November 7, 1871.

Professor Newton, V.P., in the Chair.

The Secretary read the following reports on the additions to the Society's Menagerie during the months of June, July, August, and September, 1871:—

The total number of registered additions to the Society's Menagerie during the month of June 1871 was 132, of which 42 were by birth, 43 by presentation, 39 by purchase, and 8 were received on deposit. The total number of departures during the same period, by death and removals, was 130.

Among the additions the more remarkable were:—

1. Two Turtle-doves from Aldabra Island, an atoll lying between Madagascar and the Seychelles, presented to the Society by Mr. Edward Newton, C.M.Z.S., Colonial Secretary, Mauritius, June 10th. These Doves belong to the group containing *Turtur picturatus* and its allies, but differ specifically from any of them that I have previously seen. The colour above is nearly uniform vinous, growing more plumbeous towards the tail. The postcervical markings are very indistinct; there is no white on the throat.

These characters nearly agree with those attributed by Bonaparte (Consp. ii. p. 62) to *Turtur prevostianus*. If the locality there given ("the Mariannes") is, as is possible, erroneous, they may be referable to that species. As a temporary designation for them, however, I propose the name *Turtur aldabranus*.

2. A Nisnas Monkey (*Cercopithecus pyrrhonotus*, Ehr.) from Southern Nubia, presented by Col. the Hon. P. Fielding, June 16th. Of this eastern representative of the well-known Patas (*C. ruber*) I am not aware that we have ever previously received a living specimen.

3. Two examples of a fine large species of Tortoise of the genus *Platemys*, from the fresh waters of the Argentine Republic, presented by our active correspondent Mr. Geo. Wilks, of Buenos Ayres, June 17th. Prof. Burmeister (La Plata-Reise, ii. p. 521) has referred the ordinary Terrapin of that country to *Platemys hildebrandi*; but, as Dr. Peters has recently shown*, this supposed species has been based upon young specimens of *P. geoffroyana*, Schweigg., to which species the present specimens also undoubtedly belong.

4. Three young Eagles from Southern Spain, presented by Major Howard Irby, June 24th. These birds are in exactly the plumage lately described by Mr. Howard Saunders before this Society† as being characteristic of this bird in Spain. Their arrival at this time is most opportune, as it gives us an opportunity of comparing them with the young Chinese Imperial Eagle, of the arrival of which I have already spoken in my report for May last (see *anteà*, p. 545).

* Monatsber. Berlin, 1870, p. 311 (May 12).

† See *anteà*, p. 37.

Major Irby informs me that these Eagles were taken from the nest near Coto del Rey, about twenty miles from Seville. They were hatched about the third week in April of the present year, and were brought to Major Irby in the down.

5. A second specimen of the Tamandua Ant-eater (*Tamandua tetradactyla*), probably from Brazil, purchased of a dealer in Liverpool, June 27th. This animal appears to present well-marked points of difference from the Santa-Marthan specimen, acquired May 29th*. It is not possible to make an accurate comparison of these animals while alive; and I shall therefore beg leave to defer my remarks on this subject to a future occasion.

The total number of registered additions to the Society's Menagerie during the month of July 1871 was 98, of which 9 were by birth, 48 by presentation, 10 by purchase, 2 by exchange, and 29 were received on deposit. The total number of departures during the same period, by death and removals, was 100.

The more remarkable arrivals were as follows:—

1. Three Daubenton's Curassows (*Crax daubentoni*, G. R. Gray) from Tucacas in Venezuela†, presented July 11th by Mr. A. Warmington, who has kindly favoured me with the following notes on them:—

"The three Curassows (one male and two females) were captured at 'Maron,' near Tucacas, N. Venezuela, and at the present time are nearly two years old, having been taken from the nest when scarcely larger than a chicken of two months old. They soon became perfectly tame and would follow me about. When able to fly they made short flights, always returning quickly, and seldom alighting. At night they invariably roosted on the highest spot they could find in the home Corāl. They are called by the natives 'Porū.' Their cry is a sort of mournful prolonged whistle, and in the forest, when eight or ten are together, has a singular effect. It is not common to see these birds on the ground. When they alight in a tree they almost invariably utter their cry, and at the same time raise the tail-feathers fan-like, thus exposing the white plumage beneath, and offering a conspicuous and tempting mark for the sportsman. They are excellent eating. I have never heard of these birds breeding in confinement, though I cannot say they do not. The young ones are exceedingly beautiful delicate little creatures, marked very much like, and having a very similar appearance to, young Partridges or Quails. They become much attached to individuals who treat them kindly. These birds are common in all parts of Venezuela where there is a forest. The other, or blue-knobbed species‡, is not so common, and is more difficult to domesticate."

2. A collection of Ceylonese animals, brought home on his return from Ceylon and presented to the Society by Mr. E. W. H. Holds-

* See *antea*, p. 546, Pl. XLIII.

† I have already noticed the arrival of this species from the same locality (P. Z. S. 1870, p. 671). Cf. also *Sci. et Salv.* P. Z. S. 1870, p. 516.

‡ *Pauxi galeata*, see P. Z. S. 1870, p. 520.—P. L. S.

worth, F.Z.S., July 17th. It embraces examples of the following species, mostly new to the Society's collection:—

- 1 Paddy-field Deer (*Cervus porcinus*, var.).
- 1 Cheela Eagle (*Spilornis cheela*).
- 2 Ceylonese Spur-fowl (*Galloperdix ceylonensis*).
- 4 Indian Crows (*Corvus splendens*).
- 1 Russell's Viper (*Vipera russelli*).

3. An example of the Long-nosed Crocodile of Western Africa, *Crocodilus* (sive *Mecistops*) *cataphractus*, purchased July 19th. I am not aware that we have ever before possessed living individuals of this very distinct and unmistakable Crocodilian.

4. Six Dorsal Squirrels (*Sciurus dorsalis*, Gray), purchased July 20th. We have placed these and some previously acquired examples of this beautiful species in one large cage together, and have great hopes that they will breed with us. The clever sketch by Mr. Keulemans, which I now exhibit, will serve to show the great variations in colour to which this species is subject.

The total number of registered additions to the Society's Menagerie during the month of August 1871 was 122; of these, 10 were by birth, 34 by presentation, 47 by purchase, 5 by exchange, and 26 were received on deposit. The total number of departures during the same period, by death and removal, was 91.

The most noticeable of the additions were:—

1. A third specimen of the Tamandua Ant-eater (*Tamandua tetradactyla*), probably from Brazil, obtained by purchase August 7th, and agreeing generally in external characters with the specimen purchased on June 27th.

2. Two Bonteboks (*Damalis pygarga*), purchased August 11th, being the only examples of this beautiful Antelope that have reached us for the last twenty years*.

3. Two Peruvian Thicknees (*Edicnemus superciliaris*, Tsch.),

* Mr. E. L. Layard gives me the subjoined note concerning this Antelope:—

"The Bontebok is very nearly exterminated, and, but for the fostering care of the Messrs. Breda and Van der Byl would be quite so in a couple of years.

"They are confined to the extreme south of the continent of South Africa, to a portion of country called the 'Strand Veldt.' It is an extensive flat, bordered by the sea on the south-west, south, and south-east, and by a range of undulating country or low hills rising to the Caledon Ranges and Zwart Bergen on the northern side. It is, in fact, the nearest plateau to the L'Agulhas bank, and is called 'Cape L'Agulhas.' The whole of this country belongs chiefly to the families of Breda and Van der Byl; and they preserve the animals as much as they can. A Government permit is also required to shoot them, which must be visa'd by the magistrate at Bredasdorp, the name of the village on this range of land.

"They are, however, poached and destroyed by one or two small holders, who have small patches of land surrounded by the large properties, and who refuse all offers of purchase, and plant corn on purpose to tempt the animals into it, and then at night shoot them. They roam in herds of about eight or ten, or twenty; but sometimes fine old bucks are found solitary. They are usually shot from a cart, which they will suffer to approach them, or from horseback. If wounded and approached they will charge desperately; and I have heard of a Hottentot being killed by them thus."

presented by the Baron de Rivière August 14th. The distinctness of this species from *Æ. bistriatus*, the best-known and only other American form of this genus, has recently been confirmed by myself and Mr. Salvin (Exot. Orn. p. 59, pl. xxx.) ; but the present bird is very little known, and the receipt of living specimens of it is a fact of much interest.

4. Three specimens of a Land-tortoise of the genus *Cinixys*, which seem to be referable to Home's *Cinixys* (*Cinixys homeana*, Bell). These Tortoises were brought home by H.E. Governor Ussher on his recent return to this country, and presented by him and Staff-Surgeon Mosse jointly to the Society, along with some fine specimens of *Vipera rhinoceros* and *Vipera nasicornis*. Of Home's *Cinixys* Mr. Ussher gives me the subjoined particulars:—

“Tolerably common in Fantee and the Aura districts, where it forms an article of food with the natives, who prize it much on this account, and who therefore do not usually offer it for sale. It appears to live for a very long time in the water, one of those brought home by me having existed some months in a tank of water.”

5. A young male specimen of Baird's Tapir (*Tapirus bairdi*) from Nicaragua, purchased August 15th, being the first example of this newly discovered Mammal that has yet reached us. Dr. Gray (P. Z. S. 1867, p. 885, pl. xlii.) has introduced into the illustration a figure of the immature form of this species from a photograph sent to me by Capt. Dow ; but the colour (not having been given in the original photograph) is not quite correct. Mr. Verrill, however, has published an accurate description of the young in ‘Silliman's American Journal’ (vol. xlv. p. 126 ; cf. Ann. Nat. Hist. ser. 3, vol. xx. p. 232). Mr. Smit's figure (Plate L.), which I now exhibit, shows the condition of our specimen soon after its arrival. It did not live long in the Society's Gardens, I regret to say, and died September 27th.

6. A specimen of the singular little mud-inhabiting fish of New Zealand, being an aberrant form of the family *Galaxiidae*, recently described by Dr. Günther (Ann. Nat. Hist. ser. 3, vol. xx. p. 305, pl. vii.) as *Neochanna apoda*, presented August 18th by the Acclimatization Society of Canterbury, New Zealand. Unfortunately it did not live long in our Gardens, and I now exhibit the specimen in spirits.

7. Two Frigate or Man-of-War Birds (*Fregata aquila*), which arrived August 28th, having been forwarded to us by our excellent friend and correspondent Capt. John M. Dow, F.Z.S., who is always on the look-out for something that may prove acceptable to the Society's collection. Five individuals of this species, Capt. Dow informs me, were captured by him on 23rd of July last, during a visit to an island in Fonseca Bay, which contains a well-known breeding colony of this fine bird*. The two specimens that have reached us are both in the white-headed plumage of immaturity.

The total number of registered additions to the Society's Menagerie during the month of September 1871 was 138 ; of these, 7 were by birth, 45 by presentation, 27 by purchase, 49 by exchange, and

* See Mr. G. C. Taylor's account of it in ‘Ibis,’ 1859, p. 150.

J. Smit lith.

TAPIRUS BAIRDI. *nov.*

M & N Hanhart imp

10 were received on deposit. The total number of departures during the same period, by death and removal, was 124.

The most noticeable of the additions were:—

1. A Javan Fish-Owl (*Ketupa javensis*, Less.), purchased September 8th, being the first example of any species of this well-marked genus of Owls obtained by the Society.

2. A young specimen of the South-American Flamingo (*Phoenicopterus igni-palliatu*s), received September 19th by one of the Brazilian Mail-steamers from Buenos Ayres, and believed to have been forwarded to the Society by our energetic correspondent Mr. George Wilks of Buenos Ayres.

3. An Iguana, presented September 19th by Mr. J. B. Rowe. Mr. Rowe obtained this animal from a seaman, who stated that he had brought it from the Chinha Islands. But Dr. Günther, who has examined it, refers it to *Metopoceros cornutus*, Wagler, of St. Domingo.

4. A young Cassowary, obtained by exchange from the Zoological Society of Amsterdam, September 20th. This bird, which is stated to have been captured by a missionary resident at Munsinam, near Havre Dorey, on the north-west extremity of the Bay of Geelvink, New Guinea, in the summer of 1869, appears to me to be identical with the bird described by Rosenberg as *Casuarus kaupi* (J. f. Orn. 1861, p. 44). Dr. Schlegel has referred this species to the young of *C. uniappendiculatus* (see P. Z. S. 1866, p. 168). But I can hardly believe our bird to be the same as the latter species, there being no traces at present of any throat-wattle at all, and the size being so much smaller. Our bird seems to belong to a species closely allied to *C. bennetti*, but quite distinct.

5. A young female Ibex from the Island of Crete, presented to the Society September 30th by T. B. Sandwith, Esq., H.B.M. Consul for that island. Blasius refers the Cretan Ibex to *Capra beden*, under which name I have provisionally entered our specimen in the Register. It is, however, apparently quite different from the female Ibex from Crete received in 1862, which reared a numerous hybrid progeny in the Gardens; and I am not yet certain as to its correct specific name*.

Mr. Sclater exhibited, on behalf of the Viscount Walden, President of the Society, skins of both sexes of a new and most interesting Falconine bird of the genus *Polihierax*, which had been recently obtained in the vicinity of Tongoo, in Upper Burmah, and transmitted to Lord Walden by Major Lloyd.

In this species, which Lord Walden was intending to describe and figure under the name *Polihierax insignis*, the whole of the back of the head in the female sex, as well as the upper back, was of a deep chestnut, being in the male grey striated with black. In both sexes the white plumage below was marked on the neck and breast with black shaft-stripes. The tail was black, broadly barred with white,

* In 1868 Mr. Blyth exhibited a head and horns of this Ibex at a Meeting of this Society, but did not give any name to the species (see P. Z. S. 1868, p. 262).

and very much rounded, the outer rectrices being more than an inch and a half shorter than the middle. The total length of the skin of the female was $10\frac{1}{4}$ inches, of the wing 6.

The following extracts were read from a letter addressed to the Secretary by Dr. J. Anderson, F.Z.S., Director of the Indian Museum, Calcutta, dated June 17th, 1871:—

“I have received a specimen of a short-tailed *Macacus* from Bhamô unlike any Monkey I know, but more allied to *M. nemestrinus* than to *M. leoninus*. It is a hill Monkey. I first became acquainted with the species in the hills to the east of Bhamô and obtained a specimen, which I sent down to Bhamô to wait my return from Yunan. When I got back to Bhamô I was told that the Monkey had died and had been buried. About a year and a half after my visit to Bhamô a Mr. Stewart, from Rangoon, visited it and brought away the specimen that is now in my possession, and which exactly resembles the specimen I sent to Bhamô from the Kakyen hills—so much so, indeed, that I am inclined to the belief that my lost pet has been restored to me. The following is its description:—

“*MACACUS BRUNNEUS*, sp. nov.

“Body short and stout; head rather large; limbs short, stout, and powerful; hands and fingers short, the latter rather full and much like those of *Simia*. The fingers are very sparsely clad, covered on their flesh-coloured upper surfaces with a few longish greyish-yellow hairs, which are more numerous on the toes. The terminal phalanges of each extremity are nude. The face is reddish flesh-coloured, the tint being most intense round about the eyes. The centre of the upper eyelid transversely has a bluish tint, the remainder being red. The muzzle is short, moderately pointed, and abruptly truncated. The lips are moderately full, and the chin is rather bulging. The nose is but slightly prominent, and marked at its apex by a vertical, longitudinal fine groove. The eyes are large and soft in expression, as in *Simia satyrus*. The face is much wrinkled transversely. Ear rather large, with an almost rounded outline, but with a small rather pointed projection posteriorly at the junction of the posterior and superior margins; it is quite nude on its posterior surface, and with only a few straggling greyish-yellow hairs on its outer aspect. Fur long, thick, and woolly, longest on the back ($2\frac{3}{8}$ inches), shoulders, limbs, and shortest and most dense on the sacral region. Chin and throat almost bare. Hair sparse on the chest and abdomen. A single flesh-coloured callosity below the tail triangular in form, the apex of the triangle being placed downwards; greatest transverse breadth 2 inches, greatest length 2 inches. The hair on the head is parted longitudinally down the centre on the anterior half of the head above the bridge of the nose, the hair being directed outwards on either side. General colour dark brown, darkest on the head, rump, and arms, paler on the sides of the

head and on the under surface and on the feet, in which localities it is washed with yellowish.

	inches.
"Length along side from snout to root of tail.....	14 $\frac{2}{8}$
Tail.....	1 $\frac{2}{8}$
Length of anterior extremity.....	11
—— of humerus	3 $\frac{3}{8}$
—— of radius	5 $\frac{2}{8}$
—— of middle finger.....	2 $\frac{1}{8}$
—— of hinder extremity	12 $\frac{1}{8}$
—— of femur	5
—— of tibia and fibula	4 $\frac{3}{8}$
—— of middle toe	2 $\frac{1}{8}$
—— of thumb (three phalanges)	1 $\frac{3}{8}$
—— of great toe (three phalanges)	2
—— of hind foot	4 $\frac{6}{8}$
—— of hand	3 $\frac{3}{8}$
Tip of snout to anterior margin of ear	3 $\frac{6}{8}$
Girth round occiput and over mouth	13 $\frac{3}{8}$
Posterior angle of eye to anterior margin of ear	2 $\frac{5}{8}$
Internal angle of eye to anterior extremity of nasal septum..	1 $\frac{2}{8}$
Breadth across nostrils	$\frac{5}{8}$
—— between eyes.....	$\frac{4}{8}$
Girth round muzzle halfway between nostrils and eye.....	6 $\frac{1}{8}$
Transverse length of eye	$\frac{5}{8}$
Occipital protuberance to anterior ridge (superciliary) of frontal	5 $\frac{6}{8}$
Breadth across molars	3
Girth round arm below elbow	5
—— round chest $\frac{1}{2}$ inch below nipple.....	12 $\frac{3}{8}$

"This Monkey is very gentle and docile; and its manners strongly recall to me those of an Orang I once had for nearly a year in my possession."

In a subsequent communication (dated Calcutta, September 27th) Dr. Anderson enclosed some photographs of the same Monkey, and stated that he had received a second specimen of the same species from Cachar. This was younger than the former, but differed only in its smaller size and lighter-coloured fur. From information recently received, Dr. Anderson believed that it would be found that this Monkey was not uncommon in the hilly parts of Assam, and doubtless extended thence to the eastern banks of the Irrawaddy.

Mr. Sclater called the attention of the Meeting to the reported existence in Northern Queensland of an undescribed animal of about the size of a Dingo (*Canis dingo*), of which no specimen had yet been obtained by naturalists. In reply to some inquiries on this subject lately addressed to Mr. Brinsley G. Sheridan, Police Magistrate of Cardwell, Rockingham Bay, Queensland, Mr. Sclater has received the following letter, dated August 2nd, 1871:—

"SIR,—I fear you must have misunderstood Mr. Arthur Scott

about my son having been attacked by some unknown ferocious animal in the bush. It was simply this. One evening strolling along a path close to the shore of Rockingham Bay, a small terrier, my son's companion, took a scent up from a piece of scrub near the beach, and followed, barking furiously, towards the coast-range westwards. My boy (thirteen years of age, but an old bushman, who would put half those described in novels to the blush) followed and found in the long grass, about half a mile from the spot the scent was first taken up, an animal described by himself as follows:—"It was lying camped in the long grass and was as big as a native Dog; its face was round like that of a Cat, it had a long tail, and its body was striped from the ribs under the belly with yellow and black. My Dog flew at it, but it could throw him. When they were together I fired my pistol at its head; the blood came. The animal then ran up a leaning tree, and the Dog barked at it. It then got savage and rushed down the tree at the Dog and then at me. I got frightened and came home."

"It was just dark when the boy came home in a high state of excitement and told me the story. From inquiry I find that this is not the first time a similar animal has been seen in this neighbourhood. Tracks of a sort of Tiger have been seen in Dalrymple's Gap by people camping there, and Mr. Reginald Uhr, now Police Magistrate at St. George, whilst one of the native mounted police officers in this district, saw the same animal my son describes. The country is so sparsely populated, and the jungles (or, as we call them here, 'scrubs') so dense and so little known, that I have no doubt that animals of this kind exist in considerable numbers, the abundance of food and their timidity preventing our more intimate knowledge of their habits. I shall be most happy to send you, should it be my good fortune to drop across one of them, its skin and skeleton. I only regretted, as my poor boy did, that he had not my revolver, as he says he stood, when it was fighting with the Dog, at less than a yard from the animal."

A letter was read from Mr. Gerard Krefft, dated Sydney, April 19th, 1871, in which, after stating that the skeleton of *Dioplodon seychellensis*, lately added to the Australian Museum (see P. Z. S. 1870, p. 426), has "the usual seven cervical vertebræ, four of which are free, the last bearing a short quadrangular piece of bone $1\frac{1}{2}$ inch long by 1 inch broad; nine dorsals bearing ribs, five of which join on to the sternum, which consists of four pieces; and twenty-nine lumbar and caudal vertebræ," he adds, "I have been fortunate enough to obtain the skeleton of a second small Whale, evidently closely allied to the *Mesoplodon sowerbiensis*, figured by MM. Van Beneden and Gervais (*Ostéographie des Cétacés*, pl. xxii.). This animal had been stranded at Little Bay, between Botany Bay and Long Bay, distant six or seven miles from Sydney. The carcass was much cut, and I had the greatest difficulty in obtaining the missing fragments of bones. The head fared very badly, and was almost

completely destroyed; but, thanks to the energy and skill of our articulator Mr. Henry Barnes, it has been so far restored that a tolerably correct idea may be formed of its original shape. The lower jaw was very much broken; there appeared no teeth above the gum; but after removing the flesh I found a very curious looking tooth in its alveolus, the points of which penetrated the bone on either side. The number of cervicals is three anchylosed and four free. Nine pairs of ribs, and a very small pair which appear to have no attachment. Five of the ribs join on to the sternum, which consists of five pieces. The lumbar and caudals amount to twenty-nine, with nine V-bones attached to them. The pectoral limb is of moderate size, bearing four fingers, with five, five, four, and three joints respectively. The number of carpal bones is six."

Photographs of the skeleton, which accompanied Mr. Krefft's letter, were exhibited.

Professor Flower stated that, as far as could be ascertained from the photographs, the skull of the new specimen agreed so closely with that described by Gray under the name of *Ziphius layardii* (P. Z. S. 1865, p. 358) that he believed that they should be referred to the same species, the differences of development of the teeth being probably due to the influence of sex or age. He trusted that before long Mr. Krefft would furnish the Society with an accurate and detailed description of this very interesting skeleton.

Professor Flower, F.R.S., read a memoir on the classification of the Ziphioid Whales (*Ziphiinæ*), which he regarded as a subfamily of the *Physeteridæ**, and in which he proposed to recognize four genera, namely *Hyperoodon*, *Ziphius*, *Mesoplodon*, and *Berardius*. To this was added a complete description of a skeleton of *Berardius arnouxii*, which had lately been received from New Zealand by the Museum of the Royal College of Surgeons, through Dr. J. Haast, F.R.S.

This paper will be printed in the Society's 'Transactions.'

The following papers were read:—

1. Additional Remarks on certain Species of Pelicans.

By P. L. SCLATER, M.A., F.R.S., Secretary to the Society.

[Received October 4, 1871.]

(Plate LI.)

In May, 1868, I had the honour of reading before the Society some notes on the Pelicans, principally based upon the observation of the specimens of these birds living in the Society's collection†.

* Cf. Trans. Zool. Soc. vi. p. 113.

† See Proc. Zool. Soc. 1868, p. 264 *et seq.*

Since that date, Mr. D. G. Elliot has contributed to our 'Proceedings' his "Monograph of the genus *Pelecanus*"*, and Prof. Barboza du Bocage has favoured us with the description of a new species of this genus†. I have now a few additional observations to offer to the Society, partly supplementary to my previous notes, and partly in reference to the communications of Mr. Elliot and Prof. Barboza du Bocage on this subject.

1. PELECANUS ONOCROTALUS.

The Syrian Pelican received from Mr. E. T. Rogers in February, 1868 (of which I spoke, P. Z. S. 1868, p. 265), is now quite adult, and agrees so nearly with the two fine examples of *P. onocrotalus* which have been in the Society's Gardens for the last twenty years that there can be no doubt, I think, that I was correct in my determination of this bird.

Next to *P. onocrotalus* and *P. minor* must be placed Prof. Barboza du Bocage's new *P. sharpii* (described P. Z. S. 1870, pp. 173, 409), of which fine species I have now the pleasure of exhibiting one of the typical specimens belonging to the Lisbon Museum. In structure this bird, as has already been pointed out by its describer, approximates closely to *P. onocrotalus*. The angular projection of the frontal feathers (see fig. 1) corresponds very nearly to what is seen in the last-named species. But the brilliant colouring of the chest and belly, which is quite different from any thing which I have ever seen in *P. onocrotalus*, and the absence of a pendent crest renders the species easily distinguishable.

Fig. 1.

Upper surface of bill of *P. sharpii*, one fourth the nat. size.

Last summer, when inspecting the bird-galleries of the Museum of the city of Strasburg, under the guidance of Dr. Schimper, I found a fine example of *P. sharpii* in the excellent series of Pelicans there exhibited. Prof. Schimper had not determined the specimen, and was not quite certain about its locality.

Mr. Smit's figure (Plate LI.) represents the typical specimen at one seventh of the natural size, and will serve, I trust, to make this fine species better known.

* Proc. Zool Soc. 1869, p. 571.

† *Pelecanus sharpii*, described Proc. Zool. Soc. 1870, p. 173 and p. 409. See also Jornal de Scienc. Lisbon, 1871, no. xi.

J. Smith lith.

$\frac{1}{7}$

M & N. Hanhart imp

PELECANUS SHARPII.

2. PELECANUS MITRATUS sive MINOR (*l. s. c.* p. 266).

One of our specimens of this Pelican, received from Calcutta in 1867, is still living in the gardens, and is now in adult plumage.

A skin in Mr. Swinhoe's collection from Foochow is, in my opinion, referable to this species, and not to *P. onocrotalus* (as already stated by Mr. Swinhoe, *P. Z. S.* 1871, p. 420). It is therefore probable that *P. javanicus* of Horsfield may be identical with this bird.

Rüppell (*Mus. Senckenb.* ii. p. 185) states that the Senckenburg Museum contains several examples of this Pelican from Moldavia, where it is found in company with *P. onocrotalus*. In the Strasbourg Museum I likewise found a stuffed specimen of this species from the Danube; so that there can be little doubt of its occurrence in Southern Europe.

3. PELECANUS RUFESCENS (*l. s. c.* p. 267).

One of our specimens of this Pelican (the bird purchased in May 1861, and figured *P. Z. S.* 1868, pl. xxvi.) has now (Oct. 2nd, 1871) for the first time acquired perfect plumage, and is exactly as is represented by Rüppell (*Zool. Atlas, Aves*, pl. 21). A short nuchal crest has developed itself; and a rosy-reddish colour covers the lower back. This is no doubt the full nuptial plumage, and will probably only last a few weeks.

Fig. 2.

Upper surface of bill of *P. philippensis*, one fourth the nat. size.

Fig. 3.

Side view of ditto.

Mr. Elliot (*P. Z. S.* 1869, p. 586) unhesitatingly unites *P. philippensis* to *P. rufescens*. In my previous notes, I gave it as my opinion that these two species are distinct, although nearly allied (*P. Z. S.* 1868, p. 269). Prof. Barboza du Bocage (*Jorn. de Scienc.*

de Lisboa, 1871, no. xi. p. 174), in discussing this question, is likewise favourable to regarding them as distinct, "si les deux rangs de taches brunes régulièrement imprimées sur la mandibule supérieure se retrouvent constamment chez les individus de Malacca, de l'Inde, de Cochinchine, de l'Asie enfin, tandis qu'elles ne se présentent jamais chez ceux d'Afrique."

Besides the skins of *P. philippensis* in Capt. Beavan's collection from Burmah, of which I have already spoken*, I have recently examined two obtained by the late Dr. Maingay in Malacca, one in Mr. Swinhoe's collection from Swatow, China, and one from India in the Strasburg Museum. In all these specimens the above-mentioned dark spots on the upper mandible (see figs. 2 & 3, p. 633) are well developed, while nothing of the kind is visible in our living examples of *P. rufescens*, either adult or young. I am therefore still more confirmed in my view that the African and Asiatic birds must be kept distinct.

There appear to me therefore to be now ten well-determined species of *Pelecanus*, viz. :—

- †1. *P. onocrotalus*, from S. Europe and N.E. Africa.
- †2. *P. minor*, from S. Europe, Africa, and S. Asia.
3. *P. sharpii*, from W. Africa.
- †4. *P. crispus*, from S. Europe and N.E. Africa.
- †5. *P. rufescens*, from Africa.
6. *P. philippensis*, from S. Asia.
7. *P. trachyrhynchus*, from Mexico and Western N. America.
- †8. *P. conspicillatus*, from Australia.
9. *P. fuscus*, from Central America.
10. *P. molinæ*, from Chili.

Besides these, I have seen two specimens of Pelicans in the Strasburg Museum, which appear to me (as likewise to its excellent custos Dr. Schimper) to indicate the existence in the highlands of Columbia of an undescribed species of the genus allied to *P. fuscus* and *P. molinæ*, but peculiar for its long, solid, and very much compressed beak. These specimens are both in immature plumage, and are labelled as having been received from Bogotá in 1847. It would be of great interest to discover the adult of this Pelican.

2. Remarks on Indian Fishes.

By FRANCIS DAY, F.Z.S., F.L.S.

[Received September 27, 1871.]

Having only just obtained the 'Zoological Record' for 1869, I have been ignorant up to the present time that the identification of several species of fishes made by me in the 'Proceedings' of this Society

* *Antea*, 1868, p. 269.

† Of these species we have examples now living in the Society's collection.

for 1869 has been disputed by Dr. Günther. Premising that it has never been my wish to defend any determination of species whenever their incorrectness becomes apparent, still I consider it but reasonable to show my correctness when it has been erroneously called into question.

SERRANUS LANCEOLATUS.

S. horridus, C. et V.

It is unfortunate that the drift of my observations, made in the P. Z. S. 1869, p. 512, have been so misunderstood by the Recorder, my intention having been to show that Blyth's *Serrani* which he considered to exhibit the adult livery were identical with what I likewise held to be the mature form, both of us having arrived at the same conclusion from distinct sets of specimens, collected in different localities. I consequently held that my original statements had been erroneously called into question in the 'Fishes of Zanzibar.'

The presence or absence of cæcopyloric appendages is entirely a secondary consideration, apart from the main one, which is, Are Mr. Blyth's species and mine identical or not? And I most distinctly showed them to be so.

Genus EUTROPICHTHYS.

Dr. Günther states, in the 'Record,' that I have "thought proper to create the impression as if the Recorder had overlooked those teeth," viz. those on the palate, my remark being *his own words*, in inverted commas, thus, "no teeth on the palate;" and Dr. Günther in his article continues that, "having received an example from Colonel Playfair some years ago, the Recorder has found the palatine teeth." *Where was this fact recorded?* He remarks, "Mr. Day was well aware that no specimens were available for examination at the time when the generic diagnosis was compiled." This, however, is also an error, as I knew nothing respecting the various collections of fishes Dr. Günther had examined.

PSEUDEUTROPIUS TAAKRE, Sykes.

I identified *Hypophthalmus taakree* as *Pseudeutropius*, to which Dr. Günther demurs, observing, "The position of the barbels in the figure given by Sykes indicates a *Eutropius*, and not a *Pseudeutropius*, a circumstance left unexplained by Mr. Day." However, Sykes has published no figure showing the inferior surface of the head in this fish, but merely a *side view* (Trans. Zool. Soc. ii. pl. 64, f. 4), from which I question whether any one could decide whether the barbels are or are not in a transverse line. Sykes says "they are arranged two and two;" but as they exist in pairs on either side of the chin, this statement gives no assistance at arriving at the true facts.

However, I think, all this can be explained. Sykes described two species of *Hypophthalmus*, *H. taakree* and *H. goongwaree*, and placed his typical specimens in the collection of the Zoological Society,

which was subsequently transferred to the British Museum. Neither of Sykes's typical specimens, however, find a place in the 'Catalogue of Fishes in the British Museum,' in which the latter is considered a *Pseudeutropius*, and the former a *Eutropius*, although Sykes placed them in one genus.

Having been courteously permitted by Dr. Günther, in 1870, to examine *Pseudeutropius longimanus*, Günther (stated in the Catalogue to be "a. Skin, 6 inches long : not in good state. India. From the collection of the Zoological Society"), I was surprised to find it was one of Sykes's specimens, a fact overlooked when the Catalogue was compiled. Attached to it was the following label :—"940. Zool. Soc.," and *Hypophthalmus goongwaree* (13-6-/57), evidently a transposition of labels from the *H. taakree*.

Before I had seen this skin, I had identified Sykes's fish with Dr. Günther's, and published this fact in the Proc. Zool. Soc. 1869, p. 617. I question whether the genus *Eutropius* has any representative in India. Hamilton Buchanan's *Pimelodus murius*, considered by Dr. Günther a doubtful *Eutropius*, is, I am convinced, identical with *Pseudeutropius megalops*, Günther. Thus the existence of the genus *Eutropius* in Hindostan rests upon two specimens, 3 inches long, in the British Museum, labelled "India," a locality having a wide range in the opinion of some zoologists.

In remarking that I do not adopt his genus *Tylognathus* in my papers in the Society's 'Proceedings,' Dr. Günther observes I do not explain how I am able to maintain *Labeo* as distinct from *Barbus* without this intermediate division. Definitions will be found pretty accurately given in the 'Catalogue of Fishes in the British Museum,' wherein a wide difference, amongst others, is shown between the mouths of *Labeo* and *Barbus*, whilst *Tylognathus* has its "mouth essentially formed as stated in *Labeo*" (p. 62).

Respecting my identification of *Crossochilus rostratus*, Günther, with *Cyprinus bata*, Hamilton Buchanan, the following occurs at p. 135 :—" [Mr. Day is evidently again too hasty in this identification. First, Hamilton Buchanan's fish has more than nine branched dorsal rays (a character the value of which Mr. Day will by-and-by learn to appreciate), his description and MS. drawing agreeing in this respect. Secondly, without attempting to say what Mr. Day's fish may be, it cannot be *Crossochilus rostratus*, as the latter has a pair of upper barbels only, but no maxillary barbels (provided Mr. Day knows how to distinguish between these two kinds of barbels).]"

Leaving unnoticed personalities, as irrelevant to scientific discussions, wherein facts are the subjects in question, I pass on to the Recorder's statements, into which, I think, some error has found entrance, as neither Buchanan's description nor figure coincides with the text of the 'Record.' Hamilton Buchanan, at p. 283, observes of the *C. bata*, "with twelve rays in the fin of the back. * * * The first ray of the dorsal fin is short, and closely united with the second, which, like it, is undivided." Deducting two unbranched rays from the total twelve, we have ten branched ones remaining.

If the last is divided to the root, some observers, as Hamilton Buchanan and Bleeker, count it as two; others, as Dr. A. Günther, consider it, and, I believe, correctly so, only one. Of these ten branched rays, H. Buchanan observes, "the last of them being divided to the root." Deducting one from ten, I see no other result possible than nine, or nine branched rays. Turning to the *original* drawing, in the library of the Asiatic Society of Bengal, there are only nine branched rays, *counting the last divided to its root as one*; consequently my statement was perfectly accurate, whilst Dr. Günther, failing to determine Hamilton Buchanan's species, which he considered to have ten branched dorsal rays, placed it as a *Cirrhhina**, thus affording an excellent illustration of the untrustworthiness of arbitrarily splitting species into genera, solely because of the existence of nine or ten branched rays in the dorsal fin. As regards *Crossochilus rostratus*, Günther, from the description as now given, it appears to resemble *Cypr. bata*, H. B., excepting in having a pair of rostral instead of a pair of maxillary barbels, the species being defined from a single immature specimen 4 inches in length.

Dr. Günther likewise observes (*l. c.* p. 136) that, having found *Barbus sophore*, H. B., in the Calcutta Museum without any label, I had "nevertheless supposed it to be the type of the species, *l. c.* p. 376." This, however, being inaccurate, may be a misprint; for I *do not use the term "type" at all*.

In the 'Record' (p. 127), Dr. Günther states that Hamilton Buchanan's "drawings exist in triplicate, one copy being in the British Museum." At p. 136, he continues respecting my remarks, P. Z. S. 1869, p. 373:—" *Barbus beavani*. Mr. Day thinks that this might be *Cyprinus chagunio* (H. B.), *l. c.* p. 373 [but a fish described as having large scales and minute barbels is not likely to be *B. beavani*]."

Amongst Hamilton Buchanan's original drawings one of *C. chagunio* exists, and is labelled as such; it is $9\frac{1}{2}$ inches in length, and is a very fair representation of the species. The drawing gives forty-one scales along the lateral line, only six less than exist in nature. The rostral barbels are delineated as long as the eye, and the maxillary slightly longer. In the 'Catalogue of Fishes in the British Museum,' Dr. Günther placed "? *Cyprinus chagunio*, Ham. Buch.," as a doubtful synonym of *Barbus clavatus*, wherein he gives forty-two scales to the lateral line, and "barbels well developed."

There are several omissions in the 'Record;' but on them I do not propose offering any remarks, as they are mostly concerning facts

* The genus *Crossochilus*, as defined by Günther, has "dorsal fin without osseous ray, with not more than nine branched rays;" the existence of ten would cause the fish to become a *Cirrhhina*, according to the Catalogue (at least, as this species was erroneously considered to have such, it is under that genus), which, however, is defined as "dorsal fin without osseous ray, with from thirteen to seventeen rays." Now if the *C. bata* had ten branched ones and two unbranched ones, or a total of twelve, I cannot see how it comes to be included in either, as the definition of the genera would have to be altered or a new one created for its reception.

or determinations wherein I differ from those given in the British-Museum Catalogue.

3. On the Habits of the Horned-nosed Viper (*Vipera nasicornis*). By HERBERT TAYLOR USSHER, C.M.Z.S., Administrator of the Government, Gold Coast.

[Received August 1, 1871.]

Having lately kept specimens of *Vipera nasicornis* in captivity, I think that a few notes on their habits may not be uninteresting. The first I had was a female, which I ultimately despatched along with two males to this Society; but Mr. Blissett, who took charge of them to England, has since informed me that the female died on the voyage. She was at first very sluggish, and I could scarcely get her to move. One afternoon I went on to the terrace where her cage was kept at Government House, and found the whole place swarming with young ones. I carefully watched the process of parturition, and found that the young snakes came from the mother in a sort of skin; this, however, they speedily rubbed off, and at once crawled away in various directions. From this circumstance I am led to infer that the mother does not care for her offspring, and that they at once commence to shift for themselves. I gave away many of the young ones, which numbered twenty-one in all, to various persons, some to Mr. Blissett. Their colours were peculiarly beautiful, especially the lance-shaped mark on the head, which was like black velvet. They were very venomous little creatures, one of them biting a mouse and killing it in five minutes: this, too, on the day it was born.

The adult male is distinguished from the female by its brighter colours. She is much darker and more grey, although I think generally larger than the male. After the young were born the female above referred to became very ill-tempered, and when the two males were placed in her cage she turned round and bit one with great violence, leaving one of her fangs about three-quarters of an inch in length sticking in his back. He, however, appeared not to suffer the slightest inconvenience and was never the worse for it.

When striking their prey these Serpents seize it with great rapidity and firmness, and appear to shake it as a terrier would a rat. A puppy died in a minute and a half after the stroke, although only bitten in the ear; a chicken only lived about ten seconds!

These reptiles are common in the Fantee country, but are rarely seen, as they fly at the approach of man.

Since then I have observed a fine specimen of *Vipera rhinoceros*, which is likewise found in the neighbourhood of Cape-Coast Castle, seize and devour its prey. As soon as the rat (a full-sized

one) was placed in its cage, it seized it across the body as a Jack would a Roach, pressing its fangs deeper and deeper into the animal, and never relaxing its hold, even when the rat died. It then, with extreme caution, without withdrawing its hold, worked the head towards its mouth, and gradually swallowed the prey in short "gulps" or bolts. Five or six persons watched the process in perfect silence, which did not appear to incommode or annoy the snake.

4. Descriptions of eight new Australian Land-Shells.

By JOHN BRAZIER, C.MZ.S.

[Received October 11, 1871].

1. *HELIX* (*HADRA*) *DARWINI*.

Shell umbilicated, depressedly globose, very thin, finely granulated and radiately striated; spire moderately elevated, obtuse; whorls 5, slowly increasing, convex, last roundly convex, slightly descending in front, dirty yellow; base convex, sculptured the same as the upper surface; umbilicus rather small, deep; aperture diagonal, ovately lunate; peristome very little reflected, white; margins approximating and joined by a thin callus, columellar margin reflected and half covering the umbilicus.

Diam. maj. 7, min. $5\frac{1}{2}$, alt. 4 lines.

Hab. North coast of Australia (*coll. Brazier*).

I received two specimens of this species from a friend who collected them in the far north of Australia; but the precise locality was not sent with them. It is allied to *Helix forsteriana*, Pfr., from North-east Australia.

2. *HELIX* (*HADRA*) *STEPHENSONIANA*.

Shell umbilicated, turbinately globose, somewhat pellucid, of a fine straw-colour, faintly and obliquely striated, rather puckered at the suture; spire subconoid; whorls $5\frac{1}{2}$, moderately convex, last convex and inflated, deflected in front; base convex; aperture oblique, lunately circular; peristome light pink, straight; margins approximating, upper margin rather thickened and expanded, columellar margin arcuate and reflexed, covering half the umbilicus, which is deep and moderately large.

Diam. maj. 9, min. $7\frac{1}{2}$, alt. 6 lines.

Hab. Port Denison, Queensland, North-east coast of Australia (*coll. Brazier*). Rare.

This species is of a fine straw-yellow colour on the last whorl, the other whorls being nearly white; the lip is of a light pink colour. I only know of one specimen, which is in my own cabinet.

3. *HELIX* (*HADRA*) *BENNETTI*.

Shell umbilicated, depressedly globose, very thin, finely rugosely striated and minutely granulated, dark-yellowish horny; spire rather

conoid, obtuse; whorls 6, moderately convex, rapidly increasing, last convex and inflated in front, slightly descending; umbilicus large, deep, and slanting; aperture oblique, lunately ovate, interior of aperture of a bright flesh tinge; peristome simple, white, straight; margins approximating and joined by a thin callus, right margin dilated, columellar margin broadly expanded and reflected, covering one third of the umbilicus.

Diam. maj. 8, min. $6\frac{1}{2}$, alt. 5 lines.

Hab. Ipswich, Queensland, inland 50 miles from Brisbane: rare (*coll. Brazier*).

I possess two specimens of this species, which approaches near to *H. prunum*, Fér., from Port Darwin and Port Essington, also to *H. greenhilli*, Cox, from the Dawson River. I have named it with great pleasure in honour of Dr. George Bennett, F.L.S., whose indefatigable exertions in the cause of science have made us acquainted with many new and rare specimens of natural history from Australia and the Polynesian Islands.

4. *HELIX* (*TRACHIA*) *ENDEAVOURENSIS*.

Shell umbilicated, depressed, rather thin, very closely, regularly, and finely striated, shining, pale horny; spire rather prominent; suture slightly impressed; whorls $5\frac{1}{2}$, moderately convex, last roundly convex, inflated and deflexed in front; base convex and striated the same as the upper surface; umbilicus rather wide and deep; aperture oblique, lunately ovate; peristome thickened and reflected, tinged with flesh-colour; margins approximating, right margin expanded, thin, straight, columellar margin reflected a little over the umbilicus.

Diam. maj. 7, min. 5, alt. $3\frac{1}{2}$ lines.

Hab. Endeavour River, north coast of Australia (*coll. Brazier*).

There is only one specimen of this species that I know of, and in my collection; it is of a much larger size than *H. torresiana*, Homb. et Jacq., and the sculpture is also very fine, whereas in the species of the French authors the sculpture is coarse.

5. *HELIX* (*CAMÆNA*) *AUREEDENSIS*.

Shell umbilicated, depressedly globose, rather solid, very finely obliquely striated, and, under the lens finely granulated, dark chestnut; suture ornamented with a fine white thread, and also a broad dirty white undefined zone round the umbilicus; spire broadly conoid, obtuse; whorls 6 to $6\frac{1}{2}$, convex, the five upper whorls of a reddish chestnut, the last increasing in size, rounded and deflected in front; base convex; aperture diagonally ovately lunate, brownish white within; peristome straight, ivory-white, slightly thickened and reflected; margins approximating, right margin expanded, columellar margin arcuate and reflexed, concealing nearly half of the umbilicus, which is deep.

Diam. maj. $1\frac{1}{2}$, min. $1\frac{1}{4}$, alt. 1 inch.

Hab. Aureed Island, Torres Strait, North coast of Australia (*coll. Brazier and Hargraves*).

This species I have seen in some of the Australian collections

labelled as a variety of *H. incei*, Pfr., but *H. incei* has no white thread-like line at the suture as in the present species.

6. *HELIX* (*HYGROMIA*) *BEDNALLI*.

Shell perforated, rather conoidly globose, very thin, fragile, obliquely rugose at the upper part, granulated under the lens, subdiaphanous, light horny green, with a fine reddish ring encircling the suture, and a rather broad one of the same colour encircling the perforation; spire conoid, somewhat obtuse; whorls 5 to $5\frac{1}{2}$, moderately convex, the last very much inflated, rounded; base convex, much smoother than the upper surface; aperture obliquely lunar, rather large; peristome thin, of a pinkish colour; margins distant, right expanded, columellar margin reflected and covering one quarter of the perforation.

Diam. maj. 8, min. $6\frac{1}{2}$, alt. 5 lines.

Hab. Near Adelaide, South Australia (*Waterhouse* and *Bednall*; in *South Australian Museum* and coll. *Brazier*).

This species I received from my two friends Messrs. Waterhouse and Bednall, under the name of *Helix adalaidæ*, Pfr. The *Helix adalaidæ* is a small depressed species, keeled, and with the umbilicus perspective. *Helix bednalli* I have compared with some hundreds of *H. grayi*, Pfr., and *H. jervisensis*, Quoy and Gaimard, and find sufficient characters to warrant it to rank as a distinct species. The note sent by Mr. Waterhouse with his specimens states that it is a species very rarely obtained in a good state of preservation.

7. *HELIX* (*CHAROPA*) *SUBDEPRESSA*.

Shell umbilicated, depressed, nearly discoid, thin, closely covered with fine silky striæ, the interstices under the lens with still finer striæ, rather oblique, shining white; spire flat, suture channelled; whorls $5\frac{1}{2}$, rather convex, last angled and descending in front; umbilicus wide, rather perspective, and rounded at the bottom, equaling more than half of the diameter; basal whorl convex, with striæ the same as on the upper surface, and running into the umbilicus; aperture nearly vertical; peristome simple, acute, triangularly ovate; margins distant, right straight, slightly expanded, columellar margin not reflected.

Diam. maj. $1\frac{1}{2}$, min. 1, alt. $\frac{1}{2}$ line; diam. of umbilicus $\frac{3}{4}$ line.

Hab. Snowy River, Gipps Land, Victoria (*Mr. W. Kershaw*; coll. *Brazier*).

This interesting little species is pure white, and is found in the snowy Australian region that divides New South Wales from Victoria.

8. *BULIMUS* (*LIPARUS*) *KERSHAWI*.

Shell imperforate, ovate, thin, diaphanous, shining, dark yellowish brown, marked with numerous longitudinal and irregular dark yellow and brown lines, some broad and some very narrow, rather running one into the other; and under the lens are to be seen longitudinal and transverse small granulations; spire moderately conical, rather obtuse at the apex; suture crenulated; whorls 5, convex, the last inflated,

equalling more than one half of the length of the whole shell ; aperture broadly ovate, interior bluish white ; peristome simple, acute, straight, thin, the anterior and outer margins arched ; columella straight, nearly vertical above, slightly expanded and reflected, with a thin deposit of callus on the columellar side, and joined at the upper part of the peristome.

Length 2, breadth $1\frac{1}{8}$, alt. 1 ; aperture $1\frac{1}{4}$ long, breadth $\frac{5}{8}$ inch.

Hab. Snowy River, Gipps Land, Victoria (Mr. W. Kershaw).

This fine species I have named in honour of its discoverer, Mr. W. Kershaw of Victoria, to whom I am indebted for a specimen. It approaches in appearance to *B. larreyi*, Brazier, and *B. atomatus*, Gray. It differs from those species in not having the dark spots and zigzag lines that are so characteristic in them.

5. Description of a new Species of Fruit-Pigeon from the Fiji Islands. By JOHN GOULD, F.R.S.

[Received November 7, 1871.]

The beautiful bird which I have now the pleasure of exhibiting to the Meeting, and which I propose to call *Chrysæna victor*, is the second species of the genus, of which *C. luteovirens* is the type. For the loan of one of the two specimens exhibited I am indebted to Mr. James Gardner of Oxford Street, and for the use of the other to the Trustees of the Derby Museum at Liverpool, through the kind intercession of their Curator Mr. T. J. Moore. The latter specimen is so similar to the former in colouring and general appearance as to induce the belief that the two birds are of the same age and adult males. How evident it is, from the discovery of this extremely conspicuous and beautiful Pigeon, that the acquisition of new species is not yet at an end, and that such islands as those composing the Fiji group, and hundreds of others dotted over the Polynesian region, will yet afford ornithological and other treasures of natural history which have not as yet met the gaze of civilized and scientific men !

I append a description of this new species, and shall take an early opportunity of publishing a copy of the drawing now shown of the London and Liverpool birds in one of my publications—the ‘Birds of Asia,’ or the ‘Supplement to the Birds of Australia.’

CHRYSÆNA VICTOR, Gould.

Size. About, or perhaps a trifle larger than, that of *C. luteovirens*.

Colour. The entire surface of the body, both above and below, a lovely carmineous-orange, while the head and throat, as if in direct contrast to the brilliant colouring of the body, is of a dull silvery pea-green ; under surface of the wings rich pure yellow, the primaries becoming orange on the upper surface of their outer webs, and their shafts dark olive above.

Total length 7 inches ; bill $\frac{3}{4}$, wing $4\frac{1}{4}$, tail $2\frac{1}{2}$, tarsi $\frac{3}{4}$.

The female and young will probably be green, as in the case of *C. luteovirens*; at least I find a stray feather or two of that colour on each side of the body of the London specimen.

Mr. Moore, to whom I am indebted for many kind attentions, has favoured me with the following note respecting this lovely species:—

“The bird I now send was obtained by Mr. Thomas Binns Robson of New Brighton, Cheshire, during his visit to the Fiji Islands in September 1867, and was presented by him to the Derby Museum on his return to England. Mr. Robson was so good as to give me the following information respecting it:—The native name is *Bulinadamu*. It appears to be not infrequent in the locality where he shot it, Mbua, a native town and missionary settlement on the south-west of the Island of Vanua Levu, and the principal place of resort in that district. He described it in glowing terms as appearing, from its gorgeous colouring, ‘like a flash of light,’ even at the distance of a quarter of a mile! Its note resembles somewhat the cracking of the thumb and finger; and the natives by resorting to this expedient induce the birds to answer, and thus to betray their whereabouts when out of sight. Mr. Robson could not give me any information respecting its nest and eggs, nor of its food, except the general fact that it feeds on berries.

“The singular and remarkable plumage of the bird at once attracts attention, the entire body being of a rich orange-colour, as bright as that of the Rock-Manakins (*Rupicolæ*); while the head is of a green hue, and the under surface of the wings fine yellow.”

PS. Since the above remarks were in type, Mr. Selater has forwarded to me the following note:—“Dr. Eduard Gräffe has already spoken of the existence of this bird, in his article on the Ornithology of Polynesia, in Cabanis’s ‘Journ. f. Orn.’ 1870, p. 418. Dr. Gräffe saw a specimen of it living in a cage at Levuka, Ovalau, belonging to an English lady.” Thus it is evident that this Pigeon is capable of domestication; and we may therefore hope that ere long living examples may be sent to this country.

6. Description of a new Volute and Twelve new Species of Land-Shells from Australia and the Solomon Islands.
By J. Cox, M.D., C.M.Z.S.

[Received November 6, 1871.]

(Plate LII.)

VOLUTA (AMORIA) AUSTRALIÆ, sp. nov. (Plate LII. figs. 1, 1a.)

Shell fusiform, rather thin; spire short, acuminate, apex erect, finely papillary; whorls smooth, $5\frac{1}{2}$, the last angled round the upper part; columella strongly four-plaited, prominent and thin; sutures vitrified; aperture rather long and narrow, lip simple, interior of

aperture of a deep orange-red, columella light; colour reddish orange, conspicuously ornamented throughout the whole length of the whorls, especially the last, with dark chestnut (almost approaching to black) lightning-like markings, two or three of which are broad, bifurcated above, and shaded off at the edges, others are in thin linear zigzag streaks.

Length 2.45, breadth 1.05 of an inch.

Hab. Bass's Straits.

I have described this fine species, at the request of Mr. Richmond Thatcher, from a fine specimen handed to me by him. This will make the third species of *Volute* which this gentleman has brought to light.

PARTULA PEASEI, sp. nov. (Plate LII. fig. 2.)

B. m. Shell deeply and openly umbilicated, ovately conical, very broadly inflated towards the base; spire short, broadly conical; whorls 5, convex, last rapidly increasing in size and inflated; suture impressed; aperture squarely ovate, obliquely produced, lip and columella white, thickened, and broadly reflected, interior of aperture orange-red; covered with a striated dark chestnut epidermis.

Length 0.94, breadth 0.70 of an inch.

Hab. Solomon Islands (*Rainbird*).

I have named this in honour of Mr. Harper Pease of Honolulu.

BULIMUS SELLERSI, sp. nov. (Plate LII. fig. 3.)

Shell rimately umbilicated, fusiform, thin, smooth, longitudinally finely striated, and transversely very minutely obsoletely striated towards the apex, apex granularly punctate; opaque, diaphanous, shining, an impure white colour; spire acutely turreted, apex obtuse; whorls 5, the last equalling two-thirds the length of the shell, suture submargined; aperture oblong, white within; peristome margined with a dense white, opaque, flat, porcellaneous margin very slightly everted; columella dilating into two pillars, one inserted and gradually lost on the last whorl, the other spirally entering the aperture as a prominent thin plate.

Length 1.90, breadth 0.66 of an inch.

Hab. Gaudalcanar Island, Solomon Islands.

Evidently belonging to the same group as *B. miltocheilus*, Reeve. Among the many specimens obtained I find no important variation.

HELIX ANDERSONI, sp. nov. (Plate LII. fig. 4.)

Shell imperforate, rather thin, depressedly globose, finely striated, yellow-brown, with three or more rather narrow dark chestnut bands round the centre and lower part of the body-whorl, and one beneath the suture; whorls $6\frac{1}{2}$, almost flat, gradually increasing in size; aperture diagonal, elongately lunately rounded, lip dark, as is also the covered umbilicus; margins converging, thin, slightly expanded, columellar margin triangularly dilated, adnate, occluding the umbilicus and sunk below the marginal line of the aperture, causing the latter to be sharply angled.

Diam., greatest 1.34, least 1.10; height 0.80 of an inch.

Hab. North end of Expedition Range, Rockhampton, Queensland, Australia (*Anderson*).

This species in its general aspect closely resembles *Helix yulei*, Pfr.; but from many fine specimens collected by Mr. Anderson I find it unvarying in its characters, of which the occluded umbilicus is most conspicuous.

HELIX SCANDENS, sp. nov. (Plate LII. fig. 5.)

Shell narrowly umbilicated, turbinately globose, of a dull reddish-yellow colour, thin, transparent, above finely striated throughout, smoother below and shining; whorls $5\frac{1}{2}$, gradually increasing in size, convex, last not keeled; aperture broadly lunate; peristome simple, thin, columellar margin white and opaque, triangularly dilated over the umbilicus.

Diam., greatest 0.13, least 0.11; height 0.09 of an inch.

Hab. Port Macquarie, east coast of Australia, 6 feet from the ground on the trunk of a tree.

HELIX KEMPSEYENSIS, sp. nov. (Plate LII. fig. 6.)

Shell very minute, perforate, globosely conical, thin, pale horny yellow, (microscopically) striated; spire obtuse, conical; whorls 5, slightly convex; aperture lunately oval; peristome simple, thin, margins approached, columellar margin slightly dilated and everted over the narrow umbilicus.

Diam., greatest 0.04, least 0.03; height 0.03 of an inch.

Hab. East Kempsey, MacLeay River, east coast of Australia; found under leaves on wet ground.

HELIX MACQUARIENSIS, sp. nov. (Plate LII. fig. 7.)

Shell broadly, openly, and deeply umbilicated, flatly depressed, thin, transparent, very shining, glossy, yellow, striated above with rather irregular coarse lines of growth, below smoother and finely spirally striated, faintly rayed with broad chestnut-coloured markings; whorls $4\frac{1}{2}$, rapidly increasing at the last, rather flat and margined at the suture; apex scarcely raised; aperture almost round, slightly lunate; peristome blunt and darkened, margins closely approached, columellar margin not expanded.

Diam., greatest 0.14, least 0.11; height 0.06 of an inch.

Hab. Port Macquarie, east coast of Australia; under leaves on damp ground.

HELIX GUADALCANARENSIS, sp. nov. (Plate LII. fig. 8.)

Shell imperforate, trochiform, rather solid, finely obliquely arcuately striated, pale yellow-brown, ornamented with broad or narrow dark chestnut lines, sometimes almost absent; spire turbate; whorls $5\frac{1}{2}$, slightly convex, the last rather inflated, not descending in front; aperture large, very oblique, irregularly lunately rounded, inclining to be angled at the periphery of the body-whorl; peristome white, porcellaneous, broadly expanded, margined with black exter-

nally at the angle of reflexion; margins approached, columella dilated, adnate.

Diam., greatest 1.00, least 0.80; height 1.08 of an inch.

Hab. Guadalcanar Island, Solomon Islands.

The characters of this species correspond very closely with those given by Pfeiffer to *Helix flexilabris*; but I consider there are sufficient points of distinction to regard it as a new species; it is a less conical shell, and the last whorl is much more inflated.

HELIX SELLERSI, sp. nov. (Plate LII. fig. 9.)

Shell imperforate, trochiform, brownish yellow, generally ornamented with two very dark chestnut, almost black, bands, more or less wide, one above and one below the subcarinated periphery of the last whorl, having sometimes between them an opaque white band; transversely rather regularly striated backwards, decussated from behind forwards by rather irregular, slightly waved, proportionally broadly separated striæ, more distinct on the last two whorls than at the apex of the spire; whorls 5, rounded, gradually increasing in size, suture impressed, last whorl sharply depressed at its termination and flattened from the periphery to its insertion; spire obtuse; aperture ovately lunate; peristome white-margined, slightly everted; columella very slightly dilated and adnate.

Diam., greatest 0.78, least 0.56; height 0.60 of an inch.

Hab. Guadalcanar Island, Solomon Islands.

HELIX COMPLUVIATUS, sp. nov. (Plate LII. fig. 10.)

Shell with a very narrow, deep umbilicus, discoid, flat above, rounded below; spire only slightly raised, covered with a glossy corneous epidermis of a dark claret-colour above, pale below; whorls 6, slowly increasing in size, last not depressed in front, suddenly descending at the periphery, before descending being grooved with a narrow deep gutter continuous above the margin of the suture almost to the apex; aperture angularly lunate; peristome simple, thin, angled and notched above the middle by the termination of the groove; margins rather distant, columellar margin very slightly dilated and everted.

Diam., greatest 1.10, least 0.88; height 0.70 of an inch.

Hab. Solomon Islands.

HELIX HUNTERI, sp. nov. (Plate LII. fig. 11.)

Shell with a moderately large, deep, open perforation, globosely turbinate, thin, pale flesh-coloured, obliquely finely striated from above downwards, and longitudinally striated, especially on the second and third whorls, with coarser granose striæ; whorls $4\frac{1}{2}$, rounded; spire depressedly conoid, apex obtuse, last whorl inflated, (partially) carinated below the middle, the line of carination being opaque or cretaceous; aperture slightly angled and elongately lunate; peristome thin, broadly reflexed, margins slightly approached, columellar margin triangularly dilated, overhanging and produced beyond the umbilicus.

Diam., greatest 1.08, least 0.92; height 0.86 of an inch.

G.B. Sowerby del & lith.

M. & N. Hanhart imp

Newton, Alfred. 1871. "November 7, 1871." *Proceedings of the Zoological Society of London* 1871, 623–651.

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