

April 23, 1833.

The Dean of Carlisle in the Chair.

The following letter, addressed to the Secretary by Mr. J. C. Lees, was read. It was accompanied by a drawing of the animal referred to in it, which was exhibited: it represented a species of *Glaucois*, Forst.

“ Being at sea about two years ago, between the Azores and the Bahama Islands, in about lat. 30° N. long. 50° W., I observed the surface of the sea thickly covered in every direction, as far as I could see, with small animals. Having drawn up some of them in a bucket, I found them to have bodies and tails nearly resembling those of a *Lizard*, but the head was thick and blunt without any appearance of neck. I could not discover either eyes or mouth. Four short arms, or limbs, were attached to the body, nearly in the same situation as the legs of a *Lizard*, and from the outer end of each of them proceeded, in a radiating direction, fifteen slender feelers, diminishing to a fine point, the centre ones longer than the others. These animals were of a deep, but vivid blue colour, with a bright, well-defined line of silver down the back, from the head to the extremity of the tail; this streak of silver branched off also into the arms, and along each of the feelers, till towards the points it formed so thin a line as to become gradually imperceptible. The under part of the animals was of a silvery white; their appearance was very beautiful; they were about 1½ inch long from the front of the head to the end of the tail, and about the same across from the extremities of the longest of the opposite feelers. The water continued covered with them for two days, during which time we sailed over about 100 miles; the number of them must therefore have been prodigious.

“ They remained perfectly quiet in the water except when touched, when they either partially or entirely drew themselves up into a ball: they could in this manner draw up either one or more feelers, or the whole limb, with its fifteen. They did not appear to notice the approach of a finger or piece of stick until it actually touched them, and then did not attempt to swim away, but only drew up the part touched with a sudden and apparently angry jerk of the head. If the touch was violent or repeated, they drew themselves entirely up in a globular form; and the same thing occurred when they came in contact with each other. I endeavoured to preserve some of them alive by keeping them in sea water, but in three or four days they all died, and immediately shrunk up into a shapeless mass of a brown colour. I was equally unsuccessful in my endeavour to preserve them in spirits, in strong salt and water, or in vinegar: the instant they were introduced into those liquids they shrivelled up into a brownish shapeless mass. Although I

have several times crossed the Atlantic, and have continually had other opportunities of observing the sea, I have never before or since seen any of these animals. Neither the captain nor seamen of the vessel I was in recollected ever having seen any of them."

A note was read, addressed to the Secretary by Charles Telfair, Esq., Corr. Memb. Z.S. It was accompanied by a fossil bone from Vohemar in Madagascar, which was exhibited. The bone was considered as "part of the palate of a fish, called, in these seas, *la gueule pavée*." It was contrasted with the bones constituting the grinding apparatus of the spotted Eagle Ray, *Myliobatis Narinari*, Dum., from which it was remarkably distinct both in form and structure. It appears to be referrible to the inferior pharyngeal bone of a gigantic species of *Scarus*. In a recent *Scarus*, a foot in length, the inferior pharyngeal bone is 3 lines wide, and the number of series of oval *laminæ* forming its teeth is three, reckoned transversely, and exclusive of the elevated series forming a border along each side. In the fossil, the raised margins are wanting: without these its breadth is 1 inch and a half, and the number of series of *laminæ* is four. Some recent specimens in the Museum of the Royal College of Surgeons are little inferior in size.

The exhibition was resumed of the collection of *Shells* formed by Mr. Cuming on the western coast of South America, and among the islands of the South Pacific Ocean. The new species brought on the present evening under the notice of the Society were accompanied by characters by Mr. Bröderip and Mr. G. B. Sowerby.

Genus CONUS.

Before the author proceeds to describe the species brought to this country by Mr. Cuming, it may be necessary to point out the difficulty of the task, arising from the infinite varieties presented by this genus, and the very few points of form and structure in the shell which can be relied on as the foundation of specific character.

M. de Blainville, when noticing the numerous species already recorded, gives us a hint that many of them may be what Adanson calls "espèces de cabinet;" and no one can examine an extensive collection of *Cones*, particularly if it contain many individuals of each species for the purpose of comparison, without being struck by the force of the observation. Colour,—granulation or smoothness,—length or shortness of the spire,—its plainness or coronation,—will be found in many species to be the result of locality, food, or temperature. The following descriptions are, therefore, given with the diffidence which an investigation of the subject cannot fail to inspire.—W. J. B.

CONUS TIARATUS. *Con. testâ rhomboideâ, castaneâ monilibus castaneo-albis tessellatis et basin versus pallidè bifasciatâ; spirâ subproductâ coronatâ: long. 1 $\frac{2}{3}$, lat. $\frac{5}{8}$ poll.*
Hab. ad Insulas Gallapagos.

This species varies in size and intensity of colour. In fine specimens the white and chestnut tessellated necklaces are very distinct. The interior of the shell corresponds in colour with its exterior.

Found on sand in small ponds of sea-water.—W. J. B.

CONUS TORNATUS. *Con. testá rhomboideo-productá, sulcatá, sulcis prominentibus, scabris, albá castaneo maculatá et punctatá; spirá conicá, productá, carinatá; epidermide subfusca, tenui: long. $1\frac{1}{2}$, lat. $\frac{1}{2}$ poll.*

Hab. in Americá Meridionali. (Xipixapi.)

This elegant species looks as if it had been turned in a lathe. It was found from ten to twelve fathoms deep in sandy mud.—W. J. B.

CONUS NIVIFER. *Con. testá conicá, subfusca maculis niveis frequentissimè sparsá et fasciis 3 castaneis (ultimo maximo) cinctá; spirá planiusculá, apice acuto; basi castanea: long. 1, lat. $\frac{5}{8}$ poll.*

Var. α fasciis subobsoletis.

Var. β sine fasciis: varietas forsan *Coni nivosi*, Lam.; quære tamen.

Hab. ad Insulas Capo de Verde dictas.—W. J. B.

A very elegant species, especially when well developed and with the three dark bands complete.

The variety β may be Lamarck's *Con. nivosus*, but he refers to no figure, and the term "mouchetures" will hardly apply to the flake-like spots on our shell.—W. J. B.

CONUS NANUS. *Con. testá conicá, sursum albá, deorsum lividá; spirá coronatá, apice acuto; basi et fauce purpurascens: long. $\frac{2}{3}$, lat. $\frac{1}{2}$ poll.*

Hab. in Oceano Pacifico. (Lord Hood's Island.)

Found on the reefs.—W. J. B.

CONUS LUTEUS. *Con. testá rhomboideo-productá, luteá monilibus castaneis exhibibus cinctá et maculis nigro-castaneis albo limbatis in spiram et in anfractús basalis medium tessellatá: long. $1\frac{1}{2}$, lat. $\frac{5}{8}$ poll.*

Hab. in Oceano Pacifico. (Annaa.)

The spire of this species, though full and rounded, terminates in a short acute point. The shell tapers rapidly towards the base. When in perfection, its rich saffron colour, girt with numerous delicate necklaces, and the broad belt of interrupted tessellated spots of the darkest chestnut bordered with the purest white, give it a very beautiful appearance. The tessellated spots are so regularly set on the whorls of the spire as to look like mosaic work. Some of the specimens have a pale yellow for the ground colour; but these seem to be faded.

Found on the reefs.—W. J. B.

CONUS CONCINNUS. *Con. testá sub-pyriformi, politá, basi transversim sulcatá, albo luteoque quasi geographicè pictá; spirá*

subrotundatæ suturis subcrenulatis, apice acuto, roseo: long. $\frac{1}{10}$, lat. $\frac{1}{10}$ poll.

Hab. in Sinu Californiæ.

Found on the sands.—W. J. B.

CONUS RECURVUS. *Con. testâ elongato-conicâ, subrecurvâ, albâ rubro-castaneo nebulosâ et vittatim punctatâ; spirâ prominente, acutâ, albo castaneoque maculatâ; epidermide tenuissimâ: long. 2, lat. $\frac{2}{3}$ poll.*

Hab. in Americâ Meridionali. (Monte Christi.)

In young specimens the top of the body whorl, just as it joins the spire, is surrounded by a thin elevated edge. This, in young individuals, is almost sharp: with age all traces of it disappear. In its markings it sometimes resembles *Conus Amadis*.

Found in gravel at a depth of twenty-two fathoms.—W. J. B.

CONUS NUX. *Con. testâ brevi, conicâ, obesâ, albâ brunneo nebulosâ; spirâ subcoronatâ; basi granulosa, acutâ, violacâ: long. 1, lat. $\frac{1}{2}$ poll.*

Hab. ad Insulas Gallapagos.

In some individuals the brown predominates almost to the exclusion of the white, save a few scattered spots and flakes. This *Cone* approaches to *Con. sponsalis*, and perhaps may be a variety of that species.—W. J. B.

CONUS MONILIFER. *Con. testâ subfusiformi, transversim striatâ, albicante, castaneo-variegatâ, punctis castaneis seriatim ordinatis; spirâ acuminatâ, albo castaneoque variâ, apice acuto: long. 2, lat. $\frac{1}{2}$ poll.*

Hab. in Americâ Meridionali. (Salango.)

Dredged at the depth of nine fathoms in sandy mud. A single specimen.—G. B. S.

CONUS ARCHON. *Con. testâ conicâ, albâ maculis flavo-castaneis geographicè distributis variâ: long. $2\frac{1}{2}$, lat. $1\frac{1}{2}$ poll.*

Hab. in Americâ Centrali. (Bay of Montija.)

This shell approaches some of the varieties of *Con. Cedo-nulli* in its contour and markings. It is the only specimen found by Mr. Cuming, and was taken from sandy mud at a depth of twelve fathoms.—W. J. B.

CONUS MUSIVUM. *Con. testâ rhomboideâ, transversim striatâ, pallidè rosâ albo tessellatâ, maculis strigisque castaneis pictâ: long. $1\frac{1}{2}$, lat. $\frac{1}{2}$ poll.*

Hab. ad Insulas Philippinas.

This elegant *Cone*, which is in some degree allied to *Con. Textile* and its varieties, was found on the sands.—W. J. B.

CONUS PURPURASCENS. *Con. testâ conoideâ, subgranulosâ, purpurascente monilibus frequentibus fusco-albis ornatâ et maculis fuscis nubilâ; labri limbo interno violaceo; epidermide fuscâ, moniliformi: long. $2\frac{1}{2}$, lat. $1\frac{1}{2}$ poll.*

Hab. ad Panamam.

This *Cone* varies much in its colouring and markings. Some varieties present fantastic figures like *Con. Augur*; in others the brown patches are large and like cloudy shapes; in all, the brown and white tessellated necklaces are to be seen, as well as the violet rim on the inside of the lip. As in most of the *Cones* which have that peculiarity, some individuals are much more granulose than others.

Found on sandy mud in the clefts of rocks.—W. J. B.

CONUS GLADIATOR. *Con. testâ conicâ, brunneâ albo obscurè longitudinaliter strigatâ, balteo subcentrali subobsoleto, albente; spirâ subcoronatâ, granuloso-striatâ, brunneâ albo maculatâ; epidermide crassâ longitudinaliter rugosâ, hinc et hinc subtomentosâ: long. $1\frac{1}{2}$, lat. 1 poll.*

Hab. ad Panamam.

Sometimes the ground colour is ash-colour, with longitudinal chestnut stripes.

Found in sandy mud in the clefts of rocks.—W. J. B.

CONUS ORION. *Con. testâ conicâ, castaneâ albo sparsim maculatâ, balteo albo supernè interdum castaneo tessellatâ cinctâ; spirâ mediocri albo castaneoque maculatâ: long. $1\frac{1}{2}$, lat. $\frac{7}{8}$ poll.*

Var. vittâ albâ moniliformi inter spiram et balteum.

Hab. in Americâ Centrali. (Real Llejos).

Found in soft sand in the clefts of rocks.—W. J. B.

CONUS GEOGRAPHUS.

Varietas nana, rosea: long. 2, lat. $\frac{7}{8}$ poll.

Hab. in Oceano Pacifico. (Annaa.)

I do not find sufficient grounds for distinguishing this shell from *Con. geographus*. It is rather more dense in proportion to its size, and the spire is somewhat more elongated and contracted than that of the large variety: but these differences cannot be depended on as specific distinctions when set against the resemblance to *Con. geographus* in general form, and in the texture of its markings.

Found on the reefs.—W. J. B.

CONUS PRINCEPS.

Var. α. *Con. testâ conicâ, croceâ vel flavâ lineis castaneis frequentibus longitudinalibus tenuibus inscriptâ: long. $2\frac{1}{8}$, lat. $1\frac{1}{2}$ poll.*

Hab. ad Sanctam Elenam.

I cannot distinguish this shell specifically from *Con. Princeps*. In some individuals, there is a blank interval without any lineations. The only *epidermis* which I have seen is smooth and thin.

Found in sandy mud in the clefts of rocks.—W. J. B.

Var. β. long. $2\frac{3}{8}$, lat. $1\frac{1}{3}$ poll.

Hab. ad Panamam.

This much resembles the last, but the lineations are less regular, and in some individuals almost entirely absent: the shell too is somewhat more ponderous than that of *var. α.* The only *epidermis* which I have seen is rather thick and tufted, like that of *Con. Princeps*.

Found in soft mud in the crevices of rocks.—W. J. B.

Var. γ . Tota crocea : long. $2\frac{1}{2}$, lat. $1\frac{1}{2}$ poll.

Hab. ad Montem Christi.

The spire of this is somewhat more developed than that of the shells above described ; and elevated transverse lines surround most of the specimens. In some, traces of attempts at the longitudinal lineations are found. After a careful examination, I cannot separate this variety specifically from the other two. The elevated transverse lines are to be found in both the others.

Found in sandy mud in the clefts of rocks.—W. J. B.

In further illustration of his Paper "On the Laws that regulate the Changes of Plumage in Birds," Mr. Yarrell exhibited several varieties of British species, which possessed in part only the plumage common to the race. In some of these the feathers assumed at the moult were of the natural colour, and distinct from those previously borne ; from which it was inferred, that, as the bird increased in age and strength, the plumage would assume entirely the colours peculiar to the species.

Mr. Yarrell also referred to some newly-collected series of feathers, which were shown. They were taken from birds at this time assuming the plumage of summer. In the *black-tailed Godwit*, *Limosa melanura*, Leisl., many of the old feathers produced at the preceding autumn moult still retained the colours they had borne through the winter ; others were changing ; and some had entirely assumed the colours peculiar to the breeding season, bearing the same tints and markings as some new feathers, the webs of which were only partly exposed. A series of feathers from the breast of the *Golden Plover*, *Charadrius pluvialis*, Linn., were also shown,—some entirely white, the colour peculiar to winter ; some entirely black, being the prevailing colour of the breeding season ; and others bearing almost every possible proportion of well-defined black and white on the same feathers.

Several feathers were also shown which were taken from a *Herring Gull*, *Larus argentatus*, Brunn., in its third year, which is now at the Society's Gardens. This bird was examined at Christmas last. Several tertial feathers were found to have their basal half blue-grey, the other half mottled with brown. Two notches were made with scissors in the webs of these feathers, intended to refer to the two colours then present. Some other feathers were wholly mottled with brown, and were marked with one notch. This bird was re-examined in April. The tertial feathers, which, when marked, were of two colours, were now entirely blue-grey ; one feather was tipped with white. The other feathers, which, when marked, were wholly mottled, were now, for two thirds of their length, pure white, the terminal third alone retaining the mottled brown.