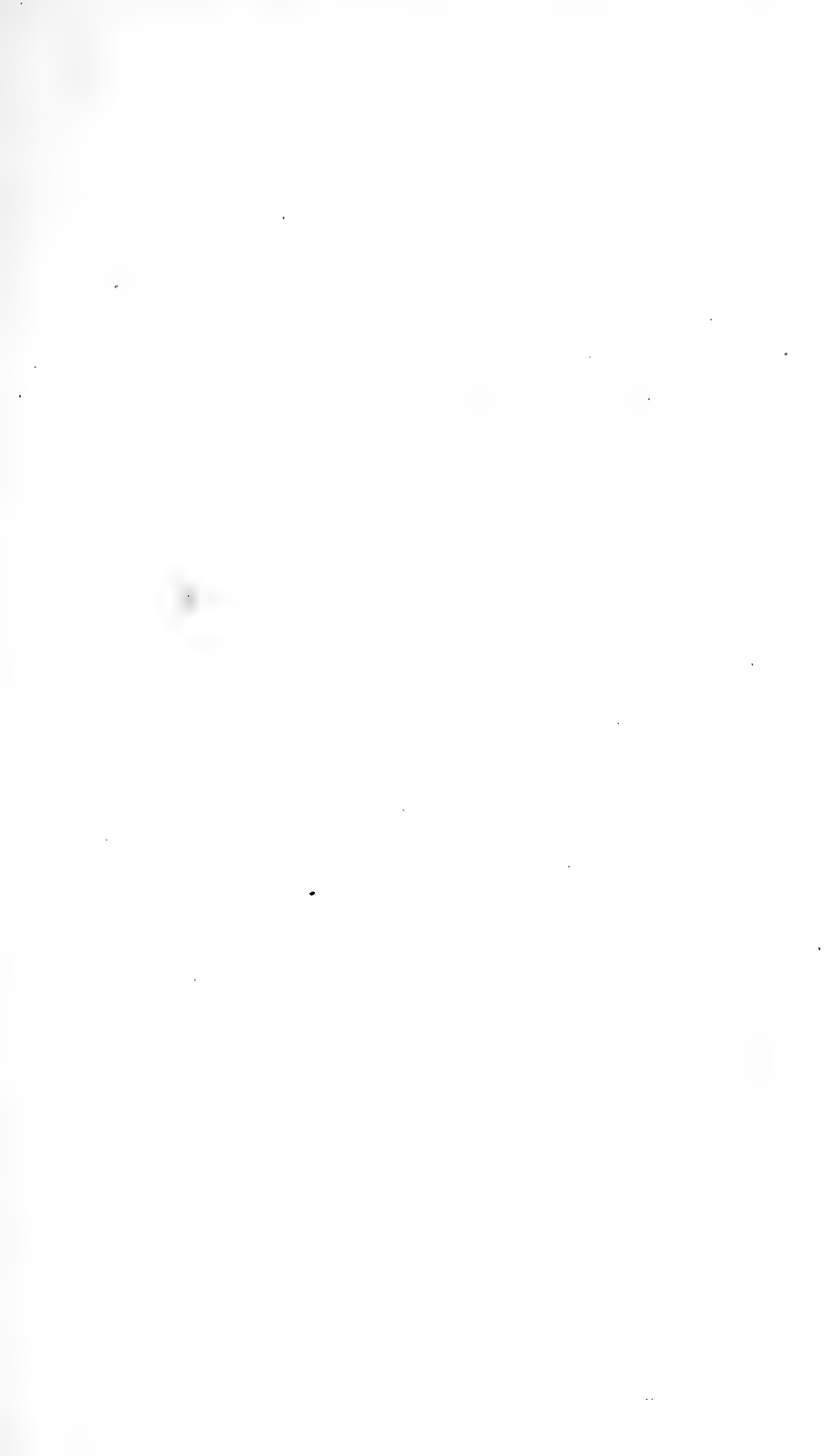
Ray Inf. p. 255. n. 15.

Rolander Aët Stockh. 1751. p. 56. t. 3. f. 1.

Crabro Cribrarius: *Panzer Fn. Inf. Germ.*

Found

Found in England, in Sweden, and in Germany. The male has the shanks of the anterior legs shielded, while in the female those parts are simple: this characteristic of the two sexes is not peculiar to our insect, we observe the same in the Fabrician *Crabro Clypeatus* (*Vespa Clypeata*, *Gmel.*), in *Crabro Scutatus* (*Vespa Scutata*, *Gmel.*), and several other species of the Linnæan *Vespa*.



margin of the wing-cafes is another : near the future, and before the middle of the wing-cafes, is a fourth spot; and a fifth towards the end, placed tranfverfely.—Varieties occur in which the thorax is reddifh at the fides.

FIG. II.

SCARABÆUS SPHACELATUS.

SPECIFIC CHARACTER.

Black : head tuberculated : margin of the thorax pale : wing-cafes grifeous with dotted friaræ, and a fingle fufcous daub or irregular fpot.

SCARABÆUS SPHACELATUS : niger, capite tuberculato, margine thoracis pallido, elytris grifeis punctato-friatis : litura unica fufca. *Marsh. Ent. Brit. T. I. p. 15, n. 20.*

Panz. Faun. Germ. 58. t. 5.

Very abundant in dung. Size the fame as in the preceding fpecies. The antennæ of this infect is black : head obfolete, tuberculated, and black : thorax black, glossy, and very minutely punctured, with the lateral margin livid : fcutel fufcous : body black beneath : legs pale.

FIG.

F I G . I I I . I I I .

S C A R A B Æ U S F O S S O R .

S P E C I F I C C H A R A C T E R .

A N D

S Y N O N Y M S .

Black: thorax somewhat retuse: head with three tubercles and somewhat cornuted in the middle.

S C A R A B Æ U S F O S S O R : niger, thorace subretuso, capite tuberculis tribus: medio subcornuto. *Linn. Syst. Nat.* 548. 31.—*Fn. Suec.* 384.—*Fabr. Sp. Inf. I.* p. 15. n. 59.—*Mant. Inf. I.* p. 8. n. 62.—*Marsh. Ent. Brit. T. I.* p. 16. n. 24.

La Tete Armée: *Geoffr. Inf. I.* p. 82. n. 20.
Schaeff. Icon. t. 144. f. 78.



The length of this insect rather exceeds three-eighths of an inch: the colour is entirely black, glabrous, smooth, and shining; its thorax is very convex: wing-cases oblong and striated: antennæ lamellated; and wings fuscous. Found in dung.

FIG. IV.

SCARABÆUS RUFIPES.

SPECIFIC CHARACTER

AND

SYNONYMS.

Pitchy: antennæ pale: wing-cases smooth.

SCARABÆUS RUFIPES: piceus, antennis pallidis, elytris lævibus.

Linn. Syst. Nat. 559. 86.—*Fn. Suec.* 403.—*Gmel.* 1552. 86.—*Marsh. Ent. Brit. T. I.**p.* 25. *n.* 42.SCARABÆUS CAPITATUS: *De Geer*, 4. *p.* 263. 7. *t.* 10. *f.* 6.SCARABÆUS OBLONGUS: *Scop.* 19.

About the size, and has the same habits as the preceding, the figure in the annexed plate being magnified. It is entirely of a black colour and glossy: shield of the head obtuse: last joints of the legs pale rufous.

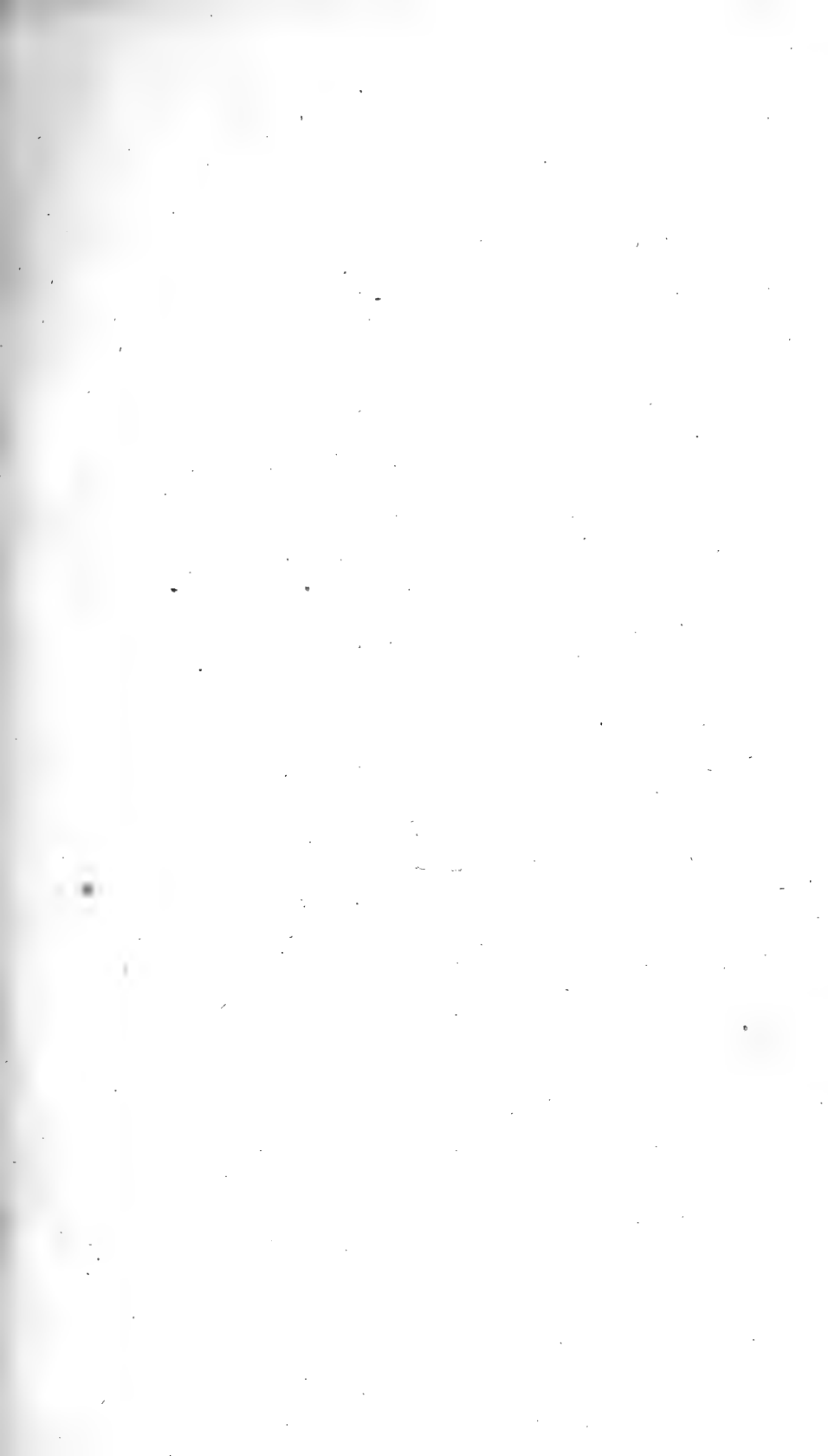




PLATE CCCCXVIII.

SCARABÆUS GREENII.

GREEN'S SCARABÆUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ clavated: the club bifid: the club of the anterior legs generally dentated.

SPECIFIC CHARACTER

AND

SYNONYMS.

Blackish: thorax and margin of the wing-cases sprinkled with white dots: on the first four segments of the abdomen beneath a single white dot in the middle, and one each side.

CETONIA VARIEGATA: atra thorace margine elytrisque maculis albis sparfis. *Fabr. Ent. Syst. T. I. p. 2. 151. n. 88?*

Scarabæus tribus antennarum lamellis tricesimus quintus. *Schaef. Icon. pl. 193. fig. 8?*

SCARABÆUS ALBELLUS: *Pallas. Icon. I. 17. tab. A. 18?*

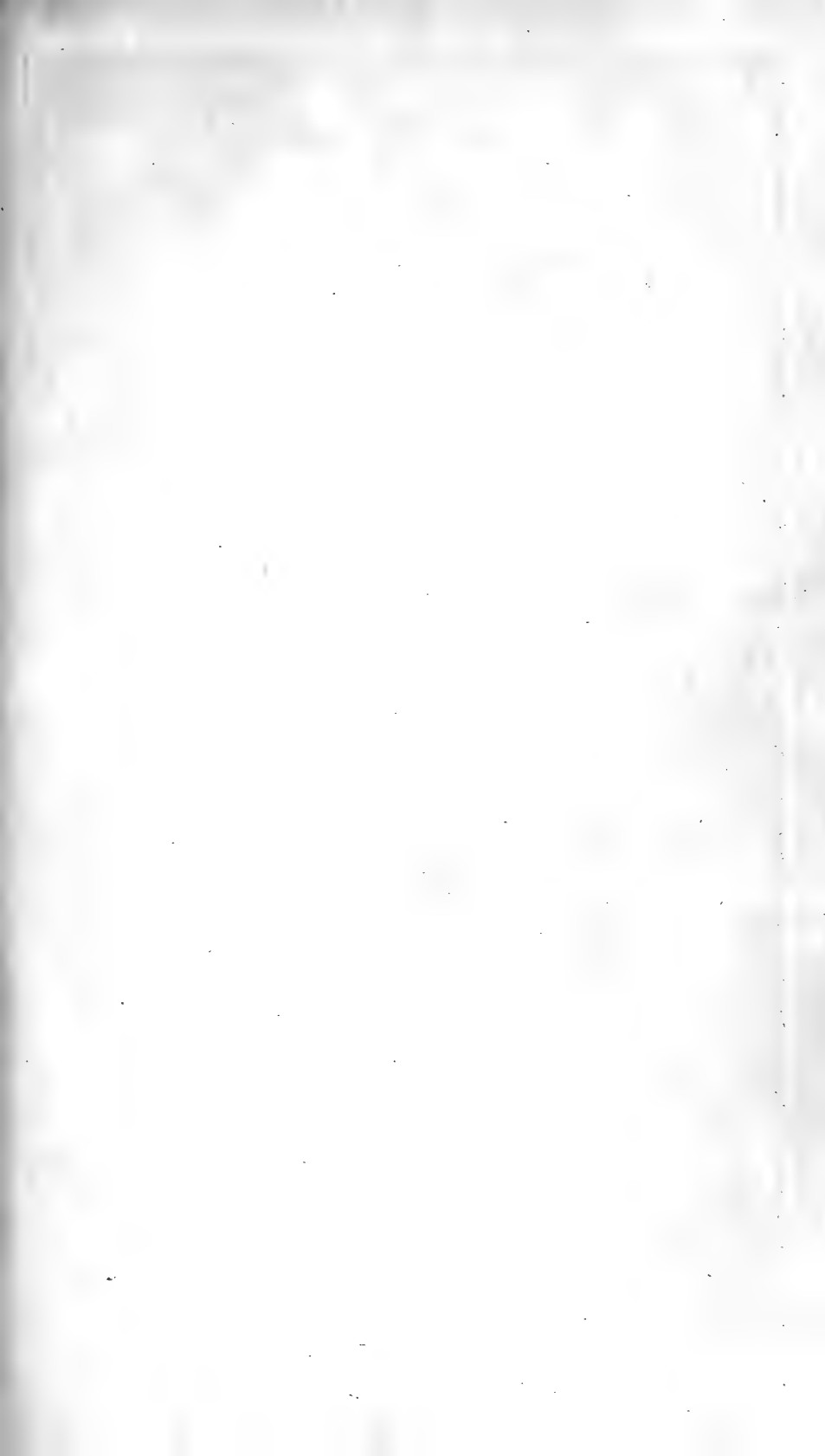


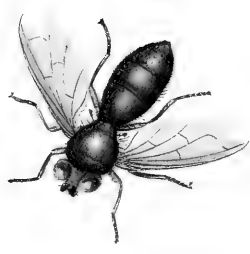
Among the English Scarabæi in the cabinet of the late Mr. Green, we possess a single specimen of this very interesting species. It is of

of the genus *Scarabæus* in the Linnæan arrangement; *Cetonia* of Fabricius. We are totally unacquainted with its history, and, believing it to be unnoticed by any former writer, have named it after its former possessor, S. Greenii.

It should be particularly observed, that this insect approaches very closely to the *Cetonia Variegata* of Olivier and Fabricius, which is a native of Tranquebar. We shall not presume to say, that it may not be a variety of that variable species; but we certainly think it is not, if the general description the works of Olivier afford us be correct. The upper surface of our insect nearly corresponds with his figure and description; the principal difference consists in the number and disposition of the white spots on the lower surface of the abdomen, and those are strikingly dissimilar. Olivier describes his species as having two rows or lines of white dots on each side, while in our insect there is only one on each side; and the single row of white dots down the center in our insect does not agree exactly with *Cetonia Variegata*. We have previously stated, that the upper surface of the two insects are similar, but we should further add, that they are not perfectly so, as Olivier's insect has the posterior border of the thorax white; and in our insect, that part differs in no respect from the rest of the thorax in point of colour, except the spots, which are white and impressed.—Our synonyms refer to the figure of an European species of *Scarabæus* in the works of Schaeffer, that seems to bear a general resemblance to our insect; yet we must confess, we can only entertain a very remote idea of its being intended for our insect; the indifference of the figure precludes the possibility of determining this circumstance with accuracy: it is about the same size, of a blackish colour and spotted with white; but there is also an appearance in the figure of the insect being hairy, and if that be correct, it cannot be the same as our insect.

The smallest figure denotes the natural size of this insect. The two other figures represent the upper and lower surfaces of the insect magnified.





1

PLATE CCCCXIX.

MUSCA GROSSIFICATIONIS.

DIPTERA.

GENERIC CHARACTER.

Mouth with a soft, exerted fleshy proboscis, and two unequal lips: sucker beset with small bristles: feelers short, and two in number, or sometimes none: antennæ usually short.

SPECIFIC CHARACTER

AND

SYNONYMS.

Deep black: wings black, tipped with white.

MUSCA GROSSIFICATIONIS: atra, alis nigris apice albis. *Linn. Fn. Suec.* 1865.

Musca antennis fetariis alis nigris apice albis. *Linn. Syst. Nat. Edit.* 10. p. 599. n. 84.

Musca nigra alis fuscis, apicibus albis. *Aët. Upf.* 1736. p. 33. n. 50. *Fabr. Sp. Inf.* 2. p. 451. n. 83.

Gmel. Linn. Syst. Nat. 2855. 109.

La mouche à ailes noires & tache blanche à l'extrémité. *Geoff. Inf.* 2. p. 493. n. 1.

This diminutive species of *Musca* is mentioned by Linnæus as one of the rarest of all the European insects. It is certainly uncommon, and especially in England. Geoffroy found it on flowers in the royal garden at Paris. The smallest figure denotes the natural size.



PLATE CCCCXX.

LARRA POMPILIFORMIS.

HYMENOPTERA.

GENERIC CHARACTER.

Tongue porrected, simple : jaws short, horny, vaulted : lip exerted, membranaceous at the tip and marginated : antennæ filiform.

SPECIFIC CHARACTER

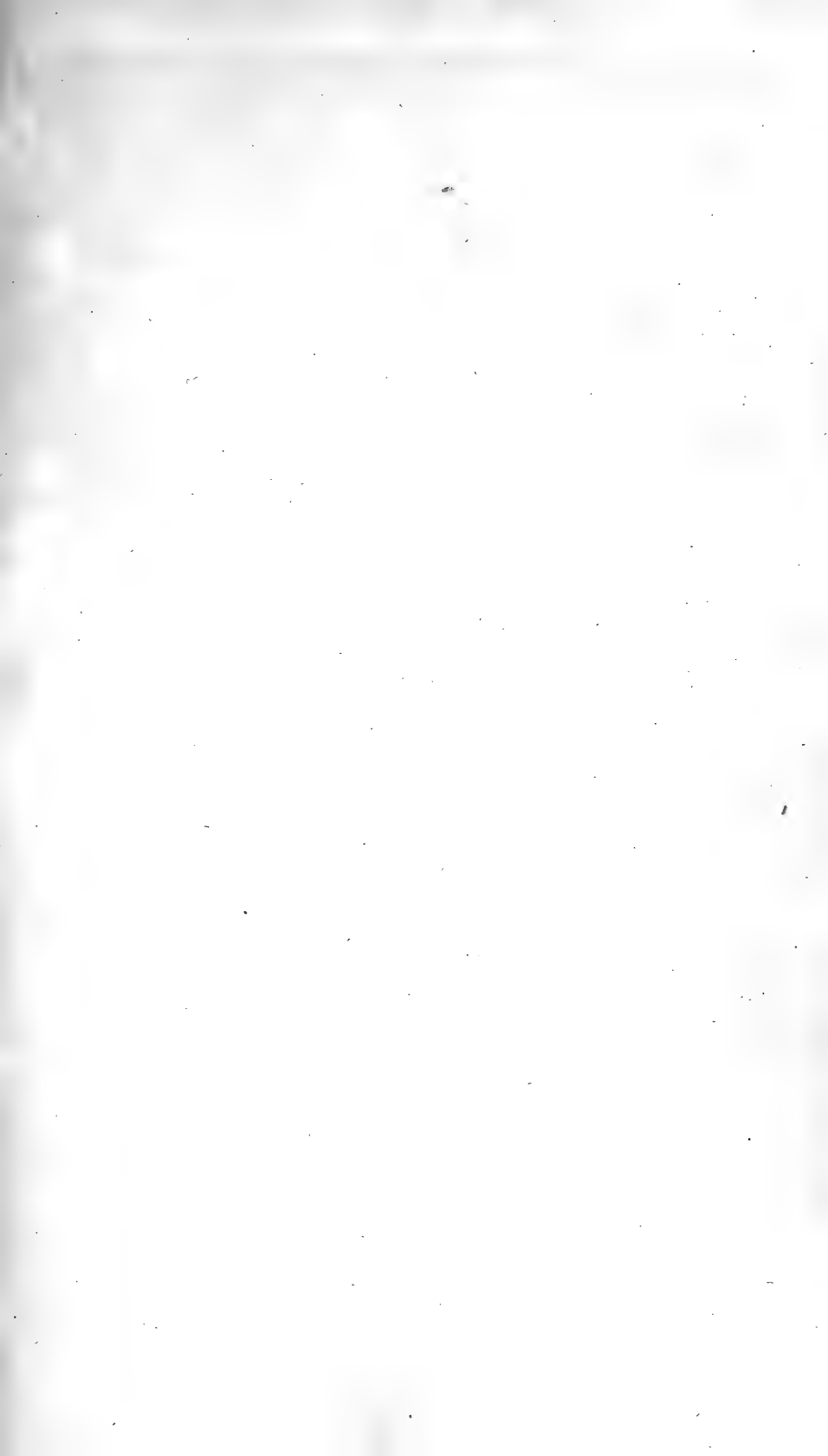
AND

SYNONYMS.

Black: abdomen black, with the base ferruginous.

LARRA POMPILIFORMIS: nigra, abdomine nigro basi ferrugineo.—
Die Grabwespenartige Drehwespe. *Panz.* 89.
n. 13.

A curious little insect of the Fabrician genus *Larra*. The only specimen we have yet seen of this insect occurs in the cabinet of Mr. Drury. The smallest figure explains the natural size.



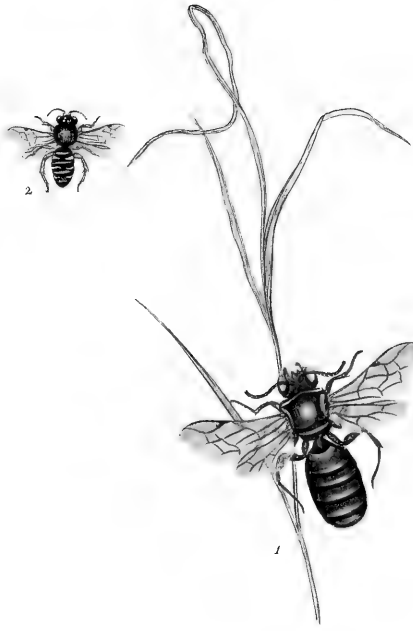


PLATE CCCCXXI.

FIG. I. I.

APIS SIGNATA.

HYMENOPTERA.

GENERIC CHARACTER.

Mouth horny: jaw and lip membranaceous at the tip: tongue inflected: feelers four, unequal, filiform: antennæ short, and filiform; those of the female somewhat clavated: sting of the females and neuters pungent, and concealed within the abdomen.

SPECIFIC CHARACTER

AND

SYNONYMS.

APIS SIGNATA: black; front of the head, and base of the thorax yellow.

SPHEX SIGNATA: atra, nitida, immaculata; alis albis; fronte sub antennis maculis duabus flavis. *Panz. Fn. Inf. Germ. Init. n. 53. t. 2.*

VESPA: nigra, fronte, thoracisque basi flavis.—La guêpe noire, à levre supérieure & base du corcelet jaunes. *Geoffr. Inf. n. p. 379. n. 14.*

VESPA PRATENSIS: *Fourcroy. Ent. Par. n. 14.*

MELITTA SIGNATA: atra; fronte maculata; abdomine segmento primo margine utrinque albo.—Var. γ antennis subtus piceis, collare tuberculifque luteis. *Kirby, Ap. Ang. T. 2. p. 41.*

This little insect is found on different species of Reseda, or mignonet, and in common with various other insects of the same natural family, that are usually found on those plants, emit a strong odoriferous scent. —There are two or more varieties of this insect: that figured by Panzer under the name of *Sphex Signata*, has two yellow spots on the front of the head, instead of the whole space beneath the antennæ being yellow, as in our specimen. The smallest figure denotes the natural size.

FIG. II.

APIS LÆVIGATA β .

SPECIFIC CHARACTER

AND

SYNONYMS.

Black, and somewhat pubescent with rufous hairs: thorax ferruginous: abdomen highly polished, with the three middle segments, pale each side at the base.

MELLITTA LÆVIGATA: atra rufo-subpubescens; thorace ferrugineo; abdomine nitidissimo, segmentis intermediis basi pallescentibus. Kirby, *Ap. Ang.* 2. 75. 32.
var. β .

This is an elegant little species, and very rare. The figure represents it in the natural size.

FIG.

F I G . I I I .

A P I S O C H R O S T O M A .

S P E C I F I C C H A R A C T E R

A N D

S Y N O N Y M S .

Deep black: scutel fanguineous: abdomen rufous, variegated with spots and interrupted bands of yellow.

A P I S O C H R O S T O M A : atra: scutello fanguineo; abdomine rufo, maculis fasciisque interruptis, flavis, variegato.
Kirby Ap. Angl. T. 2. p. 209. n. 26.

Described by Mr. Kirby as a new species of *Apis*, from a specimen in the cabinet of Mr. Drury.



PLATE CCCCXXII.

PTINUS FUR.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform, the exterior joint largest: thorax subrotund, without margin, and receiving the head.

SPECIFIC CHARACTER

AND

SYNONYMS.

Ferruginous brown: thorax four-toothed: wing-cases with two white bands.

PTINUS FUR: fusco-ferrugineus, thorace quadridentato, elytris fasciis duabus albis. *Marsh. Ent. Brit. T. I. p. 89. n. 27.*

PTINUS FUR: testaceus subapterus, thorace quadridentato, elytris fasciis duabus albis. *Fabr. Spec. Inf. p. 73. n. 4.—Mant. Inf. I. p. 40. n. 4.—Ent. Syst. I. 2. 39. 4.—Gmel. Linn. Syst. p. 1607. n. 5.*

CERAMBYX FUR.—*Linn. Fn. Suec. 651.*

Preys. Boh. Inf. 56. 57.

Stroem. Act. Nidrosf. 111. 393. 12.

BRUCHUS TESTACEUS: La Bruche à bandes. *Geoffr. Inf. Paris. I. p. 164. n. 4. t. 2. f. 6.*

PTINUS

PTINUS RAPAX : *Degeer. Inf. 4. p. 231. n. 5. t. 9. f. 5. 6. 7.*

BUPRESTIS FUR : *Scop. 210.*



This destructive little insect is produced from a soft and hairy fix-footed larva of a ferruginous colour, which preys on furniture, books, and other similar articles. It resides principally in wood, occupying small tubular cavities, which it perforates in a variety of directions, reducing, as it proceeds in its devious course, the hardest timber within the dimensions of its receptacle to a light dust or powder. Ptinus Fur is also very detrimental to preserved articles of natural history. The nymph or pupa is contained in a glutinous follicle.



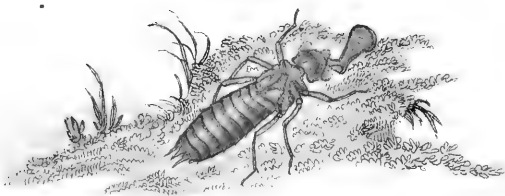


PLATE CCCCXXIII.

LIBELLULA FORCIPATA.

FORCIPATED DRAGON-FLY.

NEUROPTERA.

GENERIC CHARACTER.

Mouth armed with more than two jaws : lip trifid : antennæ shorter than the thorax, very thin and filiform : wings expanded : tail of the male furnished with a furcated process.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax greenish yellow, with black lines : abdomen blackish with yellow characters.

LIBELLULA FORCIPATA : thorace luteo-virescente, lineis nigris ; abdomine nigricante characteribus flavis. *Linn. Fn. Suec. n. 771.*

Gmel. Linn. Syst. Nat. 2625. n. 11.

ÆSHNA FORCIPATA : thorace nigro : characteribus variis flavescens, cauda unguiculata. *Fabr. Ent. Syst. T. 2. p. 383. n. 1.*

Libellula nigra capite rotundato, thorace segmentisque aliquot abdominis viridi maculatis. *Degeer. Inf. 2. 2. 50.*

Libella major, corpore compresso flavescens. *Petiv. Mus. 84. n. 819.*

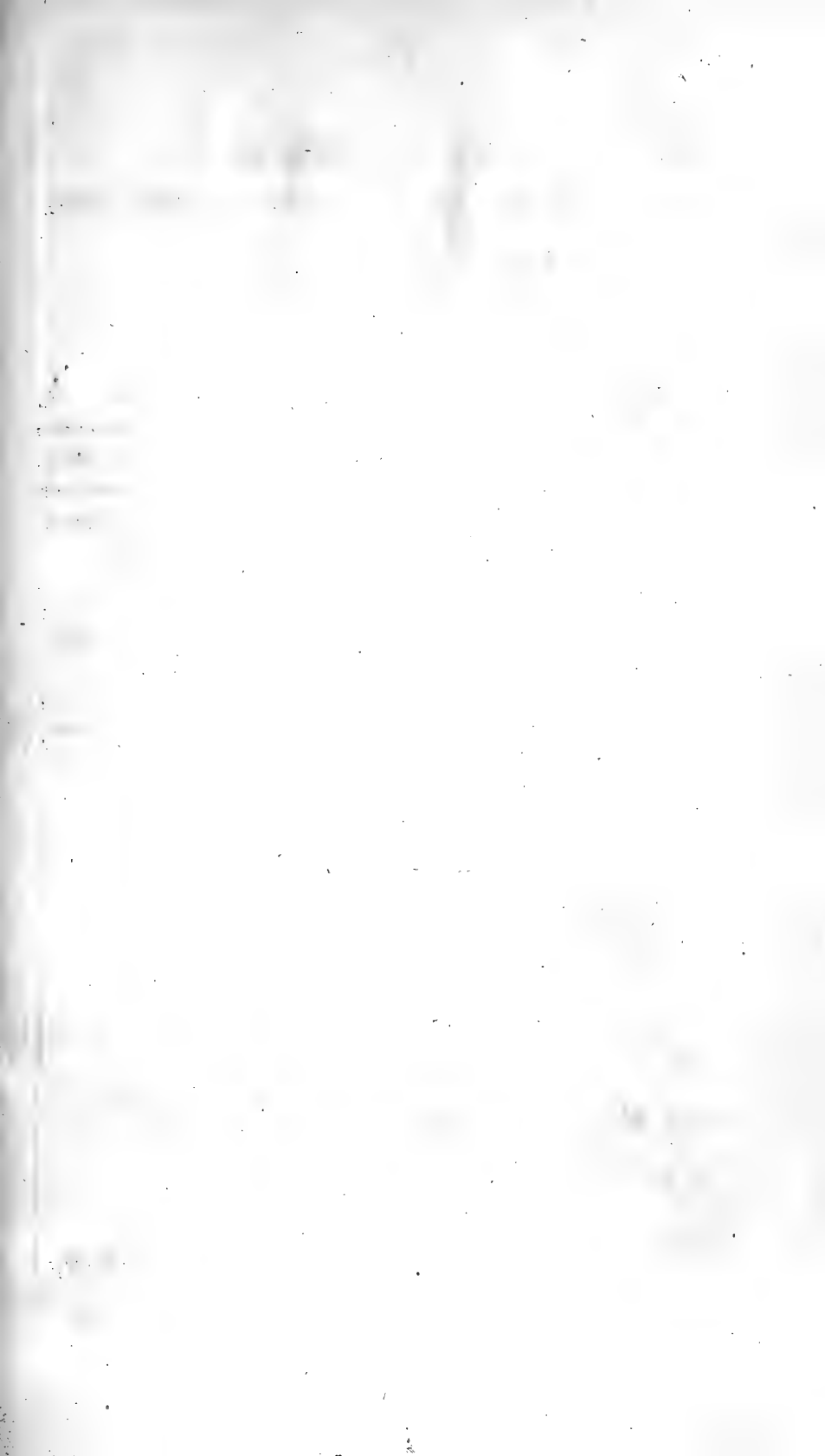
Libella maxima lutea, cùm 4 vel 5 spinis in extremitate caudæ.

Merret Pin. 197. n. 4.

La Caroline. *Geoffr. Inf. t. 2. p. 228. Sp.* 15.

This is an interesting, rare, and elegant species of *Libellula*. In the cabinet of the late Mr. Drury, we have a single specimen of this scarce insect; another has been recently taken near Highgate, and is likewise in our possession. Like the rest of its tribe it is found in swamps and other watery places. The larva is unknown to us, its pupa is represented with the perfect insect in the annexed plate.

The head of this species of *Libellula* is of a fine yellow, faciated with black: the eyes prominent, brown, and glossy: the thorax greenish yellow, lineated with black; the abdomen black with a longitudinal interrupted dorsal line of whitish yellow, and the middle segments marked on both sides with a short transverse yellowish band, and a semi-lunar mark of the same colour below it: the wings transparent, with a dark anterior costal mark, as in most other of the *Libellula* tribe



Less than the common house-fly, *Musca Domestica*. It inhabits various parts of Europe, and is not common in England.

The thorax is of a brownish colour lined with dusky: the body nearly round, and marked down the middle of the back with a series of blackish spots or dots; the wings are whitish, faintly tinged with testaceous towards the base, and the legs blackish.

FIG. II.

MUSCA ARCUATA.

SPECIFIC CHARACTER

AND

SYNONYMS.

Elongated, black, spots on the sides of the thorax, and four arcuated bands on the abdomen yellow.

MUSCA ARCUATA: nigra, antennis elongatis, thorace maculis lateribus, abdomine cingulis quatuor arcuatis flavis.
Linn. Fn. Suec. 1806.

SYRPHUS ARCUATUS: *Fabr. Ent. Syst. T. 4. p. 293. n. 55.*
Panz. Fn. Germ. 2. tab. 10.

This species is found on flowers. It is a general inhabitant of Europe; in England this insect is scarce.

Fabricius describes a very distinct species from this under the name of *Musca Arcuata*; the insect we have figured is the *Musca Arcuata* only of Linnaeus, *Syrphus Arcuatus* of Fabricius.



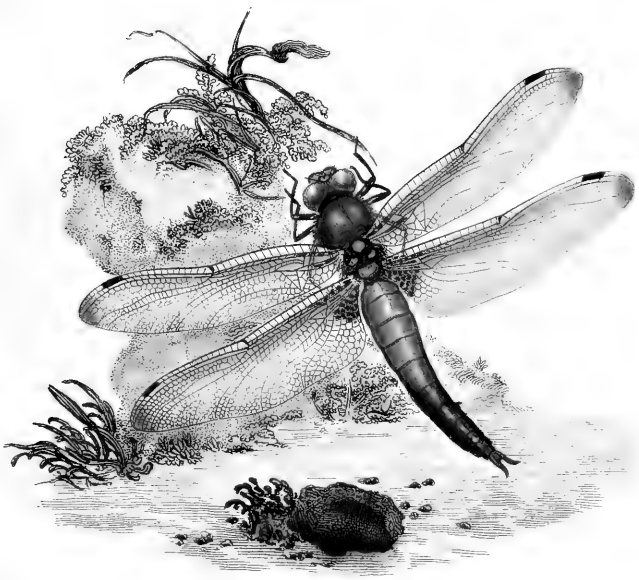


PLATE CCCCXXV.

LIBELLULA QUADRIFASCIATA.

NEUROPTERA.

GENERIC CHARACTER.

Mouth armed with more than two jaws: lip trifid: antennæ shorter than the thorax, very thin and filiform: wings expanded: tail of the male furnished with a furcated process.

SPECIFIC CHARACTER.

LIBELLULA QUADRIFASCIATA: wings white, tinged anteriorly with yellowish: tips of all the wings, and base of the posterior pair with a fuscous band.

This evidently new species of *Libellula* occurs in the cabinet of Mr. Drury: it corresponds in some respects with *Libellula Quadrimaculata* (See Plate 407), the size and general aspect of both insects is nearly the same, but the present species differs among other particulars in having a fuscous band at the tip of all the wings. *Libellula Rubicunda* also bears some resemblance to this insect, except that the tips of the wings are perfectly immaculate, as in *Libellula 4-maculata*.—Our new species *Libellula Quadrifasciata* is a very rare insect, and has not been noticed by any author.



PLATE CCCCXXVI.

PAPILIO BLANDINA.

SCOTCH ARGUS BUTTERFLY.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ terminated in a club : wings erect when at rest : fly by day.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings indented, fuscous, with an ocellar rufous band : posterior pair beneath fuscous, with a cinereous band.

PAPILIO BLANDINA : alis dentatis fuscis : fascia rufa ocellata posticis subtus fuscis : fascia cinerea. *Fabr.*
Ent. Syst. T. 3. p. I. 236. n. 736.

This very rare species of *Papilio* has been recently discovered to be a native of the British isles. About three or four specimens of it were taken in the isle of Arran by Major Walker, to whose politeness we are indebted for the individual example at this time in our Museum. Another is preserved in the collection of our friend A. M'Leay, Esq. and those, we have reason to apprehend, are the only specimens at present in any of the London Cabinets.

Though but lately introduced to our attention as a native of Great Britain, this interesting insect is by no means unknown to the continental

tinental naturalists as an inhabitant of Germany. It is the true *Papilio* (*Sat.*) *Blandina* of the Fabrician system*. This author likewise describes another *Papilio*, nearly allied to the above, under the specific name of *Ligea*. This latter is, however, sufficiently distinguished by having four ocellate black spots in the rufous band on the upper wings instead of three, as in *P. Blandina*. Fabricius, in his general description, speaks of the near affinity his *P. Blandina* bears to *P. Ligea*, but observes that *P. Ligea* has a white spot at the end of the band on the underside of the posterior wings, which the other has not. "Affinis *P. Ligea*. differt tamen alis posticis vix ocellatis, fuscis fascia cinerea absque maculis albis." *Fabr.*—*Papilio Ligea* was discovered by Major Walker in the isle of Arran at the same time as *P. Blandina*, and will shortly appear in the present work†.

* Fabricius describes two of the *Papiliones* under the specific name of *Blandina*, but which cannot easily be confounded, as one of them are of the *Pap. Nymphales* tribe, and the other belongs in his arrangement to the *Satyri*.—*P. N. Blandina* is an East Indian species, and is fully noticed in our illustration of *Exotic Entomology*.

† Figures of both the above-mentioned insects have appeared in a late publication, the "*British Miscellany*," one in Plate 2, the other in Plate 7. Unfortunately, however, the Editor has entirely misconceived the Fabrician authorities, and reversed the two names assigned them by that author. The Fabrician *Papilio Blandina* is by that means erroneously named *Ligea*, and, *vice versa*, the Fabrician *P. Ligea*, called *Blandina*.—There are, besides, a few errors in the figures with regard to the form, situation, and number of the ocellate spots. Those relating to the *P. Ligea* will be hereafter noticed. In our *P. Blandina* (*Ligea Brit. Misc.*) the macular band on the underside of the posterior wings appears to have only two small dots, while in the insect there are no less than six, the three lower of which has a white dot in the center.—We were at first inclined to suspect, that the specimen in the cabinet of Mr. M'Leay, from which the drawing of that insect was taken, might have been in some measure injured, and the spots obliterated, or that his insect varied from that we possess; we have, however, since compared them, in order to ascertain whether any such dissimilarity in reality existed between them, and find the two insects correspond in every respect.

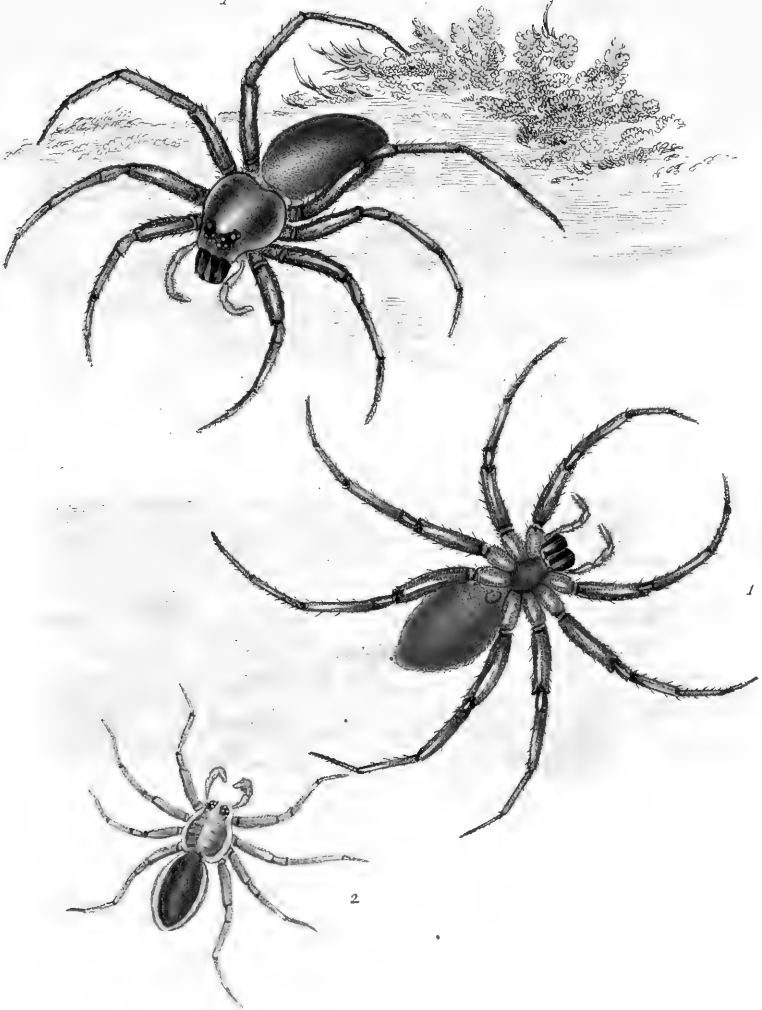


PLATE CCCCXXVII.

FIG. I. I.

ARANEA LIVIDA.

APTERA.

GENERIC CHARACTER.

Mouth with short horny jaws: lip rounded at the tip: feelers two, incurved, jointed, and acutely pointed, those of the male clavated and furnished with the sexual organs: antennæ none: eyes eight or rarely six: legs eight: papillæ for spinning at the tip of the abdomen or vent.

Section eyes . : . : .

SPECIFIC CHARACTER.

ARANEA LIVIDA: thorax subtriangular: abdomen ovate; above brown, obscurely dotted, and lined with blackish: beneath testaceous.

A specimen of this remarkable species of Aranea occurs in the cabinet of the late Mr. Drury, with a memorandum relating the following particulars of its capture.—“This spider was taken out of the water at Hornsey wood, October 4th, 1766, being in company with Mr. Rice.”

The figures, which shew both the upper and lower surface of this gigantic spider, sufficiently exemplifies its magnitude and general aspect, being represented in its natural size. The prevailing colour of the upper surface is darker than the lower; it is a livid brown faintly variegated with reddish. On very close inspection, the thorax appears to be obscurely lineated and dotted with blackish, radiating from the ridge of the back, as from a center towards the outer margin: the legs also are lineated with about four or five equidistant blackish lines sprinkled with a few dots, slightly hairy, and sparingly beset with small fetiform spines: the abdomen rather downy.

The eyes of this spider, eight in number, are disposed on the anterior part of the thorax in a singular manner: the four anterior ones form a transverse curved line, behind which are two contiguous eyes of a similar size, and a little farther behind two more; but the last are placed much more remotely from each other than the former. Those posterior eyes are distinguished likewise by being stationed each upon the summit of a rather large smooth lateral tubercle of a rufous colour. The exterior eye on each side in the anterior line, it should be observed, is seated on a similar smooth rufous tubercle, but which is of a diminutive size compared with those on which the posterior eyes are situated.

As there is no species of the family to which this spider belongs among those already described by Linnæus, Fabricius, or any other entomological author within our knowledge, that corresponds with our present insect, we consider it as a new species.

FIG. II.

ARANEA MARGINATA.

SPECIFIC CHARACTER.

ARANEA MARGINATA: brown: thorax and abdomen furrounded with a whitish line.

ARANEA PALUSTRIS: *Linn. Syst. Nat.* 12. 2. p. 1036. n. 41.
—*Var.*?

ARANEA TRILINEATA: *Fabr. Ent. Syst. T.* 2. p. 423. n. 61?
Aranea pugnax: *Rofs. Fn. Etr.* 2. 135. 980?

This insect agrees very nearly with the *Aranea trilineata** of Fabricius, and does not appear very remote from the Linnæan description of *Aranea palustris* †. The principal difference consists in the position of the eyes, which constitutes an essential characteristic mark of the several families into which the *Aranea* genus is divided; and in this particular they are very distinct. Admitting therefore, that Linnæus and Fabricius are correct in describing the situation of the eyes in the two insects above-mentioned, we must consider the present insect as a species distinct from either, notwithstanding their similarity in other respects. It does not certainly agree with the description of

* *Aranea Trilineata*: fusca thoracis margine linea dorsali margineque ovato cinereis.
Fabr. Ent. Syst. T. 2. p. 423, n. 61. oculis :: ::

† *Aranea Palustris*: fusca, thorace abdomineque utrinque linea nivea. *Linn. Syst. Nat.* 12. 2. p. 1036 n. 41.

any species of *Aranea* in the same family hitherto described by those writers. It may therefore be a nondescript species, though we must at the same time confess, we conceive it not unlikely, that the position of the eyes in the *Aranea trilineata* of Fabricius has been mistaken by that writer, and that it may hereafter prove to be the same species.



PLATE CCCCXXVIII.

COCCINELLA 13-MACULATA,

13-SPOT LADY COW.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ clavated, club solid: anterior feelers femicordated: thorax and wing-cafes margined: body hemispherical: abdomen beneath flat.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wing-cafes yellow, with thirteen black dots: body orbicular.

COCCINELLA 13-MACULATA: coleoptris flavis: punctis nigris tredecim corpore orbiculato. *Marsh. Ent. Brit. T. I.* 157. *Fabr. Syst. Ent.* 83. 24.—*Sp. Inf. I.* 99. 37.—*Mant. I.* 58. 53.—*Ent. Syst. I. a.* 279. 60.

Gmel. 1652. 90.

Three varieties of this elegant species of *Coccinella* are figured on the same plate, two of which differ only in colour, the third in the dots on the wing-cafes. The thorax in all the specimens are pale yellow,

yellow, but in the second individual, the wing-cafes are of a deeper orange than usual; and in the third, the two inner dots of the three, which constitute the macular series across the middle of the wing-cafes, are united, and form but a single confluent spot. The smallest figure denotes the natural size.





PLATE CCCCXXIX.

MUSCA HEMIPTERUS.

DIPTERA.

GENERIC CHARACTER.

Mouth with a soft exerted fleshy proboscis, and two unequal lips: sucker beset with bristles: feelers short, and two in number, or sometimes none: antennæ usually short.

* Syrphus: antennæ naked.

SPECIFIC CHARACTER

AND

SYNONYMS.

MUSCA HEMIPTERUS. Downy: thorax with a ferruginous border: wings thick, cinereous: fuscous varied with yellowish.

SYRPHUS HEMIPTERUS: antennis setariis tomentosus thoracis limbo ferrugineo, alis crassioribus cinereis fusco flavescenticque variis. *Fabr. Ent. Syst. T. 4. 284. n. 22.*

Schæff. Icon. Tab. 71. fig. 6?

MUSCA SUBCOLEOPTRATA: *Gmel. Linn. Syst. Nat. 2369. n. 335.*

An insect nearly allied to the Linnæan *Conops subcoleoptrata*, or *Musca subcoleoptrata* of the Gmelinian edition of the *Systema Naturæ*.
Gmelin

Gmelin considers it as the same insect, but Fabricius describes it as a distinct species, distinguishing the *M. Subcoleoptrata* by the black thorax, and cinereous wings with two brown flexuous stripes; and the *M. Hemiptera* (our present species) by the thorax being surrounded by a ferruginous border, and the cinereous wings varied with yellowish.—Fabricius has since constituted a new genus of Dipterous insects, under the name of **THEREVA**, in which both these species of *Musca* are included*.

This insect is very uncommon in England.

* *Suppl. Ent. Syst. I. p. 560. n. 2.*



PLATE CCCCXXX.

LIBELLULA BOLTONII.

BOLTON'S DRAGON-FLY.

NEUROPTERA.

GENERIC CHARACTER.

Mouth armed with more than two jaws: lip trifold: antennæ shorter than the thorax, very thin and filiform: wings expanded: tail of the male furnished with a furcated process.

SPECIFIC CHARACTER.

LIBELLULA BOLTONII: wings hyaline: body elongated, black, with a larger interrupted yellow band across the middle, and a smaller near the tip of each segment.

This fine and noble species of *Libellula* appears to be unknown to any of the entomological writers we are acquainted with. The specimen from which our figure in the annexed plate is taken, was discovered in Yorkshire some years ago by Mr. Bolton, and communicated to Mr. Drury, in whose cabinet it has remained unnoticed till the present time. We believe this specimen to be unique, or at least we have never seen an other. It is a beautiful, large, and interesting species, and possesses characters so extremely different from any of the known species of its genus, that it cannot easily be mistaken. We name it *Boltonii*, in compliment to Mr. Bolton, the gentleman to whom we are indebted for its discovery.

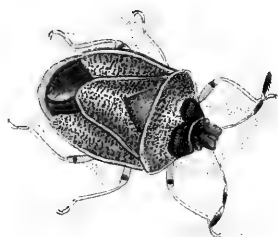


PLATE CCCCXXXI.

CIMEX MELANOCEPHALUS.

HEMIPTERA.

GENERIC CHARACTER.

Snout inflected: antennæ longer than the thorax: wings four, folded cross-wise, anterior part of the upper pair coriaceous: back flat: thorax margined: legs formed for running.

SPECIFIC CHARACTER

AND

SYNONYMS.

Grey: head, and scutellum at the base brassy black.

CIMEX MELANOCEPHALUS: griseus capite scutelloque basi nigro aeneis. *Fabr. Ent. Syst. T. 4. p. 125. n. 176.*

Fabricius appears to be the only writer who has noticed this elegant little species of Cimex: he describes it as an English Insect, without referring to any cabinet.

This insect is of a small size, as shewn by the central figure in the annexed plate. The upper surface is of a greyish colour, tinged in the shades with green; the head, two confluent spots at the anterior part of the thorax, and triangular spot at the base of the scutellum, brassy

black, inclining to purplish. The whole surface is minutely punctured. Beneath, the prevailing colour is brassy blackish purple, with the margin of the abdomen whitish, and marked with a row of black dots: legs yellowish, with a black dot on the thighs. This, we believe, is a very rare species.



PLATE CCCCXXXII.

GRYLLUS CAMPESTRIS.

FIELD CRICKET.

HEMIPTERA.

GENERIC CHARACTER.

Head inflected, armed with jaws: feelers filiform: antennæ usually fetaceous or filiform: wings four, deflected, convolute, the lower ones plaited: posterior legs formed for leaping: claws double.

** *Section Acheta.* *Antennæ fetaceous: feelers unequal: thorax rounded: tail with two bristles.*

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings shorter than the wing-cases: body blackish: style linear.

GRYLLUS CAMPESTRIS: alis elytris brevioribus, corpore nigro: stylo lineari. *Lin. Mus. Lud. Ulr.* 124.

Scop. Ent. Carn. 319.

Fabr. Sp. Inf. I. p. 355. *n.* 10.

Gryllus Campestris Mouffeti. *Ray Inf.* 63.

Schaeff. Elem. t. 66.

—— *icon. t.* 157. *f.* 2—4

Though

Though the Field Cricket inhabits every country of Europe, it is observed to be more abundant in the southern parts than elsewhere. Its haunts are shady places not too much exposed to moisture. The noisy chirpings of this singularly formed little creature is oftentimes heard issuing from among the bushes, and underwood, on the skirts of forests; and in the fields, towards the approach of twilight, particularly when the weather is warm and the air serene; but the insect itself is very seldom seen. It is remarkably timid, and scarcely ever ventures from its lurking place among the bushes, till the darkness of the night emboldens it to ramble out in quest of food.—Its chirping noise does not continue all the year; it commences in May, and ceases about the end of autumn. We imagine it almost superfluous to add, that the Field Cricket possesses this faculty of emitting a chirping note in common with many insects both of this, and other analogous tribes.

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