# May 13, 1834.

### Richard Owen, Esq., in the Chair.

A Note was read from Mrs. Barnes, in which it was stated that that lady had brought up from the nest two of the smallest species of Jamaica Humming-birds. They were so tame, that at a call they would fly to her, and perch upon her finger. Their food was sugar and water. During the passage to England one of them was killed by the cage in which they were kept being thrown down in a storm ; its companion drooped immediately, and died shortly afterwards.

It was remarked that injury to the bird in consequence of such an accident might be prevented by the introduction of a gauze-net screen into the cage, at some little distance within the wires.

Specimens were exhibited of several Mammalia from India, which had recently been presented to the Society by Lord Fitzroy Somerset. They were brought under the notice of the Meeting by Mr. Bennett, who called particular attention to the skin of a Paradoxurus, which he regarded as that of Par. prehensilis, Gray, a species hitherto known only by a drawing of Dr. Hamilton's preserved in the East India House.

The general colour of the animal is a pale greyish brown, in which longer black hairs are sparingly intermixed on the sides. On the back of the head and neck, and along the middle line of the back, these black hairs are almost the only ones that are visible. On the loins they form three indistinct black bands, of which the lateral are in some measure interrupted. The head is brownish, with the usual grey mark both above and below the eyes, and there are some short grey hairs between the eyes and across the forehead. The limbs are brownish black, rather darker towards their upper part. The tail, at its base, is of the same colour as the back, and rapidly becomes black ; its terminal fifth is yellowish white. The ears are rather large, and sparingly covered with short brownish hairs.

Specimens were exhibited of three species of horned Pheasants, including the Tragopan Temminckii, Gray. In illustration of the history of the latter bird, Mr. G. Bennett, Corr. Memb. Z.S., placed upon the table drawings of specimens observed by him at Macao, and showing the remarkable wattle in various degrees of development. He also read a note on the subject.

In its contracted state the membrane has merely the appearance of a purple skin under the lower mandible; and it is even sometimes so much diminished in size as to be quite invisible. It becomes developed during the early spring months or pairing season of the year, No. XVII.—PROCEEDINGS OF THE ZOOLOGICAL SOCIETY.

fran, January to March, when it is expairie of being displayed or contracted at the will of the bird. During excitement if is colorged, falls over the breast, and exhibits the most brilliant colours, principally of

a vivid purple, with bright red and green spots : the colours vare in

from January to March, when it is capable of being displayed or contracted at the will of the bird. During excitement it is enlarged, falls over the breast, and exhibits the most brilliant colours, principally of a vivid purple, with bright red and green spots : the colours vary in intensity according to the degree of excitement. When they are most brilliant, or, in other words, when the excitement is great, the purple horns are usually elevated. The living specimens seen by Mr. G. Bennett were procured from the province of Yunnan, bordering on Thibet. Mr. Beale, in whose aviary at Macao they were, had not succeeded in obtaining females of this race. Its Chinese name is *Tu Xou Nieu*.

Mr. G. Bennett also read a note on the habits of the King Penguin, Aptenodytes Patachonica, Gmel., as observed by him on various occasions when in high southern latitudes. He described particularly a colony of these birds, which covers an extent of thirty or forty acres, at the north end of Macquarrie Island, in the South Pacific Ocean. The number of *Penguins* collected together in this spot is immense, but it would be almost impossible to guess at it with any near approach to truth, as, during the whole of the day and night, 30,000 or 40,000 of them are continually landing, and an equal number going to sea. They are arranged, when on shore, in as compact a manner and in as regular ranks as a regiment of soldiers; and are classed with the greatest order, the young birds being in one situation, the moulting birds in another, the sitting hens in a third, the clean birds in a fourth, &c.; and so strictly do birds in similar condition congregate, that should a bird that is moulting intrude itself among those which are clean, it is immediately ejected from among them.

The females hatch the eggs by keeping them close between their thighs; and, if approached during the time of incubation, move away, carrying the eggs with them. At this time the male bird goes to sea and collects food for the female, which becomes very fat. After the young is hatched, both parents go to sea, and bring home food for it; it soon becomes so fat as scarcely to be able to walk, the old birds getting very thin. They sit quite upright in their roostingplaces, and walk in the erect position until they arrive at the beach, when they throw themselves on their breasts, in order to encounter the very heavy sea met with at their landing-place.

Although the appearance of *Penguins* generally indicates the neighbourhood of land, Mr. G. Bennett cited several instances of their occurrence at a considerable distance from any known land.

The Secretary announced the recent addition to the Menagerie of the Perdix sphenura, Gray; the Philippine Quail, Coturnix Sinensis, Cuv.; and the Hemipodius Dussumieri, Temm.?: all presented to the Society by John Russel Reeves, Esq., of Canton. He added, that a second male specimen of the Reeves's Pheasant, Phasianus veneratus, Temm., had also been sent to the Menagerie by John Reeves, Esq. A pair of the middle tail-feathers of the last-named bird, measuring upwards of five feet in length, and presented by Wm. Craggs, Esq., were exhibited. Numerous specimens were exhibited from Mr. Cuming's collection, in illustration of a Paper by Mr. Broderip, entitled, "Descriptions of several New Species of Calyptræidæ."

The new species described in this paper are distributed and characterized as follows :

#### Subgenus CALYPTRÆA.

Testa subconica, subacuminata, cyathi basi adhærente, lateribus liberis.

#### a. Cyatho integro.

CALYPTRÆA RUDIS. Cal. testá fuscá, subdepressá, suborbiculari, radiatim corrugatá, limbo crenato; cyatho concentrice lineato, albido, irregulariter subcirculari; epidermide subfuscá: diam. 2 poll. circiter, alt. 72.

Hab. ad Panamam et Real Llejos.

This species, whose white onyx-like cup, adhering only by its base, shows to great advantage against the ruddy brown which is the general colour of the inside of the protecting shell, was found under stones. The young shells are the flattest and most regular in form, but their inside is generally of a dirty white, dimly spotted with brown.— W. J. B.

β. Cyatho hemiconico, longitudinaliter quasi diviso. (Calyptræa, Less.)
CALYPTRÆA CORRUGATA. Cal. testá subalbidá, suborbiculari, subdepressá, corrugatá; intûs nitente; cyatho concentrice lineato, producto; epidermide fuscá: diam. 1§ poll. circ., alt. <sup>8</sup>/<sub>10</sub>.
Hab. in Americâ Centrali. (Guacomayo.)
Found under stones at a depth of fourteen fathoms.—W. J. B.

CALYPTREA VARIA. Cal. testá albidá, suborbiculari, crassiusculá, longitudinaliter creberrimè striatá ; cyatho concentricè lineato,

crassiusculo, producto : diam. 13, alt. max. 7, alt. min. 3 poll.

Hab. in Oceano Pacifico. (Lord Hood's Island, the Gallapagos, and the Island of Muerte in the Bay of Guayaquil.)

This is a very variable species allied to Cal. equestris, and taking almost every shape which a Calyptræa can assume. It differs in thickness according to localities and circumstances.—W. J. B.

CALYPTRÆA CEPACEA. Cal. testá albá, suborbiculari, subconcavá, tenui, diaphaná, striis numerosis subcorrugatá; intùs nitente; cyathi terminationibus lanceolatis: long. 11, lat. 11, alt. 3 poll. Hab. in sinu Guayaquil. (Island of Muerte.)

This was dredged up, adhering to dead shells, from sandy mud, at a depth of eleven fathoms. Besides other differences, the terminating points of the divided *cyathus* are much more lanceolate than they are in *Cal. varia.*—W. J. B.

CALYPTRÆA CORNEA. Cal. testá suborbiculari, complanatá, albidá, subdiaphaná, concentrice lineatá et radiatim striatá; intús nitente: diam. §, alt. § poll.

Hab. ad Aricam Peruviæ,

Dredged up from sandy mud at a depth of nine fathoms.-W. J. B.

### Subgenus CALYPEOPSIS, Less.

Cyatho interno integro, lateraliter adhærente.

CALYPTRÆA RADIATA. Cal. testá conico-orbiculari, albidá fusco radiatá, striis longitudinalibus crebris; limbo crenulato; apice acuto, subrecurvo; cyatho depresso: diam. 1, alt. 75 poll.

Hab. in America Meridionali. (Bay of Caraccas.)

The cup of this pretty species is pressed in, as it were, on one side, and adheres to the shell not only by its *apex*, but also by a lateral seam, which scarcely reaches to the rim of the cup. The *apex* of the younger specimens, both externally and internally, is generally of a rich brown, and there can be little doubt that when first produced they are entirely of that colour.

Found in sandy mud, on dead shells, at a depth of from seven to eight fathoms.—W. J. B.

CALYPTRÆA IMBRICATA. Cal. testá albidá, crassá, subconicá, ovatá, costis longitudinalibus et squamis transversis imbricatá; apice subincurvo, acuto; limbo crenato; cyatho depresso: diam. 1, lat. §, alt. § poll.

Hab. ad Panamam.

Found on stones, in sandy mud, at a depth of from six to ten fathoms.-W. J. B.

CALYPTRÆA LIGNARIA. Cal. testá crassá, fuscá, deformi, striis corrugatá; apice prominente subadunco, acuto, posteriore : long. 140, lat. 6, alt. 7 poll.

Hab. in America Centrali. (Real Llejos.)

The majority of individuals of this species have their shells so deformed that they set description at defiance : the comparatively wellformed shell occurs so rarely that it may be almost considered as the exception to the rule. When in this last-mentioned state, the circumference of the shell is an irregular, somewhat rounded oval, and it rises into a shape somewhat resembling the back of *Ancylus*, with the *apex* very sharp and inclining downwards. The shell in this shape is generally less corrugated than it is in deformed individuals, though some of those are comparatively smooth ; but in both states the shell is striated immediately under the *apex*, and is for the most part corrugated on the other side of it.

Found under stones.

Var. a. Enormiter conica, cyatho valdè profundo.

This variety is often one inch and six eighths in height, and its cup nearly one inch deep, while the diameter of the shell at the aperture does not exceed one inch.

Found on shells at the Island of Chiloe, in sandy mud, at the depth of four fathoms.—W. J. B.

CALYPTRÆA TENUIS. Cal. testá irregulari, tenui, subdiaphaná, creberrimè striatá, albidá interdum fusco pallide strigatá: diam. 1 circ., alt. 8 poll.

Hab. ad Peruviæ oras. (Samanco Bay.)

Found on living shells, in muddy sand, at a depth of nine fathoms. -W. J. B. CALYPTRÆA HISPIDA. Cal. testá subovatá, subconicá, albá strigis maculisque subpurpureo-fuscis variá, striis frequentibus et spinis tubularibus erectis hispidá; limbo crenulato; apice turbinato; cyatho subdepresso: diam. 12, lat. 3, alt. 3, poll.

Hab. ad Insulam Muerte. (Bay of Guayaquil.)

This elegant species, the circumference of whose somewhat depressed cup is free, with the exception of one part where it adheres laterally, was found on dead shells, in sandy mud, at a depth of twelve fathoms.—W. J. B.

CALYPTR EA MACULATA. Cal. testá ovatá, albidá purpureo-fusco maculatá, longitudinaliter rugosá; limbo serrato; apice subturbinato, subincurvo: diam. 12, lat. 70, alt. 3 poll.

Hab. ad Insulam Muerte.

The external contour of this shell, more especially in the position of the subturbinated *apex*, much resembles that of *Ancylus*. The circumference of the cup is free, excepting at one point, where it adheres laterally throughout its length.

Found in sandy mud, on dead shells, at a depth of eleven fathoms. -W. J. B.

CALYPTRÆA SERRATA. Cal. testá suborbiculari, albá subpurpureo vel fusco interdum fucatá vel strigatá, costis longitudinalibus prominentibus rugosis; limbo serrato; apice subturbinato; cyatho valde depresso: diam.  $\frac{1}{2}$ , lat.  $\frac{5}{2}$ , alt.  $\frac{3}{12}$  poll.

Hab. ad Real Llejos et Muerte.

Var. testâ albâ.

Found on dead shells, in a muddy bottom, at the depth of from six to eleven fathoms.—W. J. B.

### Subgenus SYPHOPATELLA, Less.?

Laminâ internâ subtrigonâ, subcirculari, latere dextro replicato.

CALYPTRÆA SORDIDA. Cal. testá subconicá, sordide luteá, longitudinaliter subradiatá; apice turbinato; cyatho depresso, subtrigono, haud profundo: diam. 1/2, lat. 5/2, alt. 1/3 poll.

Hab. ad Panamam.

This species, the inside and outside of which are of a sordid yellow, is generally covered externally with coral or other marine adhesions. The plate is spoon-shaped.

CALYPTRÆA UNGUIS. Cal. testá tenui, conicá, corrugatá, fuscá; apice subturbinato; cyatho depresso, subtrigono: diam. 147, alt. 30 poll.

Hab. ad Valparaiso.

The plate is spoon-shaped, but not so shallow as that of Cal. sordida.

CALYPTRÆA LICHEN. Cal. testá albidá, interdum pallide fusco

sparsá, subdiaphaná, subturbinatá, orbiculatá, complanatá : diam. &, alt. & poll.

Hab. ad Insulam Muerte.

Found on dead shells, in sandy mud, at a depth of eleven fathoms. -W. J. B.

CALYPTRÆA MAMILLARIS. Cal. testá albidá, subconicá; apice subpurpureo, mamillare: diam.  $\frac{5}{10}$ , alt.  $\frac{4}{12}$  poll.

Hab. ad Insulam Muerte.

This pretty species varies. It is sometimes milk white, with the mamillary *apex* of a brownish purple, and with the inside sometimes of that colour, sometimes white, and sometimes yellowish. In other individuals the white is mottled with purplish brown stripes and spots.

Found on dead shells, in sandy mud, at a depth of eleven fathoms. -W. J. B.

CALYPTRÆA STRIATA. Cal. testá sordide albá, suborbiculatá, subconicá, subturbinatá, striis longitudinalibus elevatis creberrimis corrugatá; intús fusco-flavescente: diam. 19, alt. 3, poll. Hab. ad Valparaiso.

Found on shells in sandy mud, at a depth of from forty-five to sixty fathoms.

CALYPTRÆA CONICA. Cal. testá conicá, fuscá albido maculatá, subturbinatá: diam. 1<sup>4</sup>/<sub>8</sub>, alt. <sup>7</sup>/<sub>70</sub> poll.

Hab. ad Xipixapi et ad Salango.

Found attached to shells in deep water.

Subgenus CREPIPATELLA, Less.

Laminâ rotundatâ, apice laterali et subterminali.

CALYPTRÆA FOLIACEA. Cal. testá suborbiculari, albidá, foliaceá; intús castaneá vel alba castaneo variá: diam. 1, alt. 3 poll.

Hab. ad Aricam Peruviæ, saxis adhærens.

This Crepipatella, which bears no remote resemblance to the upper value of some of the Chamæ when viewed from above, was found on exposed rocks near the shore.—W. J. B.

CALYPTRÆA DORSATA. Cal. testá subalbidá, planiusculá, costis longitudinalibus irregularibus rugosá; intùs medio fusco-violaceá: diam. 3, lat. 1 poll.

Hab. ad Sanctam Elenam.

The back of this shell is not unlike the upper value of some of the *Terebratulæ*.

CALYPTREA DILATATA, Lam., varietas intùs nigro-castanea. Cal. testa sordidè alba castaneo strigata; intùs nitidè nigro-castanea; lamina alba: diam. 1<sup>2</sup>/<sub>1</sub>, lat. 1<sup>1</sup>/<sub>2</sub>, alt. <sup>1</sup>/<sub>2</sub> poll.

Hab. ad Valparaiso.

This highly coloured variety was found on exposed rocks at low water. The pure white of the plate shows to great advantage, lying above the rich back ground of the interior of the shell. In some individuals this internal colour is all but black.—W, J. B. CALYPTRÆA STRIGATA. Cal. testá subcorrugatá, sordide rubrá albo variá; intús subrufá interdum alba vel alba rubro-castaneo variá: diam. 1 poll.

Hab. ad Valparaiso.

This varies much both in colour and shape. Some of the specimens are quite flat, and the *lamina* almost convex. An obscure subarcuate longitudinal whitish broad streak may be traced on the backs of most of them. It is not impossible that it may be a variety of *Cal. dilatata*.

CALYPTRÆA ECHINUS. Cal. testá albidá violaceo maculatá, interdum fuscá, striis longitudinalibus creberrimis spinis fornicatis horridá; intús flavente vel albá: diam. 1<sup>1</sup>/<sub>2</sub>, lat. 1<sup>1</sup>/<sub>8</sub>, alt. <sup>5</sup>/<sub>8</sub> poll. Hab. ad Peruviam. (Lobos Island.)

In old specimens the spines are almost entirely worn down, and rough *striæ* only, for the most part, remain. In this state it bears a great resemblance to the figure given of *Crepidula fornicata* in Sowerby's Genera of Shells, No. 23, f. 1.

Found under stones at low water .--- W. J. B.

CALYPTRÆA HYSTRIX. Cal. sordide albá vel fuscá, complanatá, longitudinaliter striatá, spinis magnis fornicatis apertis seriatim dispositis; intùs albidá, interdum castaneo maculatá: diam. 1<sup>2</sup>/<sub>8</sub>, lat. <sup>7</sup>/<sub>8</sub>, alt. <sup>3</sup>/<sub>8</sub> poll.

Hab. ad Peruviam. (Lobos Island.)

Approaching the last, but differing in being always more flattened, in the comparatively great size of the vaulted spines, and in the comparatively wide interval between them; still I would not be positive that they are not all varieties of *Crepidula aculeata*, Lam.—W. J. B.

CALYPTRÆA PALLIDA. Cal. testá sordide albá, ovatá; apice prominente: diam. 3, lat. 8, alt. 8 poll. Hab. ad Insulas Falkland dictas.

Found under stones.-W. J. B.

## Subgenus CREPIDULA, Less.

Laminâ subrectâ, apice postico et submedio.

CREPIDULA UNGUIFORMIS, Lam., varietas complanato-recurva : long. 1<sup>2</sup>/<sub>8</sub>, lat. <sup>6</sup>/<sub>8</sub> poll.

Hab. ad Insulam Chiloen et ad Panamam.

This variety affords a good example of the powers of adaptation of the animal. The shell is either flattened or concave on the back, and recurved in consequence of its adhesion to the inside of dead shells of *Ranellæ Vexillum*, *cælata*, &c.

It was dredged from sandy mud, at a depth ranging from four to ten fathoms.—W. J. B.

CALYPTRÆA LESSONII. Cal. testá complanatá, subconcentrice foliaceá, foliis tenuibus, albá fusco longitudinaliter strigatá ; intùs albidá; limbo interno interdum fusco ciliato-strigato : long. 1<sup>4</sup>/<sub>1</sub>, lat. <sup>1</sup>/<sub>2</sub>, alt. <sup>2</sup>/<sub>2</sub> poll. Hab. in sinu Guayaquil. (Isle of Muerte.)

This beautiful species, which I have named in honour of M. Lesson, was found under stones at low water. It will remind the observer of the upper valves of some of the *Chamæ*.—W. J. B.

CALYPTRÆA INCURVA. Cal. testá fusco nigricante, tortuosá, corrugatá; intùs nigricante, septo albo; apice adunco: long. §, lat. ½, alt. 3 poll.

Hab. ad Sanctam Elenam et ad Xipixapi.

Found on dead shells dredged from sandy mud, at a depth ranging from six to ten fathoms.—W. J. B.

CALYPTRÆA EXCAVATA. Cal. testá crassiusculá, subtortuosá, lævi, albidá vel subflavá fusco punctatá et strigatá; intùs albá vel albá fusco fucatá, limbo interdum fusco ciliato-strigato: long. 1<sup>2</sup>/<sub>4</sub>, lat. 1<sup>4</sup>/<sub>8</sub>, alt. <sup>5</sup>/<sub>8</sub> poll.

Hab. ad Real Llejos.

This species is remarkable for the depth of the internal margin before it reaches the *septum*. In *Crepidula adunca*, Sow., this depth is even greater than it is in *Crep. excavata*. The *apex* is close to the margin, and obliquely turned towards the right side.—W. J. B.

CALYFTREA ARENATA. Cal. testá subovatá, albidá rubro-fusco creberrimè punctatá; intùs subrubrá vel albidá subrubro maculatá, septo albo: long. 1<sup>1</sup>/<sub>8</sub>, lat. <sup>7</sup>/<sub>8</sub>, alt. <sup>14</sup>/<sub>7</sub> poll. Hab. ad Sanctam Elenam.

This approaches Crep. porcellana. The septum is somewhat distant from the margin, and the apex, which is also somewhat distant from it, is obtuse and obliquely turned towards the right side.

From sandy mud, on shells, at a depth ranging from six to eight fathoms.-W. J. B.

CALYPTRÆA MARGINALIS. Cal. testá subovatá, sublævi vel vix corrugatá, subflavá vel albidá fusco strigatá; intùs nigricante vel flavá fusco strigatá, septo albo: long. 1<sup>+</sup>/<sub>5</sub>, lat. <sup>10</sup>/<sub>12</sub>, alt. <sup>19</sup>/<sub>7</sub> poll. Hab. ad Panamam et ad Insulam Muerte.

This species was found on stones and shells, in sandy mud, at a depth ranging from six to ten fathoms. The white *septum* shows beautifully against the black-brown of the interior. The *apex* is almost lost in the margin, and is directed towards the right side.—

W. J. B.

CALYPTRÆA SQUAMA. Cal. testá suborbiculari, complanatá, sublævi, subtenui, pallidè flavá vel albidá fusco substrigatá; intùs subflavá vel subflavá fusco strigatá: long. 1, lat.  $\frac{1}{12}$ , alt.  $\frac{1}{12}$  poll. Hab. ad Panamam.

The apex of this very flat species is lost in the margin. Found under stones.—W. J. B.



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