PROCEEDINGS
OF THE
ZOOLOGICAL SOCIETY OF LONDON.

January 12, 1841.

IN consequence of there not being a sufficient number of Members present to constitute a quorum, the Meeting was adjourned to January the 26th.

January 26, 1841.

William Yarrell, Esq., Vice-President, in the Chair.

Letters from E. L. Moore, Esq., and Augustus Elliott Fuller, Esq., were read.

A letter from Sir Edward Cust was next read. This letter contains a description of a species of *Holothuria*, presented by Sir E. Cust to the Society, obtained at the island of Porto Rico, and remarkable for its leopard-like markings.

A continuation of Mr. G. B. Sowerby's descriptions of new species of shells, collected by H. Cuming, Esq. in the Philippine Islands, was next read.

HELIX MONOCHROA. *Hel. testâ suborbiculari, tenuiusculâ, subpallescente brunnea, haud nitente; spirâ mediocri; anfractibus quatuor, ventricosis, rugulosis, ultimo maximo, cæteris multò majori; fasciis binis medianis saturatioribus, binis pallidioribus; suturâ distinctè impressâ; aperturâ subelliptico-semilunari, intus albâ; labio externo latiusculo, rotundato-reflexo, extûs subfusco; labio interno tenuissimo, columellari subdilatato, umbilicum mediocrem partim tegente.*

Long. 1·3, lat. 2· poll.

Hab. ad insulam Tablas dictam.

This species appears to be very distinct from any of those given by De Férussac, as well as from the *Helix Cailliaudi* of Deshayes, with which I have compared it. Besides the rugulosities which cover the external surface, oblique lines of growth are easily distinguishable, which are stronger near the suture.

Nos. XCVI. & XCVII.—PROCEEDINGS OF THE ZOOL. SOC.

HELIX CHLOROCHROA. *Hel. testâ globoso-suborbiculari, tenuiusculâ, pallide brunnea, haud nitente; spirâ elevatiusculâ; anfractibus $4\frac{1}{2}$, ventricosus, laevibus; striis solùm incrementi tenuibus insculptis, ultimo maximo, cæteris multò majori; fasciâ unicâ albidâ medianâ; suturâ distinctâ; aperturâ rotundato-sublunari, intùs albâ; labio externo rotundato-reflexo, fusciscente, interno tenui; labio columellari lato, albicante, subsinuoso, profundè ineunte; umbilico nullo.*

Long. 1·6, lat. 2· poll.

This species bears a general resemblance to the last, though it may easily be distinguished by its more elevated spire and the absence of an *umbilicus*. Besides the lighter-coloured band, the shell is usually mottled with paler light-brown markings. A variety occurs of a much darker colour, but similarly marked.

HELIX SPHÆRION. *Hel. testâ globoso-orbiculari, tenui, lævi, unicoloris, haud nitens; spirâ brevi, paululùm elevatâ; anfractibus quatuor, ventricosus; striis solùm incrementi, tenuibus insculptis, ultimo maximo, cæteris multò majore; suturâ lineâ albâ distinctâ; aperturâ rotundatâ, anfractu ultimo tenuiter modificatâ, intùs albicante; labio externo fusciscente, anticè paululùm reflexo; labio columellari albo, latiusculo, profundè ineunte.*

Long. 1·3, lat. 1·6 poll.

Hab. supra folia arborum propè Tanauan ad insulam Leyte dictam Philippinarum.

This species is most like *H. Coccomelos*, but may be distinguished from that by its thin, scarcely reflected outer lip. Two varieties in colour have been found, one of which is of a very dark chocolate-brown, and the other of a pale yellowish brown. Another variety, very much resembling this last, has been found at Loboek, in the island of Bohol, which differs only in the lip being rather more reflected.

HELIX MIRABILIS, De F. *Hel. testâ subglobosâ, imperforatâ, lævi, nitidâ, candidâ, epidermide olivaceo-lutescente indutâ; spirâ elevatiusculâ, obtusâ; anfractibus $4\frac{1}{2}$ rotundatis, ultimo maximo, plerumque fasciis duobus rufo-fuscis cincto; suturâ distinctâ; aperturâ subobliquâ, elliptico-rotundatâ; peritremate albo, latiusculo, reflexo; columellâ albâ, latiusculâ, anticè sinuatâ; labio interno tenui.*

Long. 1·6, lat. 1·3 poll.

Hab. supra folia arborum propè Albay, provinciæ Albaiensi ad insulam Luçon Philippinarum.

Syn. Helix galactites, Lam. (Hist. Nat. des Anim. sans Vert. vi. part 2, p. 69. April 1822).

Helix mirabilis, De Férussac (Hist. Nat. gen. et part. des Mollusques Terr. et Fluv., t. 31, f. 4, 5, 6. 1819).

A representation of this fine species, without the *epidermis*, was published by De Férussac in 1819, under the name of *Helix mirabilis*; his name is therefore here adopted. But Lamarck in 1822, although he quotes De Férussac's name and plate, has given it the name of *H. galactites*, which of course must give way to De Férussac's.

It appears extremely probable that both Lamarck and De Férussac have confounded with this species a variety of *Helix metaformis*, De F., the latter author having figured a var. of that species under the name of *H. mirabilis*, var. See his Tab. 104, f. 6 et 7, and Lamarck, describing his var. β . as "*testâ supernè in conum elongatâ*."

"I must here acknowledge my obligations to M. Valenciennes, who has informed me in a note that the species I have described under the name of *decipiens* is identical with this species, *H. mirabilis*, De F. I suspect that he may be right in his opinion, and will take the earliest opportunity of re-examining all the varieties of both, together.

"At present I will proceed to describe the principal varieties which have occurred to Mr. Cuming, and which are unquestionably referable to the *mirabilis* of De F."

a. Shell rather thick and strong, with three dark bands, one of which is close to the suture, and much narrower than the others.

b. Shell very thin, with bands similar to the last.

c. Shell with the spire much produced, and with three dark bands, of which the middle one is very slender.

d. Shell very thin, with a narrow sutural band, and a broader circumferential band.

e. Shell thick and strong, with only a very narrow antesutural band.

f. Shell thin, and entirely destitute of bands.

HELIX FULGENS. *Hel. testâ globoso-pyramidalî, crassiusculâ, imperforatâ, lævi, nitidâ, albidâ; spirâ prominulâ, obtusâ; anfractibus 4½ ventricosis, castaneo-nigroque fasciatis; lineis incrementi tenerimè insculptis; aperturâ suborbiculari, intûs albâ; fasciis nigris subconspicuis; peritremate reflexo, albo; columellâ latiusculâ, albâ, profundè ineunte.*

Long 1·5, lat. 1·15 poll.

Hab. ad Puerto Galero insulæ Mindoroensis Philippinarum.

Two principal varieties of this brilliant species have been found by Mr. Cuming; the one has black and chestnut-coloured bands, beautifully relieved on a light-coloured ground, and the other has the posterior part of each volution nearly white, one dark band close behind the circumference, and three close-set dark bands in front.

HELIX CHRYSOCHEILUS. *Hel. testâ subglobosâ, crassiusculâ, lævi, nitidâ, imperforatâ; spirâ mediocri, obtusâ; anfractibus quinque, ventricosis; lineis incrementi tenuitèr insculptis, epidermide pallescente indutis; aperturâ suborbiculari, intûs albâ; peritremate incrassato, reflexo, aurantiaco; columellâ latiusculâ, aurantiacâ, profundè ineunte; labio interno tenui.*

Hab. supra folia arborum ad Banqui provinciæ Ilocos septentrionalis ad insulam Luçon Philippinarum.

A very beautiful species, and apparently very distinct from any that have hitherto been noticed. It is extremely rare.

Prof. Owen read his description of a new genus and species of sponge, which he proposes to name *Euplectella Aspergillum*.

"Mr. Cuming has entrusted to me for description," says the author, "one of the most singular and beautiful, as well as the rarest of the ma-

rine productions with which his researches in the Philippine Islands have enabled him to enrich the zoological collections of his native country. This production is, however, a member of the very lowest class of the animal kingdom, if even it be permitted to rank in that division of organized nature. After repeated examination and much reflection, I can arrive at no other conclusion than that the object about to be described is the skeleton or framework of a species of sponge belonging to that division of the class called Horny, in opposition to the calcareous and siliceous groups, and to the Alcyonoid family. It is a hollow, cylindrical, slightly conical, and gently curved case or tube, resembling a delicate cornucopia, with the apex removed. It measures eight inches in length, two inches across the base, and one inch and a quarter across the apex, which is truncated. The base or wider aperture of the tube is sub-elliptical, and is closed by a cap of coarse and somewhat irregular network, gently convex externally, the circumference of which is divided from the walls of the cylinder by a thin projecting plate, standing out like a ruff or frill. This marginal plate varies in breadth from one to three lines. The parietes of the circular cone consist also of a network of coarse fibres, but these exhibit the greatest regularity of disposition, and intersect each other at definite and nearly equal distances throughout the course of the cone. They consist of longitudinal, transverse, and oblique fibres, the latter being of two kinds, winding spirally round the cylinder, but in opposite directions. The strongest fibres are the longitudinal and transverse ones, which are arranged at intervals of about a line and a half, and mark out regular square spaces of the same diameter: these spaces are kept of pretty equal size throughout the cone, from the circumstance of the longitudinal fibres diminishing in number as the cone decreases in size; the mode of diminution is not, however, by abrupt termination, but by the gradual convergence and final interblending of two contiguous longitudinal fibres, and the regularity of the interspaces is therefore disturbed at the intervals of such converging fibres. The fibre resulting from this union of two fibres bears a proportionate thickness to the additional material entering into its composition. The nature of such material is demonstrated at the apex of the cone by the resolution of the longitudinal fibres into their component filaments, each of them dividing at about two thirds of an inch from their extremity into a fasciculus or pencil of extremely delicate, stiff, glistening, elastic threads, resembling the finest hairs of spun glass. The transverse fibres, in like manner, are resolved at the truncated apex of the cone into their component filaments, which intersect those proceeding from the longitudinal fibres, as well as similar pencils from the oblique filaments, the whole forming an irregular silky tuft, which almost closes the apical aperture of the cone.

“The longitudinal fibres are external to the transverse ones, to which they are connected by both the spiral fibres, and by smaller and less regular intersecting fibres at the angles of the squares; the area of each square is thus reduced more or less to a circular form: at about one or two inches from the apex, these connecting reticulate fibres begin to rise in the form of narrow ridges from the general surface

of the network, and sooner on the convex than on the concave side of the bent cone. These ridges at first are short and interrupted; they are then more extended, but irregular in their course, some being transverse, others undulated or curved; but as they approach the base of the cone they are continued into broader ridges, which follow, with more or less regularity, the course of the oblique spiral fibres; the broadest of these ridges would measure two lines and a half. Their structure presents an extremely fine and irregular network, disposed, for the most part, in two plates, which converge as they recede from the general wall of the cone, and terminate in a sharp and well-defined edge. The component fibres of these reticulations, like those of the main network, are resolved into the fine silky filaments above mentioned. The fibres of the coarse irregular network which closes the basal aperture of the cone, and which constitutes the main characteristic of this Alcyonoid sponge, appear to be directly continued from, and, as it were, to include all those which enter into the composition of the longitudinal, transverse and oblique fibres of the wall of the cone; the frill-like ridge above described defining the line of transition from the one to the other. The inner surface of the reticulate parietes of the cone is even; not interrupted by any ridges or processes like those on the outer surface. The number of the longitudinal filaments at the base of the cone is 60; that at the smaller end, where they begin to resolve themselves into their constituent filaments, is 30. The diameter of the longitudinal fibres is about $\frac{1}{40}$ th of an inch; that of the transverse fibres is somewhat less. The oblique fibres, where they are most regular, average $\frac{1}{60}$ th of an inch; the longitudinal fibres, where they begin to resolve themselves into their component filaments, expand in the direction of a line passing to the centre of the cone, and not in the direction of the plane of its circumference; maintaining, in the latter respect, nearly the same breadth to their entire unraveling; whilst in the other dimension they equal one line in breadth before they are wholly decomposed. Small portions of a finely reticulate plate were loosely attached to some parts of the internal surface. The fibres of these pieces consisted of minute filaments, irregular in their course, branching, anastomosing, and sending off abrupt processes like thorns. The component filaments of the parietal fibres are of two kinds; the one simple, cylindrical, and smooth; the others barbed at pretty regular distances through their whole course, like the hair of certain caterpillars. I have also observed a long filament, simple at one extremity, and becoming barbed at the other. They consist of material like the dried gluten of marine plants, containing a small proportion of azote, and burning away to a charry residuum.

"If the basal aperture of the cone were open, the resemblance to many of the beautiful reticulate Alcyonoid sponges would be very close: its closure by the reticulate convex cap, in the present instance, establishes the generic distinction; and in the exquisite beauty and regularity of the texture of the walls of the cone the species surpasses any of the allied productions that I have, as yet, seen, or found described."

A letter from G. T. Vigne, Esq. was read. In this letter, at the request of the Society's Curator, Mr. Vigne furnishes the following list of Birds constituting part of a collection this gentleman had formed during his travels in Thibet, Cashmere, &c.

Aquila Bonelli, Gould. Cashmere and Lower Himalaya.

Buteo — ? Cashmere.

Accipiter fringillarius, Ray. Cashmere.

Falco biarmicus ? Temm. } Common in the plains under the Alpine
— *Chicquera* ? Lath. } Panjab.

Athene Cuculoides, Gould. In the Alpine Panjab.

Caprimulgus Asiaticus, Lath. Plain of Attok.

Merops Apiaster, Linn. Cashmere and Persia.

Alcedo Bengalensis, Gmel. Cashmere.

— *Smyrnensis*. Alpine Panjab.

Phanicornis brevirostris, Vig. *Ib.*

Muscipeta castanea, Temm. *Ib.*

Turdus atrogularis, Temm. *Ib.*

Oriolus galbuloides, Gould. *Ib.*

Icos leucogenys (*Brachypus leucogenys* of Hardwick and Gray's 'Indian Zoology'). Cashmere.

Note.—An allied species, differing in having red instead of yellow under the tail, is found in the plains of India.

Ianthocincla variegata, Gould. Alpine Panjab.

Petrocincla saxatilis, Vig. *Ib.*

— *Pandoo*, Sykes. *Ib.*

Enicurus maculatus, Vig. Cashmere.

Phanicura leucocephala, Vig. *Ib.*

Motacilla lugubris, Pall. *Ib.*

Coccothraustes Icteroides, Vig. Alpine Panjab.

Pastor Mahrattensis. *Ib.*

Garrulus lanceolatus, Vig. *Ib.*

Fregilus graculus, Cuv. Himalaya tops; Little Thibet.

Nucifraga hemispila, Vig. Cashmere.

Cuculus micropterus, Steph. Cashmere.

Dendrocopus Himalayanus. Alpine Panjab.

Picus nuchalis, Wagl. *Ib.*

Chrysoptilus squamatus, Swains. *Ib.*

Bucco grandis, Linn. *Ib.*

Tichodroma phaniceptera, Temm. Cashmere, Alpine Panjab, and Little Thibet.

Columba leuconota, Vig. Thibet mountains.

Turtur auritus, Ray. Alpine Panjab.

Phasianus Stacei, Vig. Chumba.

— *albocristatus*, Vig. Alpine Panjab.

— *Pucrasia*, Vig. *Ib.*

Lophophorus Impeyanus, Vig. Cashmere and Himalaya.

Tetraogallus Nigellii, Gray. Snow range, Cashmere and Little Thibet.

Pterocles arenarius, Temm. Plains of Panjab.

Francolinus vulgaris, Gould. Alpine Panjab and Indus.

Perdix Chukar, Lath. Thibet.

Coturnix Sinensis. India and Panjab.

Ardea cinerea, Lath. Panjab.

Ibis Falcinellus, Cuv. Little Thibet.

Scolopax rusticola, Linn. Dodah, near Cashmere,

Note.—A second species, nearly allied to the *Scolopax major*, Linn., is found in Cashmere.

Totanus ———? Thibet.

Parra Sinensis, Lath. Cashmere.

Querquedula Crecca, Steph. *Ib.*

Fuligula Nyroca, Steph. Little Thibet.

Mr. Vigne's letter also contains the following notes, relating to a species of Hare from Little Thibet, which was exhibited to the Meeting, and which he had presented to the Society:—

"The Hares of Little Thibet, which is a barren country, are found almost exclusively within, or within reach of, sandy valleys, through which a stream flows, creating on its flat banks just verdure enough for them to feed upon. They lie in forms, under rocks and stones; sometimes, when pursued, will take to any natural hollows beneath them, and are occasionally, and, in fact, frequently, sheltered by the thick bushes of *Tartarian furze*, with which the valleys of Little Thibet abound, more or less. They do not burrow, but scratch away a deep form under a stone or rock. In some respects this species resembles the Alpine Hare, but the latter has a small ear, whilst the present animal has a very large, broad, and open ear. I never heard that these Hares were gregarious, excepting from the necessity of seeking the same places in quest of food, and those being few and far between. The nature of the country would prevent any migration, such as that of the Alpine Hares.

"I never heard it utter any peculiar cry, and should think it not unlikely that the varieties said to exist in Tartary by Bewick, and to *whistle* sharply, like the chirping of a sparrow, must be the large Drun (?) or Thibetian Marmot, of which Jacquemont says he received a skin, and of which I and Dr. Falconer also have seen plenty. I had the skeleton of one, but unfortunately lost it."

Mr. Vigne moreover observes, that there are no Hares in Cashmere, though it is a country which appears to be particularly fitted for them; neither are there any gray or black Francolins, though all are found within four or five days' march of the Valley.

The Hare exhibited, Mr. Waterhouse observed, was an undescribed species, and he proceeded to characterize it under the name of

LEPUS TIBETANUS. *Lep. cinereus, pilis flavescenti-albo nigroque annulatis; abdomine albo; pedibus supra sordide albis, subtus sordide flavescenti-fuscis, pilis densis indutis; caudâ mediocri, albâ, supra nigricante; auribus longis, ad apicem nigricantibus: nuchâ sordide albâ, indistinctè fulvo-lavâtâ.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin. . . .	18	0
———— <i>caudæ</i>	4	6
———— <i>tarsi</i>	5	0
———— <i>auris</i>	4	6
———— ab apice rostri ad basin auris	3	8

The Thibet Hare, compared with most other species of the genus, is most remarkable for its pale grayish colouring, and the almost total absence of brown or yellow tints in its fur. On the upper parts of the body the fur is of a pale gray hue next the skin; the hairs are blackish beyond the middle, and at the point, and broadly annulated with white or cream colour near the point; but interspersed with the ordinary fur on this part of the body are numerous hairs which are white at the base, though annulated like the others on the apical portion. The fur on the chest is also pale gray at the base, but externally it has a faint fulvous hue, though it might almost be described as dirty white, and the *occiput* and back of the neck are of the same hue. On the belly the fur is white, even next the skin. The legs and feet are almost white; a slight ashy tint is observable on the outer side of the hinder pair; they are rather densely clothed with fur, and that on the under side is of a yellowish-brown hue, but not very dark. The ears are very large, and well clothed with hairs; on the outer part, in front, these hairs have the same colouring as those on the back of the animal, but on the hinder part they are white, or nearly so, and the apical portion of the ear is broadly margined with black.

The skull, compared with that of the common Hare, differs, in being much smaller, and proportionally narrower; the upper incisors have the groove rather more near the middle of the tooth. Following are the principal dimensions of the skull:—

	in.	lin.
Total length	3	4
Width	1	$7\frac{1}{8}$
Width between orbits	1	0
Length of nasal bones	1	5
Width at base	0	8
Length of bony palate	1	$2\frac{1}{3}$

Mr. Gould exhibited and characterized a new species of *Himantopus*, which he had received from New Zealand.

HIMANTOPUS NOVÆ ZELANDIÆ. Him. fuliginoso-niger, dorso, alis caudæque nitore virescente tinctis. Exempla, fronte, loris, mento, collo anticè, et ad latera, sic et pectore crissoque albis, nonnunquam obveniunt.

The whole of the plumage sooty black, with the exception of the back, wings and tail, which are glossed with green: examples sometimes occur with the forehead, lores, chin, front and sides of the neck, chest, and under tail-coverts white; bill black; feet pink-red.

Total length, 16 inches; bill, 3; wing, $9\frac{1}{4}$; tail, $3\frac{1}{2}$; tarsi, $3\frac{1}{4}$.

This bird is interesting, not so much for its beauty, but as adding another species to the very limited genus *Himantopus*, of which, until lately, only one was known. Mr. Gould regretted that no other information accompanied the specimens than that they were killed at Port Nicholson. From the great difference in their colouring it might be supposed that they are distinct, but he inclines to believe that they are either the result of age or season; in all probability the black plumage is that of summer.