HONORATISSIMO VIRO

BRUCE BRUDENELL BRUCE,

COMITI DE AILESURY,

ORDINIS ANTIQUISSIMI A CARDUO EQUITI,

&c. &c. &c.

QUINTUM HUNC

NATURÆ VIVARII

FASCICULUM,

D. D. D.

GEORGIIUS SHAW,

FREDERICUS P. NODDER.
TO

THE RIGHT HONORABLE

BRUCE BRUDENELL BRUCE,
EARL OF AILES BURY,

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 OBE DIENT HUMBLE SERVANTS,

GEORGE SHAW,

FREDERICK P. NODDER
MUSCICAPA ERYTHROGASTRA.

Character Genericus.

Rostrum subtrigonom, utrinque emarginatum, apice incurvo; vibrissae patentes versus fauces. Nares subrotundae.


Character Specificus, &c.

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

MUSCICAPA MULTICOLOR.


MUSCICAPA ERYTHROGASTRA.

Lath. ind. orn. p. 479.

Hanc aviculam, novæ Hollandiae incolam, satis descriptit character specificus. Amat praecipue folitudines sylvaceae insulae Norfolciensis. Vicitit infectis, ut fere foret 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.
ACROCHORDUS JAVANICUS.

+++ Character Genericus. ++++

Verrucae totum corpus obtegentes.

++ Character Specificus, &c. +++

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

L'ACROCHORDE DE J A V A.


ACROCHORDUS JAVANICUS.

Hornstedt.


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

Difsert Acrochordus a reliquo omni serpentario genere, quod non squamis sed tuberculis innumeris verrucarum ad infar totus fit obductus. Genus igitur revera est distinctum, cujus unica tantum species (illa nempe quae in tabula depingitur) ads-huc cognita est. Insulam Javam inhabitat, amate-que præcipue degere ubi piper satum fuerit. Cref-
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.


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 acuminated 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 verrucae 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-acuminated 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.

Antennae apicem verfus crasiores, sæpius clavato-capitatae. 
Alae (fedentis) erectae sursumque conniventes (voltatu diurno.) 

Lin. Syfl. Nat. p. 744:

 CHARACTER SPECIFICUS, &c.

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

Danai candidi.

PAPILIO alis denudato-albis; venis maculisque nigris. 

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

Clerk. ic. t. 38. f. 1. 
Pl. enl. 20. f. 1.

Papilionum plurimorum lautos splendidosque co-lores merito licet miremur, nonnullae tamen sunt species queis simplex est elegantia et pulchritudo, vario et
THE BLACK-STRIPED BUTTERFLY.

Generic Character.

Antennae 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.

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 transparence, 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.


Character Specificus, &c.

FRINGILLA dilute fusca, subitus caerulea, abdomen interdum subroseo, macula suboculari purpureo-coccinea.

FRINGILLA dilute caerulea, capite dorsoque grisaeis, lateribus capitis purpureis. Fr: Benghalus.


FRINGILLA dorso fusco, abdomen caudaque caeruleis. Fr: Angolenisis.


BENGALUS.

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

Avicula perpulchra hic depicta Indiae 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.


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: maxillae ossæ, porrectæ, indivisæ.
Apertura linearis.
Corpus spinis acutis mobilibus undique adsperfum.
Pinæ ventrales nullæ.


Character Specificus, &c.

DIODON sphæricus, aculeis basi triquetris.
Diod. Ating. γ.
Diod. Hystr. 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 nihilium longus negavit omnino vir doctissimus Thomas Brown in libro cui titulus "Pseudo-
"Pseudodoxia Epidemica." Et orta sane videtur popularis haec opinio a cute externa animalium multorum æquoreorum et terrestrium fere simili; quæ haec de caufa vulgo putantur quasi quodammodo affinia; adeo ut concedi aliquatenus posset 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 quae terrestribus respondere creduntur vix aliiud insignius quam pisces qui in tabula cernitur. Simul atque enim eum spinis undique obitum intuemur, in mentem statim venit mucronata hystricis lorica. In editione duodecima Systematis Naturæ dispositit eum Linnaeus inter nantes: (rectius dixisset nantia.) Physicus autem recentioribus, quibus amplior anatomices cognitio, visum est id genus animalia ab amphibiis dissociare, et verum in locum apud pisces amovere. In oceanis Indicis et Americanis praecipue reperitur Diodon Hystricx, crescitque interdum in longitudinem pedum duorum; at ut plurimum, multo minor est. Color fusco-pallet. Aculei juxta balin trianguli. Spinas potest vel erigere vel deprimere, corpusque vel inflare vel contrahere. Claudet hanc descriptionem quod subtilitur et acute, ut folet, observavit auctor ille quem in initio memoravi.

Quod si pro concessò habeatur eadem nomina tum terrestribus tum æquoreis animalibus commode posse imponi, rigida tamen ratiocinandi lege non nomina dare marinis, sed ab iis sua derivare debent terrestria. Qui enim prius existebant maris incola priores
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 fecuti sunt ad arbitrium vocabantur, habita ratione animalium quae ipsi in terris viderant, quaeque affinitia putabantur, quae autem sibi propria et peculiaria 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
fome 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 Linnaeus, 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 remand them to their proper situation amongst fishes.

The Diodon Hystrix 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 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 nominate, those of the sea. For the watery plantations were first existent, and as they enjoyed a priority in form, had also in nature precedent denominations; but falling not under that nomenclature of Adam, which unto terrestrial animals assigned a name appropriate unto their natures; from succeeding spectators they received arbitrary appellations; 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.


Character Specificus, &c.

CLIO NUDA, corpore obconico.


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 quafi velum parvulum ovatum; unde fit ut sepias minutias 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, nayant; with a pair of opposite membranaceous Wings or expanded processes.

Specific Character, &c.

Naked, or Sheathless Clio, with inversely conical body.

Snail-Shaped Clio.

Limacine or Slug-Shaped Clio.

Northern Clio.

The genus Clio, which is far from a numerous one, consists of animals of a small size, and in general form not ill resembling minute Sepiae or Cuttle-fish without arms. This appearance arises from the body being edged, as it were, with a membrane on each side, forming a kind of sheath; and on each side the head is a small expanded oval process. The species here exhibited is destitute of the sheath-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.

Character Specificus.
PIPRA CÆRULEA, vertice subcrisato coccineo, alis nigris, rectricibus duabus intermediiis elongato-acuminatis.
Colli caudæque latera viridi-splendentia.

Aviculum in suo genere procudubio pulcherri-mam et coloribus eximiis superbientem, simulque novam nec antea descriptam, magnitudine naturali depictam, sstit tabula. In America Australi et calidiori, sicut aliae pleræque congeneres, præcipue inventur.
THE LONG-TAILED MANAKIN.

GENERIC CHARACTER.

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

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 luster."

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, teretiusculum, vaginans. Apertura binæ ut plurimum ad summitatem: altera humiliores.


Character Specificus, &c.

ASCIDIA stipite longissimo, corpore ovato, aperturam utraque laterali.

ASCIDIA stipite filiformi, aperturam utraque laterali.


VORTICELLA BOLTENI.

Mant. plant. p. 552.

Bolten epist. de nov. zooph. Humb. 1771.

Solent, ut plurimum, Ascidiae faxis, rupibus, aliiisque marinis substantiis basi adhaerere. Formae pleurumque oblonga, superiorus crassior. Sunt tamen duae vel tres species quae stipite seu pedunculo longo tubulato infiruentur, unde oritur inter eas et reliquas congeneres summa dissimilitudo. Specierum
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 Ascidiae 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,
pulae, fertulariae, 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.
MADREPORÆ ASTROITÆS.

Character Genericus.

Animal Medusa.

Corallium cavitatibus lamelloso-stellatis.


Character Specificus, &c.

MADREPORÆ SUBGLOBOSÆ, stellis distinctis innumeris undique aspera.

MADREPORÆ COMPOSITAE, stellis conser-tissimis immersis disco concavo-cylindrico.


MADREPORÆ RADIANÆ.

Pall. el. zooph. p. 322. n. 190.

ASTROITÆ GLOBOSÆ, &c.

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


Cum Madreporam hanc plene describat character specificus, plura forfan supervacaneum fit dicere, nisi de magnitudine, qua Madreporæ illi quam vacant Cerebrum æqualis est. Eadem quoque maria inhabitat.
inhabitat, nec raro foramine rotundato vel pluribus notatur, quae interdum ob ipsa natura excavata videntur, circaque quae animalia quae corallium aedificare creduntur opus fuum incoharunt, alias simili-ora sunt cavis labore terebellarum quarundem efficitis.
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 Madrepore 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-Madrepore. 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.

Rosstrum teretiusculum, acuminatum.
Nares concavæ, denudatae.
Lingua teres, lumbriciformis, longissima, apice mucronata.
Pedes scansorii.


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.


TORQUILLA STRIATA.

Briff. av. 4. p. 7.

Varias Europæ partes incolit Torquilla, coloribus insignis elegantissime dispositis; e quibus conjunctis...
THE WRYNECK.

GENERIC CHARACTER.

Bill roundish, slightly incurvated, weak.
Tongue very long, cylindric, missile, hard-pointed.
Feet scanorial, 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.

Briss. orn. 4. p. 4. pl. 1. f. 1.
Buff. of. 7. p. 84. pl. 3.
Pl. orn. 693.

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 Linnaeus.
PAPILIO ATALANTA.

Character Genericus.
Antennae apicem versus craffiores, ōpeius clavato-capitatae.
Alæ (fedentis) erectæ furosque conniventes (volatul diurno.)

Character Specificus, &c.
PAPILIO alis dentatis nigris albo maculatis: fascia communi purpurea: primoribus utrinque, posterioribus marginali.
Nymphales phalerati.
PAPILIO tetrapus; alis denticulatis nigris albo-maculatis: oninibus fascia arcuata coccinea.
Lin. Faun. Suec. 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, infectis habendus Papilio Atalanta ex eruca oritur, quæ
quae plerumque urticae vulgaris, cui insidere solet, folia depascitur. In pupam seu chrysalidem mensae Julio et Augusto ut plurimum convertitur, e qua diebus sedecim seu octodecim erumpit papilio.

Pleraque infecta lepidoptera simul atque e chrysalide liberantur, vel cum prima fugac commisce-rint, guttas aliquot liquoris cujusdam colorati, ut plurimum magis minusve rubri, solent emittere. Hoc in pluribus speciebus communibus fæpissime cernitur, in papilione selenicit urticae, Atalanta, Polychloro, reliquisque; et ut taceam simile quiddam velle naturam in cæteris animalibus recens natis, dignum est ut praecipue notetur, cum optime explicet phænomenon non modo antiquis temporibus sed et recentioribus prodigii loco habitum; guttærum nempe sanguinearum ab aere descensum, quem memorant variis scriptores, Ovidius praecipue 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 millefimo sexcentesimo octavo suis oculis phænomeni vestigia examinavit, ibique persuasissimum habuit provenissæ guttulas rubras et papilionis specie, papilione rotas urticae id temporis praeter solitum abundante, praecipue prope loca ubi nimbus cruentatus ceciderat. In hanc sententiam ivit Swammerdamus, qui tamen non autepyns fuisse videtur. Eo me magis de hac re
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 accuratissimi Swammerdami judicium, vix posset dubitari quin peritissimo rum horum hominum sagacitas rem difficillimam acu tetigerit.
ATALANTA.

Generic Character.

Antennae 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.

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: urticae, 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 vifæ mediis ardere fub afris:
Sæpe inter nimbos guttae cecidere cruenta."

With threatening signs the low'ring skies were fill'd,
And sanguine drops from murky clouds didill'd.

This highly rational elucidation of a phenomenon, at first view so inexplicable, seems to have been first proposed by the celebrated Peiresc, 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 Peiresc, 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 trichotomata, articulis subturbinatis.

CORALLINA subbipinnata, articulis subturbinatis.  

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 fatis patet, in his nunquam adhuc pro certo explorata fit. Quod tamen hanc ob cauam possit concedi quod ab analogia valde probabile fit; nec temere conjiciendum est nulla esse omnino incolentia animalia, corum licet, ob exiguitatem pororum, qui ipsi non nisi microscopiæ ope cernuntur, vestigia frustra quærantur: nec
nec de his dubitasse videtur solertissimus Linnaeus, quippe qui firmiter crediderit omnem calcariam substantiam ab animalibus esse exortam. Hujus coral-linae maxima copia racemosa quasi et conglomerata crescit in rupibus sub mari immigris, juxta littora pleraque Europaeæ. Colore ob plurimas causas variat, etque vel subpurpurea, vel subviridis, interdum etiam, præcipue si nimium soli exponatur, fere alba. In therapeutice magni olim erat nominis, et inesse credebatur illi vis quaedam vermifugans; quam opinionem uno fere confenso denegant rident-que peritissimi omnes horum temporum medici.
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.


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. Linnaeus appears to have been convinced of the animal nature of this genus, merely from the circumstance of its being of a calcareous substance; according to his established idea of all calcareous 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.

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CHARACTER GENERICUS.

Rostrum trigonum crassum, rectum, longum. Lingua carnosa, brevissima, plana, acuta. Pedes gressorii plerisque.


CHARACTER SPECIFICUS, &c.

ALCEDO? caerulea, subitus fulva, macula colli utrinque purpurea.

TODUS CAERULEUS?


Alcedinis pusillae sui generis longe minimae, 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* fleshly, very short, flat, sharp-pointed.
*Feet* (in most species) grefforial, *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.


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 duae chelatae.
Palpi sex inaequales.
Oculi duo distantes, plurimis pedunculati; elongati, mobiles.
Mandibula cornea, crassa.
Labium tripexus.
Cauda articulata, inermis.


CHARACTER SPECIFICUS, &c.

CANCER MACROURUS PARASITICUS,
chelis laevibus pubescentibus: sinistra majore.

Rumph. musf. t. 5. f. K. L.? 
Catesb. Car. 2. t. 33. f. 1. 2.

Infectorum, quae miro et singulari modo formata complectitur genus Cancer, numerosissimas species in phalangas pro vario corporis habitu distribuere prorsus necesse est, ut facilius dignoscì possint. E cancris nonnulli corpore brevi sunt et quasi suborbiculato,
biculato, cujus diametros transversa non raro longituninem 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 imbibiles et incrasses. Aliis denique vasta ell et insignis magnitudo; aliorum mira tenuitas efficit ut singulae partes non nisi microscopii ope fatum examinari possint. Quae in hoc genere continentur animalia crassas seu exuvias certis intervallis solent exuere; sub quod tempus artus gradatim contrahuntur et exiliores sunt, ut e chelis reliquae crassa facilitas liberentur: quo facto, in latibulo quiescit cancer paucos dies donec novum tegmen fatum inducerit, quod primo membraneum potius est quam crassum. Membrum amissum, quod plerisque animalibus gravissimum foret et irreparabile, parum aut nihil quern runtur cancri; paucis enim septimanis excrecit alterum novum et integrum. Immo quati scientes in sevisse iis naturam facultatem repullulandi, si membrum aliquod laetum fuerit aut contusum, non expectant donec sanetur, sed subito et violento ut velut impedimentum abjiciunt, et in locum se recipiunt, parte mox redintegrata gavisuri. Universum se fere cancerorum generi mira inert slowcunditas; cujus insignis exemplum est in illo qui Astacus dicitur, unde duodecim millia ovorum singulo partu excluduntur. Gulae dediti et animalibus et vegetabilibus versuntur. Cancer quem describimus inter eas species militat quae crassa seu tegmine postico destituantur, quaque igitur testas univalentes, si quas in litore invenerint vacuas et donee formata,
tas, intrantes incolunt, corpore in testam immerfo, chelis exsertis. Cancrorum qui molles seu parasitici vocari solent praecipuae species sunt Bernardus et Diogenes. Diogenem depinximus, qui plerumque testam muricis, buccini, turbinis, vel neritae inhabitat, unde et nomen adeptus est, quod testa eodem modo utatur quo celebris iste pseusto-philosophus dolio suo. Figura prima monstrat animal testa inclusum, secunda testa extum.

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

DI OGENES CRAB.

Generic Character.

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

*Pulpi* 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 vio-

cence the offending member, and betaking them-

selves to a state of retirement, await the formation of

their new limb. Most of the genus are very proli-

fic animals. The female of the common Lobster

produces upwards of twelve thousand eggs each
time of laying. They are of a very voracious na-

ture, and feed on animal as well as vegetable sub-

stances. 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

exserted. Amongst these parasitical or soft-bodied

species the two most remarkable are the Cancer

Bernardus and the Cancer Diogenes. It is the lat-
ter 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 conveni-

cent receptacle as that celebrated pseudo-philosopher

is reported to have done in his tub.

I should not dismiss this article without observ-
ing 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

Cancri, however, are furnished with a pair of chela-
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.

Character Specificus, &c.
SQUALUS subfasciatus fusco maculatus, ocello utrinque nigro supra pinnas pectorales.
SQUALUS litura magna rotunda nigra, circulo albo cinéta, ad utrumque colli latus.

Continentur in genere hoc voraci et exitioso non-nulæ species quæ non modicam elegantiam jactare possunt. Exemplo fit illa in tabula depicta, quæ non modo corpus habet satis concinium, maculafque æqualiter dispositas, sed etiam notis duabus nigris, permagnis, rotundis seu potius leviter ovatis insignitum, utrinque super pinnas pectorales笠is, alboque limbo circundatis in oculorum similitudinem. In numero est hac species minorum squalorum, nasciturque in maribus australibus.
THE

OCELLLATED 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.

Ocellé.


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.


Character Specificus, &c.

MEROPS dorfo ferrugineo, abdomine caudaque
viridi-caerulecente, rectricibus duabus longioribus, gula lutea.


MEROPS.

Bell. av. 16.
Gefn. av. 599.
Aldr. 1. p. 871.

APIASTER.

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

Formosam hanc avem, quam ignorat Britannia,
alunt calidioris Europæ variae regiones; Græcia
nece non insulae quæ in Ægæo mari abundanter,
I Creta
THE EUROPEAN BEE-EATER.

**Generic Character.**

*Bill* curved, compressed, carinated, and sharply pointed.

*Tongue* (generally) laciniated at the tip.

*Feet* grefforial, *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 Güépière.**

*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
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 practiced 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 serie duplici spinarum curvarum ciliato.

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


CONCHA BRASILIANA CUSPIDATA.

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

CONCHA VENERIS ARMATA.


PECTUNCULUS VENEREUS.

Pet. gazopb. t. 31. fig. 9.

CONCHA ECHINATA.

Valent. Mus. Museor. 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 pretiosiorem continet hodierorum
diernorum muscorum serinie. At difficillimum est specimina nancisei 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 speciminebus plus minus est purpurea, et spinarum curvarum utrinque serie laterali ciliata; unde fit, ut si e tranfverfo testam intuearis, non longe oculo absimilis videatur, vel etiam ori ringenti quadrupedis. Cum species numero-fissimas contineat genus, multisque egregium quoque nomen ideo ei datum est quod puchritudinem denotet.

Venerem feu Dionem e mari anadyomenen toties celebrarunt poetae, ut supervacaneum forsan habeatur de re notissima quicquam dicere. Bellum tamen Aufonii epigramma licet citare.

"Emerfam pelagi nuper genialibus undis
Cyprin Apellei cerne laboris opus.
Ut complexa manu madidos salis aquae crines
Humidulis spumas stringit utraque comis
Jam tibi nos Cypri, Juno inquit et immba Pallas
Cedimus, et forma præmia deserimus."

At vel Aufonio felicius cecinit celeberrimus Darwin, in eximio poemate cui titulus Hortus Botanicus, cujus versus in linguam Latinam elegantem adeo transfluuit eruditus quidam amicus, ut si quod ille
NATIONAL MUSEUM OF VICTORIA

illc fcripit in fcriniis ineditum servem, periusisli-
mum habeam me a publica delectatione detracturum.
Addidi et egomet aréttiorem, humiliorem, et
quasi centonicam imitationem.

"Sic primum vitreum fugiens Erycina profundum,
Nercidumque domos, patrio jam debita cælo,
Surgit ad æthereum solem pulcherrima rerum,
Cæruleis emersa vadis: rutilante sedentem
Hunc conuha manibus tollunt submille impliantes
Semiviri, vitæque avidos paucuntur amore.
At leve subridens falsam dea crine soluto
Humorem, liquidas et gemmas exprimit: illæ
Defiliunt niveis finuofo tramite mammis
Protinus, et placide lambunt juvenilia membra.
Præfentis valet interea vis vivida forma.
Sternitur attonitum pacatis stultis aquor
Immenfum, vix jamque tremit, menatque moveri.
Mollius aspirant zephyri, fumul æthera illant
Ambrosiam, et toto nova regnat in orbe voluptas."

IMITATIO CENTONICA.

Sic alto enata oceano, si credere fas sit,
Alma Venus quondam pelagi gratissima nymphis,
Muscosos inter scopulos cautelic profundas
Luxit amabiliter: vitæque dīlibus hæræns
Dulcia subridens immisuit ecula verbis,
Et finxit vultum, et meruit formosa videri:
Jam teneros experta jocos, nec egena leporum.
At mox tota merum ful, plena et fulgida forma,
Tritonum manibus folio subveçtâ virenti
Sedibus ex imis, pacato in marmore ponti
Instituit, attonitas despectans defuper undas:
Qualis ubi et cælo radis argenteus almis

Lucifer
Lucifer asfurgit, ridentemque undique terram
Vivificat, piétos revocans ad gaudia campos.
Ut rofæis cæpit digitis ficcare capillos,
Per caput errantes guttæ et per eburnea colla
Suave micant; dein terga petunt, humerofque
Peætoraque, et falsis stellantes roribus artus.
Conînuo natura Deam mirata salutat,
Et manifesta Venus caelo terrisque renidet.
VENUS DIONE,  
OR THE  
OCIDENTAL 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. 

The Venus Shell or Concha Venecris. 
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 ringent 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 Aulonius on the celebrated picture of Venus anadyomene by the hand of Apelles.

"Emerfam pelagi nuper genialibus undis
Cyprin, Apellei cerne laboris opus."

Ut
Ut complexa manu madidos sis aureae crines
Humidulis spumas stringit utraque comis
Jam tibi nos Cypri, Juno inquit et innuba Pallas
Cedimus, et formae præmia deferimus.”

Form’d in bold fancy by Apelles’ hand,
See Venus on her native ocean strand.
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 picture’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 lures 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 flood,
And look’d enchantment on the dazzled flood.
The bright drops, rolling from her lifted arms,
In flow’ 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.

embali

CHARACTER GENERICUS.

Antennee apicem versus crusiores, sæpius clavato-capitatae.

Alae (fidentis) eretæ sussumque. conniventes, (volatu diurno.)


CHARACTER SPECIFICUS, &c.

PAPILIO alis subcrenatis cærulecenti-fuscescen-
tibus, superioribus fascia semitransversa al-

bida, subtus nebulosis, ocello posticarum

maximo.

PAPILIO alis subcrenatis cærulecenti-fuscescen-
tibus, subtus nebulosis: ocellis duobus: po-

stico magno flavescente.


PAPILIO alis subcrenatis fuscis basi cyanecis, sub-
tus nebulosis, posticis ocello magno flaves-

cente.


Inter Papiliones eminet Idomeneus, plerisque congeneres magnitudine exuperans. Alarum supe-

riorum
riorum pars altior coloris est eximie fusci, striis aliquot transversis obscurioribus undulati: cyanea est reliqua pars, medio lucidiore. Nec caret pulchritudine alarum superficies inferior quae fusca nube- culis aliquot pallidioribus striisque innumeris nigricantibus variatur; et in utraque ala inferiore macula exflat permagna, nigricans, oculo similis, circulo lato flavente inclusa, qui ipse nigro circumdatur. Magno intervallo super magnas has maculas sit utrinque et alia minor. Americam Australem incolit Papilio Idomeneus.
IDOMENEUS, OR
GREAT OCCIDENTAL 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.
BUTTERFLY with dusky-blue wings: with a semi-transverse whitish bar on the upper pair: the lower surface clouded with different shades, and marked by a very large ocellated spot on each of the lower wings.

Petiv. gaz. 43. t. 28. f. 1.
Cram. pap. 5. t. 52. f. B. t. 390. f. A. B.
Mer. Sur. t. 60.
Pl. enl. t. 96. f. 1. 2.

This insect is one of the largest of the papilionaceous tribe. The upper half of the superior wings is
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 fubulatum, rectum: mandibulis subaequalibus.
Nares ovatae.
Lingua lacero-emarginata.


Character Specificus, &c.

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

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


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
THE GOLDEN-CROWNED WREN.

**Generic Character.**

*Bill* subulate (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.

*Rud. syn. p. 79. A. 9.*  
*Will. orn. p. 227. pl. 42.*  

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.
Cum ego nuper verum et genuinum Didi pedem in Museo Britannico detectum accurate depingi curaverim, gratulor sane mihi quod jam oblata sit occasio reliquias preetiofiores lectoribus meis apponendi; rostrum nempfcum fronte seu parte capitis ei adhuc adhaerente. In hoc singularis illius avis vestigium faunte admodum incidi in Museo AshmoLEANO apud Oxonienfes; in quo fatis notum est contineri quicquid rarum colletcrat celeberrimus Tradescantius, qui id omne domino Eliae Ashmole legavit, a quo postea Academiae donatum est. In descriptione Didi qui in tabula centesima vicefima et tertia hujus operis cernitur, Willoughbeii testimonio usus sum, qui exuvias avis in Museo Tradescantiano fe vidisse affirmaverat. Rostrum igitur de quo loquimur eft ipfiftimum speciment a Wil-loughbeio Raeioque visum; quod fideliter repræfenta-vimus, quale hocie confpicitur, id injuriarum paflum quas affcurre folct annorum spatium majus quam centum et quinquaginta. Notandum porro eft pedem quoque Didi, vetuflate exefum et muti-latumi, in eodem Museo affervari, plene et perfecte congruentem cum illo quem fuppeditavit 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.
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 exuviae 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 a 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.
Antennae apicem versus crassiores, sexpius clavato-capitatae.
Alae (fedentis) erectae sursumque conniventes, (volatu diurno.)

Character Specificus, &c.
PAPILIO alis anterioribus rubris, posterioribus nigris, omnibus subitus ocellatis.
PAPILIO alis anterioribus rubris, posterioribus nigris, subitus utrinque ocellatis.
PAPILIO alis dentatis, antecis rubris, posticis nigris, subitus utrinque ocellatis.
Lin. Mant. 1534.

Colorum dispositione insignis Papilio Hecuba inter maximos et lautissimos sui generis locum sibi vindicat. Alae superiores late ferrugineo-rubrae, oris fuscis; inferiores atrae longe minus nigrant juxta basin feu ad humeros. Alarum tum superiorum L


HECUBA.

Generic Character.
Antennea or Homs 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 subaequalibus.
*Nares* ovatae.
*Lingua* lacero-emarginata.


Character Specificus, &c.

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

TURDUS CALLIOPE.

*Latk. ind. orn.* p. 331.

TURDUS KAMTSCHATKENSIS.


MOTACILLA CALLIOPE.


In frigidis Siberiae regionibus innata Motacilla Calliope, more lusciniæ Europeæ, noctu præcipue cantare dicitur, aliis omnibus avibus quæ plagam ıstam innimem incolunt ob vocis suavitatem merito M prælata.
THE
RUBY-THROATED WARBLER.

Generic Character.

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

Nasirils 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.


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 Jenisei.
MILLEPORA CELLULOSA.

 CHARACTER GENERICUS.

Animal Hydra.
Corallium poris turbinatis teretibus.

 CHARACTER SPECIFICUS, &c.

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

ESCHARA RETIFORMIS.

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

MILLEPORA FORAMIÑOSA.
Ellis et Solund. zoopb. p. 138.

Hoc lithophyto frustra quærēmus formosius in toto genere. Constat enim e lamina undulata, plana, erecta, quæ interdum calyci non abstæmis; alias longo ambitu pulchre et luxurianter plicata, et fere circulatim simbriata. Efficiunt foramina
ramina ampla, numerosa, æqualia, ut videatur corallium quasi phrygioneum: unde Galli fatis apte vocarunt Manchette de Neptune. Tota superficies interna, si ope microscopii examinetur, foramina habet ovata, quae incoluisse creduntur animalia polypis similia. Color Milleporæ cellulose est interdum lacteus, alias subflavecens.
LACE MILLEPORE.

Generic Character.

Animal resembling a Hydra or Polype.
Coral furnished with cylindrical turbinated pores.

Specific Character, &c.

Irregularly waved laminar milleporé, 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 CYNOMORION. Sol. et Ellis. zoolb. p. 65. n. 7.

Pennatulas, ut plurimum, distinguit corpus superioris 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 caeteris congeneribus. Harum anomalarum insignior nulla est quam quæ in tabula depingitur, cui corpus cylindraceum elonga-
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.

Cylindrical Pennatula with the whole upper part polypiferous.

Finger-shaped Sea-Pen.

Phil. Trans. 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 Pennatulae 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, through 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 crinron. 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 (abique cera.)
Nares pennis fetaceis recumbentibus obteetae.
Caput grande: auribus oculisique magnis.
Lingua bifida.


Character Specificus.

STRIX FERRUGINEO-FUSCA, subitus palli- 
dior, fronte alba, remigibus albo nigroque 
fasciatis.

Perpusillam hanc strigis speciem suspicor nun-
quam antea depictamuisse aut descriptam. In 
America septentrionali, praecipue autem in Canada 
generatur. Fronte alba, quae insigniter marem ? 
distinguit, caret quae putatur esse femina. In gene-
ris divisione quae species leves feu inauritas conti-
net, reponitur strix albifrons.
THE

WHITE-FRONTED OWL.

\begin{center}
\textbf{Generic Character.}
\end{center}

\textit{Bill} crooked, (not furnished with a cere.)
\textit{Nasirils} covered with recumbent bristly feathers.
\textit{Head} large: \textit{Ears} and \textit{Eyes} large.
\textit{Tongue} bifid.

\begin{center}
\textbf{Specific Character.}
\end{center}

\textbf{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. 


Character Specificus, &c.

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


FISTULARIA. 

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

HYDRA. 

Bobadfsch. anim. mar. p. 75. t. 6.

Facie varia adeo et mutabili sunt multa animalia quæ in ordine molluscorum continentur, ut eorum veram figuram difficillum fit verbis apte describere, cum istius animalculi more quod distinxit Linnaeus 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 intaëta oblonga est et sère cylindracea; simul atque vero locum mutare inceperit, protruduntur sùhootim e pluribus corporis partibus tentacula sère innumera, adeo ut totum animal sàeli sphiis mollibus òbstìtum videatur. Contrahitur quoquò ad libitum in formam globosam seu leviter ovatam. Constat color, ut plurimum, ex albedine et rubore pulchre comminis, variantibus autem pro ætate, anni tempore, aliusque de caulis. In litoribus maris septentrionalis non raro reperitur Holothuria tremula. Possunt omnes Holothuriae, si irritentur, aquam ex ore ejaëculari ut solent Ascidiae, velut e siphone profilien-tem.
TREMULOUS HOLOTHURIA.

Generic Character.

Body unfixed, naked, gibbous, with an open extremity.
Tentacula numerous, surrounding one extremity.
Mouth situated amidst the tentacula.

Specific Character.

HOLOTHURIA with numerous conical papille on its upper surface, cylindric ones on its lower, and numerous fuscicular tentacula surrounding 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 animaleule 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 nowhere more remarkable than in the genus Holothuria, and the species here figured may stand as a curious example of this mutable power. When perfectly
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 subitus ad collum.
*Corpus* depressum.
*Os* sub capite.


**Character Specificus, &c.**

RAJA corpore elongato, rostro producto.

SQUATO-RAJA s. RHINOBATOS.

*Bell. pisce.* 78?
*Geoff. pisce.* 903?

RAJA RHINOBATOS?


vix distincte memorata, a Johnstono tamen procul-dubio, in historia sua animalium sæculo jam clásfo publicata, depingitur: (tabulam istius operis duo-decimam adeat lector, figuram sextam,) ubi Squatina vocatur, et cum pisse penitus diversò, vera nempe Squatina (quæ Squalus Squatina Linnæi,) quamque repræsentat Johnstoni tabula undécima, confundi videtur.
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.


**Character Specificus, &c.**

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

PIPRA striata.


*Lath. ind. orn.* p. 558.

THE

STRIPED-HEADED MANAKIN.

 GENERIC CHARACTER.

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

 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.
LOPHIUS STRIATUS.

Character Genericus.

Spiracula solitaria, ponc brachia.
Dentes plurimi, minuti.
Pinne pectorales brachiis insidentes.
Branchiae tres tantum.


Character Specificus.

LOPHIUS compressus fuscus, striis undique con-
sertislimis nigris.

Tres novas representavitmus Lophii species, orbis
antarctici incolas, qui uberrima scientiae zoologicae
incrementa aslatim suppedavit. Cernere cas est in
tabulis magnitudine naturali, et a reliquo genere,
quod adhuc novimus, longe diversas. Lophium
striatum detexit eximius ille naturae indagator Jose-
phus Banks, cum in mari pacifico primum iter fa-
ceret. Circa litora Australiae reperitur nec non
insularum adjacentium. In isdem etiam regionibus
nascentur aliae duae species quas depingi curavit; Lophius
sicilicet 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 breaks.

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 compressed fuscus, lituris subflavis subro marginatis.

LOPHIUS MARMORATUS.

-character specificus-

LOPHIUS subcompressed lividus, albido ferrugineoque 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.
PHAETON PHOENICURUS.

**Character Genericus.**

*Rostrum* cultratum, rectum, acuminatum, *Fauce* pone *rostrum* hiante.
*Nares* oblongae.
*Digitus* posticus antrorsum versus.


**Character Specificus, &c.**

PHAETON SUBROSEUS, *rostro rectricibusque duabus intermediis rubris.*

PHAETON ROSEO-INCARNATUS, *rostro rectricibusque duabus intermediis rubris, tæenia superciliari pedibusque nigris.*

*Lath. ind. orn.* p. 894.

PHAETON PALLIDISSIME ROSEUS, *rostro rectricibusque duabus intermediis rubris.*


Quæ in hoc genere continentur aves a natura comparatae ut vitam in mari degant, communiter tropicæ vocantur, quod sicilicet *intra tropicos* fem-

R per
THE
RED-TAILED TROPIC-BIRD.

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Generic Character.

Bill compressed, rather sloping, sharp-pointed.
Nose holes 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.


Le PAILLE en QUEUE à brins rouges.
Buff. oif. 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
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 vizor 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 IRRTANS.

Character Genericus.

Pedes sex, saltatorii.
Oculi duo.
Antennae filiformes (seu potius moniliformes.)
Os rostro inflexo, setaceo, aculeum recondente.
Abdomen compressum.

Character Specificus, &c.

PULEX proboscide corpore breviore.
\[\text{Lin. Syil. Nat. p. 1021.}\]

PULEX rostro corpore breviore.

PULEX COMMUNIS.

Papilionaceis infectis ab ovo exortis subeundas esse quasdam formas mutationes antequam plene adoleverint, fere omnibus cognitum est: paucis for- tasse, similiter voluistse 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 exclu- duntur.
duntur parvulas, albidas, seu levissime rubentes, agillimas, et variis modis se contorquentes, simul atque turbantur. Hæcum ad plenam magnitudinem pervenerint, (circiter quintam seilicet unciæ partem) obvelantes se operimento laxo, albo, et veluti gossipino expectant donec in chryfalidas mutentur; quod fit diebus circiter duodecim: et e chryfalide erumpit pulex jam perfectus. Quamvis molestissimum sit hoc animalculum, negandum tam non est ineffe illi quandam formæ concinnitatem. Expeditissima est nec inelegans corporis agilitas. Lorica, qua tegitur, nullis unquam soedatur fordibus, sed nitet semper quasi polita. At tantum musculosi roboris spatio adeo exiguo contineri et terminari quis non miretur? cui forfan vix simile inventur in aliis omnibus animalibus; ne quidem in ipsis gryllis; posse enim pulicem distantiam sui ipsius corporis ducenties superantem uno saltu conficere fatis probavit nec exaggerata computatio, Socratem, quem de haæ ipsea re finxit se calculis torquentem, atro sale perfricuit Aristophanes.

"ΑΛΛΑ καὶ ἘΜΟΣ," &c.

Dijè. Sed fas non est haec cuiquam dicere nisi discipulis.


S. Quo-

S. O rex Jupiter, quanta substantias mentis!

Ar: Nubes, aef 1. fc. 2.

Hujus quoque mordaces facetias transtulit in poema satiricum Butlerus nostras.

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


Pulicis exigui tenues per colla catenas
Nexuit artifici pulehra Corinna manu.
Sic, inquit, pavo Junoni chara, palumbes
Sic Veneri; pulex tu mihi gratus cbris.
Hie nova laeivo teflatur gaudia saltu,
Et cadit in molles parvulus erro sinus:

Mox
Mox sudente siti, tanta est solertia, fertur
Qua sanguis roseo semper in ore sedet.
Credideris illis semper voluiffe morari,
Nec blandas unquam delituisse genas.
Jam secura potes nexas laxare catenas,
Non opus artifici, pulchra Corinna, jugo.
Dum licet hic paci, licet hae in se de morari,
Non tua captivum vincla, sed ipsa tenes.
THE
F L E A.

Generic Character.

Feet five, formed for leaping.
Eyes two.
Antennae filiform (or rather moniliform.)
Mouth consisting of an inflected fetaceous 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 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 larvae, 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 contortions. 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 envelopment of a very soft, silky, 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 re-
markable that Socrates was ridiculed for his pre-
tended experiments on this very subject, by the li-
centious 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 Charæphon
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 Charæphon to th' head
Of Socrates.

Str.
And how did then the sage
Contrive to measure this?

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

Str.
O Jupiter, what subtily of thought!


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 Chaerephon
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 Quadragelimalia. 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 lips.

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.


CHARACTER SPECIFICUS, &c.

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


Lacertarum nonnullae sunt species quae ab aliis fui generis discrepant, eo quod, piscium more, squamis magnis et rotundatis contectae sunt. In harum numero est Lacerta Scincus Linnaei, quae olim in materia medica usurpari solita est, et communiter nomine Scinci cognoscitur. Alia species est a Linnaeo non nominata (nisi forte Linnaei aurata cadens fit) sed cujus meminerunt Sloane et Browne in historia sua insulæ Jamaicæ, descripteruntque nomine S Galli-
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 Linnaeus, or the animal formerly used in the materia medica, and called the Scink. Another is a species not mentioned by Linnaeus, 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 Thesaurus 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 setaceis recumbentibus obtectæ.
Lingua teres, lumbriciformis, longissima, mucronata, apice retrofum aculeata fetis.
Pedes scansorii. 


CHARACTER SPECIFICUS, &c.

PICUS albo nigroque varius, crissio occipiteque rubro.


PICUS varius major. 

Will. orn. 94. t. 21.

PICUS discolor. 

Frisch. av. t. 36.

Inter aves Britannicas quae pulcherrimae habentur Pico majori conceditur sedes, rariori longe Pico viridi et vulgari, et in Angliae partibus Septentrio-nalibus præcipue conspecto. Deest feminæ color T vivide
vivide coccineus quo occiput maris ornatur: utrifque vero in imo abdomine idem levis est sed pulcherrimus rubor. Depingitur in tabula deminuta avis magnitudo.
THE GREATER SPOTTED WOODPECKER.

**Generic Character.**

- Bill angular, straight, 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.


L’EPEICHE, ou le Pic varié.

*Buf. oif. 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.
Colubrum Najam, collo paulatim tumescente 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, quaeque illum furibundum et jam jam morfurum ostendit, amicissime communicavit Dominus Rustel, 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. Raffles 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.

\[\text{Character Genericus.}\]

\[\text{Rostrum pectorale.}\]
\[\text{Abdomen (plerisique) postice fetosum.}\]
\[\text{Alae duæ creætæ masculis. Feminae apterae.}\]
\[\text{Lin. Syst. Nat. p. 739.}\]

\[\text{Character Specificus.}\]

COCCUS albus cataphractus, antennis pedibusque ferrugineis.
\[\text{Affinis videtur Cocco rusci.}\]

\[\text{Rarissimum hoc insectum detexit Dominus Dickson, societatis Linnaeanae socius, Museique Britannici hortulanus primarius; ob acumen et diligentiam in botanicis, in ea præcipue parte quæ cryptogamia dicitur, merito laudatus; qui pulchro me specimine donavit, rogavitque ut in characteres inquirerem et definirem genus. Cum igitur animalculum ope microscopii penitius examinassèm, non dubitavi pronunciare speciem esse generis Cocci, et novam fortasse quæ non antea descriptam: frustra enim quæritur in editione systematis Linnaeani quam auctorem}\]
posse tandem marem laudabili physicorum diligen-
tia inveniri, ut nihil desit completae historiae. Re-
pertum adhuc est hoc insectum praeipue in Scotia, et in aliquibus Cumbriæ partibus.
THE
MAILED COCCUS.

.Generic Character.
Roftrum 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 antennae and legs.

It seems allied to the Coccus rufci.

The very rare and curious insect here represented was discovered by the ingenious Mr. Dickson, Fellow of the Linnaean 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 con-
clude 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 yel-
low-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 laminae somewhat in the manner of tor-
toises. 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 rugœ, &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.
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