

of December, when in the living ova the circulation was distinct under the microscope, and the embryos were visible even to the unaided eye, I examined the whole number then remaining, viz. 405, thus reduced, owing to 67 having been removed, one after another having become opaque, and 152 having been taken out for the purpose of experiments. Of these 405 remaining, 138 were found alive, each containing a well-formed embryo, and 267, though still transparent, without life, no marks of organization being to be seen in them, either with the naked eye or under the microscope. Hence, irrespective of the 152 experimented on, the proportion of living to dead on the 14th of December would appear to be as 138 to 364, or about 25 per cent. And, with the exception of two which died after the 14th, all those then alive were hatched, the first on the 31st of the same month, the last on the 9th of January.

What are the conclusions to be drawn from these results? From those of the first series of experiments, may it not be considered as proved that the power of resisting an undue increase of temperature is possessed in a higher degree by the ova in an advanced than in an early stage of development,—the degree probably being in the ratio of the age? From those of the second series, is it not as manifest that the power of bearing distant transport, and of retaining life in moist air, is in like degree increasing with age? And from both, may not the general conclusion be drawn, that the strength of vitality of the impregnated ovum, or its power of resisting agencies unfavourable to its life, gradually increases with age and the progress of foetal development? And as the Charr is one of the most delicate of the family of fishes to which it belongs, may it not further be inferred, with tolerable confidence, that the ova of the other and more hardy species of the Salmonidæ, were they similarly experimented upon, would afford like results, confirmatory of those obtained last year in some trials on the ova of the Salmon, and mentioned in my former letter to you?

The practical application of these results, and of the conclusions deducible from them, is obvious, and need not at present be dwelt upon.

I am, my dear Sir, yours very truly,

JOHN DAVY.

Lesketh How, Ambleside,  
January 10, 1856.

#### ZOOLOGICAL SOCIETY.

January 9, 1855.—Dr. Gray, Vice-President, in the Chair.

NOTICE OF THE HORNS OF AN UNRECORDED SPECIES OF PRONG HORN (*ANTILOCAPRA*), IN THE COLLECTION OF THE DERBY MUSEUM, LIVERPOOL. BY DR. JOHN EDWARD GRAY, F.R.S., V.P.Z.S. ETC.

Some years ago the late Earl of Derby showed me a pair of horns attached together by the skin of the forehead, which he had then



recently received; and more lately, Mr. Moore, the Keeper of the Derby Museum, submitted these horns to my examination, requesting my opinion on them. At his request I bring a short notice of them before the Society, in hopes to obtain further information respecting them, and a specimen of the animal itself, should it prove to be a distinct species of the anomalous American Antelope. The horns are most probably from America; but this is not certain, as the special locality has not been recorded, nor the person from whom they were obtained.

The colour, substance, and texture of the hair on the skin of the forehead attached to the horns, exactly resembles that of the Cabrit or Prong-horn (*Antilocapra Americana*, Gray, Cat. Mam. B.M. p. 117), and if it were not for the very peculiar form of these horns, I should have been inclined to have considered them as only the deformed horns of that animal; but both the horns are alike and have the same peculiarities, which is not usual in malformations; under these circumstances it appears better to regard them provisionally as belonging to a distinct species, to be established or erased from the list as further knowledge may decide.

There can be no doubt of the position of the horns, as a part of the upper surface of the orbit is to be observed, with the remains of the eyelids and eyebrows at the base of the left horn.

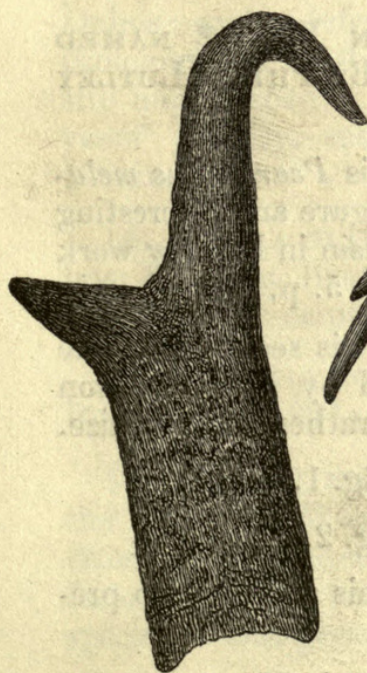


Fig. 1. *Antilocapra Americana*.

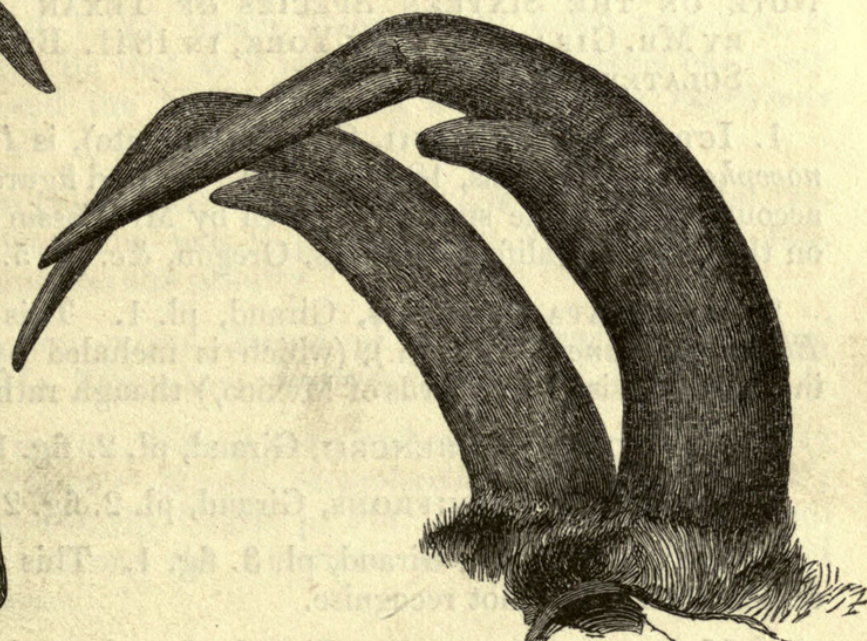


Fig. 2. *Antilocapra anteflexa*.

#### ANTILOCAPRA ANTEFLEXA.

The horns compressed, dark brown, rugose, rounded and curved and arched behind, compressed in front, becoming more so as they reach the supra-medial frontal process. The apex subtrigonal, evidently compressed and angularly bent forwards rather above the compressed frontal process, with a deep furrow rather on the inner side of the middle of the hinder upper part of the bend; the inner edge of the recurved tip is rounded, the outer compressed, rather



produced and sharp-edged; the extreme tip is roundish, tapering, with a white end. They are considerably larger than the horns of the usual species.

In the *Cabrit* or *Antilocapra Americana*, the horns are thick, rounded on each edge and produced into a compressed submedial frontal process, which is gradually bent towards the inner side. The tips of the horns are rounded, becoming nearly cylindrical, and are gradually and regularly arched backwards and inwards with a bluntish extreme end.

The horns of the genus are peculiar for being lined internally with a close velvety coat of short hair, directed towards the tip of the cavity; and the whole outer surface of the horn appears to be formed of agglutinated hair, some separate hairs being seen on the surface.

The peculiarity in the internal structure of the substance of the horns of this genus shows, like the branched external form, a similarity to the horns of the Deer; the hairy horn being the analogue of the deciduous velvet of the Deer, and the permanent hairy coat of the Giraffe. The ring of hair round the base of the outer surface is to be observed equally developed in the horn from Lord Derby's Collection and in that of the common *Prongbuck*.

March 27, 1855.—Dr. Gray, F.R.S., Vice-President, in the Chair.

NOTE ON THE SIXTEEN SPECIES OF TEXAN BIRDS\* NAMED BY MR. GIRAUD OF NEW YORK, IN 1841. BY PHILIP LUTLEY SCLATER, M.A.

1. *ICTERUS AUDUBONII*, Giraud (no plate), is *Psarocolius melanocephalus*, Wagl. Isis, 1829, p. 750. A good figure and interesting account of this fine species is given by Mr. Cassin in his new work on the birds of California, Texas, Oregon, &c. pt. 5. p. 137. pl. xxi.

2. *MUSCICAPA TEXENSIS*, Giraud, pl. 1. This seems very like *Elænia cayennensis* (Linn.), (which is included by Mr. Swainson in his Synopsis of the Birds of Mexico,) though rather larger in size.

3. *MUSCICAPA LAWRENCEII*, Giraud, pl. 2. fig. 1.

4. *MUSCICAPA FULVIFRONS*, Giraud, pl. 2. fig. 2.

5. *SYLVIA HALSEII*, Giraud, pl. 3. fig. 1. This and the two preceding species I do not recognise.

6. *MUSCICAPA DERHAMII*, Giraud, pl. 3. fig. 2, is *Muscicapa vulnerata*, Wagl. Isis, 1831, p. 520; *Setophaga vulnerata*, Bp. Consp. p. 313.

7. *MUSCICAPA BELLI*, Giraud, pl. 4. fig. 1. This bird I believe to be *Sylvia chrysophrys*, Licht. in Mus. Berol.; *Myiodiactes chrysophrys*, Licht. Nomencl. p. 32; *Basileuterus chrysophrys*, Bp. Consp.

\* Descriptions of sixteen new species of North American birds, collected in Texas, 1838, described in the 'Annals of the New York Lyceum of Nat. Hist.' by Jacob P. Giraud, Jun.—New York, 1841, 1 vol. fol.



p. 314. But Mr. Giraud's name has many years' precedence, and it will therefore stand as *Basileuterus Belli* (Giraud).

8. *PARUS LEUCOTIS*, Giraud, pl. 4. fig. 2, is without doubt *Setophaga rubra*, Sw. Phil. Mag. 1827, p. 368, and has other prior synonyms.

9. *FRINGILLA TEXENSIS*, Giraud, pl. 5. fig. 1, is *Chrysomitris mexicana* (Sw.); *Carduelis mexicana*, Sw. Phil. Mag. 1827, p. 435.

10. *PIPPA GALERICULATA*, Giraud, pl. 5. fig. 2 = *Euphonia elegantissima* (Bp.); *Pippa elegantissima*, Bp. Pr. Z. S. 1837, p. 112, and has other synonyms.

11. *MUSCICAPA LEUCOMUS*, Giraud, pl. 6. fig. 1, is *Setophaga picta*, Sw. Zool. Ill. n. s. pl. 3.

12. *MUSCICAPA BRASIERI*, Giraud, pl. 6. fig. 2, seems to be the same as *Basileuterus culicivorus*, Bp. Consp. p. 313; *Sylvia culicivora*, Licht. in Mus. Berol., which in that case must be called *Basileuterus Brasieri* (Giraud).

13. *MUSCICAPA RUBRIFRONS*, Giraud, pl. 7. fig. 1. This very pretty bird is named in Bonaparte's Consp. p. 312, *Cardellina amicta*, Dubus; and a reference is given to that author's 'Esquisses Ornithologiques,' 1850, t. 25, which, unless I am much mistaken, is still unpublished. Be that as it may, Mr. Giraud's name has many years' priority, and the bird will stand as *Cardellina rubrifrons* (Giraud).

14. *SYLVIA OLIVACEA*, Giraud, pl. 7. fig. 2, is *Sylvia tæniata*, Dubus, Bull. Ac. Brux. xiv. part 2. p. 104; Rev. Zool. 1848, p. 245. Mr. Giraud's name has the priority.

15. *CERTHIA ALBIFRONS*, Giraud, pl. 8, is *Salpinctes mexicanus*, Bp. Consp. p. 224; *Thryothorus mexicanus*, Sw. Zool. Ill. n. s. pl. 11.

16. *ALAUDA MINOR*, Giraud (no plate), is an *Otocorys*, probably the same as Wagler's *Alauda chrysolæma*, Isis, 1831, p. 530; *Otocorys chrysolæma*, Bp. Consp. p. 246. But there is much confusion at present among the American, as among the Old-World species of this genus.

I have thought it worth while to give the previous list of the Texan birds described by Mr. Giraud, and some remarks on their synonymy, as his book appears to be very little known on this side of the Atlantic. The only copy I have seen is that in the Society's Library, to which it was presented by the author. It will be observed that by far the greater portion of the species have been also noticed by European naturalists, though in some cases subsequently to Mr. Giraud's publication of them.



ON A NEW SPECIES OF THE GENUS *TODIROSTRUM* OF LESSON.  
BY PHILIP LUTLEY SCLATER, M.A.

*TODIROSTRUM NIGRICEPS.*

*T. supra flavo-olivaceum* : alis caudaque nigris ; rectricibus et remigibus primariis stricte, secundariis autem et alarum tectricibus latius flavescente limbatis : pileo cum nucha et capitis lateribus nigris : subtus flavum ; gutture et crisso albis : rostro pedibusque nigris.

Long. tota 3·4, alæ 1·5, caudæ 1·1.

*Hab.* Santa Martha in Nov. Grenada.

De Lafresnaye has given an account of the species of this peculiar South American genus of Tyrants in the 'Revue Zoologique' for 1846, p. 360. Bonaparte in his 'Conspectus' has rather extended the list ; but his 4th and 5th species from Desmarest seem rather doubtful, and the *Muscicapa diops* of Temminck is, I believe, quite incorrectly stated to be identical with Hartlaub's *Todirostrum granadense*, and does not belong to this genus. There is also little doubt that *Todus melanocephalus*, Spix, is the same as *Todus cinereus*, Linn., and the first and third species of the Conspectus are therefore coequal. The latest additions to this genus are :—

1. *T. ruficeps*, Kp. in these Proceedings, 1851, p. 52 = *T. multicolor*, Strickl. Cont. Orn. 1852, pl. 85. fig. 2.—(*Todirostrum pectorale*, Kp. of the same page does not differ from Hartlaub's *granadense*.)
2. *T. chrysocrotaphum*, Strickl. Cont. Orn. 1850, p. 48. pl. 49.
3. *T. striaticolle*, Lafr. Rev. et Mag. de Zool. 1853, p. 58.
4. *T. fumifrons*, Hartl. Journ. f. Orn. 1853, p. 35 ; and
5. *T. rufilatum*, Hartl. *l. c.* 1855, p. 98.

The present elegant species I cannot identify with any of those previously described. It is a typical *Todirostrum*, and may be placed near *T. cinereum*, the type of the genus, from which it is easily distinguished by its pure black head, yellowish-olive back, and white throat. I obtained the only example of it I have yet seen from the MM. Verreaux, by whom it was received along with many other rare and valuable species from Santa Martha, on the north coast of New Grenada.

Mr. Gould has specimens of the *Todirostrum spiciferum*, Lafr., from Chamicurros in North-east Peru. This species, with its largely-developed crest, quite reminds one of the *Muscivora regia* (Gm.).

April 10, 1855.—Dr. Gray, F.R.S., Vice-President, in the Chair.

DESCRIPTIONS OF EIGHT NEW SPECIES OF BIRDS FROM  
SOUTH AMERICA.

BY JOHN GOULD, ESQ., F.R.S. ETC.

Before describing the following birds, all of which are in my own collection, I would remark, that I have submitted them to the inspection of Mr. P. L. Sclater, who has paid much attention to South



American birds, and who pronounces them new to science ; I therefore embrace the earliest opportunity of placing them upon record.

1. *CAMPYLORHYNCHUS HYPOSTICTUS*, Gould.

General hue of the upper surface brown, the feathers edged with greyish-brown, producing a somewhat spotted appearance ; from above each eye, down the side of the neck, an obscure streak of buffy-white ; upper tail-coverts dark brown, fringed with reddish-brown ; along the margins of the primaries a series of dark brown dots on a light brown ground ; tail brown, with lighter edges dotted with dark brown like the primaries ; under surface greyish-white, with a streak of light brown down the centre of each feather, small on the throat, gradually increasing on the abdomen, and assuming the form of bars on the flanks ; under tail-coverts buff, barred with dark brown ; irides red ; bill light horn-colour ; feet olive-brown.

Total length,  $8\frac{1}{4}$  inches ; bill, 1 ; wing,  $3\frac{1}{2}$  ; tail,  $3\frac{7}{8}$  ; tarsi, 1.

*Hab.* River Ucayali in Peru.

*Remark.*—This species is very closely allied to *C. scolopaceus*, Spix, but differs in being of a rather larger size, in having a somewhat more curved bill, a more uniformly coloured back, and in the greater number and larger size of the brown markings of the under surface, which, moreover, extend on to the upper part of the neck and throat.

2. *CHAMÆZA NOBILIS*, Gould.

Head very dark brown suffused with rufous ; upper surface, wings and tail-coverts rich reddish or saffron-brown ; tail reddish-brown, crossed by a broad black band near the end, and slightly tipped with buffy-white on the centre feathers, and much more conspicuously on the lateral ones ; lores fawn-colour ; under surface white, the feathers of the breast broadly, and those of the centre of the abdomen narrowly bordered on the sides with brownish-black ; on the flanks the latter hue increases to such an extent as to leave only a lanceolate stripe of the white down the centre of each feather ; under tail-coverts buff, speckled with brown ; above each eye a narrow streak of buff commencing a little in advance of the centre of the eye, and extending downwards as low as the nape ; irides brown ; bill black ; feet reddish-brown.

Total length,  $9\frac{1}{2}$  inches ; bill,  $1\frac{1}{8}$  ; wing,  $4\frac{1}{2}$  ; tail,  $2\frac{7}{8}$  ; tarsi,  $1\frac{3}{4}$ .

*Hab.* Chamicurros, on the eastern side of Peru.

*Remark.*—This is the largest and perhaps the finest species of the genus : its legs and feet are very powerful, its bill thick and strong, its tail very short and rounded, its wings concave, and its plumage offers that silkiness to the touch which is so characteristic of the members of the genus *Chamæza*, of which it forms in every sense a typical example.

3. *FORMICARIUS NIGRIFRONS*, Gould.

Band across the forehead black ; crown, occiput and nape deep chestnut ; upper surface and wings rich brown ; central primaries



edged at the base with yellowish-brown; base of the inner web of the primaries and secondaries golden, showing conspicuously on the under surface, but not perceptible on the upper; the outer covert at the shoulder with a streak of ochreous-yellow along the margin of its outer web; tail brown at the base, gradually deepening into black at the tip; throat, neck and breast sooty-black; abdomen and under tail-coverts fuliginous-brown, assuming an olive tint on the flanks; irides brown; bill black; feet dark brown.

Total length, 7 inches; bill,  $\frac{7}{8}$ ; wing,  $3\frac{3}{8}$ ; tail,  $2\frac{1}{4}$ ; tarsi,  $1\frac{1}{8}$ .

*Hab.* Chamicurros, on the eastern side of Peru.

*Remark.*—About the same size and nearly allied to *F. Cayennensis*, but may be at once distinguished from that species by the bar of black on the forehead.

#### 4. FORMICARIUS ERYTHROPTERUS, Gould.

Head, upper and under surface and the tail black; feathers of the shoulders and mantle fringed with grey, giving it a scale-like appearance; those of the back fringed in a similar manner, but so narrowly as to be scarcely apparent; tail-coverts black, edged with rusty-red; extreme edge of the shoulder white; wing-coverts black, tipped with dark rust-red, forming first a narrow bar of red, and then a broad one of black; primaries rusty-red, largely tipped with black; secondaries rusty-red at the base, then black and tipped with rusty-red, the extent of the red increasing as the feathers approach the body; orbits naked and apparently red; bill black; feet fleshy-brown.

Total length,  $6\frac{3}{4}$  inches; bill,  $\frac{7}{8}$ ; wing,  $3\frac{1}{2}$ ; tail,  $2\frac{1}{2}$ ; tarsi,  $\frac{3}{4}$ .

*Hab.* Interior of Demerara.

*Remark.*—This is a very fine species. The specimen above described, which is the only one I have seen, is in my own collection.

#### 5. SCHISTOCHLAMYS SPECULIGERA, Gould.

Head, neck, breast, back, wings and tail black; base of the third, fourth and succeeding primaries white, forming a small conspicuous patch in the centre of the wing; lower part of the back, rump and upper tail-coverts grey; under surface of the wing, abdomen and under tail-coverts white; flanks grey, with a few black feathers interspersed on the sides of the chest; irides red; bill, legs and feet greenish.

Total length,  $6\frac{3}{4}$  inches; bill,  $\frac{3}{4}$ ; wing, 3; tail, 3; tarsi,  $\frac{7}{8}$ .

*Hab.* River Ucayali in Peru.

#### 6. THAMNOPHILUS CORVINUS, Gould.

The entire plumage deep black with the exception of the shoulders, on which is a broad mark of white; bill black; feet dark olive.

Total length, 7 inches; bill,  $1\frac{1}{8}$ ; wing,  $3\frac{3}{8}$ ; tail,  $2\frac{5}{8}$ ; tarsi,  $1\frac{1}{4}$ .

*Hab.* River Ucayali in Peru.

#### 7. THAMNOPHILUS MELANURUS, Gould.

Male.—Crown and sides of the head, crest, back, lesser wing-coverts and tail, black; the wing-coverts tipped with white; re-



mainder of the wing blackish-brown; throat and all the under surface white; bill black, becoming lighter at the base; feet olive-brown.

Total length,  $8\frac{1}{2}$  inches; bill,  $1\frac{1}{4}$ ; wing,  $3\frac{1}{2}$ ; tail,  $3\frac{1}{2}$ ; tarsi,  $1\frac{1}{4}$ .

Female.—Crown of the head, crest, upper surface of the body, wings and tail, chestnut; throat and chest white, passing into the mingled grey and sandy-red of the flanks; feathers clothing the thighs rusty-red tipped with white; bill blackish-brown; feet olive-brown.

*Hab.* River Ucayali in Peru; I have also received examples from Bogota. I must remark, however, that the specimens from the latter locality are somewhat smaller than those from Peru.

#### 8. THAMNOPHILUS HYPERYTHRUS, Gould.

Crown and sides of the head, all the upper surface and tail, slaty-black; wings brownish-black, with a spot of white at the tip of each of the coverts, forming three semicircular rows across the wing; chin, breast and abdomen rich dark chestnut-red, gradually blending on the flanks and vent into the dark hue of the upper surface; bill black; feet olive-brown.

Total length, 7 inches; bill, 1; wing,  $3\frac{1}{8}$ ; tail,  $2\frac{1}{2}$ ; tarsi, 1.

*Hab.* Chamicurros in Peru.

*Remark.*—I believe the above to be the description of a female.

### NOTES ON THE HABITS OF SOME INDIAN BIRDS.

BY LIEUT. BURGESS. PART IX.

#### Genus ARDEA.

##### Subgenus EGRETTA (Swainson).

#### ARDEA CABOGA. CATTLE HERON.

This active little Heron is abundant in the Deccan, and, as its name implies, is a constant attendant on cattle, running about amongst them, and picking off the flies that settle on them. I give the following from my note-book on their habits:—"Towards the end of November I observed a number of the common small White Heron feeding near some cattle, and the same day twenty or thirty others, and there were probably more feeding in fields of the toor plant; they appeared to be picking up food from the ground, and were in constant motion, frequently taking short flights from one part of the field to the other. I observed the same birds next morning sitting on a banian tree within the walls of a village; they quite whitened the top of the tree with their numbers.

"1st May, 1848.—Observed that the small White Heron has at this season of the year the fawn-coloured neck, and also that the long feathers falling over the breast are fawn-coloured.

"12th May.—Saw numbers of the small White Heron feeding amongst the sheep and along the grass plain at Khoonthepi.

"18th May.—Observed a flock of fifty-nine small White Herons in a ploughed field picking up the worms and insects brought out by last night's heavy rain; several of them were without the fawn-colour on the neck, head and breast."



“8th May, 1849.—Saw five or six of the small White Heron feeding amongst cattle. They keep close to the animals whilst feeding, and I saw one evidently picking the flies off a bullock; all these had more or less of the buff-colour on the neck. It is extremely amusing to observe these birds chasing flies, their long neck stretched out as they follow every turn and twist of the fly, which is seized immediately it has settled.”

The Cattle Heron breeds during the month of April, building in tall trees. The nest is composed of sticks, and contains four eggs of a pale greenish-blue colour,  $1\frac{8}{10}$  in. in length by  $1\frac{5}{10}$  in. in width. I obtained eleven eggs from one tree on which there were twenty nests. I do not know if it has been satisfactorily determined whether both sexes assume the buff head and neck during the breeding season.

#### Subgenus NYCTICORAX.

##### ARDEA NYCTICORAX. NIGHT HERON.

Is a tolerably common bird in the Upper Deccan, but from its habit of roosting during the day in thick lofty trees, which it leaves for the streams after dusk, is not often observed. Its harsh grating cry is heard in the early dawn as it returns to its hiding-places. I made several attempts to obtain its nest and eggs, but without success, neither could I learn its time of breeding; however, I shot a young bird on 3rd December, with some down remaining on its head, which circumstance leads me to believe that they do not breed at the same time as others of the Heron tribe. Dr. Jerdon says, “it breeds on palm and other trees, many nests together.” The Night Heron of England, identical I believe with that of India, “builds in trees,” says Mr. Yarrell, “and lays four pale greenish-blue eggs, rather more than 2 in. in length by  $1\frac{1}{2}$  in. in breadth.”

#### Genus PLATALEA.

##### PLATALEA LEUCORODIA. WHITE SPOONBILL.

I have seen flocks of these birds on the river Godavery, and occasionally on the smaller streams. They breed during the month of April, building in tall trees on the border of a stream. I append a note on the subject:—“18th April, 1848. Found the White Spoonbill breeding in a peepul tree beside a stream. The nest was not, like those of the species of *Tantalus* and *Ibis*, built on the top of the tree, but on the outside branches, about two-thirds from the ground; it was composed of sticks, and appeared small for so large a bird. It contained four eggs of a white colour, spotted with pale red, of much the same size as those of the *Tantalus leucocephalus*.” The egg is  $2\frac{6}{10}$  in. in length, by rather more than  $1\frac{7}{10}$  in. in breadth. The gizzard of the male bird, which I shot rising from the nest whence the eggs were taken, was of a strong and rough texture, much like that of a fowl; it contained some bright yellow substance, a few small stones, a seed, and a few small particles of grass. Although the Spoonbill does not build its nest in the same situation



as the *Tantalus* or *Ibis*, I quite agree with Dr. Jerdon that the Spoonbill shows more affinity to the Ibis than to the Herons, from the size and colouring of its eggs; and I believe that the more the study of oology is taken up, the more clearly will it be shown that birds may be nearly as well classed by the number and colour of their eggs and their mode of nidification, as by their external form and internal organization. The egg is white, with a belt of light red spots at the larger end.

#### Genus CICONIA (Briss.).

##### CICONIA LEUCOCEPHALA (Jerdon). WHITE-NECKED STORK.

I have but seldom met with this handsomely-marked bird, but I was fortunate enough to find it in its breeding haunts, and to secure its eggs. On the 7th March 1850, I found a pair of these Storks breeding in rather a low peepul tree; the nest was composed of sticks, and contained four white eggs, nearly  $2\frac{5}{16}$  in. in length, by nearly  $1\frac{9}{16}$  in. in breadth. On the same tree a Black Vulture (*Vultur ponticerianus*) had also built its nest, containing one egg. In February I found young birds; when hatched, the beak and bare skin of the face are of a dull greenish-black, irides brown; the body is covered with light brownish fawn-coloured down, legs and feet dull brownish-orange. On one tree were two nests, each containing two young. The nests were composed of sticks, and built near the top of the tree, a tall Indian fig, the stem of which was partly within the walls of a village. These birds, I was informed, breed in the same tree every year.

#### Genus TANTALUS (L.).

##### TANTALUS LEUCOCEPHALUS. PELICAN IBIS.

The Pelican Ibis, as it is called by Dr. Jerdon, is a common bird in the Deccan, frequenting rivers and tanks, and feeding, I believe, chiefly on fish. Its large size renders it remarkable, particularly during the breeding season, when the back and scapulars attain their particularly rich rosy tint. These birds are social, feeding in flocks. I was told by the natives of a village close to a tank frequented by them, and close to one of their breeding places, that when they fish in the tank they walk in the shallow water in line, driving the fish before them. In another village, about ten miles from the Godavery River, where there are a great number of large banian trees both outside and inside the walls, I found a community of these birds, which had built their nests on them, probably to the number of fifty. The trees inside the walls were as thickly covered with nests as those outside, and the birds, which appeared docile and tame, did not mind the noise of the people passing beneath them. At the time that I visited the village, the young birds were all well fledged, and most of them able to fly. The village people informed me that the old birds move off to the river in the very early dawn, and having caught a sufficient supply for their young,



return about eight or nine o'clock. A second expedition is made during the afternoon. Some idea of the quantity of fish caught by these birds may be gathered from what the people told me, that quantities of fine fish were dropped by the old birds when feeding their young, and were eaten by them. A young bird of this species which I shot in Scinde, disgorged a large quantity of small eels. This Ibis breeds during the month of February. The nest is composed of small sticks, and is placed at the top of the trees. If there are many on the same tree, they are placed pretty close together. They lay three or four eggs, of a dull opake white, nearly  $2\frac{6}{10}$  in. in length, by rather more than  $1\frac{8}{10}$  in. in width. The young birds are able to fly by the month of May. I kept a young bird which had dropped from the nest and broken its wing in my garden for three or four months. It was most gentle and quiet, occasionally only snapping its strong beak at any person it did not like. In a short time it recognized the person who fed it, and whenever he made his appearance it would walk towards him, uttering a piteous cry, flapping its long wings and bowing its head towards him. It was a most ludicrous sight, which many came to see. It was fed on fresh fish, and would not touch any that were at all tainted. Another young bird which I also kept, would devour the bodies of birds brought in for stuffing, and did not appear at all particular as to the quality of its food. The stomach of an old bird contained a grassy substance, the remains of fish, and what appeared to be the claw of a small crab. I give a description of a young bird taken on 20th April. The beak dark lead-brown, darkest at the base, which is very thick; the skin on the face and forehead the same blackish lead-colour; the feathers on the head brownish-grey; the feathers on the neck of an ashy-brown, mixed with down. Shoulders ashy, with light brown edges; scapulars much the same, with much lighter ash edges; the centres of the feathers darkest in colour; lesser wing-coverts brownish-black, with an ashy tinge and light ashy edges; larger coverts dark greyish-black; outer webs tipped with whitish ash-colour, and inner webs tinged with the same colour on the edges. Tertiaries much the same colour as the greater coverts, but tinged with rose-colour. Primaries and secondaries black, with green reflections; back beautiful pale rose-colour; upper tail-coverts dusky grey; tail-feathers twelve, black, with bright green reflections. The breast, belly and sides covered with beautiful white down, interspersed on the breast with some dark ash-grey feathers, and on the sides with white, tinged with delicate rose-colour; the whole of the back is also covered with beautiful down. This bird was evidently a nestling, the first feathers having scarcely grown enough to cover the body.

#### Genus IBIS.

#### IBIS PAPILLOSA (Temm.). WARTY-HEADED IBIS.

This Ibis is more common than the Black-headed, and is fond of open places, as well as the sandy shores of the larger streams and rivers. They are seen in flocks in the open country, picking up in-



sects; the stomach of one which I shot contained nothing but the heads, legs, and wing-cases of locusts; that of a second was full of large grasshoppers, and a lizard; that of a third was filled with the *chrysalides*? of butterflies. At the approach of evening the Warty Ibis retires to thick trees to roost, uttering its loud and discordant cry. It breeds during the months of February, March, April, May and June, laying as many as three, and probably four eggs, of a pale bluish-white, slightly streaked and spotted with pale brown,  $2\frac{4}{10}$  in. in length, by nearly  $1\frac{7}{10}$  in. in width. I found the nest of this Ibis built on the top of a peepul tree (a species of Banian), and containing three young birds, in the month of March.

April 24, 1855.—John Gould, Esq., F.R.S., in the Chair.

ON SOME NEW OR LITTLE KNOWN SPECIES OF BIRDS IN THE  
DERBY MUSEUM AT LIVERPOOL.

BY PHILIP LUTLEY SCLATER, M.A.

The zoological collection of the late Earl of Derby, now at Liverpool, contains one of the largest and finest series of birds at present in existence, many of the examples being valuable not only for their rarity, but also as types of species described long ago by Latham in his 'General History' and other works, and which are hardly to be recognized without examination of the original specimens.

Mr. Thomas Moore, the present Curator, is busily engaged in arranging this mass of materials, and affords every facility to those who are anxious to inspect any of the objects committed to his care. Among the birds I have had an opportunity of examining there during a recent short visit are the following, which I venture to characterize as new.

1. CONIROSTRUM FERRUGINEIVENTRE, Sclater.

*C. cærulescenti-schistaceum, pileo et alis caudaque intus nigricantibus: superciliis latis et elongatis albis: subtus intense ferrugineum aut ferrugineo-rufum.*

Long. tota 4.9, alæ 2.75, caudæ 2.0.

*Hab.* in Bolivia.

This is a typical *Conirostrum*, and quite distinct, I think, from any species hitherto described. The members of this genus with which I am at present acquainted are—

1. CONIROSTRUM CINEREUM (Lafr. and d'Orb.); D'Orb. Voy. Ois. pl. 59. fig. 1. From Tacna in Peru and Sicasica in Bolivia.

2. CONIROSTRUM RUFUM, Lafr. Mag. de Zool. 1843. *Dacnis rufo-cinerea*, Bp. Atti 6<sup>ta</sup> Riun. Sc. It. 1845, p. 404, et Consp. p. 401. From Bogota.

3. CONIROSTRUM SITTICOLOR, Lafr. Rev. Zool. 1840, p. 102. *C. bicolor*, Less.; Gray's Gen. pl. 34. From Bogota.

4. CONIROSTRUM ALBIFRONS, Lafr. R. Z. 1842, p. 301; Mag. de Zool. 1843, Ois. t. 35 (from which, I believe, *C. atrocyaneum*,



Lafr. R. Z. 1848, p. 9, and *C. cæruleifrons*, Lafr. R. Z. 1842, p. 302, only differ in age or sex). From Bogota.

*Conirostrum superciliosum* of Hartlaub, R. Z. 1844, p. 215, and Bp. Consp. p. 402. sp. 5, is a true *Sylvicola* of Swainson, the same as *Parula mexicana*, Bp. Consp. p. 310, and has of course nothing to do with these birds.

The only other species that have been referred to this genus, as far as I am aware, are *Conirostrum ornatum*, Townshend, Ann. Lyc. New York, 1851, p. 112, pl. 5. fig. 1, from Texas (the same as *Ægithalus flaviceps* of Sundeval, according to Dr. Hartlaub), and the *C. fuscum* and *colombianum* of Lesson, Descr. d. Mamm. et Ois. pp. 273 and 274, none of which I have as yet recognized.

## 2. SYNALLAXIS ERYTHROTHORAX, Sclater.

*S. fuscus, olivaceo-tinctus, capite obscuriore: gutture nigro-cinereo: alis extus, nisi parte apicali, tectricibus subalaribus et vitta lata pectorali rufo-castaneis: ventre medio cinerascete, lateribus brunnescenti-olivaceis: cauda brunnea: rostro nigro: pedibus brunneis.*

Long. tota 5·3, alæ 2·3, caudæ 2·5.

*Hab.* in America Centrali; Coban et Honduras.

Of this *Synallaxis*, which seems different from all other members of the genus that I am acquainted with, there is a specimen in the Derby Museum procured at Coban by Delattre in 1843. The British Museum contains an example from Honduras, and I have a single skin in my own collection purchased in Paris, which I believe to be from the same locality. The occurrence of species of this group north of the Isthmus of Panama seems hitherto unnoticed, except by the Prince Charles Bonaparte, in a list of a Guatemala collection of birds in the Proc. Zool. Soc. for 1837, p. 118, in which he includes the *Synallaxis cinerascens* of Temminck (Pl. Col. 227. fig. 3). But the characters there given do not at all agree with Temminck's bird, and would seem more applicable to the present species. Besides, the true *Synallaxis cinerascens* is said to be from Brazil, and is not likely to occur also in Guatemala.

In my specimen of the present species the throat is slightly speckled with whitish.

## 3. RAMPHOCÆNUS CINEREIVENTRIS, Sclater.

*R. olivaceo-brunneus; capitis lateribus rufis, spatio postoculari nigro: alis extus brunnescentibus: gutture albo, nigro-cinerascete striato: abdomine cinerascete, medialiter albescentiore, lateraliter autem olivascentiore: cauda nigricanti-fusca: rostri mandibula superiore nigrescente, hujus autem apice et mandibula inferiore albidis.*

Long. tota 4·0, alæ 2·0, caudæ 1·3.

*Hab.* in rep. Novæ Grenadæ, Pasto.

A third species of this peculiar genus, beautifully intermediate in colouring as in locality between the *Ramphocænus melanurus* of Brazil and the *rufiventris* of Central America. When I say a third species, I am perhaps doing an injustice to M. Lesson, who has



already described a third and a fourth. But I have never seen the *Ramphocæni trinitatis*\* and *viridis*†, and indeed they are hardly likely to be recognized again from such meagre descriptions.

The *Ramphocænus cinereiventris*, of which there is only one example in the Derby Museum, was procured at Pasto, in the mountains of New Grenada, by the indefatigable Delattre. It is a rather shorter-billed bird than the other two to which I have compared it. Like *R. rufiventris*, it has the sides of the head rufous, but differs in showing a well-marked postocular spot. It is also striated on the throat like that species, but has no tinge of rufous on the abdomen, which is darkish cinereous. The tail of the specimen, I regret to say, is not quite perfect, but there is no appearance of the white markings which are the distinguishing characteristic of the Guatemalan bird.

The Derby Museum contains examples of *R. rufiventris* from Coban and Panama, and also specimens of *R. melanurus*. The latter species appears to extend from the Amazon, where Mr. Wallace collected specimens in the neighbourhood of Para, to South Brazil, where Prince Maximilian of Neuwied notices its occurrence under the name of *Troglodytes gladiator*, Beit. iii. p. 751.

#### 4. CYPHORINUS ALBIGULARIS, Sclater.

*C. intense rufo-brunneus*: *alis extus obsolete nigro-fasciatis*; *cauda nigra, brunneo fasciata*: *capitis lateribus nigris*; *superciliis posticis et gutture toto pure albis*: *abdomine crissoque nigris, fasciis minutis albidis transvittatis*: *rostro nigro, tomis pallidis*: *pedibus nigris*.

Long. tota 5·75, alæ 2·7, caudæ 2·1.

*Hab.* in Isthmo Panama.

This fine large typical *Cyphorinus*, distinguishable by its pure white throat and dark closely-banded under plumage, is also due to the researches of M. Delattre, by whom it was brought from the Isthmus of Panama. The only species I can find which resembles it in some degree is *Cyphorinus leucostictus*, Cab. Orn. Notiz. in Wiegmann's Archive 1844, p. 206; Schomb. Reise, iii. p. 673. sp. 37, from Mexico and Guiana; but that would appear to be a much smaller bird, and has the under parts from the chin to the belly white, with the sides and crissum reddish-brown.

Among the rare types in the Derby Museum is Mr. Eyton's *Dendrexetastes capitoïdes* (Cont. Orn. 1851, p. 76). This does not seem to me different from M. de Lafresnaye's *Dendrocolaptes temmincki* (Rev. et Mag. de Zool. 1851, p. 154. pl. 4), named about the same time, but I think the latter term has a slight precedence in point of date, and the bird will therefore stand as *Dendrexetastes temmincki*, if thought worthy of continuing to rank as a separate genus. The Derby Museum specimen is, to judge by its make, decidedly a Cayenne skin. The *Dendrocolaptes temmincki* in the Leyden Museum is said to be from Bogota.

\* Lesson, Rev. Zool. 1839, p. 42. *R. pileo rufo*: *dorso et alis brunneo-rufis*: *corpore infra niveo, lateribus griseis*.

† Lesson, Traité d'Orn. p. 377. *Vert-olivâtre en dessus, jaune en dessous*!



Upon examining Dr. Kaup's *Psaris fraseri*, of the Proc. Zool. Soc. 1851, p. 47, I found it the same as *Tityra albitorques*, Du Bus, Bull. Ac. Brux. 1847, xiv. pt. 2. p. 104; and his *Psaris parinus*, ib. p. 48, seems to me very closely allied to, if not identical with, *Pachyramphus atricapillus* (Gm.), Pl. Enl. 687. fig. 1.

I can also confirm what Dr. Hartlaub has said in Wiegmann's Archiv, 1854, that *Todirostrum pectorale*, Kp., of the same paper is *T. granadense*, Hartl., *T. ruficeps*, Kp. = *T. multicolor*, Strickl., and *Setophaga flammea*, Kp. = *S. intermedia*, Hartl. R. Z. 1853, p. 5. But in the two latter cases Dr. Kaup's names were first given, though from the long delay in publishing the Proceedings the others were first published.

When criticising other writers, it is proper also to mention my own mistakes; and I take this opportunity therefore of stating, that my *Tænioptera striaticollis* of the Proc. Zool. Soc. 1851, p. 193 (of which the Derby Museum contains examples), has been long ago named and figured in D'Orbigny's Voyage as *Tyrannus rufiventris*, p. 312. pl. 32. fig. 2.

#### LINNÆAN SOCIETY.

March 4, 1856.—The President in the Chair.

The following papers were read :—

1. "Note on some Larvæ voided by Children," by Mr. E. Newman.
2. "Notice on the occurrence of *Sepia biserialis* in Cornwall," by J. Couch, Esq.
3. "A Memoir on the Development of the Ovule of *Santalum album*, with some Remarks on the Phænomena of Impregnation in Plants generally," by Prof. Henfrey.

The observations detailed in this memoir were undertaken with the object of confirming Mr. Henfrey's views on this subject, as detailed in the 21st volume of the Society's Transactions, which views coincide generally with those of Amici, Von Mohl, Müller, Hofmeister, and Tulasne, and are in opposition to those of Schleiden and Schacht. Even among the disciples of Amici, however, a certain degree of discrepancy exists in regard to the origin of the germinal vesicle, as to whether it exists before, or is formed after fecundation. Hofmeister says before. Tulasne states that he never could find it anterior to the fertilization; though, he adds, "this delicate question no longer (1849) possesses all the interest which was accorded to it by MM. Mirbel and Brongniart, and more recently by Mr. Henfrey. It is true the existence of the embryonary vesicle at a period anterior to the arrival of the pollen-tube would, if placed beyond doubt, prove invincibly that this vesicle could not owe its origin to the latter organ: even now that the error of the pollinists is no longer uncertain, the question seems worthy of attention, especially on account of the theoretical consequences involved." Confidently as Tulasne expressed himself as to the origin of the germinal vesicle independently of the apex of the pollen-tube, this very point is most warmly contested by Schacht.





1856. "Zoological Society." *The Annals and magazine of natural history; zoology, botany, and geology* 17, 424–438. <https://doi.org/10.1080/00222935608697543>.

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