

HONORATISSIMO VIRO
BRUCE BRUDENELL BRUCE,

COMITI DE AILESURY,

ORDINIS ANTIQUISSIMI A CARDUO EQUITI,

&c. &c. &c.

QUINTUM HUNC
NATURÆ VIVARII

FASCICULUM,

D. D. D.

GEORGIUS SHAW,
FREDERICUS P. NODDER.

TO

THE RIGHT HONORABLE

BRUCE BRUDENELL BRUCE,

EARL OF AILESBUURY,

Knight of the most ancient Order of the Thistle,

&c. &c. &c.

THIS FIFTH VOLUME

OF THE

NATURALIST'S MISCELLANY

IS RESPECTFULLY INSCRIBED,

BY

HIS LORDSHIP'S MOST OBEDIENT HUMBLE SERVANTS,

GEORGE SHAW,

FREDERICK P. NODDER

MUSCICAPA ERYTHROGASTRA.



CHARACTER GENERICUS.

Rostrum subtrigonum, utrinque emarginatum,
apice incurvo; *vibrissæ* patentés versus fauces.

Nares subrotundæ.

Lin. Syst. Nat. p. 324.

CHARACTER SPECIFICUS, &c.

MUSCICAPA NIGRA, fronte fasciaque tectricum
albis, pectore abdomineque rubris.

MUSCICAPA MULTICOLOR.

Gmel. Syst. Nat. 1. p. 944.

MUSCICAPA ERYTHROGASTRA.

Lath. ind. orn. p. 479.

Hanc aviculam, novæ Hollandiæ incolam, satis describit character specificus. Amat præcipue solitudines sylvasque insulæ Norfolkienfis. Viçtitat infectis, ut fere solet reliquum genus. Qua niger est mas, ibi fusca est femina; subtus flavo-aurantia.

THE
RED-BELLIED FLYCATCHER.



GENERIC CHARACTER.

Bill somewhat triangular, flattened at the base, notched at the end of the upper mandible and beset with bristles.

Toes generally divided as far as their origin.

SPECIFIC CHARACTER, &c.

BLACK FLYCATCHER with front and bar of wing-coverts white: breast and belly red.

RED-BELLIED FLYCATCHER.

Lath. Synops. 2. p. 343. pl. 50.

The bird here represented is a native of New Holland, and is sufficiently described by its specific character. It is particularly plentiful in the more sequestered and woody parts of Norfolk Island, and, like most others of its genus, feeds principally on insects. The female is brown in those parts which are black in the male, and is of a yellowish orange beneath.



Actinopygia actinopygia (Linn.) Vieill. *Actinopygia*



ACROCHORDUS JAVANICUS.



CHARACTER GENERICUS.

Verrucæ totum corpus obtegentes.

CHARACTER SPECIFICUS, &c.

ACROCHORDUS terreo-fuscus, fubtus pallidior, lateribus albido-variegatis.

L'ACROCHORDE DE JAVA.

Cepede Hist. Nat. des Serpents, p. 472.

ACROCHORDUS JAVANICUS.

Hornstedt.

Memoires de l'Académie des Sciences de Stockholm, an. 1787. p. 306.

Journal de Physique, an. 1788. p. 284.

Differt Acrochordus a reliquo omni serpentino genere, quod non squamis sed tuberculis innumeris verrucarum ad instar totus sit obductus. Genus igitur revera est distinctum, cujus unica tantum species (illa nempe quæ in tabula depingitur) adhuc cognita est. Infulam Javam inhabitat, amatque præcipue degere ubi piper fatum fuerit. Crescit

cit Acrochordus in magnam molem, longus scilicet interdum plusquam pedes septem. Caput modicum, vix collo latius, paulum complanatum est. Corpus versus medium sensim crassius prope caudam subito contrahitur et gracilefcit. Cauda ipsa, brevissima si cum corpore comparetur, apicem habet leviter acuminatum. Color rarissimi hujus serpentis est terreo-fuscus, dorso nigriore, ventre pallidiore, quæ variatio subobscure cernitur in lateribus. Visu asper et injucundus est Acrochordus, expers autem veneni, quippe quod careat dentibus tubulatis, qui serpentibus solummodo virulentis contingunt. Specimen ipsissimum, unde delineata nostra figura, in Museo Britannico asservatur, pedes circitur tres longum. Si microscopio accurate examinentur verrucæ, species esse squamarum videntur, quæ admodum convexæ carina semi-longitudinali obtuse-acuminata instruuntur: minores vero quæ prope caudam, præter mediam carinam prominentia utrinque notantur.





London. Published by J. B. Baillière & Co. 1, Ave. de l'Opéra, Paris.

THE
ACROCHORDUS,
OR
WARTED SNAKE.



GENERIC CHARACTER.

Tubercles resembling warts covering the whole body.

SPECIFIC CHARACTER, &c.

BROWN ACROCHORDUS, paler beneath; with the sides obscurely variegated with whitish.

HORNSTEDT. *descr.*

Mem: de l'Acad: des Sciences de Stockholm. 1787.
p. 306.

Journal de Physique. 1788. p. 284.

The Acrochordus differs from all the rest of the serpent tribe in being covered all over with innumerable muricated wart-like prominences. It therefore forms a distinct genus, of which the species here represented is the only one at present known. It is an inhabitant of Java, and is principally found amongst

amongst plantations of pepper. It sometimes attains to a very considerable size; having been seen of the length of more than seven feet. The head is of moderate size, or scarce of greater diameter than the neck, and of a somewhat flattened shape: the body gradually thicker towards the middle, and suddenly contracts towards the tail, which is very short in proportion, and slightly acuminate at its extremity. The colour of this curious snake is an earthy-brown, deeper on the back, and somewhat paler or more inclining to white on the under surface: an obscure sort of variegation is also visible on each side the body. It is an animal of an unpleasing appearance, but is not of a poisonous nature, being unprovided with those tubular teeth or fangs which are peculiar to venomous serpents. The specimen from which the present figure was taken is in the British Museum, and is about three feet in length.

On accurate examination, by the assistance of a glass, the verrucæ or prominences on the skin of the *Acrochordus* appear to be a species of scales, extremely convex, and furnished with an elevated semi-longitudinal obtusely-acuminate ridge or carina; and the smaller scales, or those towards the tail, are furnished with two smaller or lateral prominences; viz. one on each side the middle one.

PAPILIO IDEA.



CHARACTER GENERICUS.

Antennæ apicem versus crassiores, sæpius clavato-capitatae.

Alæ (sedentis) erectæ sursumque conniventes (volatu diurno.)

Lin. Syst. Nat. p. 744.

CHARACTER SPECIFICUS, &c.

PAPILIO alis integerrimis rotundatis albis: venis maculisque nigris; primoribus nigro margine albo punctato.

Lin. Syst. Nat. p. 758.

Danai candidi.

PAPILIO alis denudato-albis; venis maculisque nigris.

Fabr. spec. inf. 2. p. 38.

Parnassii.

Gmel. Syst. Nat. p. 2258. *Parnassii.*

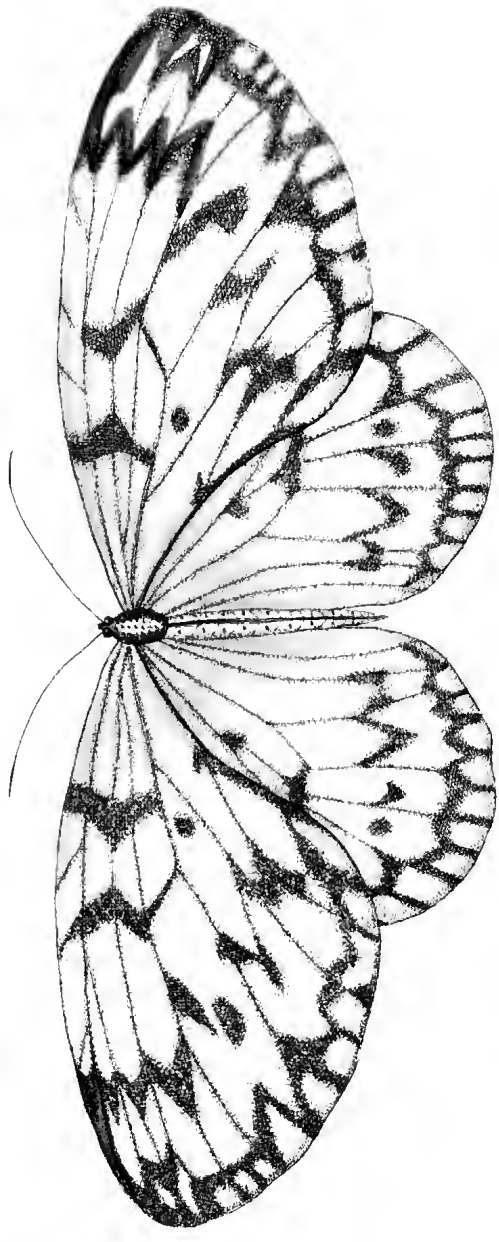
Clerk. ic. t. 38. f. 1.

Pl. enl. 20. f. 1.

Papilionum plurimorum lautos splendidosque colores merito licet miremur, nonnullæ tamen sunt species queis simplex est elegantia et pulchritudo, vario
et

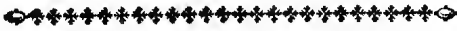
et fucato congenerum nitore vix, ut puto, superanda. Exemplo est papilio qui in tabula depingitur, divisionis *Heliconiæ* ad quam refertur maximus. Continet hæc sectio illos quibus alæ magis oblongæ sunt quam reliquis ejusdem generis, magisque pellucidæ, squamis nempe tenuioribus vestitæ. Pulcherrime albet papilio *Idea*, venis striisque aterrimis et velut holosericis multifariam diverseque dispositis. Corpus album virgam habet dorsalem nigram: thorax niger albo fasciatus. Alæ superiores juxta humeros levissima flavedine tinguntur. Indiam incolit papilio *Idea*.





Graphium (G.) ...

THE
BLACK-STRIPED BUTTERFLY.



GENERIC CHARACTER.

Antennæ or Horns thickening towards the upper part, and generally terminating in a knob or club-shaped tip.

Wings (when fitting) erect, and meeting upwards.
(Flight diurnal.)

SPECIFIC CHARACTER, &c.

WHITE BUTTERFLY with semi-transparent wings, veined and spotted with black.

Pl. enl. 20. fig. 1.

Clerk. t. 38. f. 1.

Cram. pap. 17. t. 193. f. A. B.

Cram. pap. 31. t. 362. f. D?

While the major part of the papilionaceous insects astonish us by the splendor and variety of their colours, there are some which on the contrary exhibit only the plainest and most simple hues, and yet at the same time display a species of beauty and elegance scarcely exceeded by the gaudy robes of their
more

more brilliant congeners. Amongst these, one of the most remarkable is the insect here represented, which is the largest of the section or division of the genus to which it belongs. This section, distinguished by the title of *Heliconii*, consists of such butterflies whose wings are of a more oblong form than in the rest of the genus, and are besides remarkable for a peculiar degree of transparency, as if less thickly coated with scales than in others. This insect is of a beautiful white, ornamented by a variety of velvet-black streaks and spots, running in different directions. The body is white, with a black stripe down the back; and the thorax is black striped with white. The superior wings, near the shoulders, are very slightly tinged with yellowish. It is a native of India.

FRINGILLA BENGALENSIS.



CHARACTER GENERICUS.

Rostrum conicum, rectum, acuminatum.

Lin. Syst. Nat. p. 317.

CHARACTER SPECIFICUS, &c.

FRINGILLA dilute fusca, subtus cærulea, abdomine interdum subroseo, macula suboculari purpureo-coccinea.

FRINGILLA dilute cærulea, capite dorsoque griseis, lateribus capitis purpureis. *Fr: Bengalus.*

Lin. Syst. Nat. p. 323.

FRINGILLA dorso fusco, abdomine caudaque cæruleis. *Fr: Angolensis.*

Lin. Syst. Nat. p. 323.

BENGALUS.

Briff. av. 3. p. 303. n. 60. t. 10. f. 1.

Avicula perpulchra hic depicta Indiæ interioris nec non Africæ varias partes incolit. Alacri vividoque est ingenio; non tamen inter aves musicas numeratur. Mas a femina macula utrinque sub oculos purpureo-coccinea distinguitur.

THE
BLUE-BELLIED FINCH.



GENERIC CHARACTER.

Bill perfectly conic, slender towards the end, and very sharp-pointed.

Pennant.

SPECIFIC CHARACTER, &c.

PALE-BROWN FINCH, blue beneath, with abdomen sometimes rose-coloured, and purplish-red spot under each eye.

BLUE-BELLIED FINCH.

Edw. pl. 131. (female.)

LE BENGALI.

Pl. enl. 115. f. 1. (male.)

BLUE-BELLIED FINCH.

Lath. Syn. 2. p. 310.

The elegant bird here figured is a native of several of the interior parts of India and Africa. It is of a lively disposition, but is not esteemed as a singing bird. The male is distinguished from the female by a rich purplish-red spot situated beneath each eye.



DIODON HYSTRIX.



CHARACTER GENERICUS.

Caput: maxillæ offeæ, porrectæ, indivisæ.

Apertura linearis.

Corpus spinis acutis mobilibus undique adspersum.

Pinnæ ventrales nullæ.

Lin. Syst. Nat. p. 412.

CHARACTER SPECIFICUS, &c.

DIODON sphæricus, aculeis basi triquetris.

Lin. Syst. Nat. p. 413.

Diod. Ating. γ.

Gmel. Syst. Nat. p. 1450.

Diod. Hyst. γ.

OSTRACION SUBROTUNDUS, aculeis undique densis, basi triquetris.

Art. gen. 60. Syn. 86.

ORBIS SPINOSUS.

Will. Ichth. p. 146.

Nullum esse terrestre nisi idem sit aquaticum, in refutando fortasse nimium longus negavit omnino vir doctissimus THOMAS BROWN in libro cui titulus
“ Pseudo-

“ Pseudodoxia Epidemica.” Et orta sane videtur popularis hæc opinio a cute externa animalium multorum æquoreorum et terrestrium fere simili; quæ hæc de causa vulgo putantur quasi quodammodo affinia; adeo ut concedi aliquatenus possit quod observavit ingeniosus quidem Gallus de veteribus plantarum symbolis, in sententia erroribus implicita fere æquam esse inter falsum et verum contentionem. Ex animalium marinorum numero quæ terrestribus respondere creduntur vix aliud insignius quam pisces qui in tabula cernitur. Simul atque enim eum spinis undique oblitum intuemur, in mentem statim venit mucronata hystricis lorica. In editione duodecima Systematis Naturæ disposuit eum Linnaeus inter *nantes*: (rectius dixisset *nantia*.) Physicis autem recentioribus, quibus amplior anatomices cognitio, visum est id genus animalia ab amphibiiis dissociare, et verum in locum apud pisces amovere. In oceanis Indicis et Americanis præcipue reperitur Diodon Hystrix, crescitque interdum in longitudinem pedum duorum; at ut plurimum, multo minor est. Color fusco-pallet. Aculei juxta basin trianguli. Spinas potest vel erigere vel deprimere, corpusque vel inflare vel contrahere. Claudet hanc descriptionem quod subtilitur et acute, ut solet, observavit auctor ille quem in initio memoravi.

Quod si pro concessio habeatur eadem nomina tum terrestribus tum æquoreis animalibus commode factis posse imponi, rigida tamen ratiocinandi lege non nomina dare marinis, sed ab iis sua derivare debent terrestria. Qui enim prius existebant maris incolæ
priors

priores etiam in ipsa natura adepti sunt appellationes. At quoniam eos non nominavit Adamus qui terrenis pro vario ingenio titulos dedit, ab iis qui Adamum secuti sunt ad arbitrium vocabantur, habita ratione animalium quæ ipsi in terris viderant, quæque affinia putabantur, quæ autem sibi propria et peculiaris vocabula habebant ad hos utpote prius creatos nihil spectantia.

THE
PORCUPINE DIODON.



GENERIC CHARACTER.

Jaws consisting of undivided bony processes.
Body covered on all sides with sharp moveable spines.

SPECIFIC CHARACTER, &c.

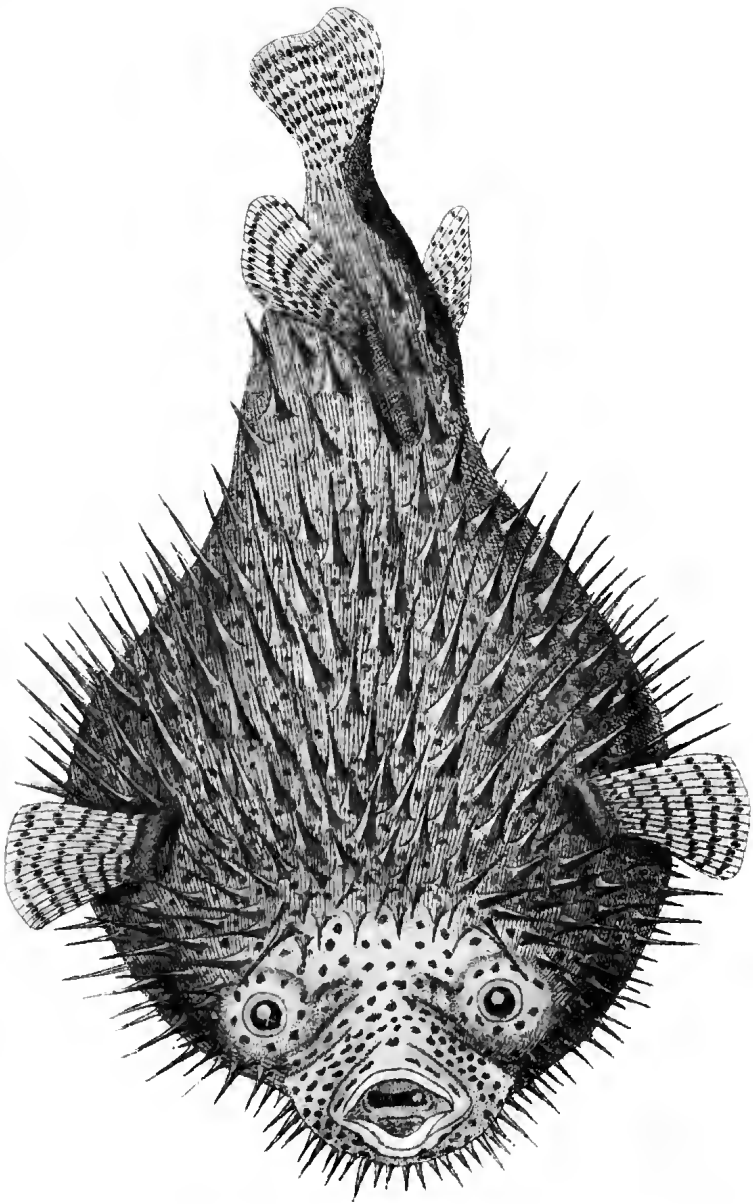
DIODON of an almost spherical shape, with the spines triangular at their base.

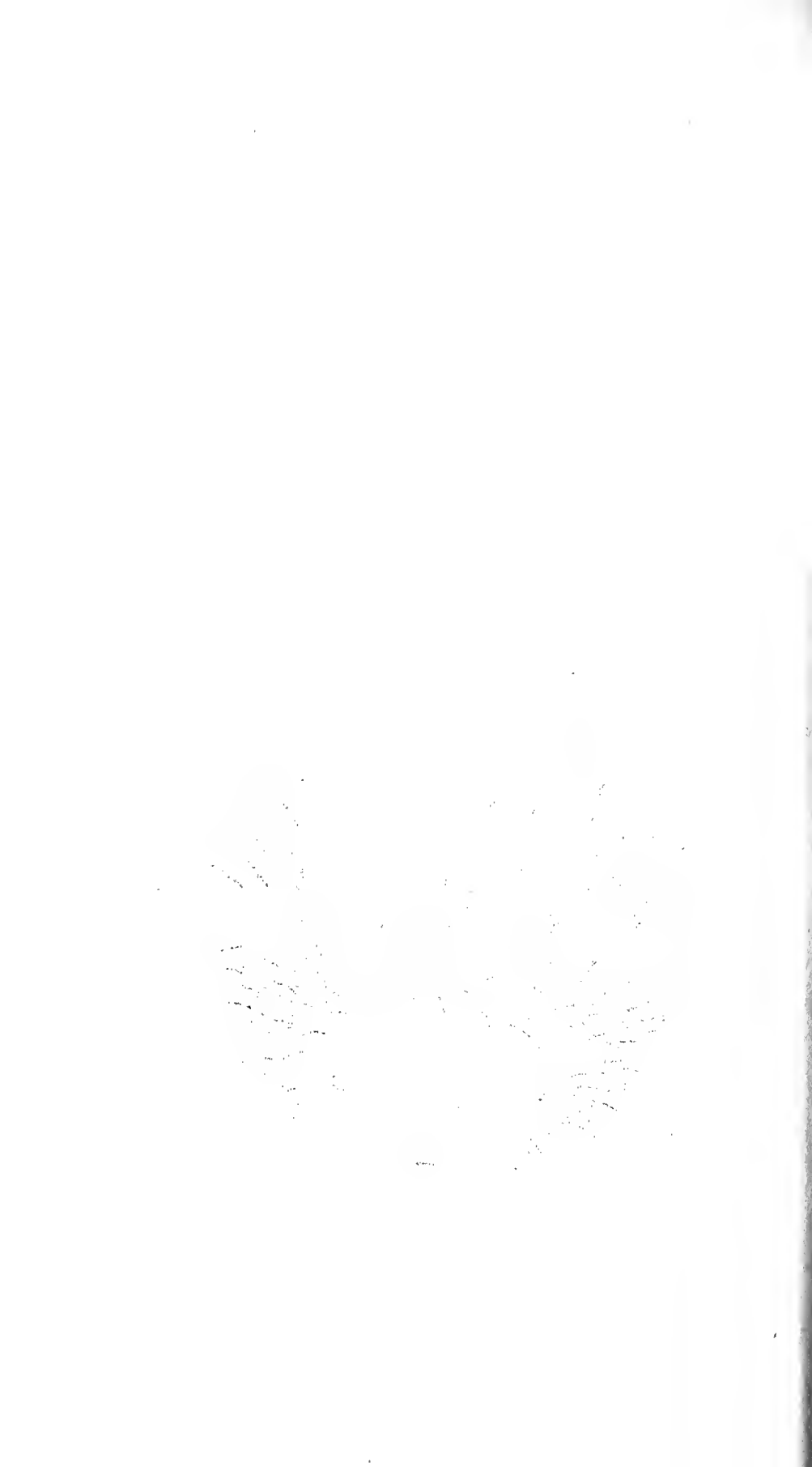
THE PRICKLY GLOBE-FISH.

THE PORCUPINE FISH.

THE SEA PORCUPINE.

That all land animals "are in their kind, in the sea," is a popular opinion, commemorated, and with unnecessary prolixity opposed and confuted by the learned Sir Thomas Brown, in his well-known work the *Pseudodoxia Epidemica*, or *Vulgar Errors*. This idea seems to have arisen from a general resemblance which sometimes takes place between the external coating of several marine animals, and that of some





some terrestrial ones, which may therefore be said, according to common conceptions, to be in some degree allied; and, considered in this point of view, what has been affirmed by an ingenious Frenchman of the old doctrine of botanical signatures, may in great measure be granted, viz. that the notion, though loaded with errors, may be allowed upon the whole to contain almost as many truths as falsehoods. Amongst the animals which stand as examples of this allowable nomination, the fish represented on the plate may serve as a remarkable instance; its spiny appearance naturally bringing to mind the quilly armour of the porcupine. This animal in the twelfth edition of the *Systema Naturæ* of Linnæus, was ranked under the particular division of Amphibia termed *Nantes*, or (as it might with more propriety have stood,) *Nantia*. From a more accurate knowledge however of their anatomical structure than was then known, the naturalists of the present day have pretty generally agreed to remove these creatures from the Amphibia, and to re-mand them to their proper situation amongst fishes.

The *Diodon Hyftrix* is principally found in the Indian and American seas, and grows to a considerable size; having been seen of the length of about two feet. Its more general size is however much smaller. Its colour is a pale brown; and the prickles are of a triangular shape towards their base. The *Diodon* has the power of erecting or depressing its spines in a great degree, as well as of inflating or contracting its body.

In

In addition to what has been said, I shall beg leave to give a quotation from the learned author mentioned at the beginning of this paper, as a curious instance of the peculiar exactness and deep speculations of that celebrated writer.

“ Moreover if we concede that the animals of one
“ element might bear the names of those in the
“ other, yet in strict reason the watery productions
“ should have the prenomination : and they of the
“ land rather derive their names from, than nomi-
“ nate, those of the sea. For the watery plantations
“ were first existent, and as they enjoyed a priority
“ in form, had also in nature precedent denomina-
“ tions ; but falling not under that nomenclature of
“ Adam, which unto terrestrious animals assigned a
“ name appropriate unto their natures ; from suc-
“ ceeding spectators they received arbitrary appel-
“ lations ; and were respectively denominated unto
“ creatures known at land ; who in themselves had
“ independent names, and not to be called after
“ them which were created before them.”

CLIO LIMACINA.



CHARACTER GENERICUS.

Corpus natans, oblongum: *Alis* duabus, membranaceis, oppositis.

Lin. Syst. Nat. p. 1094.

CHARACTER SPECIFICUS, &c.

CLIO NUDA, corpore obconico.

Gmel. Syst. Nat. p. 3149.

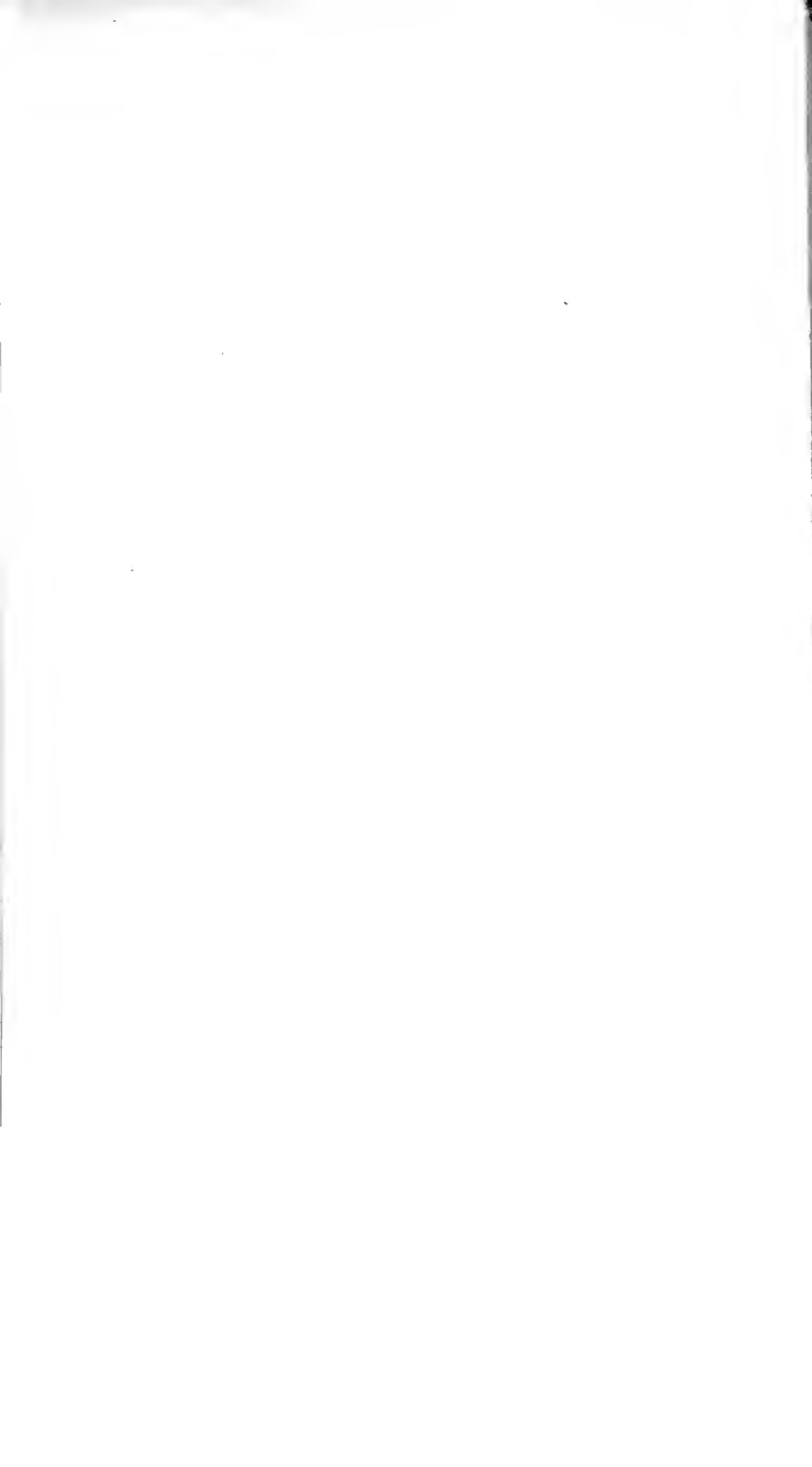
Phipps. it. bor. p. 195.

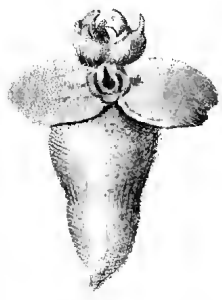
Mart. Spitzb: p. 169. t. P. f. 5.

Soland. et Ellis. cor. tab. 15 f. 9. 10.

Paucas et exiguas continet species genus Clio, quarum e corpore utrinque producitur, ut plurimum, membrana velut thecam efficiens, et a capite utrinque expanditur quasi velum parvulum ovatum; unde fit ut sepias minutas brachiis carentes non male referant. Caret autem theca species quam describimus, et limaci parvo non longe est absimilis. Fusco-albicat, longaque est circiter unciam cum dimidio. Oceanum septentrionalem inhabitat.







THE
LIMACINE CLIO.



GENERIC CHARACTER.

Body oblong, nuyant ; with a pair of opposite membranaceous *Wings* or expanded processes.

SPECIFIC CHARACTER, &c.

NAKED, OR SHEATHLESS CLIO, with inverfely conical body.

SNAIL-SHAPED CLIO.

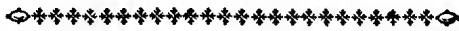
LIMACINE OR SLUG-SHAPED CLIO.

NORTHERN CLIO.

The genus *Clio*, which is far from a numerous one, confifts of animals of a fmall fize, and in general form not ill refembling minute *Sepiæ* or *Cuttle-fifh* without arms. This appearance arifes from the body being edged, as it were, with a membrane on each fide, forming a kind of fheath ; and on each fide the head is a fmall expanded oval process. The fpecies here exhibited is deftitute of the fheath-like membrane above-mentioned, and bears no
very

very distant resemblance to a small slug. Its colour is a very pale or whitish brown, and its length about an inch and half. It is an inhabitant of the Northern ocean.

PIPRA CAUDATA.



CHARACTER GENERICUS.

Rostrum capite brevius, basi subtrigonum, integerrimum, apice incurvum.

Pedes grefforii.

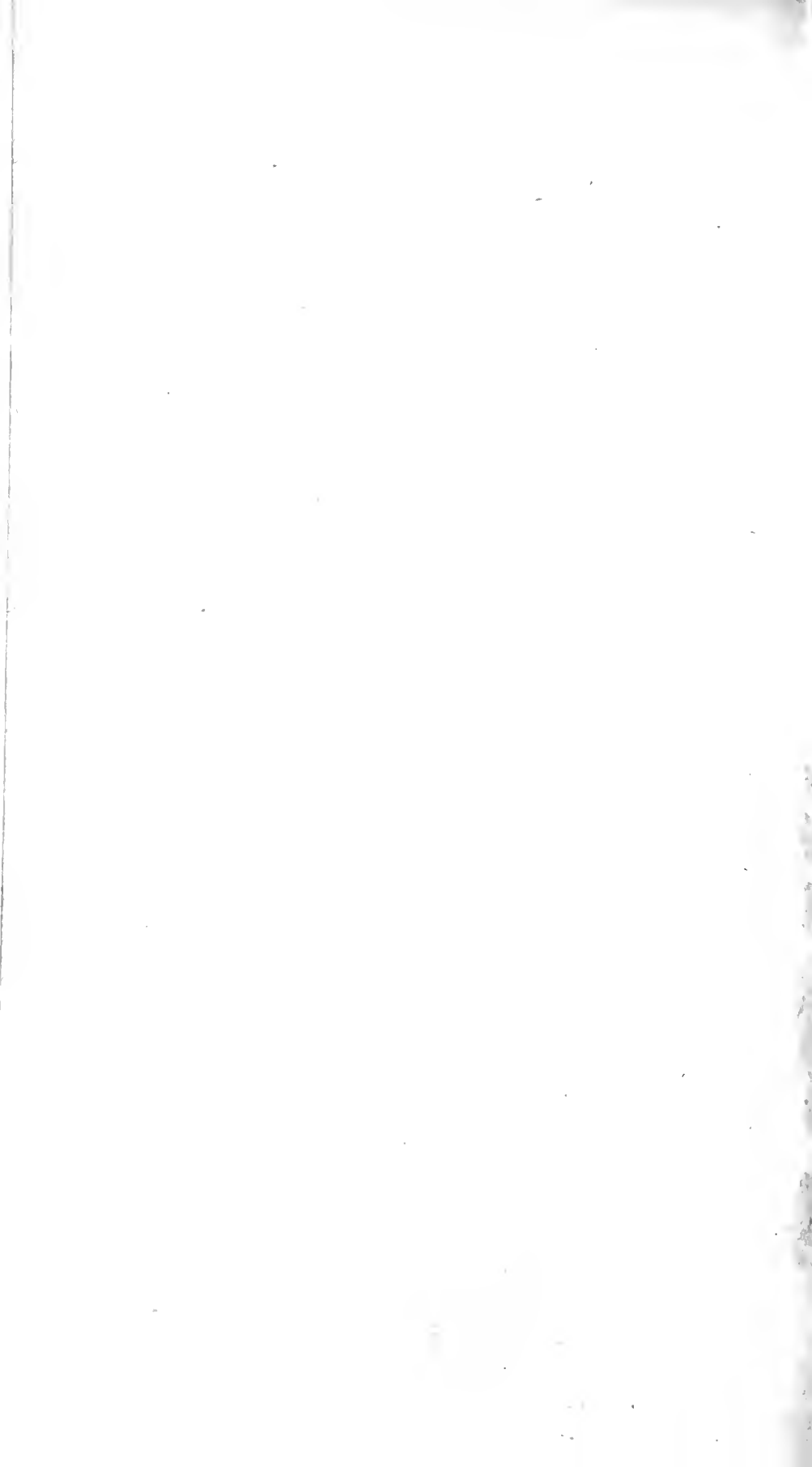
Lin. Syst. Nat. p. 338.

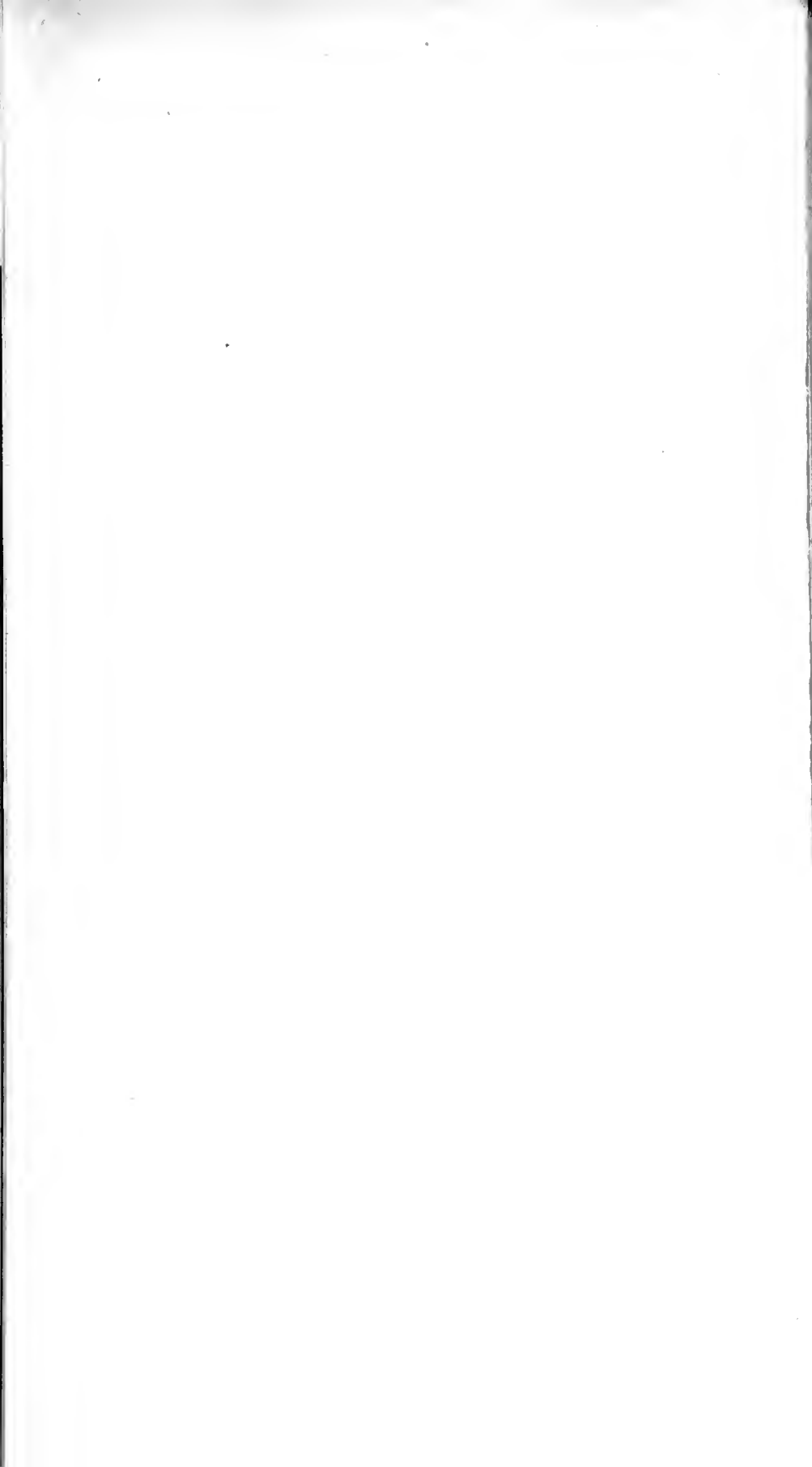
CHARACTER SPECIFICUS.

PIPRA CÆRULEA, vertice subcristato coccineo, alis nigris, rectricibus duabus intermediis elongato-acuminatis.

Colli caudæque latera viridi-splendentia.

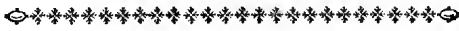
Aviculam in suo genere proculdubio pulcherrimam et coloribus eximiis superbientem, simulque novam nec antea descriptam, magnitudine naturali depictam, sistit tabula. In America Australi et calidiori, sicut aliæ pleræque congeneres, præcipue invenitur.







THE
LONG-TAILED MANAKIN.



GĒNERIC CHARACTER.

Bill shorter than the head, somewhat triangular at the base, bent at the tip.

Feet grefforial.

SPECIFIC CHARACTER.

BLUE MANAKIN with scarlet crown, black wings, and the two middle tail-feathers elongated and acuminated.

The sides of the neck and tail have a green lustre.

The bird here represented, which is unquestionably the most brilliant of its tribe, and is besides a new and hitherto undescribed species, is figured in its natural size. Like the rest of its genus it is principally found in the warmer parts of South America.



ASCIDIA CLAVATA.



CHARACTER GENERICUS.

Corpus fixum, teretiufculum, vaginans.

Aperturæ linæ ut plurimum ad fummitatem: altera humiliore.

Gmel. Syst. Nat. p. 3127.

CHARACTER SPECIFICUS, &c.

ASCIDIA stipite longissimo, corpore ovato, aperturarum utraque laterali.

ASCIDIA stipite filiformi, aperturarum utraque laterali.

Lin. Syst. Nat. Gmel. p. 3127.

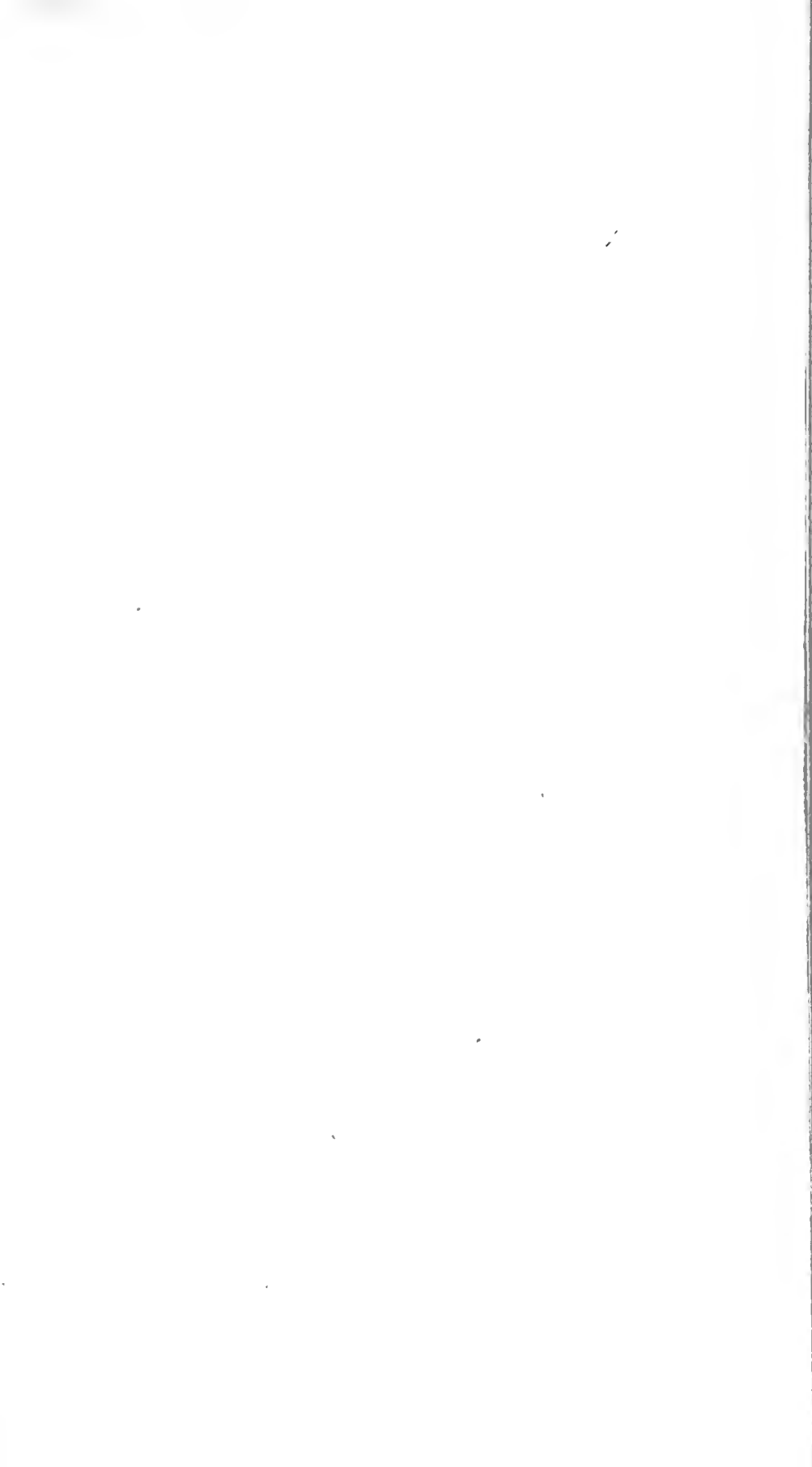
VORTICELLA BOLTENI.

Mant. plant. p. 552.

Bolten epist. de nov. zooph. Hamb. 1771.

Solent, ut plurimum, Ascidiæ faxis, rupibus, aliisque marinis substantiis basi adhærere. Formæ iis plerumque oblonga, superius crassior. Sunt tamen duæ vel tres species quæ stipite seu pedunculo longo tubulato instruuntur, unde oritur inter eas et reliquas congeneres summa dissimilitudo. Specie-
rum

rum harum anomalarum præcipua, quæ in tabula depingitur, corpus habet ovato-elongatum, superficie paululum exasperata. Augent præterea in certis speciminibus hanc scabritiem variæ serpularum, fertulariarum, aliorumque animalium *parasiticorum*, ut vocantur, species, quæ corporibus solent adhærere. Sunt in corpore Ascidiæ clavatæ duo foramina, alterum non procul a summo, alterum longe inferius situm, limbo seu margine paululum levato circumdata, e quibus, si irritetur, aquam ejaculatur more reliqui generis. Stipes interdum vix octo vel novem unciiis brevior, in variis speciminibus varie inclinatus, nec in ullis omnino rectus, lævis est, et fere corpori concolor, scilicet terreo-fuscus, paululum pallens, interdum rubens. In oceano septentrionali circa annum millesimum septingentesimum septuagesimum primo detecta est species quam descripsimus.





London, del. & sculp. J. P. Walker & P. A. Brown, sculp.

CLAVATE ASCIDIA.



GENERIC CHARACTER.

Body fixed, approaching more or less to a cylindrical shape; in some species sessile; in others supported on a pedicle.

Apertures (in most species) two: situated towards the upper part; one lower than the other.

SPECIFIC CHARACTER.

LONG-STALKED ASCIDIA, with elongated oval body and two lateral apertures.

The Ascidiæ in general adhere by their base to rocks, stones, and other submarine substances. They are mostly of an oblong form, somewhat thicker at the upper part than at the lower. There are however two or three species which are furnished with a long stalk, or tubular stem, which gives them an appearance widely different from the rest of their congeners. Of these anomalous species the animal here represented is the most remarkable. The body is of an elongated oval shape, and of a somewhat roughened surface: this appearance is also in some specimens still increased by various species of serpulae,

pulæ, fertulariæ, and other parasitical animals, which adhere to it in various parts. The body has two foramina; one seated at a small distance from the upper part, and the other considerably lower: both are surrounded by a protuberant rim or circle. Through these holes, when irritated, it discharges water, like others of this genus. The stem is of a very considerable length; sometimes not less than eight or nine inches. It is differently inclined in different specimens, and is scarce ever perfectly straight. It is of a smooth surface, and nearly of the same colour with the body, viz. a pale earthly brown, and sometimes reddish. This most curious animal was first discovered about the year 1770 in the Northern Ocean.

MADREPORA ASTROITES.



CHARACTER GENERICUS.

Animal Medusa.

Corallium cavitatibus lamelloso-stellatis.

Lin. Syst. Nat. p. 1272.

CHARACTER SPECIFICUS, &c.

MADREPORA SUBGLOBOSA, stellis distinctis innumeris undique asperfa.

MADREPORA COMPOSITA, stellis confertissimis immerfis disco concavo-cylindrico.

Lin. Syst. Nat. p. 1276.

MADREPORA RADIANS.

Pall. cl. zooph. p. 322. n. 190.

ASTROITES GLOBOSUS, &c.

Seb. mus. 3. p. 208. n. 9. tab. 112.

f. 9. 12. 14. 17. 18.

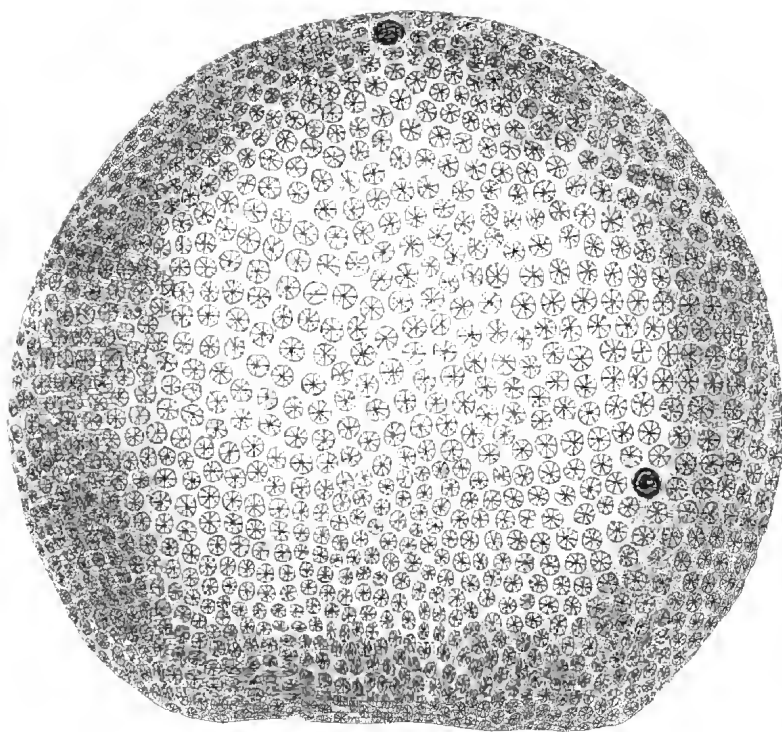
Cum Madreporam hanc plene describat character specificus, plura forsan supervacaneum sit dicere, nisi de magnitudine, qua Madreporæ illi quam vocant *Cerebrum* æqualis est. Eadem quoque maria

F

inhabitat,

inhabitat, nec raro foramine rotundato vel pluribus notatur, quæ interdum ob ipsa natura excavata videntur, circaque quæ animalia quæ corallium ædificare creduntur opus suum incoharunt, alias similia sunt cavis labore terebellarum quarundem effectis.





P. 17

London Published Oct. 1843 by J. P. Waller & Co. Bevis Street.

THE
STARRY GLOBE-MADREPORE.



GENERIC CHARACTER.

Animal resembling a Medusa.

Coral marked with lamellar striated cavities.

SPECIFIC CHARACTER.

NEARLY GLOBOSE MADREPORE, marked with innumerable star-shaped cavities.

This Madreporite is so fully described in its specific character as to require little to be added except the size of the coral, which equals that of the Brain-Madreporite. It is a native also of the same seas; and like that species, is not unfrequently marked by one or more round perforations, which sometimes bear the resemblance of natural excavations round which the animal fabricators of the coral have begun their operations, and at other times have more the appearance of the perforations of some species of *Terebellæ*.



YUNX TORQUILLA.



CHARACTER GENERICUS.

Rostrum teretiufculum, acuminatum.

Nares concavæ, denudatæ.

Lingua teres, lumbriciformis, longissima, apice mucronata.

Pedes scanforii.

Lin. Syst. Nat. p. 172.

CHARACTER SPECIFICUS, &c.

YUNX ex albo, griseo, nigro, et ferrugineo varia

JYNX s. TORQUILLA.

Bell. av. 76. a.

CUCULUS subgriseus maculatus, rectricibus nigris fasciis undulatis.

Lin Faun. Suec. 1. p. 73. t. 1. f. 78.

YUNX TORQUILLA.

Lin. Syst. Nat. p. 172.

TORQUILLA STRIATA.

Briff. av. 4. p. 7.

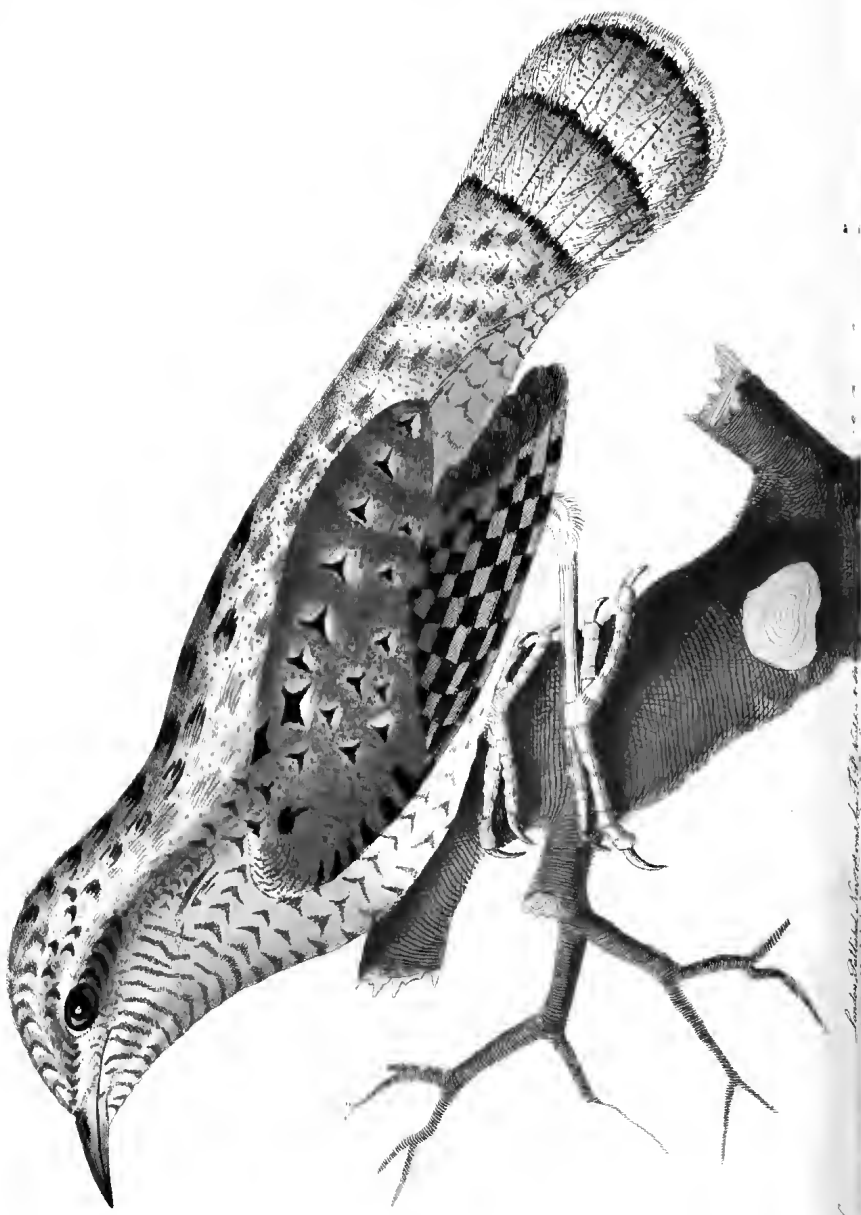
Varias Europæ partes incolit Torquilla, coloribus insignis elegantissime dispositis; e quibus conjunc-

G

tis

tis eximia exoritur pulchritudo, cum forsan sigillatim conspectis vilescat pretium. In Angliam Aprili mense involat, cumque pullos aluerit, autumnò vix finito, aliam sibi sedem querit. Facillima auditu raro conspicitur: fallit enim oculos color cortici arboris nec longo intervallo simillimus, aures feriente rapida et canora voce citissime iterata. Vivitur Torquilla eodem fere modo quo picis; linguaque est huic, ut et illis longissima, retractilis, quam ejaculando inter corticis rimas latitantia insecta prædatur. More quoque picorum ova deponit in arborum foraminibus, nidum pene nullum struens, sed molli ligno putrido insidens. Ovis dum incubat femina (quæ interdum quinque parit, interdum octo, alba admodum et semi-pellucida) collum corpusque, si turbetur, miro modo contorquet quasi minitans: unde nomen Torquilla. Narrat doctissimus Derhamus in præcellenti libro Physico-Theologico, se puerum ab hac ave non semel perterritum fuisse, nec e foramine, quo nidificarat ova ausum esse furripere, quasi a serpente repulsum. Latet interdum nidus in cavo altissimo; ut vix discerni possit: quod si quis avem tangere conetur, illico more serpentum sibilat; quod sibilum ipsi etiam pulli fortiter emittunt. Notandum est tantam esse Torquillæ cum cuculo affinitatem, ut ab ipso Linnæo semel in eodem genere conjuncta sit.





London: Published by Longman, Brown, Green, & Co. in 1841.

THE
WRYNECK.



GENERIC CHARACTER.

Bill roundish, slightly incurvated, weak.

Tongue very long, cylindric, missile, hard-pointed.

Feet scanforial, *i. e.* two toes forward and two backward.

SPECIFIC CHARACTER, &c.

YUNX (WRYNECK) varied with black, white, grey, and ferruginous.

THE WRYNECK.

Will. orn. p. 138. t. 22.

LE TORCOL.

Briff. orn. 4. p. 4. pl. 1. f. 1.

Buff. ois. 7. p. 84. pl. 3.

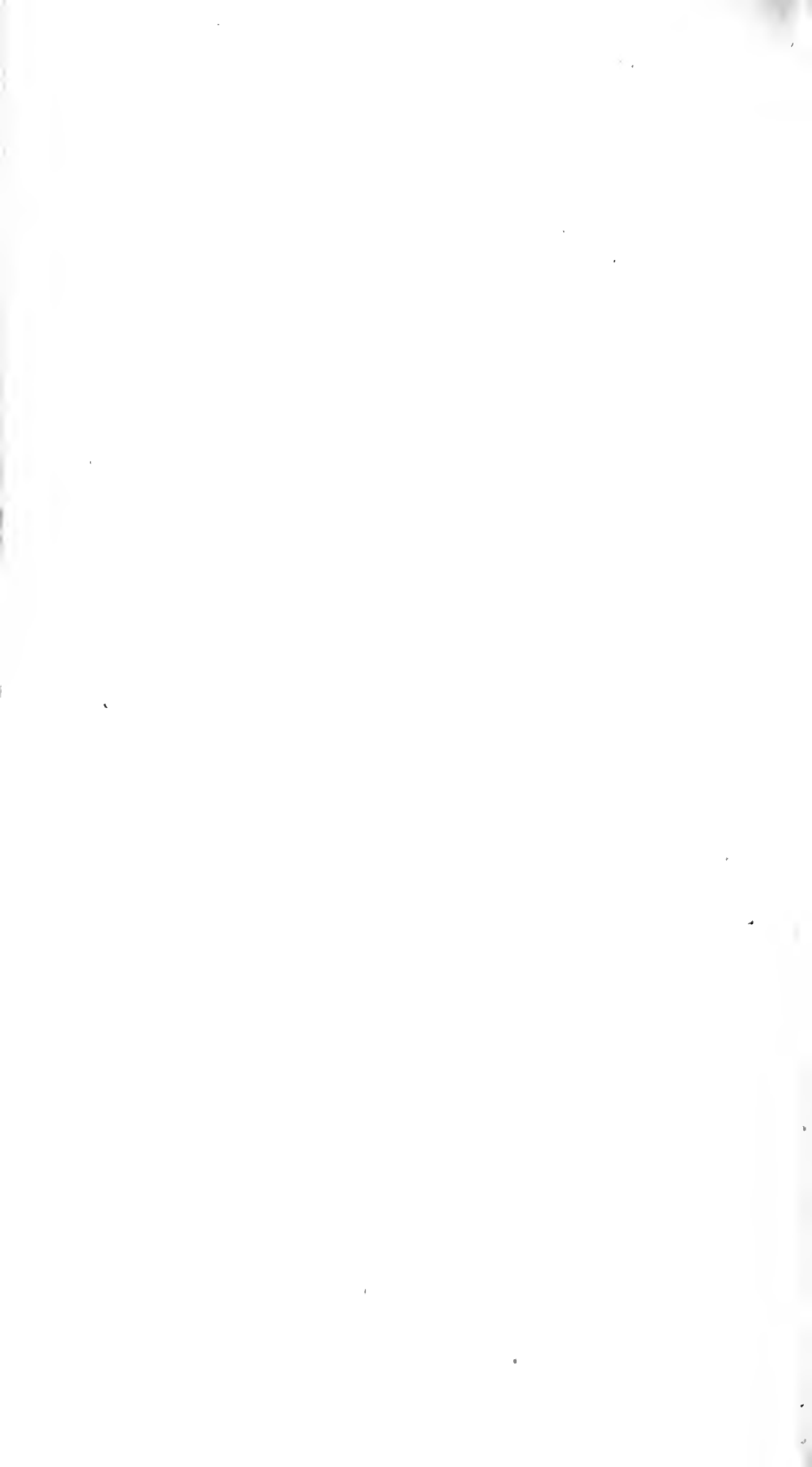
Pl. enl. 698.

The Wryneck, so remarkable for the elegant disposition of its colours, which tho' singly considered are far from brilliant, yet in combination produce so beautiful an effect, is a native of several parts of Europe. In our own country it appears in the month of April, and after the breeding season

is over, again migrates before the appearance of winter, or during the autumnal season. Though by no means uncommon, it is much more frequently heard than seen; its note, which consists of a quick succession of several shrill tones, being one of the most predominant amongst the vernal birds; while its colour bears so near a resemblance to the bark of the trees it frequents, as to be inconspicuous except on a very near approach.

In its mode of life the Wryneck bears a very strong affinity to the woodpecker tribe; and like those birds, is furnished with a very long, missile tongue, which it darts into the crevices of trees, and thus catches the insects they contain. It lays its eggs in the holes of trees, in the manner of a woodpecker; making scarce any nest, but contenting itself with the soft surface of the decayed wood. The eggs are from five to eight in number, very white, and semitransparent. When the female is engaged in incubation, she has a habit, when disturbed, of wreathing herself into a number of extraordinary postures in a threatening manner. It is from this circumstance that the name of Wryneck has been given to the bird. The celebrated Derham in his *Physico-Theology* observes that, when a boy, he has more than once been deterred by these threatening contortions from taking the eggs of the Wryneck, "daring no more to venture his hand into the hole than if a serpent had lodged in it." They sometimes, however, build in a hole so deep as to be perfectly secure from attacks of this kind; but if an attempt is made to reach them, they hiss
in

in the manner of serpents; and even the young exert this faculty in a most striking degree. I should observe that the Wryneck bears some affinity to the Cuckow, with which it was once associated in the same genus by Linnæus.



PAPILIO ATALANTA.



CHARACTER GENERICUS.

Antennæ apicem versus crassiores, sæpius clavato-capitatae.

Alæ (sedentis) erectæ sursumque conniventes (volatu diurno.)

Lin. Syst. Nat. p. 744.

CHARACTER SPECIFICUS, &c.

PAPILIO alis dentatis nigris albo maculatis: fascia communi purpurea: primoribus utrinque, posterioribus marginali.

Lin. Syst. Nat. p. 779.

Nymphales pbalerati.

PAPILIO tetrapus; alis denticulatis nigris albo-maculatis: omnibus fascia arcuata coccinea.

Lin. Faun. Succ. 1. n. 777.

Mouff. p. 100. f. 3. 4.

Mer: europ. 2. p. 41. t. 91.

Roes. inf. 1. t. 6.

Degeer. inf. 1. t. 22. f. 5.

In formosissimis, quotquot generat Britannia, insectis habendus Papilio Atalanta ex cruce oritur, quæ

quæ pierumque urticæ vulgaris, cui infidere solet, folia depascitur. In pupam seu chrysalidem mense Julio et Augusto ut plurimum convertitur, e qua diebus sedecim seu octodecim erumpit papilio.

Pleraque insecta lepidoptera simul atque e chrysalide liberantur, vel cum primæ se fugæ commiserint, guttas aliquot liquoris cujusdam colorati, ut plurimum magis minusve rubri, solent emittere. Hoc in pluribus speciebus communibus sæpissime cernitur, in papilione scilicet urticæ, Atalanta, Polychloro, reliquisque; et ut taceam simile quiddam velle naturam in cæteris animalibus recens natis, dignum est ut præcipue notetur, cum optime explicet phænomenon non modo antiquis temporibus sed et recentioribus prodigii loco habitum; guttarum nempe sanguinearum ab aere descensum, quem memorant varii scriptores, Ovidius præcipue inter portenta quæ, trucidato Cæsare, Romanorum animos turbarunt.

“ Sæpe faces visæ mediis ardere sub astris:

“ Sæpe inter nimbos guttæ cecidere cruentæ.”

Rem miram, quæ diu crux erat philosophorum, verisimiliter explicasse primus videtur celeberrimus Peirescius, qui in Gallia anno millesimo sexcentesimo octavo suis oculis phænomeni vestigia examinavit, sibi que persuasissimum habuit provenisse guttulas rubras e papilionis specie, papilione fortasse urticæ id temporis præter solitum abundante, præcipue prope loca ubi nimbus cruentatus ceciderat. In hanc sententiam ivit Swammerdamus, qui tamen non *αυτοπτης* fuisse videtur. Eo me magis de hac

re recte intelligenda sollicitum sentio, quod noverim auctorem, cujus nomen me jam effugit, non modo de causa hujusmodi imbris sed et de ipso imbre omnino dubitasse. Satis tamen probavit Peirescius oculatus testis revera devenisse a papilionibus circumvolitantibus humorem prædictum quasi sanguine rubentem; cumque de eo sententiam firmaverit accuratissimi Swammerdami judicium, vix possit dubitari quin peritissimo rum horum hominum sagacitas rem difficillimam acu tetigerit.

A T A L A N T A.



GENERIC CHARACTER.

Antennæ or Horns thickening towards the upper part, and generally terminating in a knob, or club-shaped tip.

Wings (when sitting) erect, and meeting upwards.
(*Flight* diurnal.)

SPECIFIC CHARACTER, &c.

BLACK BUTTERFLY spotted with white :
the upper wings marked by a transverse, the
lower by a marginal band of crimson.

THE ADMIRABLE BUTTERFLY.

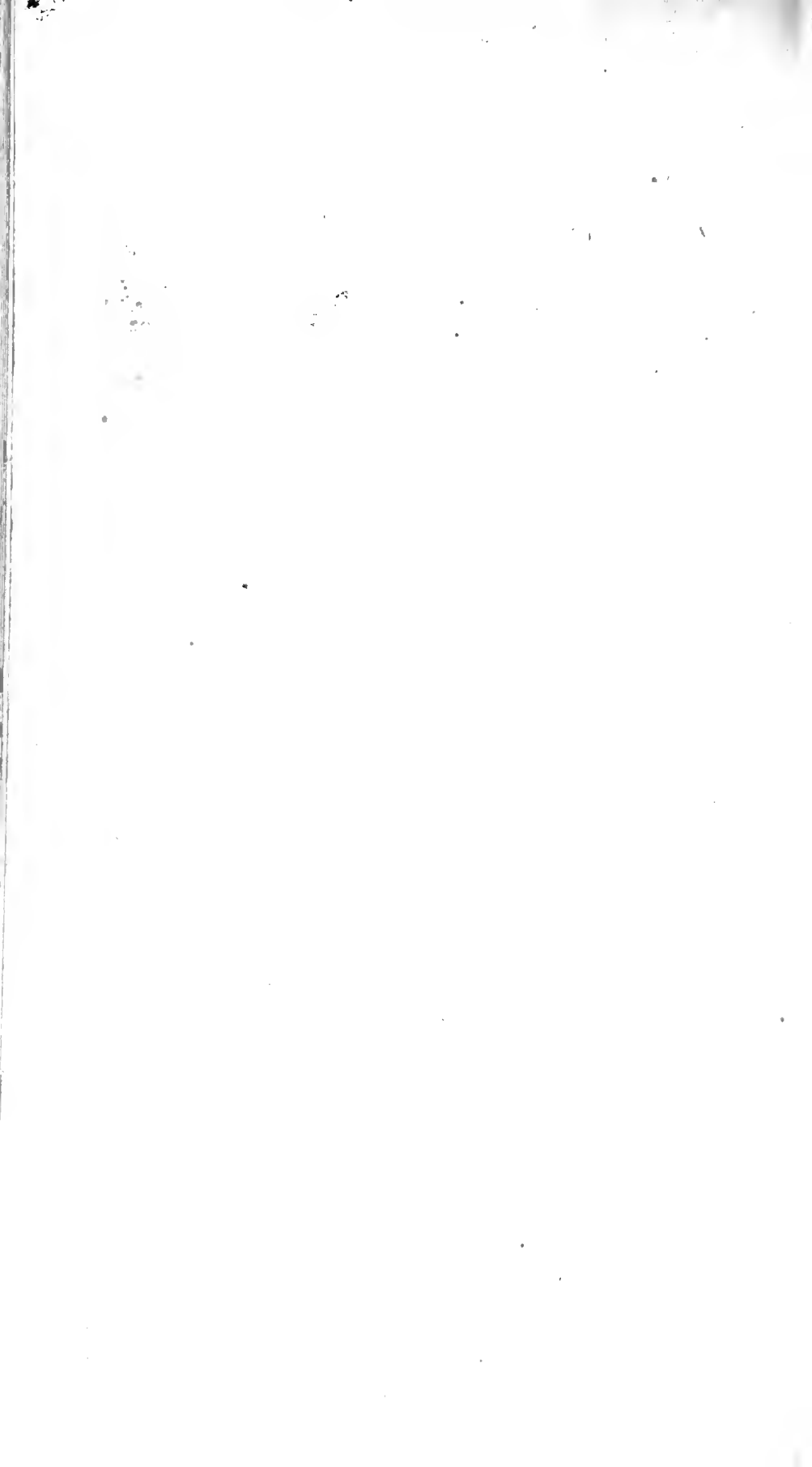
Harris. Aur. t. 6. f. a—h.

THE ADMIRAL BUTTERFLY.

Albin. t. 3.

The *Papilio Atalanta* is one of the most beautiful of the British insects, and proceeds from a caterpillar which feeds on the leaves of the common nettle. It generally changes to a chrysalis in the month of July or August; from which, in about the





the space of sixteen or eighteen days, emerges the complete insect.

The papilionaceous insects in general, soon after their enlargement from the chrysalis, and commonly during the first flight they take, discharge some drops of a coloured fluid, which in many species is of a red, more or less intense. This may be frequently observed in some of the most common species, as the *P. urticæ*, *Atalanta*, *Polychloros*, &c. and is a circumstance which, exclusive of its analogy to the same process of nature in other animals, is peculiarly worthy of attention from the explanation which it affords of a phenomenon sometimes considered both in ancient and modern times in the light of a prodigy, viz. the descent of red drops from the air, which has been called a shower of blood: an event recorded by several writers, and particularly commemorated by Ovid amongst the prodigies which took place after the death of the great dictator.

“ Sæpe faces visæ mediis ardere sub astris :

“ Sæpe inter nimbos guttæ cecidere cruentæ.”

With threat'ning signs the low'ring skies were fill'd,
And sanguine drops from murky clouds distill'd.

This highly rational elucidation of a phenomenon, at first view so inexplicable, seems to have been first proposed by the celebrated Peiresec, who with his own eyes observed the vestiges of an appearance of this kind in France in the year 1608, and was clearly convinced of its real origin, viz.
the

the discharge above mentioned, proceeding from a species of butterfly, probably the *P. urticæ*, which happened during that season to be uncommonly plentiful in the particular district where the phenomenon was observed. The same idea was also entertained by Swammerdam, though he does not appear to have verified it from his own observations.

I am the more particular on this subject, as I have seen in some author, whose name I do not at present recollect, this solution, and even the appearance itself, regarded as in the highest degree improbable: but the ocular attestation of so eminent a character as Peirefc, and the full persuasion of a reasoner like Swammerdam, are surely sufficient to establish not only the credibility, but the certainty, both of the phenomenon itself and its explication.

CORALLINA OFFICINALIS.



CHARACTER GENERICUS.

Animal? crescens habitu plantæ.

Stirps fixa. Rami articulati, ramulosi.

CHARACTER SPECIFICUS, &c.

CORALLINA fastigiata subbipinnata vel trichotoma, articulis subturbinatis.

CORALLINA subbipinnata, articulis subturbinatis.

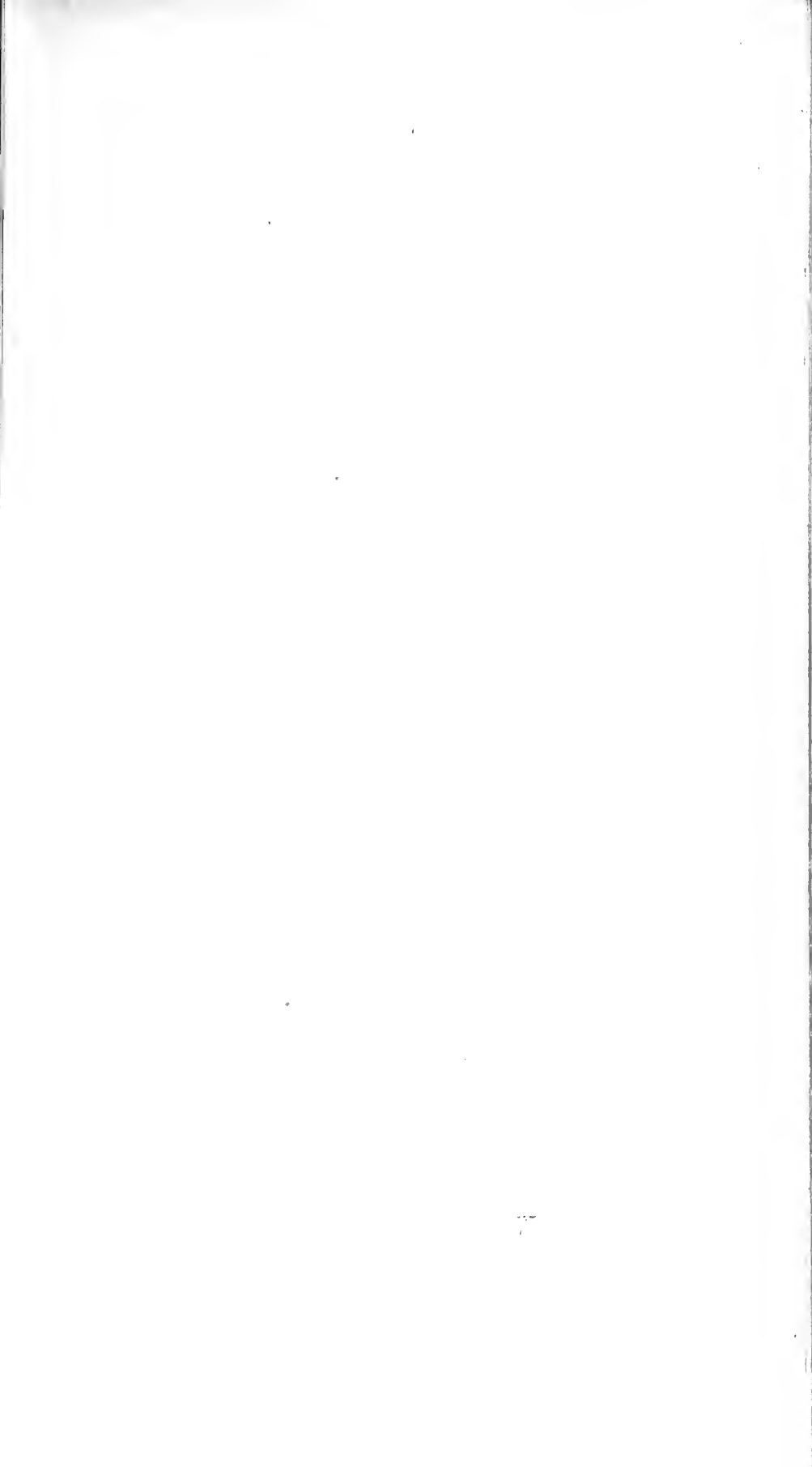
Lin. Syst. Nat. p. 1304.

CORALLINA alba officinarum.

Park. theatr. 1296.

Cum in genere Corallinarum species, ut plurimum, sint parvulæ et minutæ, hinc fit ut materia animalis, quæ in coralliis majoribus satis patet, in his nunquam adhuc pro certo explorata sit. Quod tamen hanc ob causam possit concedi quod ab analogia valde probabile sit; nec temere conjiciendum est nulla esse omnino incolentia animalia, eorum licet, ob exiguitatem pororum, qui ipsi non nisi microscopii ope cernuntur, vestigia frustra quærantur:
nec

nec de his dubitasse videtur solertissimus Linnæus, quippe qui firmiter crediderit omnem calcariam substantiam ab animalibus esse exortam. Hujus corallinæ maxima copia racemosa quasi et conglomerata crescit in rupibus sub mari immerfis, juxta littora pleraque Europæa. Colore ob plurimas causas variat, estque vel subpurpurea, vel subviridis, interdum etiam, præcipue si nimium soli exponatur, fere alba. In therapeutice magni olim erat nominis, et inesse credebatur illi vis quædam vermifugans; quam opinionem uno fere consensu denegant ridentque peritissimi omnes horum temporum medici.





London, Published by J. G. Woodley & P. A. G. Brown, 1864.

COMMON CORALLINE.



GENERIC CHARACTER.

Animal? growing in the form of a plant.
Stem fixed. Branches jointed, subdivided.

SPECIFIC CHARACTER, &c.

CROUDED OR CLUSTERED CORALLINE
with doubly-pinnated and sometimes trichotomous branches, and turbinated joints.

ENGLISH CORALLINE.

Ger. emac. p. 1571.

CORALLINE of the shops.

Ellis. corall: p. 48. t. 24. f. a. &c.

SEA CORALLINE.

Ray Synops. ed. 3. p. 33.

In the genus *Corallina*, most of the species of which are very small, the animal nature, so apparent in many of the larger corals, is not yet clearly ascertained. It is however from analogy to be supposed; and though the pores which a microscopical survey discovers on the surface of these productions are

are so extremely small as not to admit of a view of any animal inhabitants, yet this circumstance is not sufficient to disprove the existence of such. Linnæus appears to have been convinced of the animal nature of this genus, merely from the circumstance of its being of a calcarious substance; according to his established idea of all calcarious matter proceeding from the animal kingdom. The present species of coralline is found in great abundance on the submarine rocks about most of the European coasts; growing in clustered tufts. Its colour varies according to circumstances; being sometimes purplish; at other times greenish; and sometimes, especially where much exposed to the sun, nearly white. It once maintained a very respectable character in the materia medica, and was particularly celebrated for its anthelmintic powers; which the more illuminated cast of modern practice almost universally denies it.

ALCEDO? PUSILLA.



CHARACTER GENERICUS.

Rostrum trigonum crassum, rectum, longum.

Lingua carnosâ, brevissima, plana, acuta.

Pedes gressorii plerisque.

Lin. Syst. Nat. p. 178.

CHARACTER SPECIFICUS, &c.

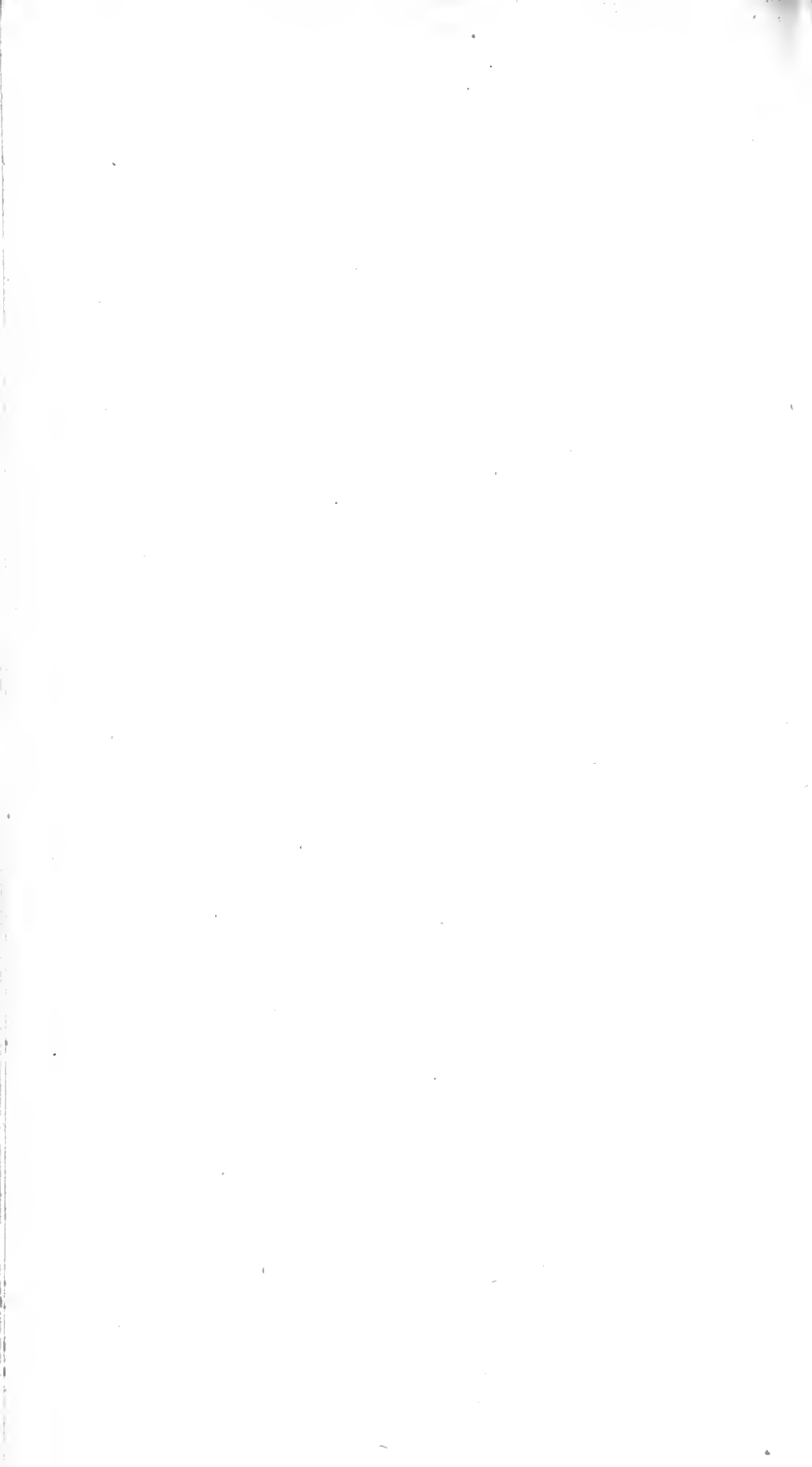
ALCEDO? cærulea, subtus fulva, macula colli
utrinque purpurea.

TODUS CÆRULEUS?

Latb. ind. orn. p. 266.

Gmel. Syst. Nat. 1. p. 444.

Alcedinis pusillæ sui generis longe minimæ,
ostendit tabula veram et naturalem magnitudinem.
Generat eam India Orientalis. In Sumatra etiam
frequens conspicitur.







THE
MINUTE KINGFISHER.



GENERIC CHARACTER.

Bill trigonal, thick, strait, long, sharp-pointed.

Tongue fleshy, very short, flat, sharp-pointed.

Feet (in most species) gressorial, *i. e.* three toes forward and one backward; and the three lower joints of the middle toe closely joined to those of the outmost.

Linnaeus and *Pennant*.

SPECIFIC CHARACTER, &c.

SMALL BLUE KINGFISHER? (Tody?) fulvous beneath, with a purple spot on each side the neck.

LE TODIER BLEU à ventre orangé.

Buff. ois. 7. p. 229.

TODIER DE JUIDA?

Pl. enl. 783. f. 1.

This bird is beyond comparison the smallest of the Kingfisher tribe. The plate represents it in its natural size. It is a native of the East Indies, and is also common in Sumatra.



CANCER DIOGENES.



CHARACTER GENERICUS.

Pedes octo (rarius sex aut decem;) insuper manus
duæ chelatæ.

Palpi sex inæquales.

Oculi duo distantes, plurimis pedunculati; elongati, mobiles.

Mandibula cornea, crassa.

Labium triplex.

Cauda articulata, inermis.

Lin. Syst. Nat. Gmel. p. 2963.

CHARACTER SPECIFICUS, &c.

CANCER MACROURUS PARASITICUS,
chelis lævibus pubescentibus: sinistra majore.

Lin. Syst. Nat. p. 1049.

Rumph. mus. t. 5. f. K. L.?

Catesb. Car. 2. t. 33. f. 1. 2.

Insectorum, quæ miro et singulari modo formata complectitur genus *Cancer*, numerosissimas species in phalangas pro vario corporis habitu distribuere prorsus necesse est, ut facilius dignosci possint. E cancris nonnulli corpore brevi sunt et quasi suborbiculato,

biculato, cujus diametros transversa non raro longitudinem superat. Alii forma sunt gracili et elongata; alii admodum spinosi seu muricati; alii omnino laeves. Sunt qui chelis maximis validisque armantur; sunt etiam quorum pedes imbelles et inermes. Aliis denique vasta est et insignis magnitudo; aliorum mira tenuitas efficit ut singulae partes non nisi microscopii ope satis examinari possint. Quae in hoc genere continentur animalia crustas seu exuvias certis intervallis solent exuere; sub quod tempus artus gradatim contrahuntur et exiliores fiunt, ut e chelis reliquaque crusta facilius liberentur: quo facto, in latibulo quiescit cancer paucos dies donec novum tegmen satis induruerit, quod primo membranaceum potius est quam crustosum. Membrum amissum, quod plerisque animalibus gravissimum foret et irreparabile, parum aut nihil queruntur cancri; paucis enim septimanis excrefcit alterum novum et integrum. Immo quasi scientes inesse iis naturam facultatem repullulandi, si membrum aliquod laesum fuerit aut contusum, non expectant donec sanetur, sed subito et violento nisu veluti impedimentum abjiciunt, et in locum tutum et quietum se recipiunt, parte mox redintegrata gavifuri. Univerfo fere cancerorum generi mira inest foecunditas; cujus insigne exemplum est in illo qui *Astacus* dicitur, unde duodecim millia ovorum singulo partu excluduntur. Gulae dediti et animalibus et vegetabilibus vescuntur. Cancer quem describimus inter eas species militat quae crusta seu tegmine postico destituuntur, quaeque igitur testas univalves, si quas in litore invenerint vacuas et idonee formatas,

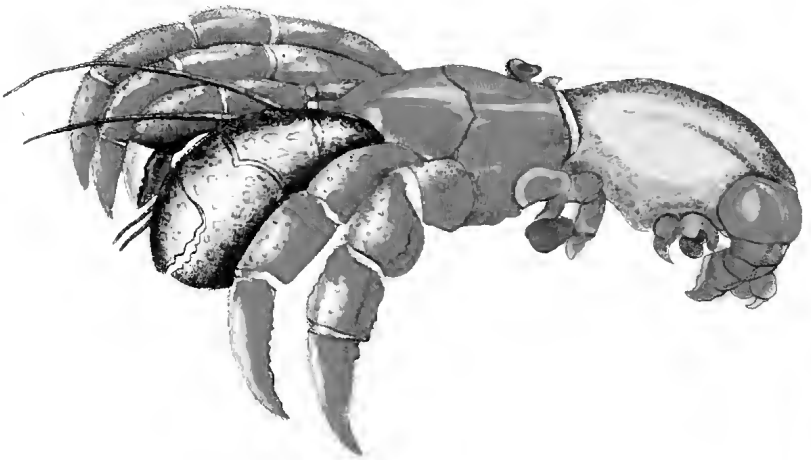
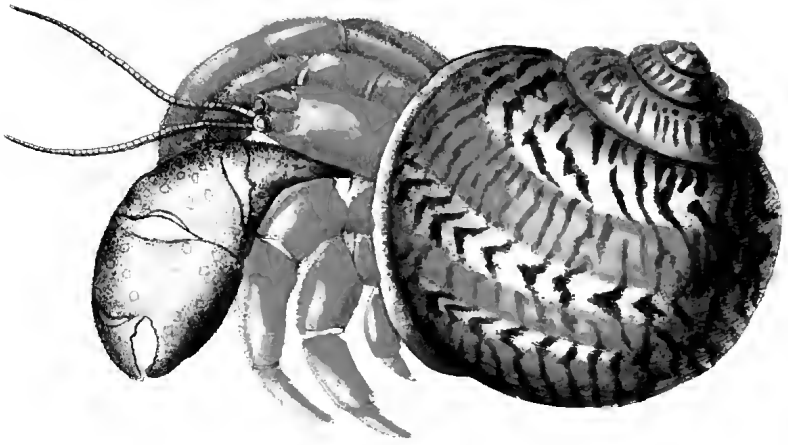
tas,

tas, intrantes incolunt, corpore in testam immerfo, chelis exertis. Cancrorum qui *molles* seu *parasitici* vocari solent præcipuæ species sunt *Bernardus* et *Diogenes*. Diogenem depinximus, qui plerumque testam muricis, buccini, turbinis, vel neritæ inhabitat, unde et nomen adeptus est, quod testa eodem modo utatur quo celebris iste pseudo-philosophus dolio suo. Figura prima monstrat animal testa inclusum, secunda testa exutum.

Nec prætereundum est insigniter in cancris aberrare naturam a generali suo consilio, quo cautum est ut omnes corporis partes utrinque sibi invicem respondeant. Ex illis enim multi chelas gerunt ab hoc latere immodicas, ab illo tenues et exiles; cogiturque cancer vocans et alii nonnulli brachium grande et incommodum inter ambulandum dorso imponere. Notandum porro est chelas magnas, quæ ut plurimum sunt a dextro latere interdum esse a sinistro; quod idem testis nonnullis univalvibus accidere notissimum est, quarum ora nunc dextrorsum nunc sinistrorsum sita sunt.







THE
DIOGENES CRAB.



GENERIC CHARACTER.

Feet commonly eight, (in some species six or ten)
besides two chelated ones.

Palpi or Feelers six, unequal.

Eyes two, distant, in most species footstalked;
elongated, moveable.

Mandible thick.

Lip triple.

Tail articulated, unarmed.

SPECIFIC CHARACTER, &c.

ELONGATED PARASITIC CRAB, with
smooth pubescent chelæ, of which the left is
largest.

THE INDIAN HERMIT-CRAB.

THE VIOLET-CLAWED HERMIT-CRAB.

The genus Cancer is distinguished not more by
the singularly curious shape and appearance of the
insects it contains, than by the vast variety of species

cies into which it is divided; the number of which is so great that it is found entirely necessary to subdivide them into sections according to their different shape or general habit, in order that they may the more readily be investigated. Some are of a short, thick, and nearly orbicular form, and sometimes the transverse diameter of their body considerably exceeds the longitudinal: others are of a thin and long form: some are strongly muricated; others perfectly smooth: some are furnished with very strong and large chelæ or claws; others have only weak, unarmed feet: lastly, some are remarkable for their great size, while others are so diminutive as to require the assistance of glasses in order to determine the structure of their several parts.

The animals of this genus cast their shells from time to time. When this period approaches, the limbs gradually shrink or waste in size, so as to enable them to be drawn with the greater ease from the claws and other parts of the shell. The animal then lies in a quiet state for some days, till the new shell is formed, or rather till it is hardened; for at first it is rather membranaceous than crustaceous. The loss of a limb, an accident so dreadful and irremediable to the major part of the animal world, is to these creatures of but little importance; since the space of a few weeks supplies the defect, and restores them to their former state. What is still more wonderful, these animals, when injured, maimed, or bruised on any particular limb, do not wait for the process of a gradual recovery of that individual part, but, as if conscious of the power of reproduction,

production, voluntarily cast off with sudden violence the offending member, and betaking themselves to a state of retirement, await the formation of their new limb. Most of the genus are very prolific animals. The female of the common Lobster produces upwards of twelve thousand eggs each time of laying. They are of a very voracious nature, and feed on animal as well as vegetable substances. The species of cancer here represented is one of those which have the body naturally destitute of a shelly covering; in consequence of which they never fail to take possession of such vacant univalve shells as happen to suit their convenience; the body being immersed in the shell, while the claws remain exerted. Amongst these parasitical or soft-bodied species the two most remarkable are the Cancer Bernardus and the Cancer Diogenes. It is the latter of these which is figured on the present plate; the first figure shewing the animal in the shell, the second representing it divested of its covering. It is generally found inhabiting the shell of a Murex, Buccinum, Turbo, or Nerite, and has obtained the title of Diogenes from its residing in this convenient receptacle as that celebrated pseudo-philosopher is reported to have done in his tub.

I should not dismiss this article without observing that the genus cancer affords a curious example of deviation from that general symmetry of parts so conspicuous in most other animals; in which the shape of the body and limbs on one side exactly corresponds to that of the other. Many of the Cancra, however, are furnished with a pair of chelæ
on

on one side of immoderate size, while those of the opposite side are thin and small; and in some particular species, as the *C. vocans*, &c., the size of the large arm is so great as to oblige the animal to support it on its back, in which position it is generally placed while the creature is walking. It may likewise be added that this is a particularity which is sometimes reversed; a circumstance which takes place, as is well known, in the univalve shells.

SQUALUS OCELLATUS.



CHARACTER GENERICUS.

Spiracula quinque ad latera colli.

Corpus oblongum teretiufculum.

Os in anteriore capitis parte.

Lin. Syst. Nat. p. 397.

CHARACTER SPECIFICUS, &c.

SQUALUS subfasciatus fusco maculatus, oculo utrinque nigro supra pinnas pectorales.

SQUALUS litura magna rotunda nigra, circulo albo cincta, ad utrumque colli latus.

Syst. Nat. Gmel. p. 1495.

Continentur in genere hoc voraci et exitioso nonnullæ species quæ non modicam elegantiam jactare possunt. Exemplo fit illa in tabula depicta, quæ non modo corpus habet satis concinnum, maculasque æqualiter dispositas, sed etiam notis duabus nigris, permagnis, rotundis seu potius leviter ovatis insignitur, utrinque super pinnas pectorales sitis, alboque limbo circumdatis in oculorum similitudinem. In numero est hæc species minorum squalorum, nasciturque in maribus australibus.





London: Published by W. & A. G. & Co., 15, Abchurch Lane.

THE
OCELLATED SHARK.



GENERIC CHARACTER.

Spiracula five on each side the neck.

Body oblong, somewhat cylindric.

Mouth situated beneath in the fore part of the head.

SPECIFIC CHARACTER, &c.

SUBFASCIATED SHARK, with dusky spots, and a black ocellated mark on each side above the pectoral fins.

Oeillé.

Brousson. act. Paris, 1780. p. 660. n. 10.

Amongst this voracious and destructive tribe there are some species which possess no inconsiderable degree of elegance. Of this the fish here represented is a remarkable instance, which, exclusive of the general neatness of its appearance and the regular distribution of its spots, is distinguished by two very large and beautiful round, or rather slightly oval black marks, situated on each side, immediately

ately above the pectoral fins. These spots are surrounded by a margin of white, so as to resemble a pair of eyes. This animal is one of the smaller sharks, and is a native of the Southern Seas.

MEROPS APIASTER.



CHARACTER GENERICUS.

Rostrum curvatum, compressum, carinatum.

Lingua apice laciniata,

Pedes gressorii.

Lin. Syst. Nat. p. 182.

CHARACTER SPECIFICUS, &c.

MEROPS dorso ferrugineo, abdomine caudaque viridi-cærulefcente, rectricibus duabus longioribus, gula lutea.

Lin. Syst. Nat. p. 182.

MEROPS.

Bell. av. 16.

Gesn. av. 599.

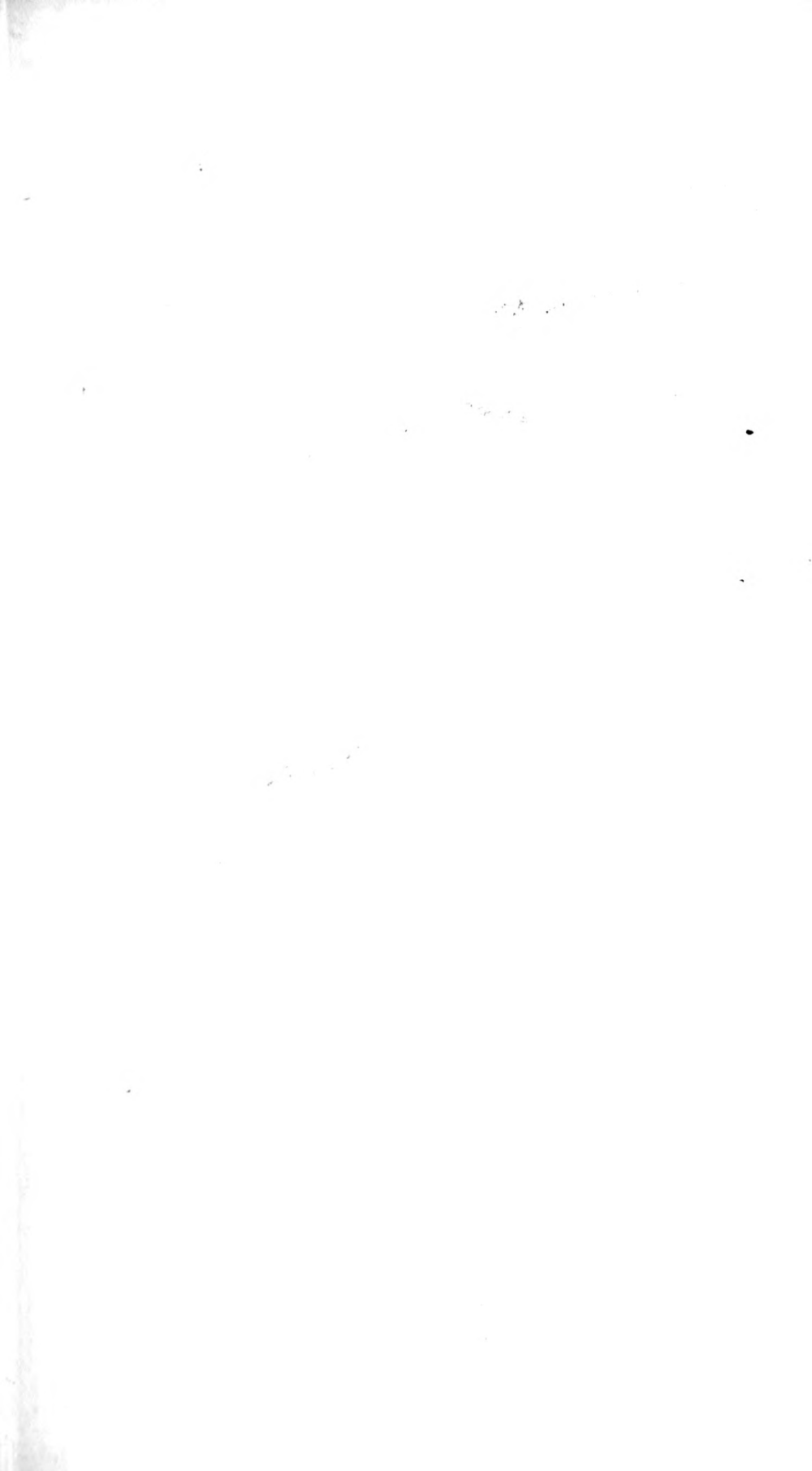
Aldr. 1. p. 871.

APIASTER.

Briff. av. 4. p. 532. n. 1.

Formosam hanc avem, quam ignorat Britannia, alunt calidioris Europæ variæ regiones; Græcia nec non insulæ quæ in Ægæo mari abundanter,

Creta autem præcipue, in qua exerceri dicitur lepida ista et acria avium quasi piscatio, cujus meminit Bellonius. Cicada nempe vel aciculæ incurvatæ vel hamo piscatorio affixa e filo longissimo in altum projicitur, in quam celerrime volantem Merops, insectis sedulo invigilans, simul atque adspexerit subito impetu involat, et esca avide devorata, cedit ipse in prædam pueris Cretensibus. Nidum e musco confectum ponit Merops Apiafter in ripis fluviorum.





THE
EUROPEAN BEE-EATER.



GENERIC CHARACTER.

Bill curved, compressed, carinated, and sharp-pointed.

Tongue (generally) lacinated at the tip.

Feet gressorial, *i. e.* three toes forward and one backward; and the three lower joints of the middle toe closely joined to those of the outmost.

SPECIFIC CHARACTER, &c.

BEE-EATER with the back ferruginous, the abdomen and tail blue-green, the two middle tail-feathers longer than the rest, the throat yellow.

THE COMMON BEE-EATER OR MEROPS.

THE BEE-EATER.

Will. p. 147.

LE GUÉPIER.

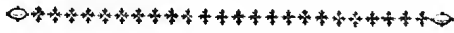
Buf. 6. p. 480. t. 23.

Pl. enl. 938.

This beautiful bird is a native of many of the warmer parts of Europe, but is never seen in the

British dominions. It is extremely common in Greece and the islands of the Archipelago; and in Crete is more peculiarly plentiful. It is in this latter island that the curious mode of bird-catching described by Bellonius is said to be frequently practised with success, viz. a cicada is fastened on a bent pin, or a fish-hook, and tied to a long line. The insect when thrown from the hand, ascends into the air, and flies with rapidity; the Merops, ever on the watch for insects, seeing the cicada, springs at it, and swallowing the bait, is thus taken by the Cretan boys. The Bee-Eater builds in the banks of rivers, and forms its nest of moss.

VENUS DIONE.



CHARACTER GENERICUS.

Animal Tethys.

Testa bivalvis æquivalvis, altero latere complanato et velut duplicato.

Cardo dentibus tribus: omnibus approximatis; lateralibus apice divergentibus.

CHARACTER SPECIFICUS, &c.

VENUS SUBCORDATA, latere complanato ferie duplici spinarum curvarum ciliato.

PECTUNCULUS RUBER, fasciis acutis et ex altera parte muricatis exasperatus.

List. Conch. t. 307. p. 140.

CONCHA BRASILIANA CUSPIDATA.

Bonanni Mus. Kirch. Cl. 2.
n. 121. p. 448.

CONCHA VENERIS ARMATA.

Jacobæus in Mus. Reg. D.in.

PECTUNCULUS VENEREUS.

Pet. gazoph. t. 31. fig. 9.

CONCHA ECHINATA.

Valent. Mus. Muscor. t. 35. n. 19.

CONCHA VENERIS occidentalis cum spinis.

D'Argenville. t. 21. f. 1.

Concham raram et elegantem ostendit tabula, qua nihil injuriarum passa vix pretiosorem continet hodiernorum

diernorum muscorum ferina. At difficillimum est specimina nancisci integra et illæsa, ea præcipue quæ ad plenam magnitudinem pervenerint.

Venerem Dionem, quam generant maria Americana, primus descripsit et depinxit Bonannus? Color illi generalis est levissime incarnatus, seu fere albidus; valvula utraque zonis plurimis levatis et concentricis extrinsecus notata. Pars posterior seu complanata in variis speciminibus plus minus est purpurea, et spinarum curvarum utrinque serie laterali ciliata; unde fit, ut si e transverso testam intuearis, non longe oculo absimilis videatur, vel etiam ori ringenti quadrupedis. Cum species numerosissimas contineat genus, multisque egregium sit decus, nomen ideo ei datum est quod puchritudinem denotet.

Venerem seu Dionem e mari anadyomenen toties celebrarunt poetæ, ut supervacaneum forsan habeatur de re notissima quicquam dicere. Bellum tamen Aufonii epigramma liceat citare.

“ Emerfam pelagi nuper genialibus undis
Cyprin Apellei cerne laboris opus.
Ut complexa manu madidos salis a quore crines
Humidulis spumas stringit utraque comis
Jam tibi nos Cypri, Juno inquit et innuba Pallas
Cedimus, et forma præmia deferimus.”

At vel Aufonio feliciter cecinit celeberrimus Darwin, in eximio poemate cui titulus HORTUS BOTANICUS, cujus versus in linguam Latinam eleganter adeo transtulit eruditus quidam amicus, ut si quod
ille

ille scripsit in seriniis ineditum servem, persuasissimum habeam me a publica delectatione detracturum.

Addidi et egomet arctiorem, humiliorem, et quasi centonicam imitationem.

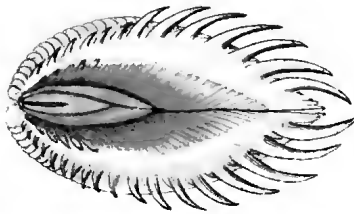
“ Sic primum vitreum fugiens Erycina profundum,
Nereidumque domos, patrio jam debita celo,
Surgit ad aethereum solem pulcherrima rerum,
Cæruleis emerfa vadis : rutifante sedentem
Hanc concha manibus tollunt submisile ipsiantes
Semiviri, vitusque avidos pascuntur amore.
At leve subridens falsam dea crine soluto
Humorem, liquidas et gemmas exprimit ; illæ
Defiliunt niveis sinuoso tramite mammis
Protinus, et placide lambunt juvenilia membra.
Præsentis valet interea vis vivida formæ.
Sternitur attonitum pacatis fluctibus æquor
Immensum, vix jamque tremit, memitque moveri.
Mollius aspirant zephyri, simul æthera stillant
Ambrosiam, et toto nova regnat in orbe voluptas.”

IMITATIO CENTONICA.

Sic alto enata oceano, si credere fas sit,
Alma Venus quondam pelagi gratissima nymphis,
Muscifos inter scopulos cautesque profundas
Lusit amabiliter ; vitreisque sedilibus hærens
Dulcia subridens immiscuit oscula verbis,
Et finxit vultum, et meruit formosa videri :
Jam teneros experta jocos, nec egena leporum.
At mox tota merum sal, plena et fulgida forma,
Tritonum manibus folio subvesta virenti
Sedibus ex imis, pacato in marmore ponti
Instiit, attonitas despectans desuper undas :
Qualis ubi e cælo radiis argenteus alnis

Lucifer

Lucifer affurgit, ridentemque undique terram
Vivificat, p̄ictos revocans ad gaudia campos.
Ut rofeis cæpit digitis ficcare capillos,
Per caput errantes guttæ et per eburnea colla
Suave micant ; dein terga petunt, humerosque latufque
Pectoraque, et fallis flellantes roribus artus.
Continuo natura Deam mirata falutat,
Et manifesta Venus cælo terrifque renidet.



VENUS DIONE,
OR THE
OCCIDENTAL VENUS-SHELL.



GENERIC CHARACTER.

Animal resembling a Tethys.

Shell bivalve; Valves similar, flattened on one side and furnished with a duplicature.

Hinge consisting of three teeth, approximated, the outer ones diverging.

SPECIFIC CHARACTER, &c.

SUBCORDATED VENUS, with a double row of incurvated spines on the flat side.

THE OCCIDENTAL VENUS-SHELL.

CONQUE DE VENUS occidentale.

Encyclop. Recueil de planches. tom. 6.
t. 73. fig. 6.

CONQUE DE VENUS à pointes.

Fav. D'Herbigny Dict. vol. 1. p. 262.

THE VENUS SHELL OR CONCHA VENERIS.

Hill's Hist. of Animals. p. 158.

The rare and curious shell represented on the present plate is numbered amongst the most valuable articles

articles of the conchyliological cabinet, and is indeed considered, when in its complete and unblemished state, as one of the cimelia of modern museums. It is, however, not often that specimens can be obtained which have not suffered some accidental injuries, especially those which have attained their full size. The Venus Dione is a native of the American seas, and was first described and figured by Bonanni? Its general colour is a very pale or whitish pink; each valve is marked externally by a great number of sharpened concentric zones or prominent ribs: the hinder or flattened part is of a purple tinge, more or less deep in different individuals, and is ciliated on each side with a row of curved spines, so as to give the shell, when viewed in a transverse direction, an appearance not ill resembling that of an eye, or even of the ringed mouth of a quadruped.

As the genus to which it belongs is extremely extensive, and contains several species of uncommon beauty, it has therefore received a name appropriated to the elegance of its form.

The birth of the younger Dione or Venus from the sea has so often been commemorated by the poets of antiquity, that it would be superfluous to relate what must be universally known. It may be sufficient therefore to quote on this subject the elegant epigram of Ausonius on the celebrated picture of Venus anadyomene by the hand of Apelles.

“ Emersam pelagi nuper genialibus undis
Cyprin, Apellei cerne laboris opus.

Ut

Ut complexa manu madidos falis æquore crines
Humidulis spumas stringit utraque comis
Jam tibi nos Cypri, Juno inquit et innuba Pallas
Cedimus, et formæ præmia deferimus."

Form'd in bold fancy by Apelles' hand,
See Venus on her native ocean stand.
As from the wave in full-blown charms she springs,
And from her hair the dropping moisture wrings,
Juno and Pallas view her with amaze:
In silence on the lovely tablet gaze:
No more at beauty's envied prize repine,
But to the pictur'd fair the willing palm resign.

A still more beautiful description has, however,
been given by Dr. Darwin in his celebrated poem
THE BOTANIC GARDEN.

" So young Dione, nurs'd beneath the waves,
And rock'd by Nereids in their coral caves,
Charm'd the blue sisterhood with playful wiles,
Lisp'd her sweet tones, and tried her tender smiles.
Then on her beryl throne by Tritons borne,
Bright rose the Goddess like the star of morn;
When with soft fires the milky dawn he leads,
And wakes to life and love the laughing meads;
With rosy fingers, as uncurl'd they hung
Round her fair brow, her golden locks she wrung;
O'er the smooth surge on silver sandals stood,
And look'd enchantment on the dazzled flood.
The bright drops, rolling from her lifted arms,
In slow meanders wander o'er her charms,
Seek round her snowy neck their lucid track,
Pearl her white shoulders, gem her ivory back,
Round her fine waist and swelling bosom swim,
And star with glitt'ring brine each crystal limb.
Th' immortal form enamour'd Nature hail'd,
And Beauty blaz'd to heaven and earth unveil'd."

Of this the reader will find in the corresponding Latin part a free translation by the hand of a learned friend, so highly elegant that I cannot resist the pleasure of presenting it to the public.

I have also myself added, in the manner of a cento, a more close imitation of Dr. Darwin's lines.

PAPILIO IDOMENEUS.



CHARACTER GENERICUS.

Antennæ apicem versus crassiores, sæpius clavato-capitatae.

Alæ (sedentis) erectæ sursumque conniventes, (volatu diurno.)

Lin. Syst. Nat. p. 744.

CHARACTER SPECIFICUS, &c.

PAPILIO alis subcrenatis cærulefcenti-fufcescentibus, superioribus fascia semitransversa albidâ, subtus nebulosis, ocello posticarum maximo.

PAPILIO alis subcrenatis cærulefcenti-fufcescentibus, subtus nebulosis: ocellis duobus: postico magno flavefcente.

Lin. Syst. Nat. p. 753. *Eq. Achiv.*

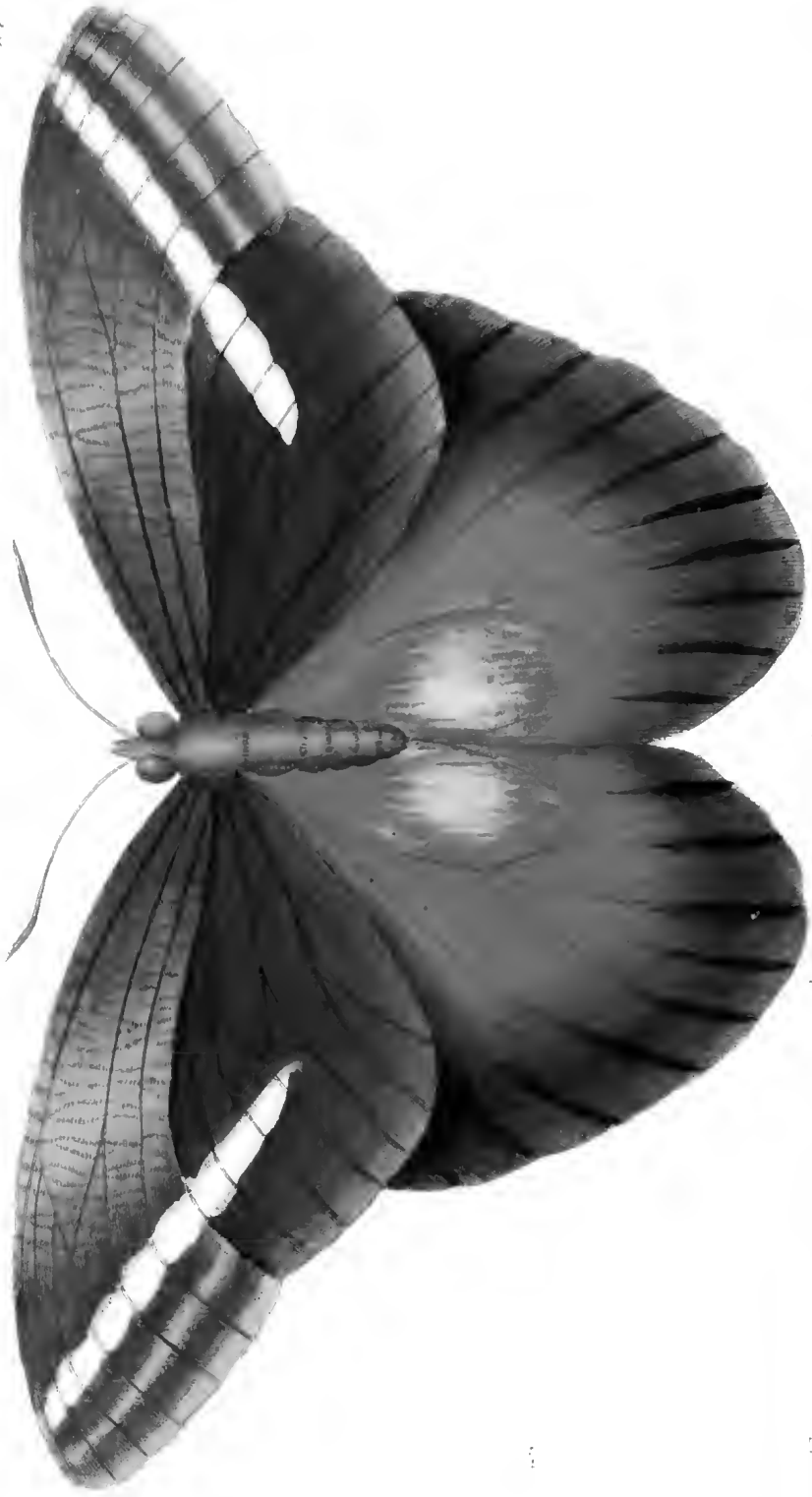
PAPILIO alis subcrenatis fuscis basi cyaneis, subtus nebulosis, posticis ocello magno flavefcente.

Fab. Sp. Inf. t. 2. p. 26.

Inter Papiliones eminet Idomeneus, plerisque congeneres magnitudine exuperans. Alarum superiorum

riorum pars altior coloris est eximie fusci, striis aliquot transversis obscurioribus undulati: cyanea est reliqua pars, medio lucidiore. Nec caret pulchritudine alarum superficies inferior quæ fusca nubeculis aliquot pallidioribus striisque innumeris nigricantibus variatur; et in utraque ala inferiore macula existat permagna, nigricans, oculo similis, circulo lato flavente inclusa, qui ipse nigro circumdatur. Magno intervallo super magnas has maculas sita est utrinque et alia minor. Americam Australem incolit *Papilio Idomeneus*.





Antonia, Pictorial Faunography, G. P. Van Dine, 1878, New American Series

is of a rich brown, undulated with a few deeper transverse striæ, while the remainder is of a very deep blue, the middle part more lucid than the rest. The body is brown. It is a native of South America. The under surface of the wings is by no means destitute of beauty, being of a brown colour, varied with lighter clouds, and undulated with innumerable blackish streaks, and on each of the lower wings is an extremely large ocellated blackish spot, surrounded by a broad ring of pale yellow, which is again encircled with black. At a great distance above these very large spots on each side is situated a smaller spot of the same form.

MOTACILLA REGULUS.



CHARACTER GENERICUS.

Rostrum subulatum, rectum: mandibulis subæqualibus.

Nares ovatæ.

Lingua lacero-emarginata.

Lin. Syst. Nat. p. 328.

CHARACTER SPECIFICUS, &c.

MOTACILLA subvirescens, subtus pallida, verticis fascia longitudinali lutea utrinque nigro marginata.

MOTACILLA remigibus secundariis exteriori margine flavis, medio albis, vertice luteo.

Lin. Syst. Nat. p. 338.

REGULUS CRISTATUS.

Will. orn. p. 163. t. 42.

SYLVIA REGULUS.

Lath. ind. orn. p. 548.

Antequam detectus esset orbis Americanus, avium omnium minima habebatur Motacilla Regulus: mi-

K

norem

norem certe non alit Europa. Eximiam eleganti huic aviculæ affert pulchritudinem quæ verticem decorat fascia læte aurantia utrinque etiam nigro terminata. Non mollis et tenella est Motacilla Regulus, sed hiemes nostro sub coelo frigidissimas illæsa perfert. Cernere est eam sæpius in quercibus quas amare videtur ante alias arbores.



London: Published Feb. 24. 1791. by F. P. V. & J. P. V. in Brown's Court.

THE
GOLDEN-CROWNED WREN.



GENERIC CHARACTER.

Bill fubulate (or awl-shaped); strait; the mandibles nearly equal.

Nostrils nearly oval.

Tongue jagged, or lacerated towards the tip.

SPECIFIC CHARACTER, &c.

GREENISH MOTACILLA, pale beneath, with a longitudinal gold-yellow band edged on each side with black on the crown of the head.

THE GOLDEN-CROWNED WREN.

Raii syn. p. 79. A. 9.

Will. orn. p. 227. pl. 42.

Br. Zool. 1. No. 153.

The Motacilla Regulus, or golden-crested Wren, is the smallest of all the European birds, and till the discovery of the American continent, was regarded as the most diminutive of the feathered tribe. The rich orange-coloured stripe on the top

of the head, softening into yellow, and bounded on each side by a line of black, gives a peculiarly beautiful appearance to this elegant species. It is a bird of a hardy constitution, and bears without seeming inconvenience the severest winters of our climate. It is more frequently seen on oak trees than on any others.

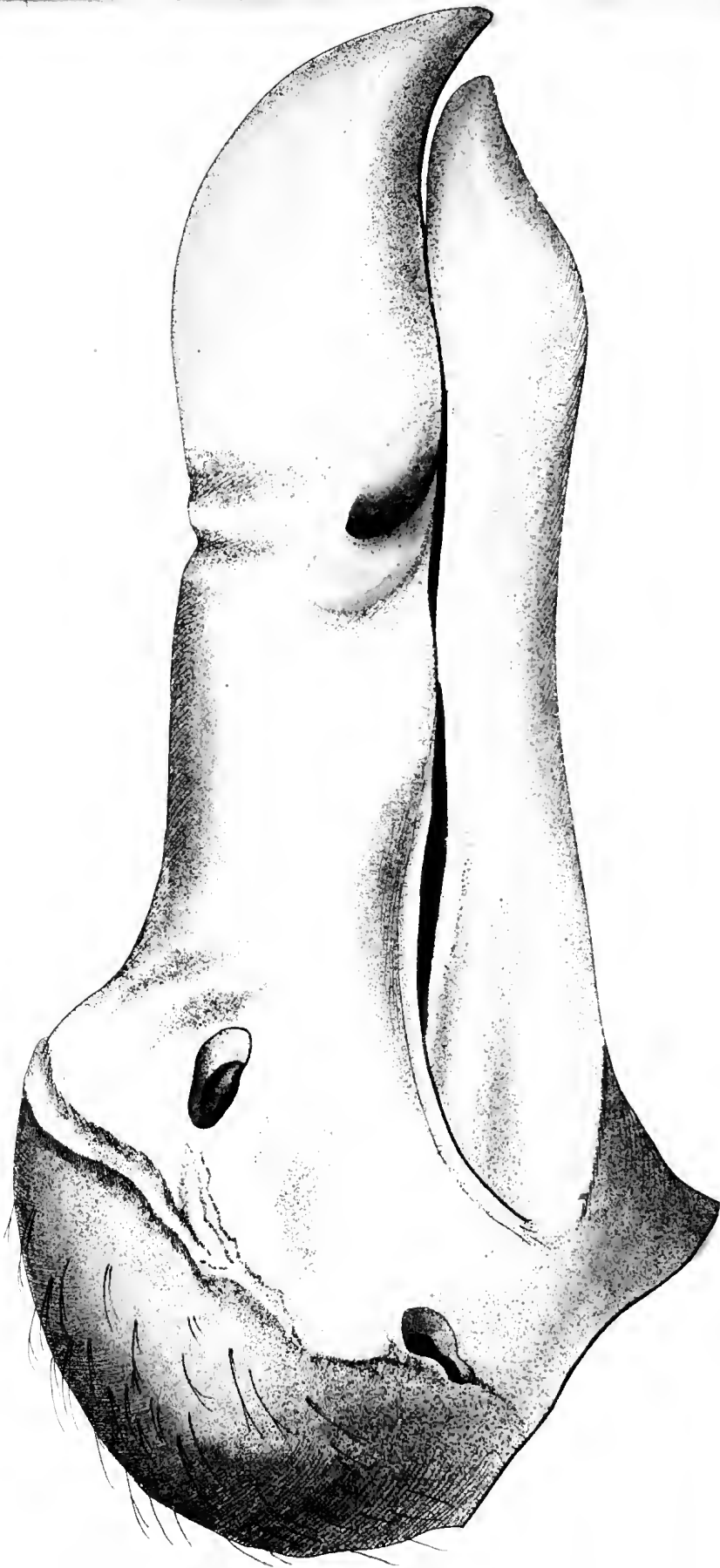
CAPUT DIDI.



—————*Pes et Caput uni*
Reddatur formæ. —————

Cum ego nuper verum et genuinum Didi pedem in Museo Britannico detectum accurate depingi curaverim, gratulor sane mihi quod jam oblata sit occasio reliquias pretiosiores lectoribus meis apponendi; rostrum nempe, cum fronte seu parte capitis ei adhuc adhærente. In hoc singularis istius avis vestigium fauste admodum incidi in Museo Ashmoleano apud Oxonienses; in quo satis notum est contineri quicquid rarum collegerat celeberrimus Tradescantius, qui id omne domino Eliæ Ashmole legavit, a quo postea Academiæ donatum est. In descriptione Didi qui in tabula centesima viceesima et tertia hujus operis cernitur, Willoughbeii testimonio usus sum, qui exuvias avis in Museo Tradescantiano se vidisse affirmaverat. Rostrum igitur de quo loquimur est ipsissimum specimen a Willoughbeio Raioque visum; quod fideliter repræsentavimus, quale hodie conspicitur, id injuriarum passum quas afferre solet annorum spatium majus quam centum et quinquaginta. Notandum porro est pedem quoque Didi, vetustate exesum et mutilatum, in eodem Museo asservari, plene et perfecte congruentem cum illo quem suppeditavit Museum
Britanni-

Britannicum, quemque in hoc Naturæ Vivario non ita pridem descripsimus. Vera igitur istius avis existentia, de qua nonnihil dubitari solitum est, tandem certissime probatur.



THE HEAD OF THE DODO.



Having some months ago ascertained in the British Museum the leg of a Dodo, and given in a preceding number an exact representation of it, I have now the pleasure of presenting my readers with a still more satisfactory relique of that singular bird, viz. the beak, with the fore-part of the head still adhering to it. This I was so fortunate as to discover very lately in the Ashmolean Museum at Oxford, in which, as is well known, is contained the collection of the famous John Tradescant, by whom it was bequeathed to Mr. Elias Ashmole, who presented it to the university. In the description of the Dodo at plate 123 of the present work, I have observed that we have the testimony of Willoughby for the existence of the exuvix of the Dodo in the Tradescantian Museum. The beak therefore here figured is that belonging to the specimen seen by Willoughby and Ray. It is most faithfully represented as it now appears, having suffered some injuries from the lapse of more than a century and half. I should not omit to observe that a leg of the Dodo (tho' in an extremely bad state of preservation), exists in the same collection; in size and every other particular agreeing with that belonging to the British Museum. The existence therefore of the Dodo, which has lately been considered as somewhat problematical, is now in the fullest and most satisfactory manner ascertained.



PAPILIO HECUBA.



CHARACTER GENERICUS.

Antennæ apicem versus crassiores, sæpius clavato-capitatae.

Alæ (sedentis) erectæ sursumque conniventes, (volatu diurno.)

Lin. Syst. Nat. p. 744.

CHARACTER SPECIFICUS, &c.

PAPILIO alis anterioribus rubris, posterioribus nigris, omnibus subtus ocellatis.

PAPILIO alis anterioribus rubris, posterioribus nigris, subtus utrinque ocellatis.

Lin. Syst. Nat. Gmel. p. 2247.

PAPILIO alis dentatis, anticis rubris, posticis nigris, subtus utrinque ocellatis.

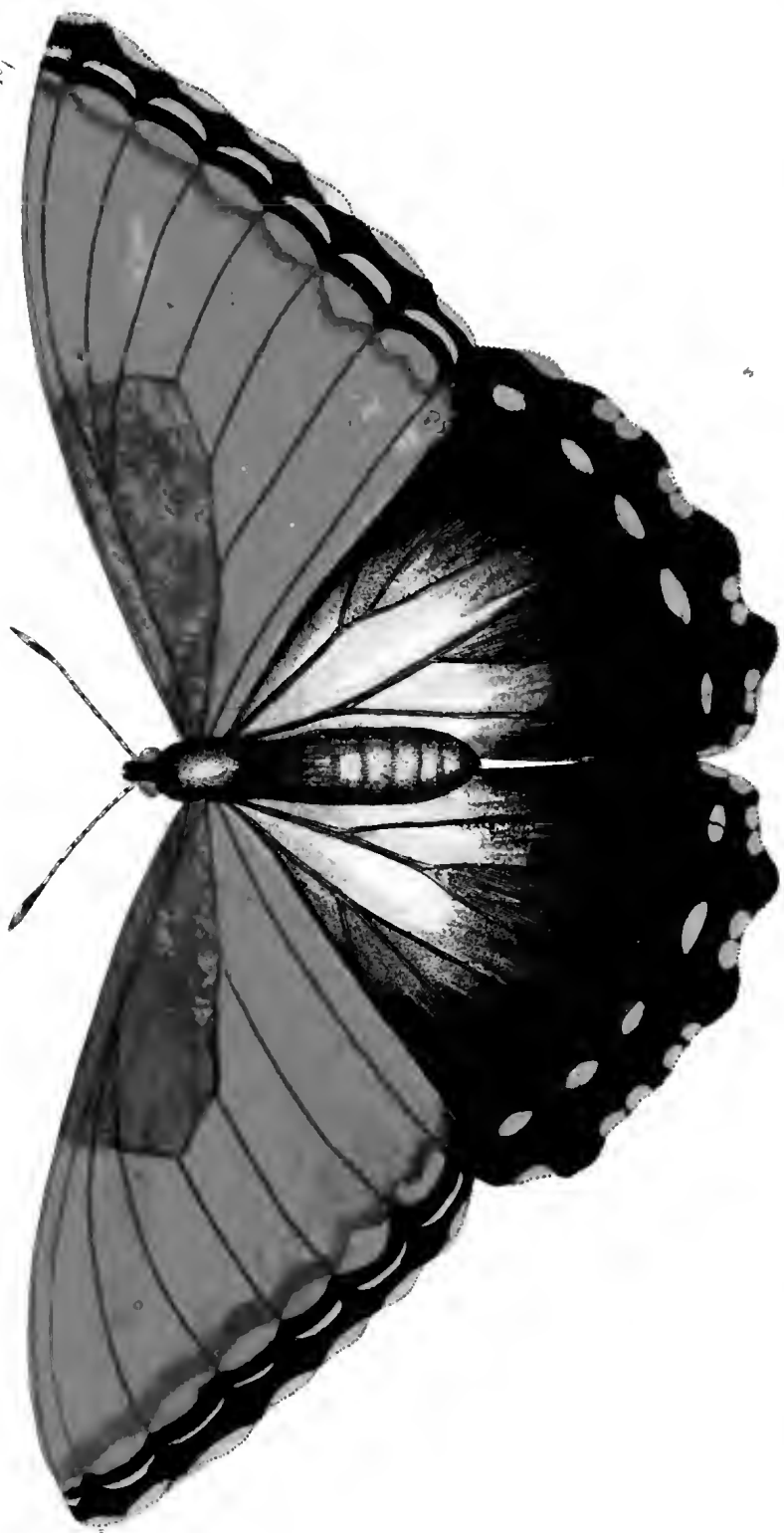
Lin. Mant. 1534.

Colorum dispositione insignis Papilio Hecuba inter maximos et lautissimos sui generis locum sibi vindicat. Alæ superiores lacte ferrugineo-rubrae, oris fuscis; inferiores atræ longe minus nigrant juxta basin seu ad humeros. Alarum tum superiorum

L

tum

tum inferiorum margines decorat series macularum
leviter flaventium. Corpus griseum, seu canescens.
Alarum omnium superficies inferior variis umbris
nigris, fuscis, canis, ferrugineis undulata, maculis
quoque quasi ocellatis concoloribus adornatur.
Americam Australem incolit venustissima hæc spe-
cies.



H E C U B A.



GENERIC CHARACTER.

Antennæ or Horns thickening towards the upper part, and generally terminating in a knob, or club-shaped tip.

Wings (when sitting) erect, and meeting upwards.
(*Flight* diurnal.)

SPECIFIC CHARACTER, &c.

BUTTERFLY with the upper wings red, the lower black ; each pair ocellated beneath.

LE GRAND OCULÉ DE CAYENNE.

Pl. enl. 19.

The *Papilio Hecuba* is one of the largest and most magnificent of its tribe. It is also remarkable for the singularity of its colour ; the upper wings being of a very rich ferruginous-red with dusky edges, while the lower ones are black, but considerably paler towards their base than on the broader part. Both the upper and lower wings are edged with a series of palish yellow spots. The body is greyish. The under surface of all the wings is undulated

dulated with various shades of brown, black, grey, and ferruginous, and marked by several eye-like spots of similar colours. This superb insect is a native of South America.

MOTACILLA CALLIOPE.



CHARACTER GENERICUS.

Rostrum subulatum, rectum: mandibulis subæqualibus.

Nares ovatæ.

Lingua lacero-emarginata.

Lin. Syst. Nat. p. 328.

CHARACTER SPECIFICUS, &c.

MOTACILLA fusco-ferruginea, subtus pallidior, gula rubra nigro marginata.

TURDUS CALLIOPE.

Lath. ind. orn. p. 331.

TURDUS KAMTSCHATKENSIS.

Lin. Syst. Nat. Gmel. p. 817.

MOTACILLA CALLIOPE.

Lin. Syst. Nat. Gmel. p. 977.

In frigidis Siberiæ regionibus innata Motacilla Calliope, more lusciniaë Europææ, noctu præcipue cantare dicitur, aliis omnibus avibus quæ plagam istam innitem incolunt ob vocis suavitatem merito

præolata. Carminibus etiam dulcissimis accedit non mediocris colorum elegantia: quorum primarius blande est et molliter ferrugineo-fuscus, gutture ruberrimo margine nigerrima circumdato. Circa ripas fluminis Jenisæ præcipue dicitur abundare Motacilla Calliope.



R

London. Published by Wm. Wood, at the Sign of the Golden Scale, in Pall Mall.

THE
RUBY-THROATED WARBLER.



GENERIC CHARACTER.

Bill subulate (or awl-shaped); straight; the mandibles nearly equal.

Nostrils nearly oval.

Tongue jagged, or lacerated towards the tip.

SPECIFIC CHARACTER, &c.

FERRUGINOUS-BROWN WARBLER, paler beneath, with red throat bordered by black.

KAMTSCHATKA THRUSH.

Lath. Syn. 2. p. 28.

RUBY-THROAT WARBLER.

Lath. Syn. 2. p. 463.

The *Motacilla Calliope* or Ruby-throated Warbler is a native of the frozen regions of Siberia, and like the nightingale of Europe, is said to sing principally during the night. It is considered as the most musical bird of that inclement country, and to the sweetness of its song is superadded no incon-

inconsiderable degree of beauty of colour: the prevailing tinge being a very fine soft ferruginous brown, while the vivid red on the throat is bounded by a border of the deepest black. It is said to be particularly plentiful about the banks of the river Jenifei.

MILLEPORA CELLULOSA.



CHARACTER GENERICUS.

Animal Hydra.

Corallium poris turbinatis teretibus.

Lin. Syst. Nat. p. 1282.

CHARACTER SPECIFICUS, &c.

MILLEPORA membranacea reticulata umbilicata
turbinato-undulata, hinc porosa pubescens.

Lin. Syst. Nat. p. 1284.

ESCHARA RETIFORMIS.

Ray. syn. p. 31. n. 1.

RETICULUM MARINUM.

Rumpf. amb. 6. p. 247. t. 87.

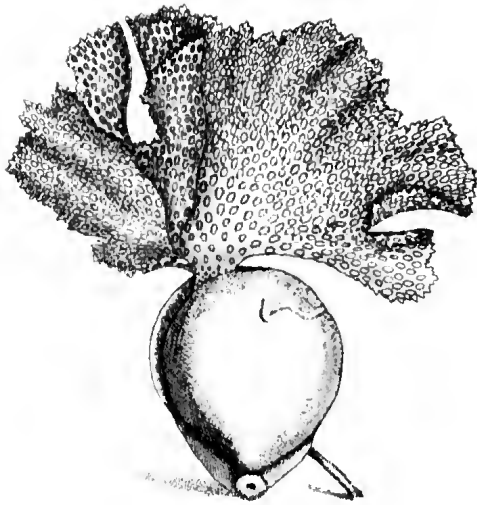
MILLEPORA FORAMINOSA.

Ellis et Soland. zooph. p. 138.

Hoc lithophyto frustra fortasse quæremus formosius in toto genere. Constat enim e lamina undulata, plana, erecta, quæ interdum calyci non abfimilis; alias longo ambitu pulchre et luxurianter plicata, et fere circulatim fimbriata. Efficiunt foramina

ramina ampla, numerosa, æqualia, ut videatur corallium quasi phrygionium: unde Galli fatis apte vocarunt *Manchette de Neptune*. Tota superficies interna, si ope microscopii examinetur, foramina habet ovata, quæ incoluisse creduntur animalia polypis similia. Color Milleporæ cellulosæ est interdum lacteus, alias subflavescens.

169



169

LACE MILLEPORE.



GENERIC CHARACTER.

Animal resembling a Hydra or Polype.

Coral furnished with cylindric turbinated pores.

SPECIFIC CHARACTER, &c.

IRREGULARLY WAVED LAMINAR MILLEPORE, with oval perforations: the inner surface marked with pores.

LACE MILLEPORE.

Soland et Ellis zooph. p. 138.

MANCHETTE DE NEPTUNE.

Pl. enl. 23.

The structure of this Lithophyte is so elegant that it may justly be considered as one of the most beautiful of the whole coral tribe. It consists of an undulating, flat, upright lamina, sometimes so disposed as to form a single cup-like figure; at other times running into a luxuriant state, and appearing richly folded and turned in a somewhat irregular direction in the manner of a ruffle. The perforations, which are large, extremely numerous, and

and of a regular form, give the coral the appearance of lace. It is from this singular aspect that the French have given to this species of Millepore the expressive title of *Manchette de Neptune*, or Neptune's ruffle. When microscopically examined, it appears pierced all over on the internal or upper surface by oval foramina; the supposed habitations of polype-like animals. The colour of this Millepore is sometimes milk-white; at other times yellowish.

PENNATULA CYNOMORION.



CHARACTER GENERICUS.

Corpus in aliis pinnatum, in aliis integrum.
Stipes nudus, officulo interno.

CHARACTER SPECIFICUS, &c.

PENNATULA simplex, rachi cylindrica crassa
granulosa undique polypifera.

Pall. et. zooph. p. 373. n. 221.

Misc. zool. t. 13. f. 1. 4.

ALCYONIUM EPIPETRUM.

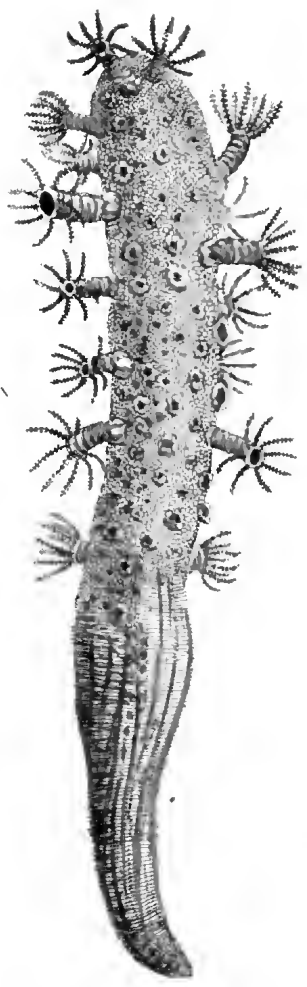
Lin. Syst. Nat. Gmel. p. 3811.

PENNATULA CYNOMORION.

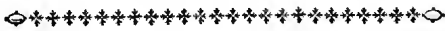
Sol. et Ellis. zooph. p. 65. n. 7.

Pennatulas, ut plurimum, distinguit corpus superius pennæ simillimum, e scapo complanato in ramulos plurimos laterales divisum gradatim longiores usque ad medium, et dein gradatim breviores donec ad apicem ventum sit. Sunt tamen aliquæ species quibus aliena est facies a cæteris congeneribus. Harum anomalarum insignior nulla est quam quæ in tabula depingitur, cui corpus cylindræcum

elongatum, supra crassius paulo quam infra, granosum, et tuberculis valvatis creberrime obductum, e quibus tentacula hydras referentia ad arbitrium extruduntur. Color huic est, ut plurimum, carneus, interdum lacte phoeniceus seu coccineus. Mollis est substantiæ: ossè tamen interno instruitur, unumque habet latus leviter canaliculatum seu excavatum. Generat eam mare Mediterraneum.



FINGER-SHAPED PENNATULA.



GENERIC CHARACTER.

Body in some species pinnated, in some entire; with polypes proceeding from its upper surface, and having a naked stem, furnished with an internal bone.

SPECIFIC CHARACTER, &c.

CYLINDRIC PENNATULA with the whole upper part polypiferous.

FINGER-SHAPED SEA-PEN.

Phil. Transf. vol. 53.

THE FINGER SEA-PEN.

Soland. and Ellis's Zoophytes. p. 65.

The Pennatulæ in general are distinguished by the peculiar feather-like formation of the upper part of the body, which from a flattish midrib sends forth numerous lateral branches gradually lengthening from the part whence they originate, till they arrive at the middle or broadest part, and from thence again shortening towards the tip. There are however a few species which recede in point of habit

bit or general appearance from the rest of their congeners. Of these anomalous Pennatulæ the species here figured is one of the most remarkable. It consists of a lengthened cylindrical body, somewhat thicker on the upper part than the lower, of a granulated appearance, and thickly covered with valvular tubercles, thro' the orifices of which are protruded at pleasure the polype-like tentacula of the animal. The colour of this curious species is commonly a pale pink, and sometimes a bright purple, or crimson. It is of a soft substance, but is furnished with an internal bone, and is slightly hollowed or channelled on one side. It is found in the Mediterranean sea.

STRIX ALBIFRONS.



CHARACTER GENERICUS.

Rostrum aduncum (absque cera.)

Nares pennis fetaceis recumbentibus obtectæ.

Caput grande: auribus oculisque magnis.

Lingua bifida.

Lin. Syst. Nat. p. 131.

CHARACTER SPECIFICUS.

STRIX FERRUGINEO-FUSCA, subtus pallidior, fronte alba, remigibus albo nigroque fasciatis.

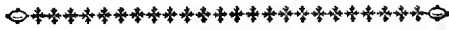
Perpuffillam hanc strigis speciem suspicor nunquam antea depictam fuisse aut descriptam. In America septentrionali, præcipue autem in Canada generatur. Fronte alba, quæ insigniter marem? distinguit, caret quæ putatur esse femina. In generis divisione quæ species *læves* seu *inauritas* continet, reponitur strix albifrons.





London. Published April 1879, by F. De Wolder & Co. N^o 15 Boulevard des Capucines

THE
WHITE-FRONTED OWL.



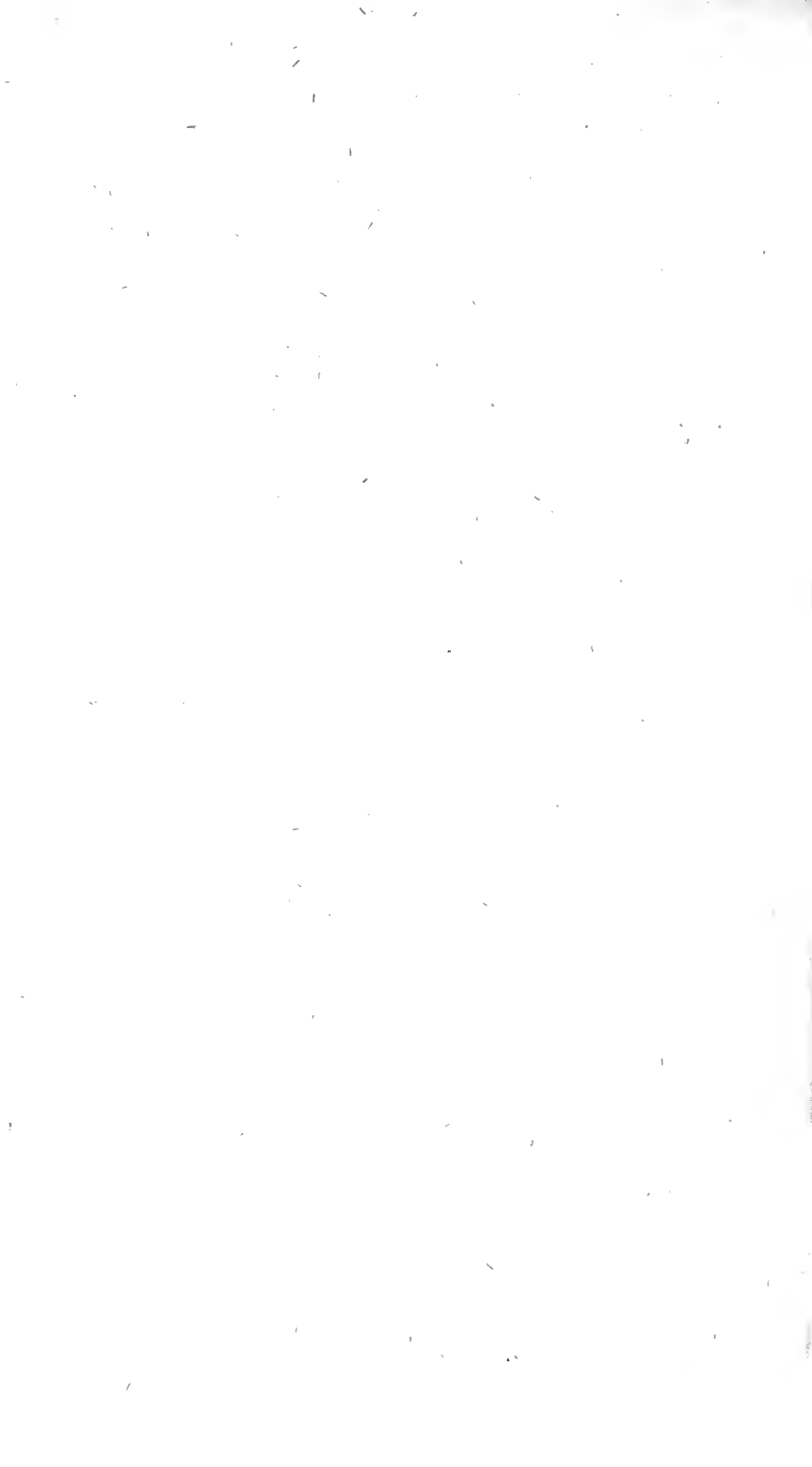
GENERIC CHARACTER.

Bill crooked, (not furnished with a cere.)
Nostrils covered with recumbent bristly feathers.
Head large: *Ears* and *Eyes* large.
Tongue bifid.

SPECIFIC CHARACTER.

FERRUGINOUS - BROWN OWL, paler beneath, with the forehead white, and the remiges barred with black and white.

The very curious and diminutive species of owl here represented in its natural size, has perhaps never been either figured or described. It is a native of North America, and particularly of Canada. The supposed female is destitute of the white forehead, which forms so conspicuous a character in the male? It belongs to the division of smooth or hornless owls.



HOLOTHURIA TREMULA.



CHARACTER GENERICUS.

Corpus liberum, nudum, gibbum, ano terminali.

Tentacula plura in altera extremitate.

Os inter tentacula.

Lin. Syst. Nat. p. 1089.

CHARACTER SPECIFICUS, &c.

HOLOTHURIA tentaculis fasciculatis, corpore papillis hinc subconicis, illinc cylindricis.

Lin. Syst. Nat. p. 1090.

FISTULARIA.

Forsk. Fn. aegypt. ar. t. 39. f. A.

HYDRA.

Bobadsch. anim. mar. p. 75. t. 6.

Facie varia adeo et mutabili sunt multa animalia quæ in ordine molluscorum continentur, ut eorum veram figuram difficillimum sit verbis apte describere, cum istius animalculi more quod distinxit Linnæus nomine *Chaos Proteus*, varias horæ momento formas possint induere, et citissima metamorphosi spectantis oculos decipere. Pollet hac facultate

tate totum genus *Holothuria*, præcipue autem species de qua jam agitur, quæ quiescens et intacta oblonga est et fere cylindracea; simul atque vero locum mutare inceperit, protruduntur statim e pluribus corporis partibus tentacula fere innumera, adeo ut totum animal quasi spinis mollibus obfitum videatur. Contrahitur quoque ad libitum in formam globosam seu leviter ovatam. Constat color, ut plurimum, ex albedine et rubore pulchre commixtis, variantibus autem pro ætate, anni tempore, aliisque de causis. In litoribus maris septentrionalis non raro reperitur *Holothuria tremula*. Possunt omnes *Holothuriæ*, si irritentur, aquam ex ore ejaculari ut solent *Ascidia*, velut e siphone profilientem.



TREMULOUS HOLOTHURIA.



GENERIC CHARACTER.

Body unfixed, naked, gibbous, with an open extremity.

Tentacula numerous, furrounding one extremity.

Mouth situated amidst the tentacula.

SPECIFIC CHARACTER.

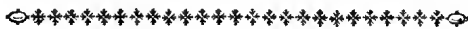
HOLOTHURIA with numerous conical papillæ on its upper surface, cylindric ones on its lower, and numerous falcicular tentacula furrounding the mouth.

So strange and variable are the shapes of several marine animals belonging to the tribe Mollusca, that it is difficult to give a clear idea of their form by any description; since like the animalcule known by the name of Proteus, (Chaos Proteus. Lin.) they are capable of totally altering their appearance, and assuming an aspect widely different from that in which they appeared a few minutes before. This is no where more remarkable than in the genus Holothuria, and the species here figured may stand as a curious example of this mutable power. When perfectly

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perfectly at rest, and undisturbed, it appears of an oblong shape; but when it prepares to alter its situation, it protrudes from most parts of its body an infinite number of tentacula or feelers, in such a manner as to appear beset with soft spines. It also is capable of contracting itself at pleasure into a globular shape, or slightly oval. Its colour is commonly a beautiful mixture of red and white, but in this respect it varies considerably, according to the circumstances of vigor, the season of the year, &c. &c. It is not unfrequently found on the coasts of the northern seas.

RAJA ROSTRATA.



CHARACTER GENERICUS.

Spiracula quinque subtus ad collum.

Corpus depressum.

Os sub capite.

Lin. Syst. Nat. Gmel. p. 395.

CHARACTER SPECIFICUS, &c.

RAJA corpore elongato, rostro producto.

SQUATO-RAJA s. RHINOBATOS.

Bell. pisc. 78?

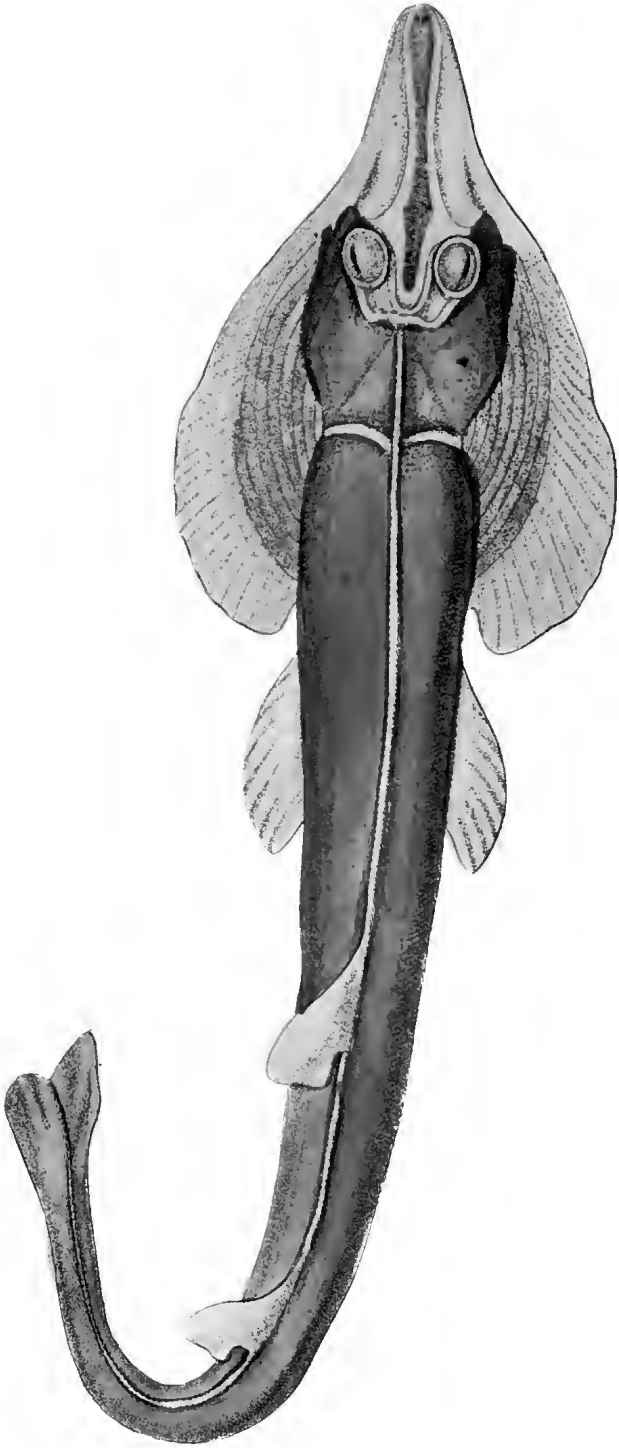
Gesn. pisc. 903?

RAJA RHINOBATOS?

Lin. Syst. Nat. p. 397.

Ab aliis Rajæ speciebus differt hæc, forma elongata, non, ut in illis, dilatata. Color ejus in speciminibus quæ musæa suspeditant, est pallide terreo-fuscus, sine aliqua notabili macularum variatione. Cutis vix ulla peculiari scabritie distinguitur. Pinnæ, prope caput sitæ, latæ sunt et tenues. Oculi magni sunt: rostrum valde productum, sed apice obtuso. Hæc species a physicis recentioribus

vix distincte memorata, a Johnstone tamen proculdubio, in historia sua animalium sæculo jam elapso publicata, depingitur: (tabulam istius operis duodecimam adeat lector, figuram sextam,) ubi Squatina vocatur, et cum pisce penitus diverso, vera nempe Squatina (quæ Squalus Squatina Linnæi,) quamque repræsentat Johnstonei tabula undecima, confundi videtur.



- London Published. April 1877. by J. P. Walker & Co. 15, Abchurch Lane.

THE
ROSTRATED RAY.



GENERIC CHARACTER.

Spiracula five, situated beneath towards the neck.

Body depressed.

Mouth situated beneath.

SPECIFIC CHARACTER, &c.

LONG-BODIED RAY with lengthened snout.

THE RHINOBATOS OR LONG-NOSED
RAY.

THE LONG-BODIED RAY.

The species of Ray here represented, differs from the rest of its tribe, in its elongated form; the others being very wide or broad animals. Its colour, so far as can be collected from the specimens seen in museums, is a palish earthy brown, without any remarkable variegation. The skin is not distinguished by any very particular roughness. The extended processes or fins near the head are broad and thin. The eyes are large. The snout much elongated

gated and terminating obtusely. This species seems not very distinctly described by modern authors; but it is certainly the species figured in Johnston's History of Animals published in the last century, at plate 12 of the fishes, fig. 6; who gives a very brief description of it, and calls it Squatina or Meer-Engel, and seems to confound it with a very different species, viz. the Monk-Fish, which is figured on plate 11 of the same work.

PIPRA STRIATA.



CHARACTER GENERICUS.

Rostrum capite brevius, basi subtrigonum, integerrimum, apice incurvum.

Pedes gressorii.

Lin. Syst. Nat. p. 338.

CHARACTER SPECIFICUS, &c.

PIPRA olivaceo-fusca, subtus flavescens, vertice nigro striis albis, loris luteis.

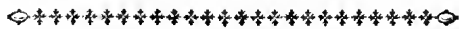
PIPRA striata.

Lin. Syst. Nat. Gmel. p. 308.

Latb. ind. orn. p. 558.

Licet Pipræ punctatæ, quam in hoc opere jam descripsimus, affinis admodum sit hæc avicula, ab illa tamen facillime dignosci possit capite plagis niveis insigniter striato. A fronte utrinque eminet macula aureo-flava perpulchra. Guttur quoque nitide flavum. Pennarum e quibus constat alula, ruberrimi seu phœnicei sunt apices. Novam Hollandiam incolit hæc avicula, et eadem est ei magnitudo ac pipræ punctatæ.

THE
STRIPED-HEADED MANAKIN.



GENERIC CHARACTER.

Bill shorter than the head, somewhat triangular at the base, bent at the tip.

Feet gressorial.

SPECIFIC CHARACTER, &c.

OLIVE-BROWN MANAKIN, yellowish beneath: the top of the head black with white stripes: the lores yellow.

STRIPED-HEADED MANAKIN.

Lath. Syn. 2. p. 526. t. 54.

This bird is very closely allied to the *Pipra punctata* or speckled Manakin already described in the present work. It is readily distinguished at first sight from that species by the remarkable appearance of the white streaks on the head. On each side the forehead is a beautiful gold-colour'd spot. The throat is also of a bright yellow. The feathers of the alulet or spurious wing are tipped with carmine-colour. Its size is that of the *Pipra punctata*. It is a native of New Holland.



Linn. Cat. n. 1. No. 1794. by F. L. S. Müller & G. V. S. Brown. Sculp.

LOPHIUS STRIATUS.



CHARACTER GENERICUS.

Spiracula solitaria, pone brachia.
Dentes plurimi, minuti.
Pinnæ pectorales brachiis infidentes.
Branchiæ tres tantum.

Lin. Syst. Nat. p. 402.

CHARACTER SPECIFICUS.

LOPHIUS compressus fuscus, striis undique confertissimis nigris.

Tres novas repræsentavimus Lophii species, orbis antarctici incolas, qui uberrima scientiæ zoologicæ incrementa assatim suppeditavit. Cernere eas est in tabulis magnitudine naturali, et a reliquo genere, quod adhuc novimus, longe diversas. Lophium striatum detexit eximius ille naturæ indagator Josephus Banks, cum in mari pacifico primum iter faceret. Circa litora Australasiæ reperitur nec non insularum adjacentium. In iisdem etiam regionibus nascuntur aliæ duæ species quas depingi curavimus; Lophius scilicet pictus, et Lophius marmoratus.

THE
STRIATED LOPHIUS.



GENERIC CHARACTER.

Teeth numerous, minute.

Eyes vertical. *Shape* uncouth.

Ventral Fins more or less resembling feet.

SPECIFIC CHARACTER.

COMPRESSED BROWN LOPHIUS, marked
all over with very numerous black streaks.

The three new and curious species of the genus *Lophius* exhibited in the present number may be considered as convincing proofs of the zoological treasures so richly dispersed in the regions of the Southern Hemisphere. They are each represented of the natural size, and differ widely from the rest of the genus hitherto discovered. The first of these, or *L. striatus*, is amongst the number of new animals discovered by Sir Joseph Banks during his first voyage to the South Seas. It is found about the coast of New Holland and the neighbouring isles. The two following species are also natives of the same regions.

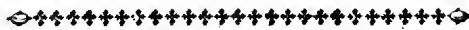
LOPHIUS PICTUS.



CHARACTER SPECIFICUS.

LOPHIUS compressus fuscus, lituris subflavis
rubro marginatis.

LOPHIUS MARMORATUS.



CHARACTER SPECIFICUS.

LOPHIUS subcompressus lividus, albido ferru-
gineoque varius, pinna dorsi unica.

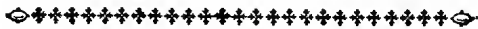
THE
VARIEGATED LOPHIUS.



SPECIFIC CHARACTER.

COMPRESSED BROWN LOPHIUS, with
yellowish blotches margined with red.

THE
MARBLED LOPHIUS.



SPECIFIC CHARACTER.

SUBCOMPRESSED LIVID LOPHIUS, varied
with whitish and ferruginous; with single
dorsal fin.



London. Published. New York by J. P. Audubon & Co. New York.



London: Published by W. P. Wallace & Co., No. 1, Broad Street.

PHAETON PHOENICURUS.



CHARACTER GENERICUS.

Rostrum cultratum, rectum, acuminatum, Fauce
pone rostrum hiante.

Nares oblongæ.

Digitus posticus antrorsum versus.

Lin. Syst. Nat. p. 219.

CHARACTER SPECIFICUS, &c.

PHAETON SUBROSEUS, rostro rectricibusque
duabus intermediis rubris.

PHAETON ROSEO-INCARNATUS, rostro
rectricibusque duabus intermediis rubris, tæ-
nia superciliari pedibusque nigris.

Lath. ind. orn. p. 894.

PHAETON PALLIDISSIME ROSEUS, rostro
rectricibusque duabus intermediis rubris.

Lin. Syst. Nat. Gmel. p. 583.

Quæ in hoc genere continentur aves a natura
comparatæ ut vitam in mari degant, communiter
tropicæ vocantur, quod scilicet intra tropicos sem-

R

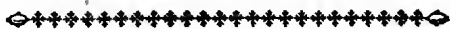
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per repertæ sint; res nauticis observatoribus notissima, qui inde conjiciunt se iis appropinquasse. Vagantur tamen nonnullæ, licet rarius, extra hos limites. Has merito dicamus, “ non usitata ferri nec tenui penna,” rapidissimo enim alarum verbere coelum ipsum petentes e conspectu momento surripiuntur, vel ipsis *procellariis* altivolantibus et longivagis audentiores. Descendunt tamen e nubibus in æquor prædæ studio, et velocissime irruentes pisciculos corripunt, quibus præcipue vescuntur. Forma et magnitudine simillimæ sunt inter se variæ Phactontis species; coloribus præcipue differunt. Quæ communis et notissima est candet argenteum, dorso alisque lunulis nigris brevibus copiose variatis. Species vero, de qua jam loquimur, pallet albido-rosea, sine lunularum istarum nigrantium vestigio. Rectrices duæ intermediæ, cæteris multo longiores, læte sunt phoenicæ seu potius coccinæ. Tropicis omnibus avibus adhuc cognitis macula insignis nigra trans oculos ducitur. Rostrum phactontis phoenicuri miniatum. Crura nigricant. Rectrices, seu caudæ pennæ longiores totius generis in tropicis multis regionibus magni habentur; et illis in vestibis ornandis utuntur insulas maris Australis incolentes. At in insula *Otabeitee* cum justa solvuntur mortuis, sancte et auguste incedunt sacerdotes principesque ploratores, amictu larva insignito e concha margaritifera, cujus margines plumis de cauda excerptis cinguntur, ut solis radios imitentur. Ova deponere solent hæ aves, bina plerumque, in cavis ad radices arborum, nidum sibi rudem et incompositum e frustulis ligni reliquisque ejusmodi comparantes.



London Published June 1879 by F. P. Noxton 24, N. 15, Bow

THE
RED-TAILED TROPIC-BIRD.



GENERIC CHARACTER.

Bill compressed, rather sloping, sharp-pointed.
Nostrils pervious.
Toes four, all webbed together.
Tail cuneiform: the two middle feathers extremely long.

SPECIFIC CHARACTER, &c.

PALE-ROSE-COLOURED PHAETON, with
the beak and two middle tail-feathers red.

RED-TAILED TROPIC-BIRD.

Latb. Synopf. 3. p. 619.

LE PAILLE EN QUEUE à brins rouges.

Buff. ois. 8. p. 357.

PAILLE EN QUEUE de l'Isle de France.

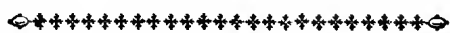
Pl. enl. 979.

The birds of this genus, which are by nature calculated for a marine life, have obtained their common title of Tropic-Birds from being constantly

found within the tropics; a circumstance so generally remarked that it affords one of the most common nautical observations relative to approaching those regions. They are however occasionally seen, though rarely, at some considerable distance beyond the tropics. These birds may well be said to soar "with no middle wing," since their ascent is so uncommonly lofty, and so powerfully rapid, as quickly to raise them beyond human view. Even the Albatrosses, so remarkable for the heights which they attain in the air, and the vast extent of their excursions, cannot equal the daring and exalted flight of these ethereal wanderers. From these elevations they occasionally descend to seek for prey, and darting down with vast velocity, seize on and devour the smaller fish, which form the principal article of their food. Between the different species of Phaeton, which are but few, there is the greatest degree of general similarity of shape and size; and indeed they differ principally in colour: the common tropic-bird being of a beautiful silvery white, thickly traversed on the upper part of the body with short lunulated streaks of black; while the present species is of an extremely pale rose-colour, or rather nearly white with a rose-coloured tinge, and without any of those black streaks which distinguish the former kind. The two middle tail-feathers, which greatly exceed the rest in length, are of a deep and beautiful crimson. In all the tropic-birds yet known there is commonly behind and across each eye a remarkable streak of black. The beak in this species is of a fine red; the legs blackish.

ish. The long feathers of the tail in the birds of this genus are highly esteemed by the natives of many of the tropical regions, and are much used in the ornamental dresses of the natives of the Southern islands. They are particularly conspicuous on the awful and elegant ceremonial habits worn by the priests at Otaheitee, as well as on those of the chief mourners at funerals in that island, which are furnished with a mask or vizer of nacre or mother of pearl shell, surrounded by the tail-feathers of these birds, evidently intended to represent the solar beams, and disposed so as to imitate the diverging rays of that luminary. These birds deposit their eggs, which are generally two in number, in hollows near the roots of trees, in which they form a sort of careless nest with fragments of sticks, &c.

PULEX IRRITANS.



CHARACTER GENERICUS.

Pedes sex, saltatorii.

Oculi duo.

Antennæ filiformes (feu potius moniliformes.)

Os rostro inflexo, setaceo, aculeum recondente.

Abdomen compressum.

CHARACTER SPECIFICUS, &c.

PULEX proboscide corpore brevior.

Lin. Syst. Nat. p. 1021.

PULEX rostro corpore brevior.

Lin. Syst. Nat. Gmel. p. 2923.

PULEX COMMUNIS.

Papilionaceis insectis ab ovo exortis subeundas esse quasdam formæ mutationes antequam plene adoleverint, fere omnibus cognitum est: paucis fortasse, similiter voluisse naturam in pulice. Ova pulicis minima et alba, inter pilos quadrupedum, plumas avium, et in variis ejusmodi locis a parente deposita, finito quasi hebdomade, in larvas excluduntur

duntur parvulas, albidas, seu levissime rubentes, agillimas, et variis modis se contorquentes, simul atque turbantur. Hæ cum ad plenam magnitudinem pervenerint, (circiter quintam scilicet uncix partem) obvelantes se operimento laxo, albo, et veluti gossipino expectant donec in chrysalidas mutantur; quod fit diebus circiter duodecim: et e chrysalide erumpit pulex jam perfectus. Quamvis molestissimum sit hoc animalculum, negandum tamen non est inesse illi quandam formæ concinnitatem. Expeditissima est nec inelegans corporis agilitas. Lorica, qua tegitur, nullis unquam fœdatur fordibus, sed nitet semper quasi polita. At tantum musculosi roboris spatium adeo exiguo contineri et terminari quis non miretur? cui forsan vix simile invenitur in aliis omnibus animalibus; ne quidem in ipsis gryllis; posse enim pulicem distantiam sui ipsius corporis ducenties superantem uno saltu conficere satis probavit nec exaggerata computatio, Socratem, quem de hac ipsa re finxit se calculis torquentem, atro sale perfricuit Aristophanes.

“ Ἀλλ ἔ θεμις, ” &c.

Disc. Sed fas non est hæc cuiquam dicere nisi discipulis.

Sireps. Mihi dic ergo audacter: ego enim ipse
Venio in scholam discipulus.

D. Dicam, sed te oportet habere ista pro mysteriis.
Modo interrogabat Chærephonta Socrates,
Pulex quot pedes suos ipsius saltaret?
Cum enim momordisset Chærephontis supercilium,
In caput Socratis inde saltavit.

S. Quo-

S. Quomodo ergo istud metiebatur? D. Scite admodum.
Cera liquefacta, deinde pulice prehenso,
Immerfit in ceram pedes ejus:
Post, refrigerato adnatæ sunt crepidæ Persicæ.
His detractis dimetiebatur locum.

S. O rex Jupiter, quanta subtilitas mentis!

AR: *Nubes. act 1. sc. 2.*

Hujus quoque mordaces facetias transfudit in
poema satiricum Butlerus nostras.

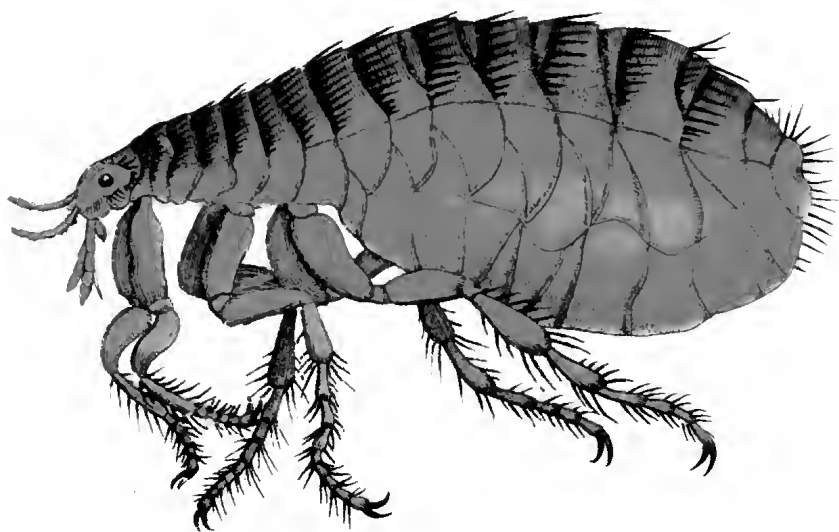
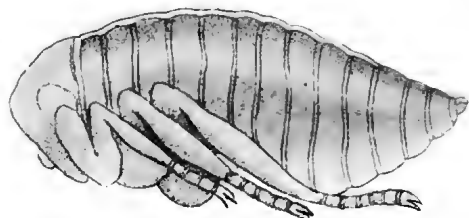
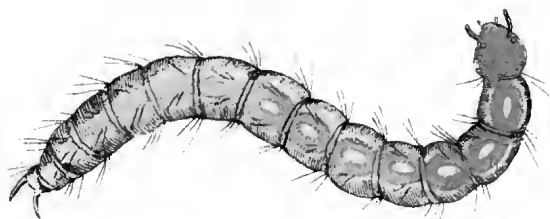
A capite ad calcem si fit mensura, repertum est
Saltabit pulex quot spatia ipse sui:
Chære-que-phonteo tentamine, Socraticoque,
Frustra quæsitum tempore præterito.

Mira inest pulicibus, ut et aliis multis insectis,
reviviscendi facultas, vel ea passis quæ vitæ sunt
inimicissima. Narravit mihi ingeniosus quidam
amicus quod suo experimento confirmavit, revixisse
pulicem a calido aere, licet horas viginti et quatuor
in aqua fuisset immerfus. Insectis tamen nonnullis
in classe *Coloptera* redintegrari solet vita vel longius
suspensa. Descriptionem insecti hujus belli et pe-
tulantis claudet epigramma lepidum quod legitur in
carminibus quadragesimalibus Oxonii editis anno
millesimo septingentesimo vicesimo tertio.

Pulicis exigui tenues per colla catenas
Nexuit artificii pulchra Corinna manu.
Sic, inquit, pavo Junoni chara, palumbes
Sic Veneri; pulex tu mihi gratus eris.
Hic nova lascivo testatur gaudia saltu,
Et cadit in molles parvulus erro sinus:

Mox

Mox suadente fiti, tanta est solertia, fertur
Qua sanguis roseo semper in ore sedet.
Credideris illic semper voluisse morari,
Nec blandas unquam destituisse genas.
Jam secura potes nexas laxare catenas,
Non opus artifici, pulchra Corinna, jugo.
Dum licet hic pasci, licet hac in fede morari,
Non tua captivum vincla, sed ipsa tenes.



London, Published June 1879 by F. S. A. & Co. 15, Brewer Street

THE
F L E A.



GENERIC CHARACTER.

Feet six, formed for leaping.

Eyes two.

Antennæ filiform (or rather moniliform.)

Mouth consisting of an inflected setaceous tube
containing a tubular piercer.

Body compressed.

SPECIFIC CHARACTER, &c.

FLEA with proboscis shorter than the body.

THE COMMON FLEA.

The change of form in the papilionaceous insects during their progress from the egg to their complete state, is almost universally known. But that a similar process takes place in the Flea, is perhaps by no means generally understood.

The eggs of the Flea, which are very small, white, and of an oval form, are deposited by the parent insect in various situations favorable to their
their

their evolution, viz. amongst the hair and on the skins of quadrupeds, the feathers of birds, &c. &c. After the space of about a week they are hatched into small larvæ, which are of a whitish colour, with a slight tinge of reddish, and are extremely locomotive; and on being disturbed, throw themselves into various sudden contorsions. When arrived at their full size, they are about the fifth of an inch in length. At this period they prepare themselves for their pupa or chrysalis state, by enclosing themselves in a loosely spun web or diffused envelopement of a very soft, filky, or rather cotton-like appearance, and of a white colour. In this the larva changes into a chrysalis, out of which, in about the space of twelve days emerges the animal in its complete state.

Notwithstanding the inconveniences attending this little insect, and the general disapprobation which its frequency occasions, there is something pleasing in the appearance of the Flea. All its motions are elegant, and all its postures indicate agility. The shelly armour with which it is enveloped, is in a state of perpetual cleanliness; while the muscular power which it is capable of exerting is so extraordinary, as justly to excite our wonder at so much strength confined, and concentrated, as it were, in so small a space. Perhaps of all animals the Flea possesses the greatest muscular strength, and far exceeds in point of exertion all the insects of the locust tribe; being able to spring, on the most moderate computation, to the distance of at least

least two hundred times its own length. It is remarkable that Socrates was ridiculed for his pretended experiments on this very subject, by the licentious pen of Aristophanes.

DISCIPLE.

That were not lawful to reveal to strangers.

STREPSIADES.

Speak boldly then as to a fellow student ;
For therefore am I come.

Disc.

Then I will speak ;
But set it down amongst our mysteries.
It is a question put to Chærephon
By our great master Socrates to answer,
How many of his own lengths at one spring
A flea can hop ? for one by chance had skipp'd
Straight from the brow of Chærephon to th' head
Of Socrates.

STR.

And how did then the sage
Contrive to measure this ?

Disc.

Most dext'rously.
He dipp'd the insect's feet in melted wax,
Which hard'ning into slippers as it cool'd,
By these computed he the question'd space.

STR.

O Jupiter, what subtilty of thought !

ARIST: *Clouds. Act. 1. Scene 2.*

The

The celebrated Butler has also commemorated the same circumstance in his poem of *Hudibras*, viz.

“ How many scores a flea will jump
Of his own length, from head to rump;
Which Socrates and Chærephon
In vain assay'd so long agon.”

The Flea, like many other insects, is eminent for its powers of revivescence, and will frequently recover, after being placed in situations highly unfavourable to animal life. I might here mention the experiment of an ingenious friend, who assures me that on immersing a flea in a vial of water, after being apparently drowned, and lying upwards of twenty-four hours, it has again revived on exposure to warm air. Some of the coleopterous insects are, however, capable of exhibiting far more striking examples of suspended animation.

I shall conclude the description of this locomotive little insect by the following *jeu d'esprit*, relative to a flea which a lady is supposed to have kept in a state of captivity. The reader will find the original in that truly classical publication the *Carmina Quadragesimalia*. Oxon. 1723.

Corinna, in a sportive vein,
A fav'rite Flea approves:
And fasten'd by a golden chain
The little captive moves.

Not Juno view'd with more delight
Her peacock's train display'd:
Not Venus more her fav'rite dove
In changing plumes array'd.

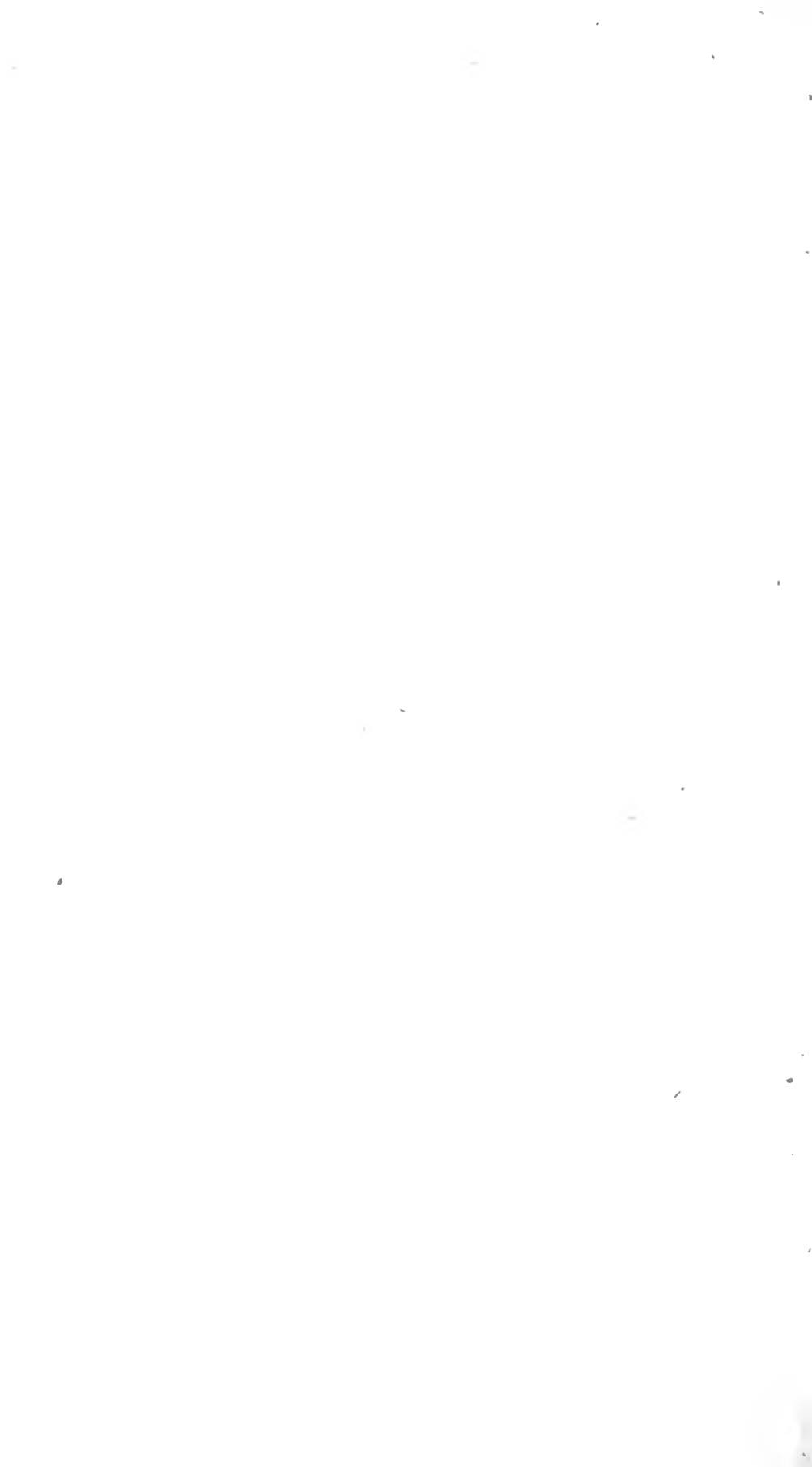
With

With conscious joy the insect springs ;
His soft confinement loves :
And sinking on her snowy breast,
In full luxuriance roves.

Then waking light from soft repose,
Attacks her rubied lips ;
And where the deepest colour glows,
The living vermil sips.

Loose, fair Corinna, loose his chain,
Nor fear his flight away :
For how, thus tempted to remain,
How should he wish to stray ?

Permitted on those lips to feed,
And slumber on that breast,
Thy charms, Corinna, not thy chains,
Will fastest bind the guest.



LACERTA SCINCOIDES.



CHARACTER GENERICUS.

Corpus tetrapodum, caudatum, nudum.

Lin. Syst. Nat. p. 359.

CHARACTER SPECIFICUS, &c.

LACERTA squamis rotundatis, cauda tereti mediocri, pedibus brevibus, digitis brevissimis.

Longitudo sesquipedalis. Color griseus, lateribus fusco inquinatis. Caput scutis largioribus angulatis tectum. Crura brevia. Pedes brevissimi, unguibus brevibus. Lingua lata, rotundata, nec forficata.

Lacertarum nonnullæ sunt species quæ ab aliis sui generis discrepant, eo quod, piscium more, squamis magnis et rotundatis contactæ sint. In harum numero est *Lacerta Scincus* Linnæi, quæ olim in materia medica usurpari solita est, et communiter nomine Scinci cognoscitur. Alia species est a Linnæo non nominata (nisi forte Linnæi *aurata* eadem sit) sed cujus meminerunt Sloane et Browne in historia sua insulæ Jamaicæ, descripseruntque nomine

Galliwasp. Tertia est lacerta maritima maxima, quam repræsentat figura quarta tabulæ centesimæ quintæ Sebæ thesauri volumine secundo. Ad hujus lacertæ similitudinem tam prope accedit hæc nostra, ut dubitari jure possit an revera sit diversa, an potius pro varietate tantum reputanda. Caudam tamen paulo breviorē habet quam illa de qua jam diximus. Lingua non, ut in plerisque, bifurca, sed rotundata, brevis, et lata. Dentes modici, paululum obtusi brevēsque. Color est pallide fusco-flavescens; collo utrinque adjicitur macula longa, fusca seu potius nigricans. Eodem quoque colore tinguntur latera, qui tamen in cauda est saturatior. In specimine multo juniore cauda virgis numerosis fuscis pene nigricantibus transverse fasciata est. In quibusdam quoque speciminibus apici caudæ addita est appendix, caudæ alteri non abimilis, quam arbitrantur nonnulli sexus differentiam indicare, et mari esse peculiarem. Longe tamen verisimilius existimo aliud nihil esse hanc appendicem præter caudæ olim mutilatæ et dein redintegratæ fortuitam et adventitiam divaricationem. Lacertarum enim caudas vi aliqua læsas et abruptas repullulare posse, ab experimentis scriptisque physicorum certissime probatum est. Australasiam incolit lacerta scincoides, et plerumque longitudinē est prope sesquipedali.



London: Published from engravings by G. P. A. Audley & P. S. 1850; Deveree Street.

THE
SCINCOID LIZARD.



GENERIC CHARACTER.

Body four-footed, tailed, naked.

SPECIFIC CHARACTER.

LIZARD with rounded scales, short legs and extremely short toes.

There are some species of Lizards which differ from the rest of the tribe in being covered with large rounded scales, resembling those of fishes. One of these is the *Lacerta Scincus* of Linnæus, or the animal formerly used in the materia medica, and called the Scink. Another is a species not mentioned by Linnæus, but described by Sloane and Browne in their respective histories of Jamaica by the name of *Galliwasp*. A third is the *Lacerta maritima maxima* of Seba, which is figured in the second volume of his *Theaurus rerum naturalium* at plate 105, fig. 4. It is to this last that the species here represented bears the greatest affinity: indeed so great as scarcely to justify our regarding it as a distinct species: the tail however is somewhat shorter than in Seba's animal. The tongue is not
forked,

forked, as in the generality of lizards, but is broad, flat, and rounded. The teeth rather small than large, somewhat obtuse, and short. The colour of the animal is a pale yellowish brown, with a long patch or mark of very deep brown or blackish on each side the neck. The sides are also tinged with the same colour, and the tail more deeply so than the sides. In a much smaller specimen of the same animal the tail had the appearance of being fasciated with a number of transverse bars of deep brown. In some specimens the tail, towards the end, is furnished with a sort of process or appendage, resembling a secondary tail, as it were, and it has been imagined that this might be a sexual distinction; and perhaps peculiar to the male: but it seems infinitely more probable that such an appearance is owing to mere accident; it being a well-known fact that the tails of lizards, when injured, or mutilated by accidental violence, frequently reproduce in different directions; of which numerous examples may be seen in the works of natural historians. The Scincoid Lizard is a native of New Holland, and is commonly about eighteen inches in length.

PICUS MAJOR.



CHARACTER GENERICUS.

Rostrum polyedrum, rectum: apice cuneato.

Nares pennis fetaceis recumbentibus obtectæ.

Lingua teres, lumbriciformis, longissima, mucronata, apice retrorsum aculeata fetis.

Pedes scanforii.

Lin. Syst. Nat. p. 173.

CHARACTER SPECIFICUS, &c.

PICUS albo nigroque varius, crisso occipiteque rubro.

Lin. Syst. Nat. p. 176.

PICUS varius major.

Will. orn. 94. t. 21.

PICUS discolor.

Frisch. av. t. 36.

Inter aves Britannicas quæ pulcherrimæ habentur Pico majori conceditur sedes, rariori longe Pico viridi et vulgari, et in Angliæ partibus Septentrionalibus præcipue conspecto. Deest feminæ color

T

vivide

vivide coccineus quo occiput maris ornatur: utrif-
que vero in imo abdomine idem levis est sed pul-
cherrimus rubor. Depingitur in tabula deminuta
avis magnitudo.





A. 1'

London. Published

by J. & J. W. G. & Co. No. 1, Old Bailey.

THE
GREATER SPOTTED WOOD-
PECKER.



GENERIC CHARACTER.

Bill angular, strait, cuneated at the tip.

Nostrils covered with reflected bristly feathers.

Tongue cylindric, worm-shaped, very long, sharp-pointed, and (generally) aculeated at the tip with reflex bristles.

Feet formed for climbing, viz. two toes forward and two backward.

SPECIFIC CHARACTER, &c.

BLACK AND WHITE WOODPECKER with the hind-head and lower part of the abdomen crimson.

THE GREATER SPOTTED WOODPECKER.

Will. orn. p. 137. pl. 21.

GREAT SPOTTED WOODPECKER.

Pennant Brit. Zool. No. 85.

L'EPEICHE, ou le Pic varié.

Buf. ois. 7. p. 57.

Pl. enl. 196. 595.

The *Picus major*, or greater spotted Woodpecker, is one of the most elegant of the British birds. It

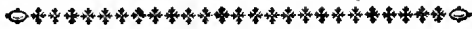
is far less common than the *Picus viridis* or green woodpecker, and is principally seen in the northern counties. The rich red on the back part of the head of the male is wanting in the female, but both sexes have the same elegant light crimson on the lower part of the abdomen. It is represented on the plate much smaller than the natural size.

COLUBER NAJA.

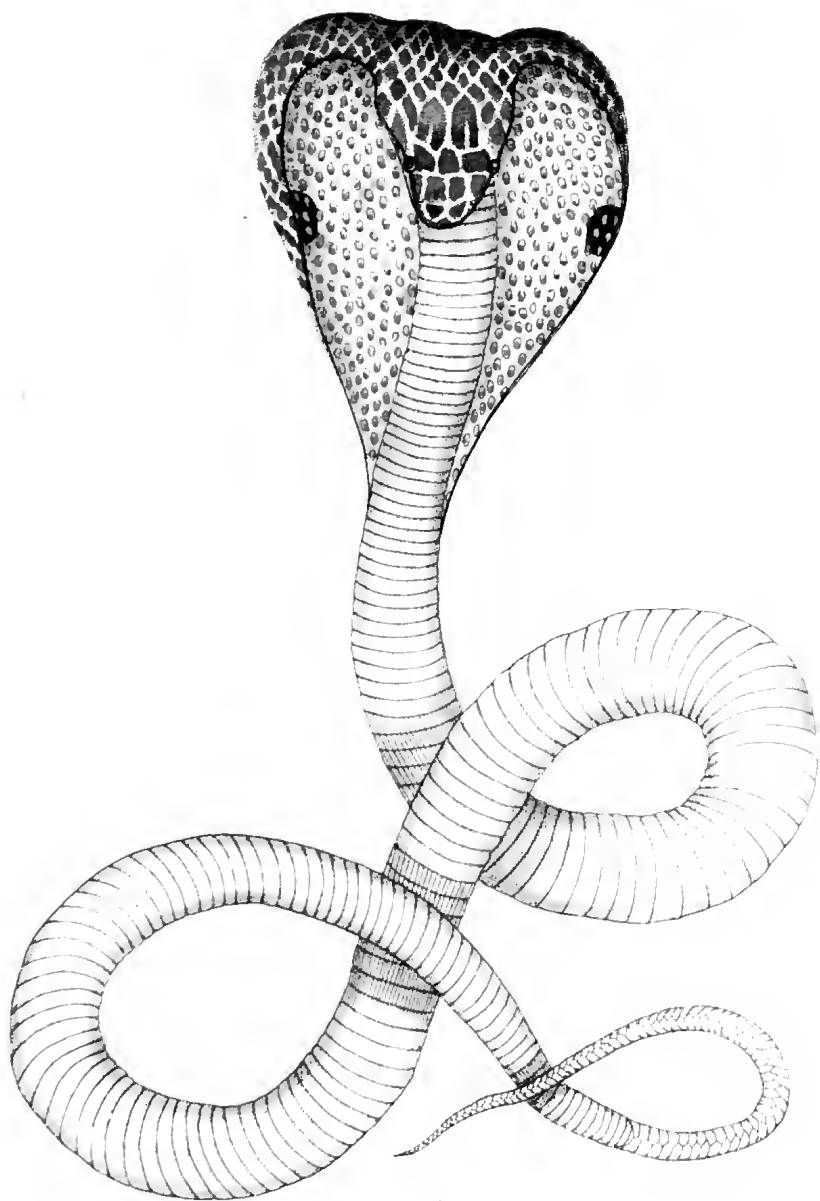


Colubrum Najam, collo paulatim tumefcente et expanso, molliter tantum irascentem in hoc opere antea depinximus. Cum vero veram et archetypam figuram, quam de ipso vivo serpente delineavit in India pictor, quæque illum furibundum et jam jam morfurum ostendit, amicissime communicavit Dominus Ruffel, eam nunc lubentissime protulimus, ut clarius et melius innotescat quicquid ad formidandi hujus animalis historiam aliquo modo spectare possit.

THE
SPECTACLE SNAKE.



The figure of *Coluber Naja* in a preceding number of this work representing the snake merely in an approach towards that expanded state which the neck assumes when the animal is preparing to bite, and having been since favoured by Dr. Russel with an original drawing executed in India and accurately representing the creature in its state of irritation, I therefore embrace so favourable an opportunity of giving an additional figure, as a farther and clearer elucidation of the history of this dangerous reptile.





COCCUS CATAPHRACTUS.



CHARACTER GENERICUS.

Rostrum pectorale.

Abdomen (plerisque) postice setosum.

Alæ duæ erectæ masculis. *Feminæ* apteræ.

Lin. Syst. Nat. p. 739.

CHARACTER SPECIFICUS.

COCCUS albus cataphractus, antennis pedibusque ferrugineis.

Affinis videtur Cocco rusci.

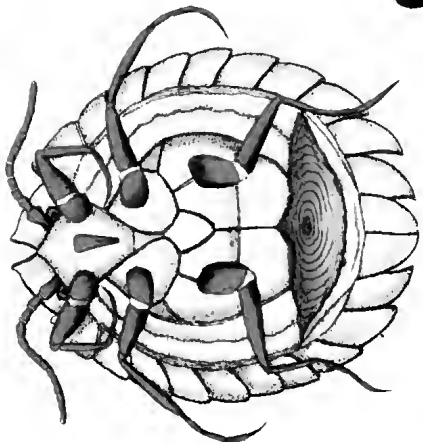
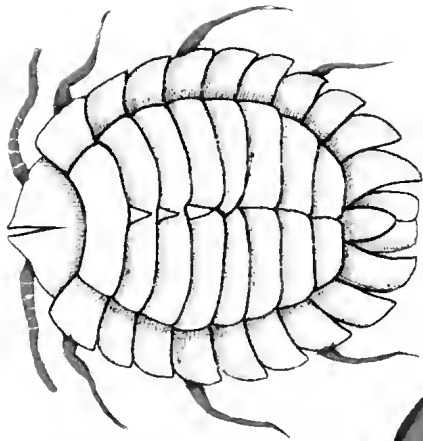
Rarissimum hoc insectum detexit Dominus Dickson, societatis Linnæanæ socius, Museique Britannici hortulanus primarius; ob acumen et diligentiam in botanicis, in ea præcipue parte quæ *cryptogamia* dicitur, merito laudatus; qui pulchro me specimine donavit, rogavitque ut in characteres inquirerem et definirem genus. Cum igitur animalculum ope microscopii penitus examinasset, non dubitavi pronunciare speciem esse generis Cocci, et novam fortasse seu non antea descriptam: frustra enim quæritur in editione systematis Linnæani quam auctiorem

auctiorem longe publicavit Gmelinius, nec non in Fabricii operibus. Notandum est in genere Cocci marem a femina longe differre: est enim alatus, et in cæteris adeo feminæ abfimilis, ut facile putent in insectorum notitia leviter versati cum ad tribum omnino diversam spectare. Cocci, quem ob insigne corporis tegmen *cataphractum* nominavi, quæ adhuc detecta sunt specimina foeminea sunt, mare incognito. Hujus magnitudo eadem fere est ac *Coccinellæ tigrinæ* Linnæi: at inter hanc et alios plerosque coccos adeo disconvenit, ut non mirum sit si primo visu ægre tibi persuadeas posse ulla cum iis affinitate conjungi. Totum insectum, exceptis oculis, rostro, pedibus, antennisque, lorica candidissima contegitur, adeo ut ipso ebore munitum videatur. Annulli seu divisiones dorsi sunt octo; quorum tres superiores scutello vel appendicula instruuntur, quo carent cæteri. Latera corporis laminis exstantibus eodem fere modo quo testudinum notantur. Corporis pars inferior segmentis angulatis et quasi testudineis operitur. Oculi, proxime ab antennis siti, nitidi sunt, et paululum levati, ut sunt astacorum. Color partium prominentium, oculorum nempe, crurum, rostri, et antennarum, est nitide rubro-ferrugineus. In figura nostra tegmen abdominis inferioris diffractum depingitur, ut scilicet rugæ cutis ostendantur, contractioque corporis, quæ orta est ab exclusa ovorum copia; quorum multa, postquam loricam perruperam, inveni parva pro corpore, et fusca, ut cernere est in tabula. Inter sphagnum, et alia muscosi generis in locis paludosis reperitur *Coccus cataphractus*. Optandum admodum est
posse

4

posse tandem marem laudabili phyficorum diligencia inveniri, ut nihil defit completæ historiæ. Repertum adhuc est hoc insectum præcipue in Scotia, et in aliquibus Cumbriæ partibus.





THE
MAILED COCCUS.



GENERIC CHARACTER.

Rostrum situated beneath the thorax.

Abdomen (in most species) bristled.

Wings (in the males two, upright.) The females apterous.

SPECIFIC CHARACTER.

WHITE MAILED COCCUS, with ferruginous antennæ and legs.

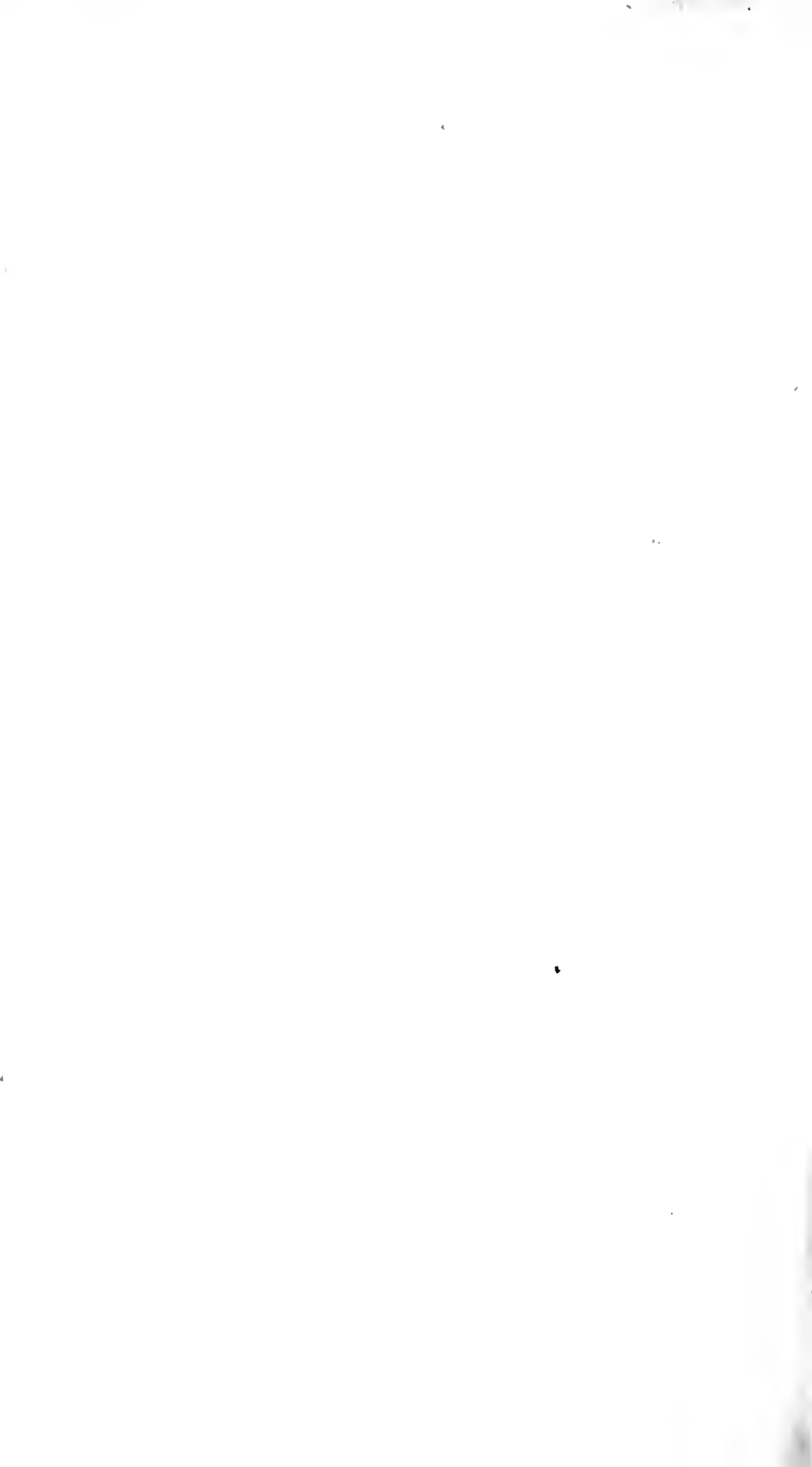
It seems allied to the Coccus rusci.

The very rare and curious insect here represented was discovered by the ingenious Mr. Dickson, Fellow of the Linnæan Society, and Gardener to the British Museum, well known for his attentive researches into that difficult branch of botany the class *Cryptogamia*. Mr. Dickson soon after its discovery presented me with a specimen of the insect, requesting me to examine its characters, and ascertain, if possible, its genus. I accordingly made a microscopic survey of the animal, and on considering

ing it with much attention, I could not but conclude it to be a species of the genus *Coccus*, and probably a new or non-descript one: at least, it does not make its appearance in the greatly enlarged edition of the *Systema Naturæ* by professor Gmelin, nor is it to be found in the works of Fabricius. I should observe, that in the insects of the genus *Coccus* the male differs widely in appearance from the female, being furnished with wings, and of a habit so unlike the female as to be easily regarded by those not conversant in insects as of a totally different tribe. The specimens therefore of this insect hitherto observed are female ones; the male yet remaining to be discovered. The natural size of this animal is that of the *Coccinella tigrina*, or yellow-spotted *Coccinella*, and at first view it has an appearance so little allied to the generality of *Cocci* that it is not easy to conceive that it should belong to that tribe. The whole insect (except the eyes, legs, antennæ, and rostrum,) being coated in the most curious manner in a complete suit of milk-white armour, as if cased in ivory. The divisions or annuli of the back are eight in number, of which the three superior ones are each furnished with a small scutellum or appendicular piece, which is wanting in the others. The sides are surrounded by projecting laminæ somewhat in the manner of tortoises. The lower surface is composed of angular pieces nearly disposed as in the above-mentioned animals. The eyes, which are situated just below or on the under side of the antennæ, are bright, and somewhat elevated, not unlike those of a lobster.

The

The colour of the projecting parts, viz. the legs, eyes, antennæ, and rostrum, is a fine ferruginous, or reddish-brown. On the lower part of the abdomen the armour is represented broken off; displaying the rugæ, &c. of the skin on that part, and shewing the remarkable contraction which has taken place in consequence of the insects having deposited its ova, many of which I perceived on breaking off this part of the shield. These eggs were small in proportion to the animal, and of a brown colour, as represented in the figure. It is from the singular manner in which this creature is coated that I have given it the name of *Coccus cataphractus*. It is found amongst sphagnum and other mosses in bogs. It is much to be wished that by a diligent research the male may at length be discovered, in order that the history of so curious an insect may be rendered complete. It has been hitherto found chiefly in Scotland and in some parts of Cumberland.

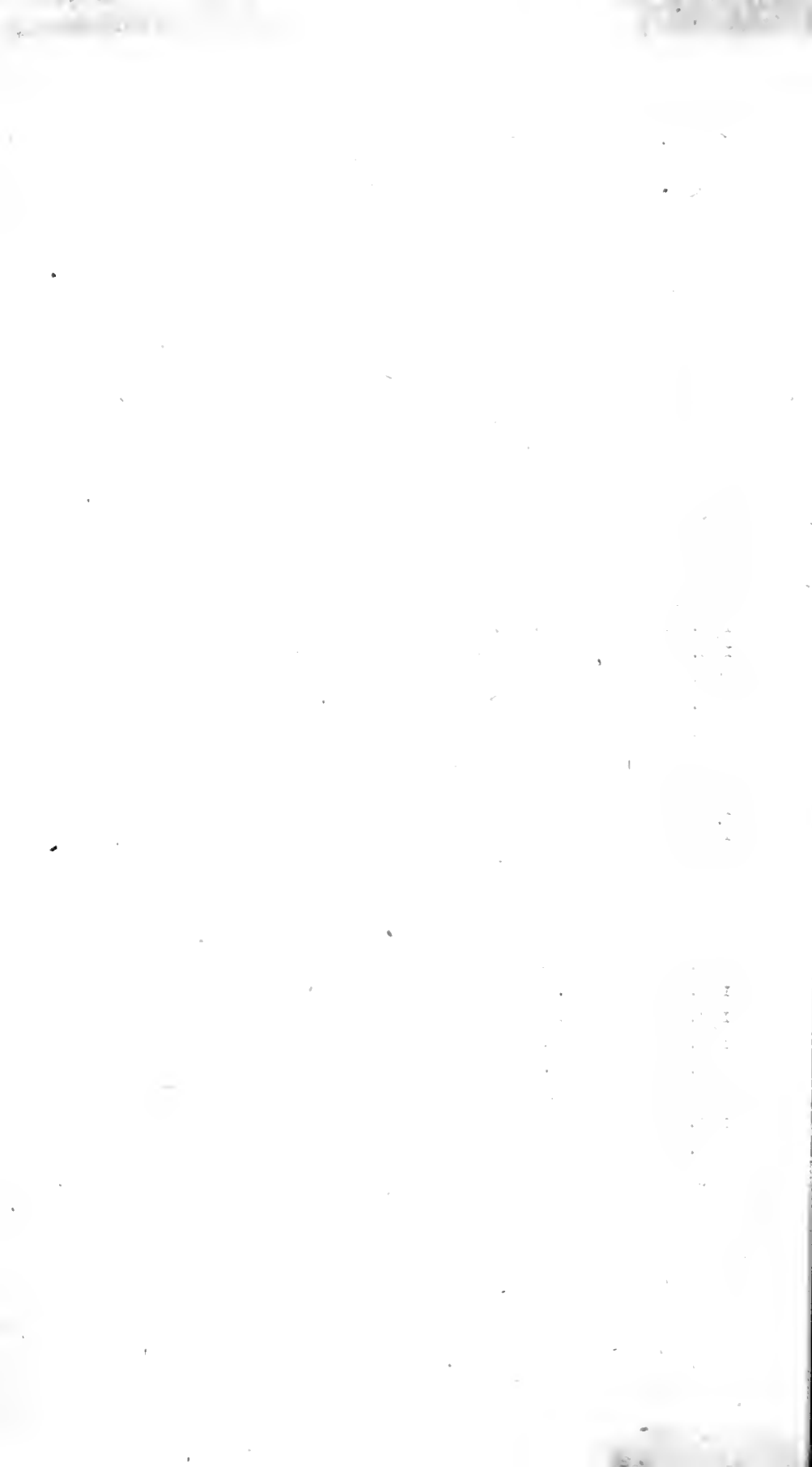


I N D E X.

- PL. **A**CROCHORDUS
 148. Javanicus.
 159. Alcedo pusilla.
 154. Ascidia clavata.
 160. Cancer Diogenes.
 152. Clio limacina.
 182. Coccus cataphractus.
 181. Coluber Naja.
 158. Corallina officinalis.
 151. Diodon Hystrix.
 166. Didi caput.
 150. Fringilla Bengalensis.
 172. Holothuria tremula.
 156. Junx Torquilla.
 179. Lacerta scincoides.
 175. Lophius striatus.
 176. Lophius pictus.
 176. Lophius marmoratus.
 155. Madrepora astroites.
 169. Millepora cellulosa.
 162. Merops Apiaffer.
 168. Motacilla Calliope.
 165 Motacilla Regulus.
 147. Muscicapa erythrogastra.
 149. Papilio Idea.
 164. Papilio Idomeneus.
 157. Papilio Atalanta.
 167. Papilio Hecuba.
 170. Pennatula Cynomorion.
 177. Phaeton phoenicurus.
 180. Picus major.
 174. Pipra striata.
 153. Pipra caudata.
 178. Pulex irritans.
 173. Raja rostrata.
 161. Squalus ocellatus.
 171. Strix albifrons.
 163. Venus Dione.

I N D E X.

- PL. **A**SCIDIA clavate.
 154. Butterfly black-striped.
 149. Butterfly Atalanta.
 157. Butterfly great Occidental.
 164. Butterfly Hecuba.
 167. Bee-eater European.
 162. Coccus mailed.
 182. Clio limacine.
 152. Coralline common.
 158. Crab Diogenes.
 160. Dodo's head.
 166. Dodo's head.
 151. Diodon porcupine.
 178. Flea common.
 150. Finch blue-bellied.
 147. Flycatcher red-bellied.
 172. Holothuria tremulous.
 159. Kingfisher minute.
 179. Lizard scincoid.
 175. Lophius striated.
 176. Lophius marbled.
 176. Lophius variegated.
 153. Manakin long-tailed.
 174. Manakin striped-headed.
 169. Millepore lace.
 155. Madrepora starry globe.
 171. Owl white-fronted.
 170. Pennatula finger-shaped.
 173. Ray rostrated.
 181. Snake spectacle.
 148. Snake warted.
 161. Shark ocellated.
 177. Tropic-bird red-tailed.
 163. Venus occidental.
 168. Warbler ruby-throated.
 165. Wren golden-crested.
 156. Wryneck.
 180. Woodpecker great spotted.





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