

of head smooth, covered by skin. Nostrils some distance apart, the anterior between the orbit and the snout, and covered by a thick strong cirrus, which reaches to $\frac{3}{4}$ the length of the pectoral fin. Mandibular cirri situated one anterior to the other, at a distance equalling the diameter of the orbit; both of them extend nearly as far as the base of the pectoral fin. Gill-openings wide, central cleft extends to above the isthmus.

Teeth. Numerous rows of fine sharp villiform ones in both jaws, and two oval patches, one on each side of the vomer, divided by a small interspace. None on the palate.

Fins. Dorsal small, without any spine, situated anterior to the origin of the ventral; no adipose dorsal. Pectoral with a very short but strong spine, ending in a short termination. Ventrals extend to the origin of the anal, which last is slightly joined to the caudal, the latter being rounded or rather emarginate.

Air-bladder present.

Lateral line straight, ceasing just anterior to the base of the caudal fin.

Colours. Leaden, becoming purplish beneath, covered all over with minute black points, which form an irregular dark finger-mark on the shoulder. Caudal in some specimens yellowish.

Mr. Burnett was good enough to send me several specimens of this interesting fish, which he captured in the Wynaad, in a stream about 3000 feet above the level of the sea. Some were full of ova. The fish does not appear to grow above 12 inches in length.

February 27, 1868.

Dr. J. E. Gray, F.R.S., V.P., in the Chair.

The following extract was read from a letter addressed to the Secretary, by Mr. W. G. Blanford, Corr. Memb., dated "Annesley Bay, Feb. 3rd:"—

"I have got *Pectinator spekei*, or else a second species of the same genus. It abounds up the passes, living amongst the rocks, and it is, without exception, the most tender-skinned mammal I ever tried to preserve. It is rather a pretty little beast, fond of lying out on lumps of rock, and feeding upon green leaves, though I have never seen one on a tree. It is constantly out in the morning and evening, but I fancy it only feeds at night.

"I have also two species of *Hyrax* (one from the passes, a second from the shores of Annesley Bay), a species of Ground-Squirrel (*Xerus*), which does not agree in colour with any of those described in Dr. Gray's list, and a few other things. The Jackal is quite different

from the Indian species ; but I cannot get hold of a specimen. The only Antelopes here are two species of Gazelle—one of the Spring-bok type, living in large herds, the other of the Indian type, like *Gazella bennettii*, solitary or in pairs, more rarely three or four occurring together ; this is perhaps Blyth's *G. spekii*. I have good horns of both male and female, but no perfect specimen. Besides these there is the little Beni-Israel, which I suppose is *Antilope saltiana*, a beautiful little animal, with somewhat the appearance and habits of a Hare. It is almost always met with solitary or in pairs ; more rarely three or four occur together. Above 3000 feet on the passes is an Antelope with somewhat the habits of a Chamois. I have not seen a specimen dead, nor yet a perfect skin ; the hair is singularly coarse. I cannot ascertain what animal this is. A species of Koodoo also occurs in the higher ranges, and, I believe, one or two other animals ; but I have only the accounts of sportsmen, and they are not very trustworthy. A species of Wart-Hog (*Phacochoerus*) abounds. The birds are more Indian than the mammals. Land-shells very scarce ; indeed I have seen none down here."

Dr. J. Murie exhibited some specimens of young Anthropoid Apes (the Gorilla, Chimpanzee, and Orang), and made remarks upon them and their different varieties.

The following papers were read :—

1. Remarks on a Rat lately living in the Society's Gardens.

By JAMES MURIE, M.D., Prosector to the Society.

The specimen which I exhibit before the present meeting is one of three presented to the Society, by Mr. F. Bond, in July 1867.

The information first derived was to the effect that they had been brought by a ship from Manilla.

Further inquiry, however, led to the following information from Mr. Bond. The rats had been caught on board a ship, which had sailed from London direct to Sydney, N.S.W., thence to Hong Kong, where she lay some weeks in the port. Afterwards, on the voyage home, the vessel called at Manilla to provision, but anchored at a considerable distance from shore, the only communication with the land being by means of small boats.

It would thus seem that if the rats were from a foreign port, it is more likely that it was Sydney or Hong Kong than Manilla. If from the first, then the chances would be in favour of their being but a pale-coloured variety or example of albinism in *Mus rattus*. If from China, where European shipping is so numerous, they might still be the same, although it is possible a light species of rat may exist in that land.

The peculiarity of colouring and somewhat obscure history determined me upon making a comparison of the specimen with some of

the East-Indian species in the British Museum. No specimen in that collection agrees with them in tint.

The Black Rat, *Mus rattus* (var. *niger*), approaches nearest in form and general appearance. *Mus rufescens* or *indicus* (*Mus kok*, Gray) is considerably darker and rufescent in shade. The *Mus darwini*, Waterh., P. Z. S. 1837, p. 28, besides differing in colour and size, has a much broader, leaf-like ear, although the specimens in question have it nearly as long.

Whether considered merely as a pale variety of the Black Rat, or as indicating a variation towards separation into a specific type, I may be justified in placing on record a description of the external characters.

Hair fine. Tail clothed with very short, close-set, white hairs. Ears large and somewhat leaf-like, naked and of a pinkish or flesh-colour. Sides of body of a light-yellowish hue. Forehead and back inclining to a more brownish tinge. Nose and rump of a purplish-grey colour. Under parts of body white. Whiskers long, fine, and black.

The size, somewhat naked tail, and other characters show it to be a true rat, and not belonging to the group of mice. The admeasurements of one specimen are as follows:—

	inches.
Length from snout to tip of tail	11·3
——— of head	1·6
——— of body	4·8
——— of tail (partly injured, probably an inch longer) . .	4·9

Ears in length 1 inch, greatest breadth 0·7 inch.

Length of sole of foot 1 inch, and including toes 1·3 inch.

2. On the Nocturnal Ground-Parrakeet (*Geopsittacus occidentalis*, Gould). By JAMES MURIE, M.D., F.L.S., Professor to the Society.

Of this singular “*Strigops*-looking” Parrakeet, first made known to ornithologists through Mr. Gould’s description (P. Z. S. 1861, p. 100) from a skin sent him from Perth, in Western Australia, nothing further has been learned until lately.

No living specimen had been seen by naturalists in this country, when Dr. Mueller, of Melbourne, our active and obliging Corresponding Member, transmitted to this country a specimen of parrot-like bird, which proved to be the Western or Nocturnal Ground-Parrakeet of Mr. Gould, *Geopsittacus occidentalis* *.

In a letter to Dr. Sclater, it is described by Dr. Mueller as inhabiting the Gawler Ranges in South Australia, and in some respects to be a night-bird, like the Nightjars and Owls.

During the short period it remained in the Gardens, its habits

* Gould, ‘Handbook to Birds of Australia,’ 1865, vol. ii. p. 88; and the ‘Birds of Australia,’ Suppl. part iv. pl. 2, and text, 1867.

were carefully watched by our Superintendent, Mr. A. D. Bartlett. He arrived at the same conclusion as Dr. Mueller, namely, that it is chiefly a nocturnal bird. As the results of Mr. Bartlett's observations have already been stated* I need only add two facts mentioned by him:—one, that it showed a preference for green food; the other, that its voice was a double note, harsh and loud.

My own observations, although limited, would incline me to agree with the above-mentioned gentleman. While I saw the bird during the day it remained motionless on its tuft of grass, and only became lively towards sundown. In daylight the eye had a singular expression, reminding one of the appearances characteristic of the Owls, Lemuroids, and such like night-feeding animals. The eye, however, did not look excessively large in proportion to the head.

Toward the end of January, the weather having become changeable, the bird took what appeared to its keeper a fit of sneezing, and died within a day after.

Examination of the viscera showed that death had been caused by an acute pneumonic attack. This had affected both lungs. The other internal organs were much congested with blood, and their texture softened. This softening may have been due to a fatty degeneration of the tissues.

The body was so fat and oily that it was only with difficulty that Mr. Bartlett took off the skin in safety. Of the allied form of Ground-Parrakeet, *Pezoporus formosus*, Mr. Gould says that "its flesh is excellent, being delicate in flavour, and equalling, if not surpassing, that of the Quail and Snipe"†. Although I myself did not taste the flesh of the present nocturnal species, I have no doubt, from the delicacy of its appearance, that it would form quite as good food as its congener.

Upon carefully comparing our bird with Mr. Gould's type specimen (an indifferent skin) and his description, I could find no points, either in the marking or colouring, worthy of special notice. The sex of his specimen not being known, it becomes the more important to mention that the Society's bird was a male, and doubtless adult.

The typical skin has lately been presented to the British Museum by Mr. Gould; and our mounted bird has now been added to the same collection.

I regret that the amount of fat and the greasy nature of the skin quite stood in the way of examination respecting the pterylosis of this interesting Psittacine form.

The subjoined are the only notes I was enabled to make. The greatest stretch of the wings, *i. e.* from tip to tip, is 18 inches. The shape of each wing itself is also peculiar, and not unlike that of the night-flying birds. From base to apex it presents a regular elongated cone, the tips of the feathers being subequal.

The primaries are ten in number, the second of which is probably the longest. There are nine or ten secondary feathers.

* By Mr. Selater, P. Z. S. 1867, p. 891.

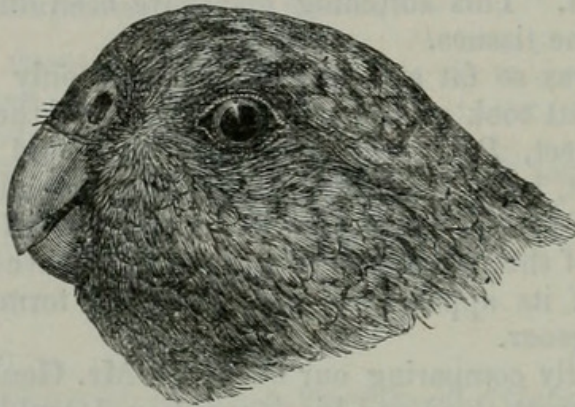
† Handbook, already cited, vol. ii. p. 87.

The tail, $4\frac{1}{2}$ inches in greatest length, possesses 12 rectrices, each of an acuminate form. The four middle feathers are barely so long as the two outside of them. The remaining outermost ones decrease from within outwards, so that the posterior terminal edge of the tail has a rounded or deep-arched contour.

Notwithstanding the scantiness of material originally at his command, Mr. Gould nevertheless had felicitously caught the main characters of this somewhat remarkable, or, as he termed it, "anomalous bird." In his later 'Supplement to the Birds of Australia,' he has given a very charming figure of it from the living specimen, and by his own pencil. This delineation, in other respects excellent, seems to me to have the head and body rather fuller than natural; in this way the resemblance to *Pezoporus* is not so striking as under more favourable circumstances it might be.

Of course one cannot well judge or compare living animals with stuffed specimens; but as far as my examination extends, excepting, it may be, in the length of tail, there is a much nearer likeness in form between these birds than Mr. Gould has admitted in his text.

Fig. 1.



Head of *Geopsittacus* (*Pezoporus*) *occidentalis*. Nat. size. Drawn from the bird immediately after death.

Besides colour and build of body, the beak and legs, among the external characters, are worthy of especial remark.

The upper mandible is thick-set, and projects quite beyond the lower; it is 5''' long and 3''' deep at its basal end. The culmen is broad, which gives the beak a flattened appearance anteriorly. The lateral tooth-like expansion near the angle of the gape, present in many genera of Parrots, is here wanting, as is the case in *Pezoporus* and the genus *Platycercus* generally.

The cere, even for a Parrot, is unusually large, full, and fleshy. It is slate-coloured. Gould describes it as large and grey. The opening of the nostrils is wide, roundish, and directed upwards and outwards (see fig. 1).

In front and below the cere there is a small pencil of elongated bristle-like hairs. These are directed forwards and outwards.

As the bird is seen standing on the ground, the legs appear rela-

tively longer than is common to the Parrot tribe. They are clothed with small hexagonal scales, closely set together, which upon the toes, on their upper surface, are gradually altered into narrow partially transverse scutella (fig. 2).

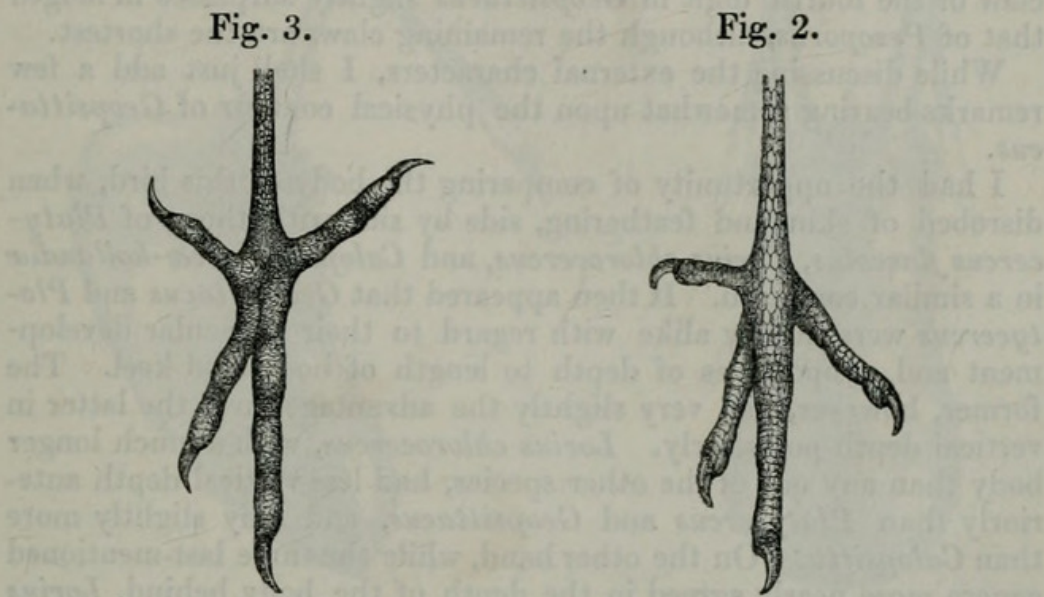


Fig. 2. Left foot of *G. occidentalis* (dorsal surface).
3. Plantar surface of right foot. (Both nat. size.)

The claws are moderately strong and curved.
A better idea may be formed of any differences, if they exist, between this nocturnal species and the Ground-Parrakeet by a tabular view of the limb-proportions. I have added also the measurements of specimens of two other genera, not very distantly related, and from birds nearly equivalent in general size.

Comparative lengths of the tarsus, digits, and claws in four genera of Parrots.

	<i>Geopsittacus.</i>	<i>Pezoporus.</i>	<i>Platycercus.</i>	<i>Euphema.</i>
Length of tarsus	1.0	1.0	0.8	0.5
1st digit (inner hind toe), length to root of claw.....	0.35	0.3	0.35	0.22
Length of the claw	0.2	0.2	0.24	0.2
2nd digit (inner front toe), length to root of claw	0.4	0.3	0.5	0.3
Length of the claw	0.2	0.3	0.3	0.21
3rd digit (outer front toe), length to root of claw	0.7	0.7	0.7	0.5
Length of the claw	0.3	0.4	0.3	0.3
4th digit (outer hind toe), length to root of claw	0.5	0.5	0.65	0.48
Length of the claw	0.5	0.4	0.33	0.21

It will be seen from the above that *Geopsittacus* and *Pezoporus* resemble each other closely so far as the length of the tarsus

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and the digits are concerned. The first form is no doubt the stouter-limbed of the two. *Platycercus* approaches nearer to them than does *Euphema*.

The same remarks apply to the claws. Curiously enough, the claw of the fourth digit in *Geopsittacus* slightly surpasses in length that of *Pezoporus*, although the remaining claws are the shortest.

While discussing the external characters, I shall just add a few remarks bearing somewhat upon the physical contour of *Geopsittacus*.

I had the opportunity of comparing the body of this bird, when disrobed of skin and feathering, side by side with those of *Platycercus flaveolus*, *Lorius chlorocercus*, and *Calopsitta novæ-hollandiæ* in a similar condition. It then appeared that *Geopsittacus* and *Platycercus* were nearly alike with regard to their muscular development and proportions of depth to length of body and keel. The former, however, had very slightly the advantage over the latter in vertical depth posteriorly. *Lorius chlorocercus*, with a much longer body than any one of the other species, had less vertical depth anteriorly than *Platycercus* and *Geopsittacus*, and only slightly more than *Calopsitta*. On the other hand, while the three last-mentioned genera more nearly agreed in the depth of the body behind, *Lorius* differed from them all in its being much greater.

These limited observations would seem to indicate that the chest or wing-giving power is greatest and nearly alike in *Geopsittacus* and *Platycercus*, whereas *Lorius* and *Calopsitta* are stronger relatively towards the rump and in the abdominal region generally. Expressed in antithesis it points to volatorial powers *versus* scanorial habits.

Circumstances, I regret, only permitted me to examine the osteology through the sternum, which possesses characters in common with those of the Parrot tribe. Its body is elongated in shape (1".7), narrowest (0".65) and deepest forwards, shallowest and expanded (0".85) behind. The middle xiphoid region* shows a tendency to be produced; but this is so slight as barely to break the regularity of the arch of the posterior border. There is a large fenestra on each side, of an oval figure. These, in the specimen in question, have an irregular margin, from partial filling-in of delicate osseous material. At an earlier stage, therefore, the fenestræ must have been proportionally larger and more ellipsoid in contour. The keel is large and deep (0".6 anteriorly) and has a gentle but not greatly projecting anterior curvature, fashioned after the manner of the prow of a steam-ram.

There are six pointed serrations, or costo-condyles, for the attachment of as many sternal ribs.

* In the description of the sternal bones, I have throughout followed the terms adopted by Mr. Parker in his recent "Monograph on the Structure and Development of the Shoulder-girdle and Sternum in the Vertebrata," Ray Soc. 1868. The breadth of his researches and the sequence in the developmental condition of the parts examined by him give us a more trustworthy basis than heretofore.

Fig. 5.

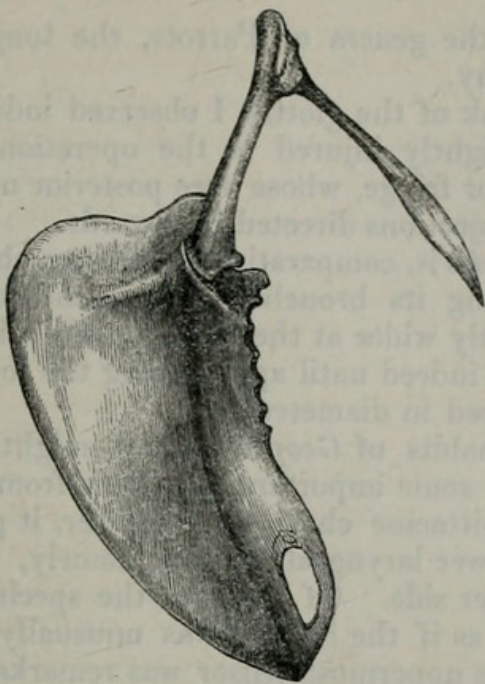
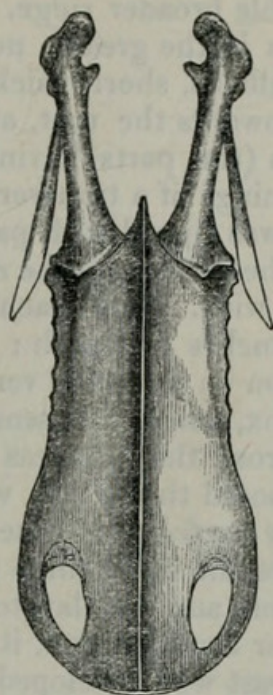


Fig. 4.



Figs. 4 & 5. Ventral and lateral views of the sternum of *G. occidentalis*.
Nat. size.

The rostrum projects rather upwards than forwards; its anterior groove is shallow.

The coracoids are moderately long and stout, the epicoracoids well-defined.

The furcula, or conjoined clavicles, is absent.

The mesoscapular segment is of fair dimensions, and partly conjoined with the mesocoraco- and mesoscapular spurs.

Each scapula is of considerable length, strong, though only of moderate thickness; its upper ensiform-shaped half is terminated by a sharp point.

As regards the visceral anatomy of *Geopsittacus occidentalis*, I shall proceed simply to describe the several parts and organs examined by me, leaving structural comparisons for after-consideration.

At the angles of the gape, but within the buccal cavity, two unusually large lobe-like flaps are observed. These folds correspond to the *glandulæ anguli oris*, said to be found in some birds of prey. Whether identical with what Tiedemann has taken to be the parotid gland or not, the above exist in all the Parrots I have examined, but are unusually large in *Geopsittacus*.

Their minute structure I have only examined sufficiently to ascertain they are tolerably vascular and covered with tough cuticle. No doubt they serve an important office in deglutition, or may possibly be tactile organs.

The tongue has a number of minute longitudinal striations upon its upper surface, disposed in such a manner that the elevations and furrows resemble a diminutive fan. The narrow end of these is

hindermost, and the median smaller ones are outflanked by a considerable broader ridge.

As in the greater number of the genera of Parrots, the tongue is bulbous, short, thick, and fleshy.

Towards the root, at the chink of the glottis, I observed indications (the parts having been slightly injured in the operation of skinning) of a transverse lappet or fringe, whose free posterior margin was tipped with papillary projections directed backwards.

The aperture of the *rima glottidis* is, comparatively speaking, short and wide. The trachea, including its bronchial portion, measures 2·7 inches in length: it is slightly wider at the top; but the diminution in calibre is very gradual indeed until approaching the lower larynx, where it is sensibly reduced in diameter.

From the noiseless diurnal habits of *Geopsittacus* it might be supposed the larynx would offer some important variations from its noisy *confrères*. True to its Psittacine character, however, it possesses the usual three pairs of lower laryngeal muscles, namely, two tensors and one laxator on either side. Of these, in the specimen under consideration, it appeared as if the laxator was unusually, or at least well developed, while the uppermost tensor was remarkably sparse in fleshy fibre.

The digestive tract is truly Psittacine in its nature, as the following description shows.

The upper portion of the œsophagus and the crop unfortunately were partially destroyed during the process of skinning. The proventriculus is moderately developed, and its glandular structure minute.

The gizzard is roundish in outline and somewhat flattened antero-posteriorly; it is tolerably muscular, and has a broad central tendon. At its lower border (the part which corresponds with the great flexure of the stomach in human anatomy) there is a deep incision. The moiety which lies in front, or to the left side of the duodenum, descends rather the lower of the two. The gizzard is about 0·6 of an inch in its greatest diameter. Towards, but above the pyloric aperture, where the intestine is given off, there is a prominent bulging or sacculus. Internally the gizzard is lined with a thick, soft, tough, white-coloured membrane, disposed in longitudinal rugæ. It contained only comminuted quartzy grit, but no remains of food.

The intestines have a total length of 16 inches; and their calibre, which is but very moderate, has nearly a uniform diameter.

As usual in the *Psittacidæ*, cæci are absent.

The liver, kidneys, and other internal organs presented no points of interest worth recording.

Having thus anatomically described this, in some respects, aberrant form of Parrot, it remains to be considered whether its characters, external and internal, warrant its being retained as the type of a separate genus, and what are its nearest allied forms.

In his technical description, Mr. Gould leaves it open for naturalists to adopt his generic name. M. Otto Finsch, in his recent volume on the group of Parrots, gives the genus *Pezoporus* with two





J Wolf lith.

M & N Hanhart imp

1. EUSCARTHMUS IMPIGER.
2. SUBLEGATUS GLABER.

species, *P. formosus* and *P. occidentalis*, from which we may infer he does not intend, in his succeeding yet unpublished volume, to give *Geopsittacus* as a distinct genus.

If external markings and colour reveal affinity, then *Geopsittacus*, *Pezoporus*, and *Strigops* are nearly allied. Osteological characters come to divide the two former from the latter.

While admitting that the shorter tail, rather stouter body, and the want of the red frontal band sufficiently define *G. occidentalis* from *P. formosus* specifically, these points, I am inclined to believe, are not of sufficient value or equal import when considered generically.

Admitting that the nocturnal habits of *Geopsittacus* vary from those of *Pezoporus*, this itself would throw the balance in favour of its separation as a genus.

Through the kindness of Mr. Flower I have been enabled to compare the sternum of the latter with the former bird. Excepting the relation of size, *Pezoporus* being the smaller and altogether the more slender of the two, there is essentially no difference in structure.

In the genus *Platycercus*, altogether a group of ground-loving birds, there is a close resemblance to the two last-spoken-of forms; but they differ not only in colour, but structurally, as regards the sternum and other anatomical characters.

Of *Strigops* that intense similarity in outward aspect to *Geopsittacus* and *Pezoporus* is outweighed when its osteology is compared. Yet, notwithstanding its almost keelless sternum, I cannot help believing its real affinities are with the nocturnal Parrakeet, and that some intermediate form may one day be found.

Platycercus and *Strigops* are the extremes of a Psittacine group (it may be subfamily). *Pezoporus*, including *Geopsittacus* under that genus, is the central type of the same group.

3. On Venezuelan Birds collected by Mr. A. Goering. By
P. L. SCLATER, M.A., F.R.S., and OSBERT SALVIN, F.L.S.
—Part I.

(Plate XIII.)

Mr. Anton Goering, of Saxe-Altenburg, who accompanied Dr. Burmeister as *préparateur* during his travels through La Plata, left England, in September 1866, to collect objects of natural history in Venezuela. Mr. Goering reached Carupano (*viâ* Trinidad) on the 30th of November of the same year. From Carupano he made an excursion of several months into the interior, visiting Caripé, several caves inhabited by the Guácharo (*Steatornis caripensis*) in that neighbourhood, and Pilar, and collecting extensively. Unfortunately a large part of these collections were lost by an accident during his return back to Carupano. From Carupano Mr. Goering proceeded to Caraccas, where he arrived in the latter part of last summer.

The collection we now bring before your notice contains 173 skins, collected mostly at Carupano, Pilar, and Caraccas. They are referable to 126 species. Three of these we have described as being probably new to science, namely *Basileuterus griseiceps*, *Euscarthmus impiger*, and *Sublegatus glaber*. The last two are obscure species belonging to difficult groups, and may have received prior names; but we have not succeeded in finding them.

Although some well-known collectors have visited Venezuela (Mr. Dyson, M. Sallé, and others), and many extensive collections have been formed in that country and transmitted to Europe, there has been hitherto no attempt made to give a connected account of its rich avifauna. We trust that Mr. Goering, who is now exploring the country to the interior of Puerto Cabello and the Lake of Valencia, will continue his successful researches, so as to enable us to supply this deficiency.

We first give the names of the entire set of species, adopting generally the nomenclature of Sclater's 'American Catalogue,' and then add notes upon such of them as appear to call for observation. The exact localities are added when they are stated on the specimens.

	Caripé.	Pilar.	Carupano.	Caraccas.
TURDIDÆ.				
†1. <i>Catharus aurantirostris</i>	*			
2. <i>Turdus fumigatus</i>	*		
3. <i>Mimus melanopterus</i>	*	
4. <i>Rhodinocichla rosea</i>	*
TROGLODYTIDÆ.				
†5. <i>Henicorhina leucosticta</i>	*
6. <i>Thryothorus rutilus</i>	*
7. <i>Troglodytes parvus</i>	*	
SYLVIIDÆ.				
8. <i>Polioptila buffoni</i>	*			
SYLVICOLIDÆ.				
9. <i>Parula pitayumi</i>	*			
†10. <i>Basileuterus griseiceps</i> , sp. n.	*			
11. <i>Setophaga verticalis</i>	*	*
12. — <i>ruticilla</i>				
VIREONIDÆ.				
13. <i>Cycloris flavipectus</i>	*	
†14. <i>Hylophilus acuticauda</i>	*
CÆREBIDÆ.				
†15. <i>Diglossa similis</i>	*
16. <i>Chlorophanes atricapilla</i>	*		
17. <i>Cæreba cyanea</i>	*		

	Caripé.	Pilar.	Carupano.	Caracas.
18. <i>Cereba cærulea</i>	*		
19. <i>Certhiola luteola</i>	*	
TANAGRIDÆ.				
20. <i>Procnias occidentalis</i>	*			
21. <i>Euphonia nigricollis</i>	*	*
22. — <i>trinitatis</i>	*
23. <i>Calliste cyanoptera</i>	*			
24. <i>Compsocoma sumptuosa</i>	*
25. <i>Tanagra olivicyanea</i>	*
26. <i>Ramphocelus venezuelensis</i>				
27. <i>Pyranga ardens</i>	*			
28. <i>Tachyphonus melaleucus</i>	*	
29. — <i>luctuosus</i>	*		
30. <i>Nemosia ruficeps</i>	*
31. <i>Buarremon semirufus</i>	*
32. <i>Saltator olivascens</i>	*	
33. — <i>maculipectus</i>	*
FRINGILLIDÆ.				
†34. <i>Cardinalis phoeniceus</i>	*	
35. <i>Oryzoborus torridus</i>	*		
36. <i>Spermophila minuta</i>	*			
37. <i>Volatinia jacarina</i>	*	..	*	*
38. <i>Phonipara omissa</i>	*	*
39. <i>Coryphospingus pileatus</i>	*	
40. <i>Coturniculus manimbe</i>	*
41. <i>Embernagra conirostris</i>	*	
42. <i>Chrysomitris cucullata</i>	*	*
43. — <i>columbiana</i>	*
ICTERIDÆ.				
44. <i>Icterus auricapillus</i>	*			
45. — <i>giraudi</i>	*
46. — <i>xanthornus</i>	*	
47. — <i>vulgaris</i>	*	
48. <i>Lamprosar guianensis</i>	*	
49. <i>Molothrus</i> , sp. ind., ♂ jun.	*
50. <i>Sturnella meridionalis</i>	*			
CORVIDÆ.				
51. <i>Cyanocorax incas</i>	*			
DENDROCOLAPTIDÆ.				
52. <i>Synallaxis albigularis</i>	*
53. — <i>inornata</i>	*
54. — <i>terrestris</i>	*			
†55. <i>Philydor columbianus</i>	*
56. <i>Dendrocincla meruloides</i>	*		
57. <i>Xiphocolaptes promeropyrnchus</i>	*			
58. <i>Dendroornis susurrans</i>	*			
59. <i>Dendroplex picirostris</i>	*		
60. <i>Picolaptes albo-lineatus</i>	*	*	

	Caripé.	Pilar.	Carupano.	Caraccas.
FORMICARIIDÆ.				
61. <i>Thamnophilus major</i>	*	
62. — <i>atricapillus</i>	*		
63. — <i>doliatus</i>	*	
64. <i>Dysithamnus semicinereus</i>	*			
65. <i>Myrmotherula</i> , sp. ind., ♀	*			
66. <i>Formicivora intermedia</i>	*	
67. <i>Chamaeza olivacea</i>	*
TYRANNIDÆ.				
†68. <i>Ochthoëca setophagoides</i>	*
69. <i>Sayornis cineracea</i>				
70. <i>Fluvicola pica</i>				
71. <i>Machetornis rixosa</i>	*
72. <i>Todirostrum cinereum</i>	*	
†73. <i>Euscarthmus impiger</i> , sp. n.	*
74. <i>Phyllomyias semifusca</i>	*
75. <i>Myiozetetes guianensis</i>	*	
†76. <i>Sublegatus glaber</i> , sp. n.	*
77. <i>Rhynchoeyclus sulphureus</i>	*			
78. <i>Pitangus rufipennis</i>	*
79. <i>Myiodynastes audax</i>	*		
80. <i>Megarhynchus pitangua</i>	*	
81. <i>Myiobius naevius</i>	*	
82. — <i>vieillotides</i>	*			
83. <i>Empidonax</i> , sp. ind.	*		
84. <i>Contopus brachytarsus</i>	*	...	*
85. <i>Myiarchus ferox</i>				
86. — <i>nigricaps</i>	*			
87. <i>Tyrannus melancholicus</i>				
COTINGIDÆ.				
88. <i>Tityra cayana</i>	*		
89. <i>Pachyrhamphus albogriseus</i>	*
90. <i>Pipra aureola</i>	*		
91. <i>Chiroxiphia lanceolata</i>	*		
†92. <i>Pipreola formosa</i>	*			
†93. <i>Chasmorhynchus variegatus</i>				
GALBULIDÆ.				
94. <i>Galbula ruficauda</i>	*	
BUCCONIDÆ.				
95. <i>Bucco bicinctus</i>	*		
TROGONIDÆ.				
96. <i>Trogon viridis</i>				
97. <i>Trogon</i> , sp. ind. (jr.)	*			
TROCHILIDÆ.				
98. <i>Phaethornis guyi</i>				
99. <i>Dolerisca fallax</i>				

	Caripé.	Pilar.	Carupano.	Caracas.
100. <i>Campylopterus lazulus</i>				
101. — <i>ensipennis</i>				
102. <i>Lampornis mango</i>				
103. <i>Spathura underwoodi</i>				
104. <i>Lesbia forficata</i>				
105. <i>Mettallura tyrianthina</i>				
106. <i>Heliothrix auritus</i>				
107. <i>Petasophora cyanotis</i>				
108. <i>Lampropygia cœligena</i>				
CUCULIDÆ.				
109. <i>Diplopterus navius</i>	*			
RAMPHASTIDÆ.				
110. <i>Aulacoramphus sulcatus</i>	*			
PICIDÆ.				
111. <i>Celeus cinnamomeus</i>				
112. — <i>citrinus</i>				
113. <i>Chloronerpes rubiginosus</i>	*
114. <i>Centurus tricolor</i>				
PSITTACI.				
115. <i>Cornurus wagleri</i>				
116. — <i>cyanopterus</i>	*			
117. <i>Pionus sordidus</i>	*			
118. <i>Urochroma melanoptera</i>	*
119. <i>Psittacula guianensis</i>	*	
ACCIPITRES.				
†120. <i>Asturina nitida</i>				
121. — <i>magnirostris</i>				
122. <i>Ictinia plumbea</i>				
RALLI.				
123. <i>Crex schomburgki</i>	*			
GRALLÆ.				
124. <i>Actiturus bartramius</i>	*
125. <i>Totanus solitarius</i>				
126. <i>Ægialites wilsonius</i>	*	

The following notes refer to the species marked †:—

1. CATHARUS AURANTIROSTRIS.

Turdus aurantirostris, Hartl. R. Z. 1850, p. 158, et Contr. Orn. 1851, p. 80, t. 72.

Catharus immaculatus, Bp. Consp. p. 278.

C. aurantirostris, Sel. P. Z. S. 1859, p. 323.

One example from near the cave of Caripé. Female: iris brown.

We have long wished to see this species. It is very closely allied to *C. melpomene*, but apparently sufficiently distinct to be recognizable, being generally more olivaceous above, showing less cinnamonous colouring, particularly on the wings, and having the whole bill bright orange.

5. *HENICORHINA LEUCOSTICTA*.

Cyphorinus leucostictus, Cab.

Heterorhina leucosticta et *H. prosthaleuca*, Baird, Review, p. 117.

Microcerculus leucostictus, Scl. et Salv. P. Z. S. 1864, p. 345.

Baird's term *Heterorhina* for this group having been employed in the Coleoptera by Westwood in 1845, we propose to change it into *Henicorhina*.

10. *BASILEUTERUS GRISEICEPS*, sp. nov.

Supra flavicanti-olivaceus : capite toto griseo, pileo summo nigricantior, superciliis brevibus albis : subtus unicolor aureo-flavus : rostro nigro, pedibus flavis : long. tota 5·3, alæ 2·5, caudæ 2·2.

Hab. Venezuela, in sylvis Caripensibus (*Goering*).

Mr. Goering obtained only a single individual of this well-marked species, in the neighbourhood of Caripé in June last. It is marked "male : iris reddish-brown. Very rare."

Sclater has given a synopsis of the known *Basileuteri* in P. Z. S. 1866, p. 282. The present bird may be arranged in the first section, next after the red-headed species *B. mesochrysus* &c., from which it is at once distinguished by its grey head. Besides the 15 species there given, Sclater has recently obtained a specimen of *B. hypoleucus* (Bp. Consp. p. 313) from Brazil.

14. *HYLOPHILUS ACUTICAUDA*, Lawrence, Pr. Ac. Phil. 1865, p. 37.

One skin, apparently of this species, but not in very good condition. It is most nearly allied to *H. insularis*, Sclater, and may eventually turn out to be the same.

15. *DIGLOSSA SIMILIS*.

Agrees with Bogota specimens of this species. It follows that *D. hyperythra*, Cab. Mus. Hein. i. p. 97, is a synonym of *D. similis*.

34. *CARDINALIS PHŒNICEUS*, Gould.

"Found only on the coast, and not met with a few leagues in the interior."—A. G.

55. *PHILYDOR COLUMBIANUS*, Cab. et Hein. Mus. Hein. ii. p. 29.

One example from Caraccas of this species, which is allied to *P. rufus*, and more remotely to *P. panerythrus* of Bogota.

68. *OCHTHOËCA SETOPHAGOIDES*.

Tyrannula setophagoides, Bp. Att. Sc. It. vi. p. 405.

Mecocerculus leucophrys, Scl. Cat. A. B. p. 199.

Ochthoëca setophagoides, Cab. et Hein. Mus. Hein. ii. p. 48.

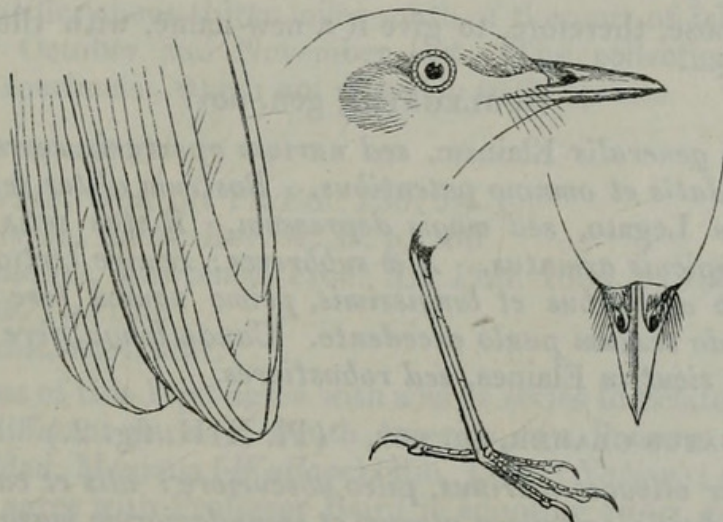
Nearly agrees with Bogota skins of this species. We have already corrected the error of referring *Ochthoëca leucophrys* (Lafr. et d'Orb.) to this species. See P. Z. S. 1867, p. 986.

73. *EUSCARTHUS IMPIGER*, sp. nov. (Pl. XIII. fig. 1.)

Supra murino-brunneus, uropygium versus olivaceus, alis caudaque nigricantibus olivaceo limbatis, alarum tectricibus fulvescenti-olivaceo bifasciatis: camptorio et subalaribus flavidis: subtus albus, lateraliter murino perfusus, gutture et pectore murino substriatis; hypochondriis et crisso olivaceo perfusis: rostro et pedibus carneis: long tota 4.2, alæ 2.1, caudæ 1.6, tarsi 0.8, rostri a rictu 0.6.

Hab. Venezuela et Nova Granada.

Fig. 1.



Euscarthmus impiger.

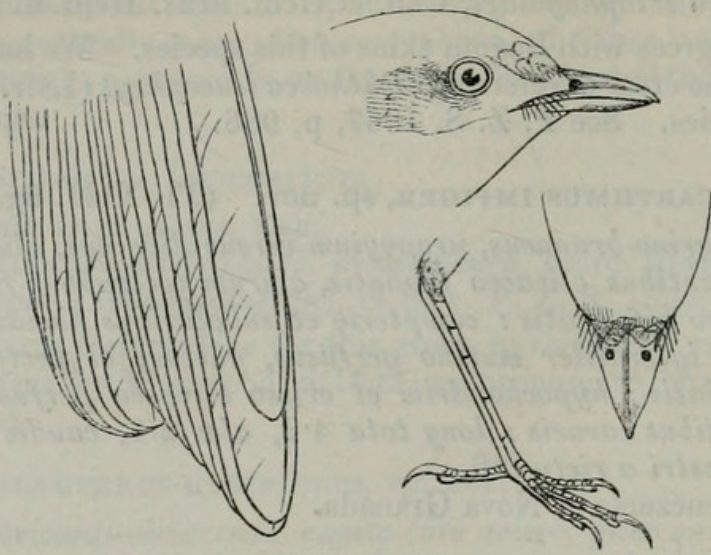
Mr. Goering's single skin, obtained near Caraccas, agrees with a Bogota specimen in Sclater's collection. The species seems to be most nearly allied to *E. margaritaceiventer* (Lafr. et d'Orb.), but differs in its olivaceous lower back and the obscure flammulations below. These two species have to be added to the list of the genus given in Sclater's 'American Catalogue,' p. 208, and may stand after *E. orbitatus*.

Mr. Goering notes the irides of this bird as "white."

76. *SUBLEGATUS GLABER*, sp. et gen. nov. (Pl. XIII. fig. 2.)

Apparently the adult of the bird numbered 1340a in Sclater's 'American Catalogue.' It is not quite a *Legatus*, and in some respects comes nearer to *Elainea*; but we are not able to refer it satisfactorily to any other genus.

Fig. 2.

*Sublegatus glaber.*

We propose, therefore, to give it a new name, with the following characters:—

SUBLEGATUS, gen. nov.

Habitus generalis Elaineæ, sed narium aperturis seorsum versis, rotundatis et omnino patentibus. Rostrum aliter fere sicut in genere Legato, sed magis depressum. Rictus setis paucis et inconspicuis armatus. Alæ subbreves: remige tertio quarto et quinto æqualibus et longissimis, primo nonum fere æquante: secundo sextum paulo excedente. Cauda longa, fere quadrata. Tarsi sicut in Elainea, sed robustiores.

SUBLEGATUS GLABER, sp. nov. (Pl. XIII. fig. 2.)

Supra ex olivaceo murinus, pileo obscuriore: alis et cauda nigricanti-fuscis, tectricum alarum et secundariorum marginibus sordide albescentibus: subtus pallide flavicans, gutture albo in pectore in cinereum trahente: subalaribus flavidis: rostro corneo, pedibus nigris: long. tota 5.5, alæ 2.8, caudæ 2.6, tarsi 0.75, rostri a rictu 0.6.

Hab. in Venezuela (Goering).

Mus. P. L. S.

92. PIPREOLA FORMOSA.

Ampelis formosa, Hartl. Rev. Zool. 1849, p. 493, t. 14.

Pyrrhorhynchus formosus, Bp. Consp. p. 177.

Euchlorornis formosa, Cab. et Hein. Mus. Hein. ii. p. 103.

A pair of this beautiful species from the dark forest near Caripé, alt. 3000 feet. "Iris red brown."

93. CHASMORHYNCHUS VARIEGATUS.

An adult male of this species from "the dark forest of Casuaré, Nueva Andalucia." See Sclater's remarks on the geographical dis-

tribution of this group in 'Ibis' 1866, p. 406, and the 'Intellectual Observer,' vol. x. p. 401 (1867).

120. ASTURINA NITIDA (Lath.).

One example, rather pale in colouring. North of Panama this species is replaced by *Asturina plagiata*, Schlegel (Mus. des P.-B. *Asturinae*, p. 1), which has hitherto been usually miscalled *A. nitida**.

4. On Peruvian Birds collected by Mr. H. Whitely. By P. L. SCLATER, M.A., Ph.D., F.R.S., and OSBERT SALVIN, M.A., F.L.S.—Part II.†

The present paper contains a list (accompanied by critical notes) of the species of birds contained in Mr. Whitely's second collection. This was entirely formed in the valley of the Tambo (which flows into the Pacific, about thirty miles south of the port of Islay) in the months of October and November last. The collection contains about 100 specimens, which are referable to 28 species.

1. ANTHUS RUFUS.

Alauda rufa, Gm. (ex Pl. Enl. 738. fig. 1),

Anthus rufus, Baird, Rev. A. B. p. 156.

Anthus parvus, Lawrence, Proc. Ac. Phil. 1865, p. 106; Salvin, P. Z. S. 1867, p. 135.

Anthus chii, auct. plur.

Specimens of this Pipit agree with a large series in Sclater's collection from different parts of South America, viz. Panama (*M'Cleanan*), Trinidad, Mexiana (*Wallace*), Rio, Lima (*Nation*); and we are inclined to agree with Professor Baird in adopting *rufus*, as its oldest specific designation, although Burmeister has assigned that name to the larger *A. correndera*. Salvin's specimens from Veragua are also referable to the same species, which appears to be very widely distributed.

2. SPERMOPHILA TELASCO (Less.); Sclater, P. Z. S. 1867, p. 341.

3. VOLATINIA JACARINA (Linn.).

4. XENOSPINGUS CONCOLOR.

Sylvia concolor, Lafr. et d'Orb. Syn. Av. in Mag. de Zool. 1836, p. 20; d'Orb. Voy. Ois. p. 216, t. 18. fig 1.

Xenospingus concolor, Cab. J. f. Orn. 1867, p. 347.

Specimens of both sexes of this remarkable bird, which we agree with Dr. Cabanis in considering to be undoubtedly a Fringilline form. It seems to us to be most nearly allied to *Phrygilus*, but to differ in

* Cassin, in Baird's B. N. A. p. 35, et Sclater et Salvin, Ibis, 1859, p. 217.

† See P. Z. S. 1867, p. 982.

its elongated and much attenuated bill, and in its longer and more graduated tail.

Fig. 1.

*Xenospingus concolor.*

The sexes may be diagnosed as follows:—

♂. *Cinereus: subtus dilutior, magis albicans: fronte et loris nigris: rostro et pedibus flavis: long. tota 6·0, alæ 2·8, caudæ rectr. med. 2·9, later. 2·5, rostri a rictu 0·6, tarsi 0·95.*

♀. *Fuscescenti-cinerea, subtus valde dilutior, fere albicans, obsolete fusco striata: rostro et pedibus fuscis.*

D'Orbigny obtained a single specimen of this species in the valley of Arica. Mr. Whitely has sent us six examples from the more northern valley of Tambo.

5. ELAINEA ALBICEPS.

Muscipeta albiceps, Lafr. et d'Orb. Syn. Av. i. p. 47; d'Orb. Voy. Ois. p. 319.

This bird, from the locality, we have little hesitation in referring to the present species. Sclater's *E. albiceps*, Cat. A. B. p. 217. sp. 1325 (from Ecuador) is of larger size, and probably distinct. D'Orbigny procured this bird at Tacna.

6. MYIOBIUS RUFESCENS, Salvadori.

M. rufescens, Salvadori, Atti Soc. It. vii. p. 152(1864).

M. nationi, Sclater, P. Z. S. 1866, p. 99, t. xi. fig. 1.

Dr. Salvadori having most kindly sent over the types of the American species described in his recent papers in the seventh and eighth volumes of the 'Atti della Società Italiana di Scienze Naturali' for

our inspection, we have convinced ourselves that his *M. rufescens* is the same as *M. nationi*, Sclater. The locality given by Dr. Salvadori, however, is erroneous, the bird being probably restricted in its range to the western coast-region of Peru*.

7. PYROCEPHALUS RUBINEUS (Bodd.).

A pair of this widely spread species, accompanied by a specimen of the form called *P. obscurus* by Gould and *P. atropurpureus* by Cabanis (Tsch. F. P. *Aves*, p. 156), which we are now inclined to regard as in all probability a melanism of the same bird.

8. CERYLE CABANISI (Tsch.).

Originally described from specimens obtained by Tschudi in the vicinity of Lima. This is the most southern locality we have yet met with for this western representative of *C. americana*, which ranges northwards up to Texas. We have seen specimens from Panama, Costa Rica, Guatemala, and Mexico.

9. CHORDEILES PERUVIANUS.

Chordeiles pruinus, Tsch. Consp. Av. p. 8, et F. P. t. 6. fig. 2.

Chordeiles semitorquatus, Tsch. F. P. *Aves*, p. 130.

Chordeiles peruvianus, Peale, Zool. U. S. Expl. Exp. Birds, p. 172 (1848).

Chordeiles acutipennis, Cassin, *ibid.* ed. ii. p. 189 (1858).

Caprimulgus exilis, Less. Rev. Zool. 1839, p. 44 (?).

An adult male of this interesting species, which turns out after all to be quite distinct from the eastern *C. acutipennis*. It is easily distinguishable by the white bars on the inner webs of the rectrices, which are five or six in number besides the white subterminal bar, which crosses both webs. It is besides much whiter and paler underneath generally.

10. CROTOPHAGA SULCIROSTRIS, Sw.

This is, again, a purely western species, extending hence, which is the most southern locality hitherto noted for it, through Central America into Southern Mexico.

11. PHOLEOPTYNX CUNICULARIA (Mol.).

12. URUBITINGA UNICINCTA (Temm.).

* Concerning other American species described by Dr. Salvadori (*l. c.*), we have arrived at the following conclusions from examination of his typical specimens:—*Rhynchocyclus cerviniventris*, Salvad. Att. S. It. vii. p. 153 = *Contopus pallidus* (Gosse); *Anæretes cristatellus*, Salvad. *l. c.* p. 153 = *Serpophaga subcristata* (Vieill.); *Thamnistes affinis*, Salvad. *l. c.* p. 154 = *Thamnomanes glaucus* ♀; *Myrmotherula minor*, Salvad. *l. c.* p. 157 = *M. brevicauda* (Sw.); *Myrmeciza marginata*, Salvad. *l. c.* p. 158 = *M. ruficauda* (Max.). *Porphyriops leucopterus*, *op. cit.* viii. p. 382, is different from *Porphyriops melanops*, but may be probably identical with Tschudi's *Crex femoralis*. There is a specimen of this bird in the Derby Museum, Liverpool, from Bogota. It seems to be a good second species of the genus *Porphyriops*.

13. *TINNUNCULUS SPARVERIUS* (Linn.).

14. *ZENAIDA AURICULATA*, Des Murs.

15. *CHAMÆPELIA CRUZIANA* (d'Orb.).

16. *THINOCORUS RUMICIVORUS*, Eschsch.

17. *ŒDICNEMUS SUPERCILIARIS*, Tschudi; Scl. et Salv. Ex. Orn. p. 59, t. xxx.

A single adult specimen of this fine and distinct species, differing from the individual figured in our plate in the absence of the black stripe behind the eye, the greyer colouring of the head and neck, and the absence of the rufous edgings to the wing-coverts. In the present bird also the crissum is nearly pure white, and the bill is mostly black, the base of the mandible only being greenish.

18. *CHARADRIUS VIRGINICUS*, Borck.

19. *ÆGIALITES VOCIFERUS*.

Three specimens of this well-known species, apparently birds of the year.

20. *ÆGIALITES NIVOSUS*, Cassin.

Two male specimens of this species in adult plumage. They serve to confirm our former impression* that Schlegel has made a mistake in uniting this Plover to the European *Æ. cantianus*. The lores of the American bird are pure white; in the European there is a black line between the eye and the base of the bill.

21. *CALIDRIS ARENARIA* (Linn.).

22. *TRINGA BAIRDI*, Coues; Sclater, P. Z. S. 1867, p. 322.

A single specimen, apparently in full winter plumage.

23. *NUMENIUS HUDSONICUS* (Lath.); Sclater, P. Z. S. 1867, p. 333.

24. *GALLINULA GALEATA* (Licht.); Tsch. F. P. *Aves*, p. 302.

"Shot on the lake at Tambo."

25. *FULICA CHILENSIS*.

Fulica chilensis, Gay, Faun. Chil. Atlas, t. 10; Hartl. J. f. O. Extrah. 1854, p. 81.

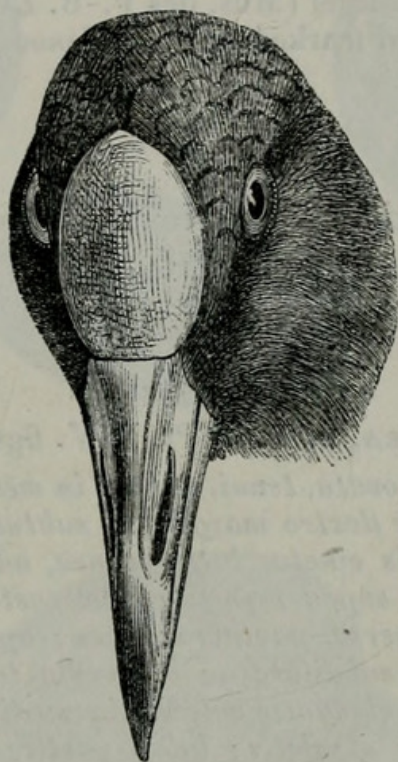
One example from the Laguna of Tambo. "Bill lavender-colour; eye bright red; crown of head [*i.e.* shield?] white; legs and toes lavender. Large numbers of this Coot were seen, but they are shy and difficult to shoot."

This skin we have no hesitation in referring to *F. chilensis*, as described by Hartlaub (*l. s. c.*). A similar specimen is in the British Museum (marked 1850/7/14/8), but has the head-shield bright

* See P. Z. S. 1867, p. 331.

red, having probably been obtained in the breeding-season. This species is at once distinguishable by the under tail-coverts being black with a slight white margin on each side, and the broad elevated frontal shield, which is divided from the base of the bill by a distinct line * (see fig. 2). It may probably be the *F. ardesiaca* of Tschudi; but it is impossible to state this with certainty, without reference to the original type. It appears to be uncertain whether this species has ever been met with in Chili, although it is called *chilensis*,—both the specimens described by Hartlaub being from Bolivia, and the only other recorded locality being Ecuador (Fraser) †.

Fig. 2.

*Fulica chilensis.*

Dr. Schlegel ‡ has united *F. chilensis* with *F. stricklandi* (Hartlaub), which is a very different bird, and seems to have thrown back the whole genus into the confusion from which it was rescued by Dr. Hartlaub's admirable memoir.

26. ERISMATURA FERRUGINEA, Eyton.

Eye dark hazel; upper mandible cobalt blue, lower purple; legs and feet black. One male example from the Laguna de Tambo.

27. PODILYMBUS ANTARCTICUS.

Podiceps antarcticus, Less. R. Z. 1842, p. 209.

* "Durch eine deutliche Furche von der Schnabelwurzel getrennt" (Hartlaub, l. c. p. 81).

† See Sclater, P. Z. S. 1860, p. 821.

‡ Mus. des P.-B. Ralli, p. 63.

Podilymbus antarcticus, Hartl. Naum. 1853, p. 218; Sclater, P. Z. S. 1867, p. 337.

P. brevirostris, G. R. Gray, Gen. of B. iii. t. 172: Cassin in Gilliss's Exp. ii. p. 205.

One adult example of this species. We have not yet had an opportunity of comparing it with Brazilian skins which are commonly referred to the northern species*.

28. LARUS BONAPARTII, Richardson.

A single skin in winter dress, apparently referable to this species.

Blasius (Cab. J. f. O. 1866, p. 371) refers Temminck's *Larus melanorhynchus*, described from a Chilian specimen, to *Larus bonapartii*, as does also Schlegel (Mus. des P.-B. *Lari*, p. 41). There is a specimen of this bird marked *Larus melanocephalus* in the British Museum, from Chili.

5. Description of Six New Species of Shells.

By EDMUND THOMAS HIGGINS, F.Z.S. &c.

(Plate XIV.)

Fam. CYPRÆIDÆ.

LUPONIA CASTANEA, n. sp. (Pl. XIV. figs. 1, 1a, 1b.)

L. testa pyriformi-ovata, tenui, polita, in medio ventricosa, antice attenuata, latere dextro marginata, subtus convexa, lineis prominulis distinctis cincta, luteo-carnea, ad marginem carnea; basi pallidiore; supra rufo-fulvo vel castaneo oblita et variegata; spira immersa, paulum concava; apertura angusta, flexuosa, antrorsum subdilatata; columella irregulariter dentata, dentibus antice elongatis validis, in medio alternantibus, postice minutis vix obsoletis; labro postice producto, valde 24-dentato, interstitiis excavatis.

Long. 46, diam. 25 mill.

Hab. South-eastern Africa.

Of this fine *Luponia* I only know one other example, a very bouldered specimen, in the magnificent collection of *Cypræa* belonging to Miss Saul. In general appearance it somewhat approaches *L. similis*, but differs from it and every other known species of the genus by its rich chestnut-brown colour in blotches, and by the peculiar alternate arrangement of the central teeth on the columella.

Fam. HELICIDÆ.

BULIMUS (OTOSTOMUS) RUBROVARIEGATUS, n. sp. (Pl. XIV. figs. 2, 2a.)

B. testa rimata, oblonga, fusiformi, tenuiuscula, leviter plicato-striata, lævigata, rubro albo variegata, strigis latis, irregulari-

* Cf. Max. Beitr. iv. p. 830, et Burm. Syst. Ueb. iii. p. 463.



Sowerby del et lith.

M & N Hanhart imp

NEW SPECIES OF SHELLS.



Gray, John Edward. 1868. "February 27, 1868." *Proceedings of the Zoological Society of London* 1868, 156–182.

<https://doi.org/10.1111/j.1469-7998.1868.tb00445.x>.

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