CONTRIBUTIONS

TO

ORNITHOLOGY

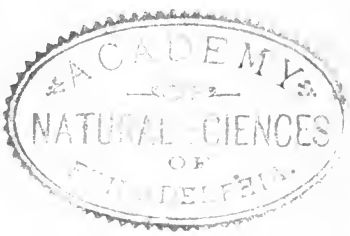
FOR

1852.

BY

SIR WILLIAM JARDINE, BART.

F.R.S.E. F.L.S. ETC. ETC.



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1853.

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ORNITHOLOGY IN 1851.

In pursuance of the plan to give a summary of Ornithological progress during the past year commenced with our last volume, we shall again endeavour to run over a short survey of what has been done by our own Ornithologists in 1851.

The all engrossing "Exhibition" may have had some effect upon the time of Ornithologists, as well as upon that of other persons devoted to particular branches of science, for we cannot bring forward any thing very striking that has been done, any important new work commenced, or any remarkable species discovered, as the *Notornis* and *Balæniceps* of the previous year; notwithstanding, however, the work has gone steadily on, and there appears to be no falling off in the zeal and activity of our collectors.

It was not, perhaps, in the way of the "Exhibition" itself, to advance Zoology by the bringing together of extensive collections, and nothing of novelty appeared there with the exception of some very beautiful specimens of bird-preserving. Mr. Hancock laudibly endeavours to render this more a work of true art, and to show that the poetry of design and composition might be combined with a faithful rendering of the position and attitude, beyond some polished stick, or mossed and sanded block, on which the specimen is perched up when it comes "finished" out of the hands of the general taxidermist; while the Zollverein groups shewed, that expression and even humour could be imbued; and were a little more attention given to the really natural expression and attitudes of the living animals, many interesting pictorial groups might be formed, which would illustrate manners and habits better than most of the written accounts we possess. It was also to the expected crowds for the Exhibition that we were indebted for the fitting up and public admission to Mr. Gould's extensive collection of Humming-Birds. No doubt they were open previously to any one interested; but we

should not otherwise have seen them as a whole, and in their elegant arrangements, pointing out how each smaller group could, of itself, be made exceedingly interesting; and how the accompaniments of wax flowers, the modelling of which has now been brought to so great perfection, may enhance the value of the picture, and make it almost a real transcript of the vegetation of the tropics.

With the exception of "*Contributions to Ornithology*," the only illustrated works that have been published during the past year, have been those by Mr. Gould.

The Birds of Australia, Supplement, Part I.—Was early published, and contained figures of several of the species we have already had occasion to notice in the Ornithology of Section D at Edinburgh, in our volume for 1851. The contents are *Ptiloris victoriæ* and *magnificus*, *Menura alberti*, *Notornis mantelli* (New Zealand), *Microglossus aterrimus*, *Tanysiptera sylvia*, *Halcyon flavirostris*, *Specotheres flaviventris*, *Drymodes superciliaris*, *Ptilotis filigera*, *Aplonis metallica*, *Nectarinia australis*, *Machærinhynchus flaviventer*, *Monarcha leucotis*, *Arses kaupi*, *Pycnoptilus floccosus*—all of which, with the exception of the *Menura*, *Notornis*, and the last, formed part of the collections of the Rattlesnake, procured chiefly in the vicinity of Cape York, in Northern Australia.

Part III. only has been added to *The Birds of Asia*, containing—*Gyps bengalensis*, *Falco peregrinater*, *Ithaginis cruentus*, *Ammoperdix bonhami*, *A. heyi*, *Pterocles guttatus*, *P. coronatus*, *Otis macqueeni*, *Euphona personata*, *E. melanura*, *Mycerobas melanoxanthus*, *M. carnipes*, *Hesperiphona icteroïdes*, *Montifringilla arctoa*, *M. hæmatopygia*, *Ruticilla erythrogastra*, *Leiothrix luteus*.

Part II. of a Monograph of the Trochilidæ or Humming-Birds has been published, maintaining its excellence in every way.

We have still to regret the non-completion of the Ornithology of the Erebus and Terror. Government have more to do than merely proposing and having a grant voted. The great fault of nearly all the zoological works so patronized, is the time they are allowed to hang on, during the greater part of which the species are shut up from all inspection. The Zoology of South Africa, "Published

under the Authority of the Lords Commissioners of Her Majesty's Treasury," commenced in 1838, and was only completed in 1850. The Zoology of the Beagle commenced same year, and was completed in 1844. The Zoology of Erebus and Terror, Part III., the first of the birds bears the date of 1844, and is now, 1852, incompleted. We perceive a new grant is proposed for the Illustration of the Rattlesnake's collections — When may we expect to see them illustrated?

A History of British Birds, by the Rev. F. O. Morris, B. A., has reached its XXth Number; and

A Natural History of the Nests and Eggs of British Birds, which we alluded to in our last year's summary, is in progress. The pale ground on which the light coloured specimens are figured does not relieve them.

The Birds of Ireland, by William Thomson, Esq. The third volume of this work we alluded to in our "Ornithology for 1850" as almost ready for publication. We soon afterwards received it. It is devoted entirely to the *Natatores*, and contains a detailed and excellent description of all the species hitherto observed on the Irish coasts and lakes, with whatever has come under the personal notice of the author, or has been obtained on good authority relating to their habits and economy, and sometimes the commercial and useful statistics of the different species. The volume is concluded with a summary of the British and non-Irish species, and of the Irish and non-British. We copy these lists, as being short, and have added an *S.* after the species which have been found in Scotland, the other thirteen being hitherto exclusively English. All, however, can only be looked upon as mere stragglers or occasional visitants:—

BRITISH AND NON-IRISH SPECIES.

Polish Swan	*Cygnus immutabilis*, Yarr.
Pinkfooted Goose	*Anser brachyrhynchus*, Bail. *S.*
Spurwinged Goose	*A. gambensis*, Linn.
Bimaculated Duck	*Anas bimaculata*, Penn.
Steller's Western Duck	*Polysticta stelleri* (Pall.)

Redcrested Whistling Duck	*Fuligula rufa*, Pall.
Ferruginous or Nyroca Duck	*F. leucophthalmos*, Bechst.
American Scaup	*F. marilöides*, Vig.
Harlequin Duck	*Clangula histrionica* (Linn.), *S.*
Buffel Headed Duck	*C. albeola* (Yarr.), *S.*
Caspian Tern	*Sterna caspia*, Pall.
Gull Billed Tern	*Sterna anglica*, Mont.
Ross's Gull	*Larus rossii*, Rich.
Laughing Gull	*L. atricilla*, Linn.
Bulwer's Petrel	*Thalassidroma bulweri* (Jard. & Selb.)
Wilson's Petrel	*T. wilsoni*, Bonap.

IRISH AND NON-BRITISH SPECIES.

Rüppell's Tern	*Sterna velox*, Rüpp.
White Winged Black Tern	*S. leucoptera*, Meisn. & Schinz.
Noddy Tern	*S. stolida*, Linn.
Bonapartean Gull *	*Larus bonapartii*, Rich. & Sw., *S.*

In an appendix winding up the work, there is an account of Irish decoys, which seem to be fast giving way before the drainage of the country. One fact is stated which we are not aware has been prominently brought forward before, the power of smelling among the *Anatidæ*, and that sense used for the purpose of self-preservation. A strong scent or odour of any kind seems to be felt, and prevents the working of the decoy. A spark falling on the shooting jacket of a person accompanying the decoyman, prevented by its smell any ducks being taken. "The smell of milk boiling over on the fire, in a farm-house perhaps 600 yards from the decoy, and the wind blowing from the house to the water, prevents a bird being taken the same day."

"It is of so much consequence to avoid any thing of this kind, that Mr. Skelton, Sen., who rents a farm of a thousand acres in connection with his decoy in Lincolnshire, forbids any cooking to be done in the house, sometimes for a few days, when the wind blows from it on the decoy."

* In Zoologist for May, 1851, there is a notice of a Gull shot on Loch Lomond by Sir George Leith, which Mr. Yarrell, "who has kindly investigated the matter, pronounces to be *L. bonapartii*."

There are some interesting notices also in the appendix of hybrid specimens, and upon the change of the colour of birds attaining their breeding plumage, which the author seems inclined to think is produced by the *moulting of feathers*, in opposition to the views and experiments of Mr. Yarrell.

Catalogue of the Menagerie and Aviary at Knowsley. Formed by the late EARL OF DERBY, K.G., 4*to*. It is arranged systematically, and has the localities of the specimens given. In our summary of last year, we had occasion to mention the name of Lord Derby among those who patronized and was of great value to the promotion of Ornithology. That nobleman died at Knowsley, and has left a blank which is not likely to be soon replaced. The successor to the headship of the family cares little for natural history, and the collection of living animals and birds has been dispersed by public sale. If retained by one having no personal love for zoology or interest in the collection, it would soon have died a natural death; but considering the comparatively small sum realized, the collection would have formed a noble gift to the Zoological Society, which has of late been so very instrumental in furthering our knowledge of the habits of animals, and of putting them within the reach of the almost daily observation of the public. Nevertheless, the funds of the society have enabled it to become the possessors of nearly all the more important birds which were awanting to its collection. The will of the late Earl contained a clause, requesting that Her Majesty should select one species for her own or the society's collection, and the Impeyan Pheasants, some of which were bred at Knowsley, was the species chosen. We could not attend the sale personally, but through the kindness of the secretary to the Zoological Gardens, we have been furnished with a "priced" catalogue, and are thus enabled to mention some of the more important purchases. The sale was numerously attended by delegates from foreign collections, and the lots being entered in their names, we cannot at present correctly trace some of their destinations, and very few private names appear among the purchasers. The total number of birds in the collection, exclusive of poultry, was—

Species.	Individuals.	Bred at Knowsley.	
318	1272	45	549

sold in 371 lots. The largest sum given for any lot, was for four *Cygnis nigricollis*, £160, for the Zoological Gardens. Next, that for Ostriches ♂ ♀, £70 and £60 respectively, purchased on commission. Mr. Mitchell purchased forty-six lots for the gardens, some of the more important of which are:— *Vultur monachus*, Linn., £7, 1s.; *Aquila vulturina*, £7; *Spizaëtus bellicosus* and *coronatus*, £16 each; *Casmarynchus nudicollis*, £2, 2s.; *Crax alberti*, Fraz., £12, 10s.; *Numida ptilorhyncha*, Licht., £6, 10s.; *Francolinus clappertoni*, £3, 3s.; *Grus carunculata*, £38; *Ocydromus australis*, £6, 10s., &c., &c. Some of the other more remarkable lots were — *Harpyia destructor*, Cuv., £25; a *Serpentarius*, £12, both abroad; *Bubo maximus*, brought £18; a *Dacelo gigas*, £3, 5s.; *Turdus (petrocincla) cyana*, sold to Sir W. Fielden for £7, 10s.; a *Coracopsis personata*, £21, and *Anodorhynchus maximiliani*, £10 and £16 (abroad); *Pionus gulielmi*, Jard., £3; *Plyctolophus leadbeaterii*, £9 and £11; *Talegallus lathami*, £14; *Phasianus versicolor*, £28; *Cygnus atrata*, about £7 each, &c.

Among the works which have been published in 1851, not strictly Ornithological, yet containing much of interest, we have — *Narrative of the Voyage of H.M.S. Rattlesnake, commanded by the late Captain Owen Stanley, R.N., during the years* 1846–50. *Including Discoveries and Surveys in New Guinea, the Louisiade Archipelago*, &c. *By* JOHN MACGILLIVRAY, F.R.G.S., *Naturalist to the Expedition*. 2 vols. 8vo. T. & W. Boone.—These interesting volumes, though bearing on the title-page the date of 1852, unquestionably come into our present summary, having been in our possession since the middle of December.* In our Contributions for 1850 we had occasion to notice the Ornithological part of the researches of Mr. Macgillivray during this expedition. The present two volumes contain a detail or journal of the transactions of the expedition itself, very interestingly told by its naturalist. The Ornithological notices are comparatively limited, as the birds were noticed in the Proceedings of the Zoological Society, and the new or more important species were figured in Supplement to Birds of Australia. But Mr. Macgillivray nevertheless deserves great credit from his attention to *all branches;* and in any new expe-

* Not sent to us by the publisher.

dition, particularly to the Pacific, Government could not select a better workman.*

Thalassidroma leachii was met with, distributed between the Tropic of Cancer and latitude 5° 8′, a considerable extension of its known range.† Another of the petrels, the "Mutton Bird," *Puffinus brevicaudus*, was met with in great abundance at a breeding station, Goose Island. "A person walking across the island can scarcely avoid frequently stumbling among these burrows, from the earth giving way under his feet. About dark clouds of mutton birds came in from the sea, and we amused ourselves chasing them over the ground among their burrows; and as many specimens as I required, were speedily provided, by knocking them down with a stick." *Larus pacificus* and *Xema jamesonii* were also exceedingly plentiful.

On No. IV. of the Frankland Islands, *Columba antartica* was met with, extending the range of that species beyond the continent, and to 380 miles within the tropics.

At the Duchâteau Isles, birds were plentiful—*Megapodii* and Pigeons. The notice of the Nicobar Pigeon is interesting. "As its appearance exhibits a near approach to the Gallinaceous Birds, so do its habits. It lives chiefly on the ground, runs with great swiftness, and flies up into a tree when disturbed. A nest here was of the rude platform construction, usually found among the pigeon family. It was built upon a tree, about ten feet from the ground, and contained a single white egg.

The following notice of the habits of *Chlamydera cerviniventris*, Gould, is perhaps the first. "While watching in the scrub I caught several glimpses of the *Tewinga*, the native name, as it darted through the bushes in the neighbourhood of the bower, announcing its presence by an occasional loud *chur-r-r*, and imitating the notes of various other birds, especially the Leather-head. I never before met with a more wary bird, and for a long time it enticed me to follow it to a short distance, then flying off and alighting on the bower, it would deposit a berry or two, run through, and be off again before I could reach the spot. All this time it was impossible to get a shot. At length, just as my patience was becoming exhausted,

* Mr. Macgillivray has been appointed to the new expedition.

† See Observations on Geographical Distribution of the *Procellaria*. "Contributions," 1850, p. 94.

I saw the bird enter the bower and disappear, when I fired at random through the twigs, fortunately with effect.

In the narrative of Mr. Kennedy's disastrous expedition, we have the notice of the Cape York Cassowary, sufficient to identify it as such, but which we only yet know by this report, "This morning Jackey went to examine a scrub through which we wanted to pass, and while out, shot a fine *Cassowary*. It was very dark and heavy, not so long on the leg as the common Emu, and had a larger body, shorter neck, with a large, red, stiff, horny comb on its head. Mr. Wall skinned it; but from the many difficulties with which he had to contend, the skin was spoiled before it could be properly preserved." "January 7th, along with a shooting party I landed soon after daylight on the westermost Duchâteau island. Numbers of Nicobar pigeons left it as we approached, having apparently used it merely as a roosting place. We procured about fifty Pigeons and a few of Duperrey's *Megapodius*. In habits this last bird resembles the Australian species, especially in constructing enormous mounds for the reception of its eggs. Those which I saw, averaged five feet in height and fifteen in diameter, and were composed of the sandy soil of the neighbourhood, mixed up with rotten sticks and leaves, but without any shells or coral. Some were placed at the outer margin of the thickets, close to the beach, and others were scattered about more inland. This bird is apparently very pugnaceous at times, as I frequently saw them chasing each other along the ground, running with great swiftness, and uttering their cry more loudly than usual, stopping short suddenly and again starting off in pursuit. The cry consists of one or two shrill notes, uttered at intervals, and ending in a hurried tremulous cry, repeated five or six times. Its food is entirely procured on the ground, and consists of insects and their larvæ (especially the pupæ of ants), small snails, and various fallen seeds and fruits."

In the appendix to Vol. II. there is a "Catalogue of the Birds of the North-east Coast of Australia and Torres Straits." This is a mere list, arranged in three columns — 1st, That portion of the north-east coast of Australia and its islands, included between the Tropic of Capricorn and latitude 17° 45′ south, or the parallel of the bottom of the Gulf of Carpentaria; 2d, remainder of the north-east coast, as far to the southward as Cape York; 3d, devoted to the islands of Torres Straits, from Raine Islet to Bramble Bay.

These are useful to compare with other similar lists in the works of Strzelecki and Eyre; also with those of Gould. 171 species in all are noted; of these, 60 are peculiar to or confined to one or other of the localities. The chief numbers of restricted species belong to the second column, which has forty; the 1st, fifteen, and 3d only five.

Arctic Searching Expedition. A Journal of a Boat Voyage, &c. in Search of Sir John Franklin, by Sir JOHN RICHARDSON, C.B., F.R.S. 2 vols. 8vo. 1851, Longman. — The expedition under the charge of Sir John Richardson, well known not only as an accomplished zoologist, but as one of a former expedition, who by his prudence and energy, brought to a successful termination one of the most arduous journeys ever undertaken by man, wintered in high latitudes, and had opportunities at both spring and fall, of witnessing the migrations of birds that take place there so regularly; and from their mode of life, necessarily abroad at all hours, of seeing many species in their own haunts, which we know at home only by description, or at most by a skin, and we consequently find many interesting notices of habits, range and geographical distribution, interspersed throughout the work.

In the district between Lakes Superior and Winipeg, when the Aspens were just putting on the early leaves, they met constantly, since the 1st of June, with the *Fringilla leucophrys*. The " song has been heard day and night, and so loudly, in the stillness of the latter, as to deprive us at first of rest. It is a curious illustration of the indifference of the native population to almost any animal that does not yield food or fur, or otherwise contribute to their comfort or discomfort, that none of the Iroquois or Chippeways of our company knew the bird by sight. We were however enabled, after a little trouble, to identify the songster, his song, and breeding place."

At Halfmoon Lake, *Haliaëtus* was abundant, as it was throughout the watery districts of Rupert's Land. A nest may be looked for within every twenty or thirty miles. Each pair of birds seems to appropriate a certain range of country, on which they suffer no intruders of their own species to approach; but the nest of the Osprey is often placed at no great distance from that of the Eagle, which has no disinclination to avail itself of the greater activity of the smaller bird. The Pelican *(Pelicanus trachyrhynchus)* ranges

as far north as Great Slave Lake, 60° 61′ north. These birds generally choose a rapid for the scene of their exploits, and commencing at the upper end, suffer themselves to float down with the current, fishing as they go with great success, particularly in the eddies. Their pouches are frequently so crammed with fish, that they cannot rise into the air until they have relieved themselves from the load; and on the unexpected approach of a canoe, they stoop down, and drawing the bill between their legs, turn out the fish. They seem to be unable to accomplish this feat when swimming, so that then they are easily overtaken and may be caught alive, or killed with the blow of a paddle. If they are near the beach when danger threatens, they will land to get rid of the fish more quickly. The Black-bellied Tern, *Hydrochelidon nigra*, ranges northward to the upper parts of the Mackenzie, and the *Sterna cayana* is common onwards to beyond the Arctic circle.

Sir John's opinion as to the American Cranes, at variance with that of Audubon, is also of importance. Mr. Rae killed specimens of the Brown Crane, *Grus canadensis*, " but though I concede that the young of the latter are *grey*, I think that the *brown* species is distinct; first, because it is generally of larger dimensions than the white bird; and secondly, because it breeds on the lower part of the Mackenzie, and near the Arctic coasts, where the *G. americana* is unknown. As far as I could ascertain, the latter bird does not go much farther north than the Great Slave Lake."

At Big Island, at the western outlet of Great Slave Lake, the Barking Crow, *Corvus americanus*, was met with for the last time. In the *Fauna Boreali Americana* I have stated, that it does not range beyond the 55°; but more correct information, received on the present voyage, enables me to carry its northern limit on to the 61°. " It becomes rare before it ceases altogether to be seen."

" The river of the mountains marks the northern limit of the American Magpie, Say's Grouse, and the White Crane, *Grus americana*."

Still farther north we have these observations on the Ornithology of Great Slave Lake and the Mackenzie: " The general aspect of the forest does not alter in the descent of the Mackenzie. There is, in fact, notwithstanding the near neighbourhood of the Arctic Circle, no want of flowering plants to engage the attention of a student of nature; and many of the feathered inhabitants of the district

recall to the traveller, or resident fur trader, pictures of southern domestic abode. The cheerful and familiar *Sylvia (Sylvicola) æstiva* is one of the earliest arrivals in spring, coming in company with the well known American Robin (*T. migratorius*), and the Purple and Rusty Grackles. A little later, the varied Thrush makes its appearance from the shores of the Pacific. The White-bellied Swallow *(H. bicolor)*, breeds at Fort Norman, in holes of rotten trees; and the *Sialia arctica*, a representative of the Blue Bird, so common in the United States, enlivens the banks of the Mackenzie; coming however, not from the Atlantic coasts, but from the opposite side of the Rocky Mountain range. On the Mackenzie there is an intermingling of the floras of both coasts, as well as of the migratory feathered tribes, the rocky mountain range not proving a barrier to either."

"One of the birds which we traced up to its breeding places on Bear Lake River, but not to the sea coast, is the pretty little Bonapartean Gull (*Xema bonapartii*). This species arrives very early in the season, before the ground is denuded of snow, and seeks its food in the first pools of water which form on the borders of Great Bear Lake, and wherein it finds multitudes of minute crustacean animals and larvæ of insects. It flies in flocks, and builds its nests in a colony resembling a rookery, seven or eight on a tree; the nests being formed of sticks laid flatly. Its voice and mode of flying are like those of a Tern; and like that bird, it rushes fiercely at the head of any one who intrudes on its haunts, screaming loudly. It has, moreover, the strange practice, considering the form of its feet, of perching on posts and trees, and it may often be seen standing gracefully on the summit of a small spruce fir.

"The insectivorous habits of this bird, and its gentle familiar manners, contrast strongly with the predaceous pursuits and voraciousness of the Short-billed Gull (*Larus brachyrhynchus*). If a goose is wounded by our sportsmen, these powerful gulls directly assailed it, and soon totally devoured it, with the exception of the larger bones."

The Harlequin Duck (*Clangula histrionica*) also frequents Bear Lake, but is comparatively rare in other districts, and is not easy of approach. It congregates in small flocks, which, alighting at the head of a rapid, suffer themselves to glide down with the stream, fishing in the eddies as they go. The Osprey and White-Headed

Eagle build their nests on the banks of Bear Lake River, and the Golden Winged Woodpecker migrates thus far north." A Peregrine Falcon's nest was discovered on the cliff of a sandstone rock. "This Falcon is not rare throughout the Mackenzie, where it preys on the passenger pigeon and smaller birds. One of its feats was related by Mr. M'Pherson: 'A White Owl (*St. nyctea*), in flying over a cliff, seized on and carried off an unfledged Peregrine in its claws, and crossing to the opposite beach, lighted to devour it. The parent bird followed, screaming loudly, and stooping with extreme rapidity, killed the owl by a single blow, after which it flew quickly back to its nest.'"

Sand martens breed in multitudes along the whole course of the Mackenzie, but I was unable to procure a specimen, and therefore to decide whether it is the *H. riparia* or *H. seripennis* of Audubon; but from its nearly even tail, I rather incline to think it may be the latter. It was first seen by us on 28th May, as we were descending the river Winipeg, near the 50°, and we knew by our observation in 1826, that it reaches the Delta of the Mackenzie in the beginning of July, affording therefore an index to the progress of spring in different latitudes."

"The Canada Geese or "Bustards" of the Canadians (*les Outardes*), breed throughout the woody districts (of the Coppermine), but do not reach the vicinity of the Arctic Sea, except on the banks of some of the large rivers. The most northern localities in which we observed them, were the channels between the alluvial islands which form the Delta of the Mackenzie."

After passing their long winter at Fort Confidence, 66° 54′ north latitude, and 118° 49′ west longitude, observations were kept of the arrival of the summer birds, as they gradually approached their breeding stations. "On 20th April, signs of snow softening on the south side of the house, contiguous to the walls, was perceived. Snow birds arrived in small flocks, and on 27th, snow began to melt in sheltered places. Ospreys, Gerfalcons, Eagles and Gulls, appeared on the 17th May. On 19th the first Goose was seen.*

The geese approach the high latitudes as soon as the swamps are

* Many interesting remarks will also be found in the chapter of the Appendix devoted to "Climatology;" but while they will repay those interested in the migratory laws, they are too detached to copy, and we give the reference, vol. ii. p. 212 to 263, Appendix.

uncovered, when they feed on the undeveloped stalks of the cotton grass and other *Cyperaceæ*. Their arrival is thus an indication of the progress of spring, and frosty weather will sometimes drive them back for a week or so to a milder district. The impulse, however, by which they are urged to their breeding stations is so uncontrollable, that in backward seasons they are driven to the sea coast before the snow is gone, and then, from want of food, they are in a very lean condition. Their incubation, the fledging of the goslings, and the moulting of the parents, has to take place before the end of August, when old and young pass southwards to spend the winter in more genial climes. An indelible attachment leads them back to their natal places, and the ensuing summer sees them winging their way northwards in cuneal bands, with unerring instinct. Their arrival in a district enlivens white man and Indian. During their passage, plenty reigns in every encampment; and the dingy pot-bellied children, run about with smiling greasy faces, brandishing in each hand the leg or wing of a goose.

The Canada geese come in the van, and remain breeding in the woody country; snow geese next arrive and pass onwards to Wollaston's Land; then the laughing geese come and go, holding a north-west course; and at the same time with the latter, the Hutchin's geese speed to the coast.

On the 22d, pin-tailed ducks were seen; on the 24th, swans; and on the 30th and 31st, large flocks of snow geese and brown cranes passed northwards. On the 1st of June, bees, sandpipers, long-tailed ducks or cacawees, eider and king ducks, and northern divers, were seen; the catkins of the earliest willows also burst their envelopes on this day. On the 5th, teal, widgeon, scaup-ducks, shovellers, and jagers arrived; but on the 8th, the fur of the polar hare was still white.

The progress of spring at Fort Confidence, subsequent to the 7th of May, is recorded from Mr. Rae's notes, as on that date Mr. Bell and I commenced our journey southwards.

To contrast with the above dates of the arrivals of the migratory birds at Fort Franklin, in the same season, are here added, the difference of latitude between the two places, being a degree and three quarters.

"On the 11th of May, under a hot sun, a pool of water had formed on the ice near the Bay of the Deer Pass. We bivouacked

on the shore beside it, and had not yet arranged our sleeping places when a Canada goose alighted in the pool. On the 14th the Indian saw gulls; on the 18th, snow geese and various small birds came, together with the pretty little gull, named *Xema bonapartii*, which, in large flocks, sought for insects in the open water now forming along the shores of the smaller lakes. On the 22d, bands of snow geese passed to the north-west, flying high. They evidently found the country about Fort Franklin still too closely wrapped in its winter garb, and were winging their way to the valley of the Mackenzie, where the season is earlier.

Geese, according to Mr. Bell's information, arrive at Peel River Fort, upwards of two degrees farther north, from the 12th to the 15th of May, rarely varying above a day or two, the 15th being the date of their coming in backward seasons. At that time they find the marshy places bare of snow, and can procure the roots of bents and other plants on which they feed. There, as elsewhere, the Canada Geese precede the snow geese a day or two. The Hutchin's geese (commonly called "Eskimo geese" in Rupert's Land) come later, and pass high overhead towards the north. The Indians believe that a small finch (*Plectrophanes lapponica*) avails itself of the strength of wing of the Hutchin's goose, and nestles among its feathers during its flight. When a goose is shot, they often see the small bird flying from it. Neither Mr. Rae nor I noticed such an occurrence, nor did I obtain a confirmation of it from the personal observation of any of the gentlemen resident in the country; but it is generally affirmed by the Indians. The laughing geese passed Fort Franklin a few days later than the snow geese, but a single individual was often seen some days before the arrival of the main body, associated with a flock of snow geese, and generally acting as leader, by assuming a station in the apex of the angle in which they fly. About the same time the American Robin or migratory thrush, came with the Yellow-poll and Black and Yellow Warblers (*Sylvia æstiva et maculosa*). The latter fed on the berries of the Alpine Arbutus, as did likewise the Golden Plovers, whose stomachs also contained the juicy fruit of the *Empetrum nigrum*. The Eskimo Curlew at this time fed on large ants. It would appear that these insects descend to the stomachs of the curlews alive, since I found that several, having taken fast hold of the lining of the gullet with their mandibles, remained sticking there, and even after death,

required some force to detach them. The Tree Bunting (*Fringilla canadensis*), Black Finch (*F. hyemalis*), and White Crowned Finch (*F. leucophrys*)—(I have already mentioned the nocturnal song of this bird, which breeds throughout Rupert's Land. In attempting to express its clear loud notes by syllables, the nearest approach I could make, was *cheet, cheet, tareet, cheet, cheet.* The first two syllables are loud and high, the next two short, and the two last lower and softer)—were also early visitors, and soon after their arrival, began to construct their nests. The Lapland finch was also seen, but only on its passage to the coast. The *Lestris richardsonii* flew about in pairs, and was observed to have the habit of quartering the ground like the Hen Harriers. In the stomach of one which I killed, there was the skin and some of the bones of a mouse rolled into a ball, like the pellets that are rejected from the stomach of an owl. The Purple Throated Diver visited Bear Lake River in considerable numbers. This species is easily distinguished from the great Northern Diver (*C. glacialis*) while flying, by its swollen bluish-grey neck. Almost all the summer birds arrived before we left that neighbourhood; but I have enumerated only the earliest comers, or those which I had not previously seen in so high a latitude, and whose range is not correctly given in the *Fauna Boreali Americana*."

A Naturalist's Sojourn in Jamaica, by PHILIP HENRY GOSSE, A.L.S., &c. 1851. Longman.—Mr. Gosse recorded the habits of the birds in his "Birds of Jamaica," and the present work, devoted to information of a more general kind, relative to all the productions of the island, both animal and vegetable, gives us only an occasional paragraph connected with Ornithology; more valuable, however, as the result of observations made on the spot.

Of singing birds, alluding to the now obsolete theory, that bright plumage is incompatible with brilliant song: "In Jamaica it is certainly very far from truth. The groves and fields of this sunny isle ring with the melody of birds to a degree fully equal, in my judgment, to that of Europe. In the lone forests of the mountain heights, the Glass-eye Merle (*Merula jamaicensis*) pours forth a rich and continued song; and that mysterious harmonist, the Solitaire (*Ptiliogonys armillatus*), utters his sweet but solemn trills, long drawn and slow, like broken notes of a psalm, so perfectly in

keeping with the deep solitude. In the wood that covers, as with an ever verdant crown, the lower hills, the Black Shrike (*Tityra leuconotus*), and the Cotton-tree Sparrow (*Pyrrhula violacea*), enunciate their clear musical calls, so much alike as scarcely to be distinguished; four or five notes running up the scale so rapidly, as to be fused as it were together, and suddenly falling at the end." Again, "The most minute of birds, the tiny Vervain Humming-bird (*Mellisua humilis*), not larger than a schoolboy's thumb, utters a song so sweet, but of sounds so attenuated withal, that you wonder who the musician can be, and are ready to think it the voice of an invisible fairy, when presently you see the atom of a performer perched on the very topmost twig of a mango or orange tree, his slender beak open, and his spangled throat quivering as if he would expire his little soul in the effort."

Mr. Gosse also writes of the Mocking-bird (*Orpheus polyglottis*), as equalling all the encomiums passed upon its song by Wilson: "If all the birds of Jamaica were voiceless except the mocking-bird, the woods, and groves, and gardens, would still be every where vocal with his profuse and rapturous songs." The Water Thrushes (*Sieurus*), and the Wood Thrush (*T. mustelinus*), are also among the admired songsters; and these, mingled with the plaintive notes of some of the doves and pigeons, place Jamaica in a high position as to the qualifications of its ornithological musicians.

Proceedings of the Zoological Society of London, with Illustrations. No proceedings have been published during the past year, which we regret, as there are some interesting ornithological papers that ought to have been given.

Annals and Magazine of Natural History, including Zoology, Botany and Geology, vols. vii. viii.—*Notes on some Bones and Eggs found at Madagascar, in recent Alluvia, belonging to a Gigantic Bird. By* M. Isidore G. St. Hilaire. Translated from the Comptes Rendus.—*Letter from* Mathew Moggridge, *Swansea, on Larus tridactylus*, picked up dead, 28th February, in Swansea Bay. Several others washed ashore.—*Visit to the Cave of the Edible Bird's Nests, from* Mr. Edgar Layard's *Journal.*—*Notices of One or Two of the rarer Birds found in the South of Scotland. By* John Alexander Smith, M.D. A paper read

before the Royal Physical Society of Edinburgh. *Lanius excubitor*, *Bombycilla garrula*, *Picus major*, were killed in Roxburghshire.—*On Cephalopterus ornatus. By* ALFRED R. WALLACE. From Proceedings (1850) of Zoological Society.

The Zoologist, a Popular Miscellany of Natural History, conducted by EDWARD NEWMAN, F.L.S., Z.S., &c. 8vo. Vol. IX. The volume has been again concluded. There are few ornithological papers, but a large amount of notices and memoranda of the occurrence of migratory species, and of rare birds, which the increased attention brings more frequently to light.—*Notes on Observations in Natural History during a Tour in Norway, by the* Rev. A. C. SMITH, M. A., concludes the ornithological portion, and gives some notices of the habits of the birds. The common partridge was not observed north of Christiana. The little *Totanus hypoleucus*, "when flitting about the mountain streams, frequently perched on the tops of the larch trees, as here it is wont to do on some rail or post. The foreign birds recorded as killed in Britain, such as *Orpheus polyglottis*, and *Vidua crysonotus*, we can only view as escaped specimens. There are numerous references to the occurrence of migratory species, such as *Ruticilla tithys*, *Alauda cristatus*, *Motacilla neglecta*, &c., tending to show that they are not so very uncommon as was supposed. The Rev. Mr. Smith, Monquhitter, records a specimen of the Stork having been killed in Aberdeenshire in 1837-8. The little gull has been killed at Lewes, Wester-super-Mare, and Derbyshire. The occurrence of the Black Woodpecker, *P. martius*, near Safron, Walbeck, in 1847, is recorded.

The Naturalist, a Popular Monthly Magazine, illustrative of the Animal, Vegetable, and Mineral Kingdoms. Conducted by BEVERLEY R. MORRIS, Esq. A. B., M. D., T. C. D., &c.—Another periodical, purposing to convey natural history in a popular manner, contains short papers, reviews and notices of books, and a large portion of anecdote and memoranda. The difficulty in all periodicals of this kind, is that of selection, and by so doing, the risk of disobliging correspondents and subscribers. The great proportion of short contributions are admitted, and the mass contains articles of various degrees of importance. In the first number, there is a paper on the submergence of birds by the editor, and a

notice of the occurrence of certainly one of our rarest visitants, the Black Woodpecker; and where the communicator, Mr. Mackintosh, Charminster, records the breeding of the bird in the hole of an old brick wall, at Claremont in Surrey. He mentions also having met with the birds at Cherborough Park in Dorsetshire; and from these, with the notice referred to before, from the Zoologist, several instances of its occurrence have been added to those mentioned by Mr. Yarrell and others. A "Fauna of Falmouth," by W. P. Cocks, contains a list of the birds met with; and an "Ornithology of Lincolnshire," by the Rev. R. P. Allington, would be an acquisition, even yet, if more extended. No county in England has been more changed by drainage, and a good account of its fens and their inhabitants, as they existed forty or fifty years since, would be very interesting. The Waxwing still continues to be very frequently recorded, and seems on all occasions persecuted to the utmost. From the various notices in the present periodical and the Zoologist, *Thalassidroma leachii* is the Petrel most commonly picked up, always dead or in an exhausted state. *Phœnicura tithys* has been taken at Cullen in Banffshire.

Zoological Society of London, August to December, 1851. REPORT OF THE SECRETARY. We have much pleasure in quoting the first sentence of the report. "The progress of the Society's affairs since my last report has been continuously prosperous." From our notice of the sale at Knowsley, it will have been seen that many very interesting additions were made to the aviaries of the Zoological Society; but another was received, almost at the end of the season, of very great interest, that of the New Zealand Kiivi or *Apteryx*. It is thus noticed by the Secretary: "Professor Owen has presented this valuable bird to the Society, in the name of Lieutenant-Governor Eyre. This singular genus, of which three species are known, is strictly nocturnal in its habits; is utterly incapable of flight; has merely the rudiments of a wing; has diminutive eyes; very imperfect vision by day; and has its legs so far back, that when standing in any other than an erect position, it appears to be obliged to have recourse to its beak as an additional support. The peculiar texture of its feathers, and the globular attitude in which it reposes, gives the Kiivi, at first sight, the air of some strange mammal, rather than the aspect of a bird." We shall look forward to some future details on its habits in confinement.

Another important discovery, or rather re-discovery, has been made in the stores of the Zoological Society. When Mr. Strickland was working at the "Dodo and its Kindred." The bones which Mr. Telfair had procured from the island of Rodriguez, and presented to the Society, could not be found. Like many other valuables, they had been put too carefully past. Lately, however, they have been re-discovered by Mr. Bartlet, and have been again laid before the meetings of the Society. These will very probably be figured in their Transactions; and they are now intrusted to the care of Mr. Strickland, from whom we hope to have a detailed account of their relations. He writes, "I am of opinion, that they belong to two species, a larger and smaller. The larger I consider to be the Solitaire of Leguat, and I call it *Pezophaps solitaria;* the smaller one *P. minor*. From the disparity in size, we believe they will have belonged to more than one species of Didiform bird.

Our notices of *Scolopax brehmi* have again attracted the sportsmen, and by the attention of Captain Robertson, 31st Regiment, we have lately received two specimens, shot in the vicinity of Ballyshannon, having sixteen feathers in the tails, the exterior rectrices being slightly lengthened. They are extremely close, in other respects, to the common form of Snipe, but shew the greater degree of mottling on the inner webs of the quills, and the greater extent of white upon the tips of the secondaries alluded to—"Contributions" 1850, p. 17.

REMARKS

ON

DENDROCOLAPTINÆ,

WITH

DESCRIPTIONS OF TWO NEW GENERA AND SPECIES.

By T. C. EYTON, Esq., F.L.S., F.Z.S., &c.

The above mentioned family of birds has been very variously classified; by Mr. Swainson they were included among the *Certhianæ*, by Mr. Gray they have been made into a separate sub-family, which appears to be their natural rank. The latter author, however, has suppressed several genera which appear to be distinct, and sufficiently defined, such as *Dendrocops* and *Dendroplex* of Swainson. Mons. Lafresnaye, in his admirable papers on the group, contained in the Revue et Magazin de Zoologie, divided them into eight genera, and in a former number of these Contributions I added another under the name of *Dendrexetastes* to these. I propose to add two more, *Drymornis* and *Dendrornis*. The latter genus comprehends all the straight billed species, classed by Mons. Lafresnaye under *Nasica*, thus restricting that genus to *N. longirostris*. The former genus comprehends *Nasica bridgesii*, figured in the Contributions, and *Xiphorhynchus pucherani*, figured in O. des Murs Iconographie Ornithologique. The family contains about sixty well defined species, which I propose to divide as follows:—

DENDROCOLAPTES, Herm.

Bill arcuated, laterally compressed, of moderate length, not notched at the tip, strong, the birds of large size, fourth quill-feather longest.

temminckii, Lafres.

promenopyrhynchus, Lafres.

simpliciceps, Rich. et Lafres.
perrottii, Lafres.
devilii, O. des Murs.
lineatocephalus, G. R. Gray.
albicollis, Veill.
major, Veill.

Dendrocolaptes crassirostris, Such.—is a synonym of *D. albicollis*.

PICOLAPTES, Less.

Bill of the same form as in *Dendrocolaptes*, but not so strong and smaller; birds of small size; third quill the longest.

tenuirostris, Spix.
angustirostris, Veill.
bivittatus, Licht.
squamatus, Licht.
triangularis, Lafres.
fuscus, Veill.
albolineatus, Lafres.
souleyetii, Lafres.
affinis, Lafres.
lacrymiger, Lafres.
notatus, Nob.
validirostris, Nob.
atripes, Nob.

Mons. Lefresnaye also includes in *Picolaptes*, *Xiphorynchus leucogaster*, Swainson. The descriptions however given of that species, and *Xiphorynchus flavigaster*, in the birds of Mexico, are so short, that I am unable to make out to what birds they refer. *P. leucogaster* is somewhat like my *atripes*, but differs considerably in the length of the bill.

XIPHORHYNCHUS, Swain.

Bill very long, much arcuated, slender, and laterally compressed, third, fourth, and fifth quill-feathers of equal length.

lafresnayanus, D'Orb.
procurroides, Lafres.
procurvus, Temm.
trochilirostris, Licht.

DRYMORNIS, Eyton.

Bill long, moderately arcuated, slender, somewhat quadrate, one of the angles forming the upper ridge, fourth quill longest.

bridgesii, Nob.
pucherani, Lafres.

NASICA, Less.

Bill very slightly arcuated, long, laterally compressed, the tip notched, fourth quill longest.

longirostris, Licht.

DENDRORNIS, Eyton.

Bill nearly straight, of moderate length, the upper mandible hooked at the tip, fourth quill longest.

susurrans, Jard.
obsoletus, Licht.
ocellatus, Lafres.
d'Orbignanus, Puch.
multistrigatus, Deville et O. des Murs.
gullatoides, Lafres.
pardalotus, Lafres.
guttatus, Licht.
ebeneirostris, Less.

Xiphorhynchus flavigaster, Swain., has been referred by Mons. Lafresnaye to *ebeneirostris*; the bill, however, differs much in length. *beauperthuysii*, Lafresnaye, is a synonym of *susurrans*, Jard.

DENDROCOPS, Swain.

Bill of moderate length, depressed, notched at the tip, not laterally compressed, fourth quill longest.

atrirostris, Lafres.
fumigatus, Licht.
platyrostris, Spix.
multistrigatus, Nob.
tyranninus, Lafres.
cayanensis, Licht.
merula, Licht.
meruloides, Lafres.
olivaceus, Nob.

Dendrocolaptes fortirostris, Such., appears to be a synonym of *platyrostris*, Spix, as also does *validus*, Tschudi.

DENDROPLEX.

Bill short, straight, not bent downwards at the tip, or notched; third, fourth, and fifth quills, of nearly equal length.

picirostris, Lafres.
picus, Licht.

Dendroplex rufus, Veill., is a synonym of *picus*.

GLYPHORHYNCHUS, Pr. Max.

Bill short, the upper mandible rounded horizontally, and flattened at the tip; second, third, fourth, and fifth quills, of nearly equal length; size small.

cuneatus, Spix.

DENDREXETASTES, Nob.

Bill strong, thick and short, not laterally compressed or depressed, pointed.

capitoides, Nob.

SITTASOMUS.

Bill of moderate length, the upper mandible bent downwards at the tip, broad at the base, and slightly compressed towards the tip.

griseus, Jard.
amazonus, Deville et O. des Murs.
sylvioides, Lafres.
erythracus, Licht.

The following birds have been placed in this subfamily, but do not belong to it:—

Picolaptes capistratus, Less. *Picolaptes brunneicapillis*, Lafres. *Picolaptes scolopaceus*, Lafres. *Picolaptes zonatus*, Less. *Picolaptes megalopterus*, Lafres.

And according to Mons. Lafresnaye, the following mentioned in Mr. Gray's genera of birds:—

Dendrocolaptes maculatus, *Picolaptes superciliosus*, *Picolaptes miniatus*, *Picolaptes albogularis*.

DENDROCOPS OLIVACEUS, Eyton.

D. supra subtusque læté olivaceo-brunneo; alis caudâque ferrugineis, gulâ palidiore, rostro aterrimo.

Long. corp. 9.5; ros. from 1.2; alæ, 5; tar. 1.

The above bird may be distinguished from all the other species of this genus, except *cayanensis*, by its superior size. It is of a rather brighter tint of colouring than *fumigatus*, and is entirely destitute of superciliary stripes.

PICOLAPTES NOTATUS, Eyton.

P. rostro valido corneo, cultrato, parum arcuato; capite brunneo-atro, pennis singulis in medio maculâ oblonga rufo-flavâ notatis; dorso olivaceo-brunneo, maculis rufoflavis elongatis lacrymiformibus notatis; subtus olivaceus, gulâ pectoreque mediis pennarum maculis squamiformibus notatis, alis caudaque ferrugineis.

Long. corp. ṡ; ros. from i; alæ i̇; tar. ö.

In the disposition of the colouring this bird very much resembles *Dendroplex picus*, but the bill is that of *Picolaptes*.

NOTE

ON

GENUS *DROMAS*, PAYKUL.

We have a letter from Mr. Blyth of Calcutta, containing some remarks on the *Dromas ardeola* of Paykul, which will be interesting to Ornithologists, whatever may be the place ultimately assigned to it in our system.

"I have received (from Ceylon) an immature specimen of *Dromas ardeola*, which I think reveals the true affinity of this extraordinary genus, which could never be approximated to any genuine *Grallæ*. It is neither more nor less than a *Tern* of most anomalous and extraordinary proportions, most nearly affined to the gull-billed form, *Gelochelidon*, just as the Flamingo is a remarkable form of *Anatidæ*. Now the Gulls and Terns, as a great group, are decidedly nearly affined to that constituted by the Plovers and Snipes, as exhibited by their anatomy, eggs, young, &c., and also by the seasonal changes of *Hydrochelidon*, *Sterna melanogaster*, &c., as compared with those of various Plovers and Tringæ."

We hope soon to be able to give figures of the young or immature state of this bird as well as of the eggs.

ORNITHOLOGICAL NOTICES

By H. E. STRICKLAND.

ON A NEW SPECIES OF *COCCYZUS* FROM TRINIDAD.

COCCYZUS PUMILUS, Strickland.

Plate LXXXII.

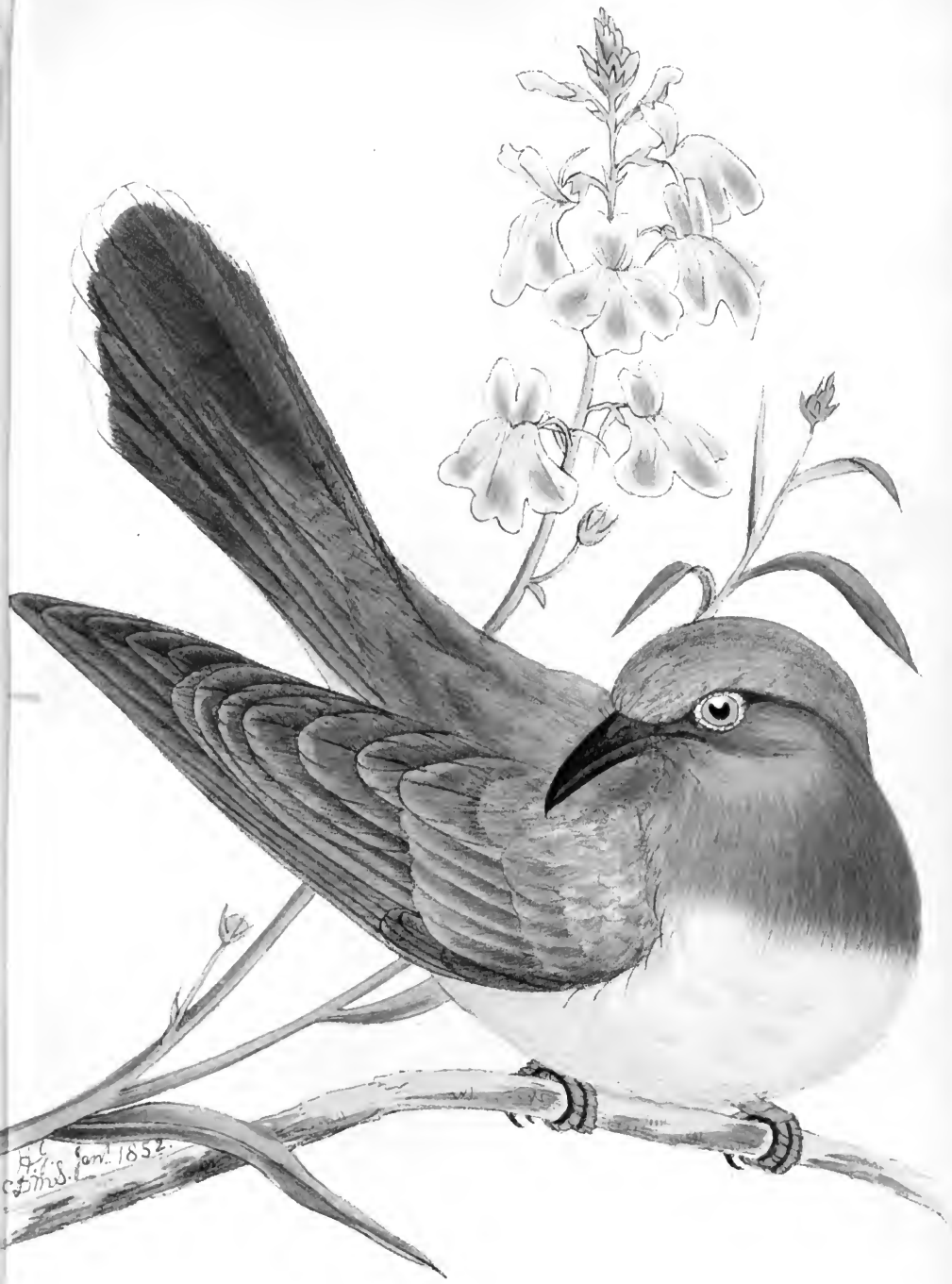
Above, pale brownish-grey, wings darker, tail fuscous near the base, the rest black, narrowly tipped with white. Chin, throat, and upper breast deep chestnut rufous; rest of lower parts and lower wing-covers pale fulvous. Beak black, legs bluish.

Total length, $\dot{7}.\ddot{3}$; beak to front, $\ddot{8}$; to gape, $\dot{1}$; wing, $\dot{4}.\ddot{2}$; medial rectrices, $\dot{3}.\ddot{7}$; external, $\dot{3}$; tarsus, $\ddot{9}$.

Habitat, Trinidad.

Remarkable for its small size and moderately rounded tail.

I may remark, that Dr. Hartlaub and the Prince of Canino unite the "Coucou" of Azara, No. 267 (*Coccyzus melacoryphus*, Vieill.) of Paraguay and Chili to the *Coccyzus minor* (Gm.), (*C. seniculus*, Lath.), of Cayenne, the West Indies, and the United States. They are however quite distinct, the *C. melacoryphus* being smaller, the beak much shorter and wholly black, while *C. minor* has the basal half of the lower mandible yellow.



Coccyzus pumilus. *Strickland*

1852

ORNITHOLOGICAL OBSERVATIONS

By PHILIP LUTLEY SCLATER.

VI.—SYNOPSIS OF THE GENUS *GALBULA*.

1. GALBULA VIRIDIS, Latham.

Alcedo galbula, *Linn.* S. N. i. p. 181.——Galbula viridis, *Lath.* Ind. Orn. i. 244.——Galbula rubricollis, *Steph.* Gen. Zool. ix. p. 224 (♀)—— Galbula viridicauda, *Sw.* An. in Men. p. 327.

♂ Suprà cum vittâ latâ pectorali aureo-viridis; gulâ albâ; ventre rufo-castaneo; caudâ infrà nigrescenti-viridi; rostro nigro.

♀ Mari similis, sed gulâ rufâ.

Long. tota, 7.7; alæ, 2.11; caudæ, 3.2; rostri, 1.5.

Habitat, Cayenne; Guiana (Schomb.); Amazons (Wallace).

Figured, Edwards, 334. Pl. Enl. 238; Le Vaill. Ois. de Par. 47 ♂, 48 ♀, 49 juv.? Vieill. Ois. Dor. 1 ♂, 2 ♀.

The Amazons specimens differ in having a rather longer beak, and broader and brighter pectoral band; but a large series must be examined before they can safely be separated, as the length of the bill varies greatly among individuals of some of the species.

2. GALBULA MACULICAUDA, Sclater, Sp. Nov.

Galbula viridis, *Max.* Beitr. iv. p. 437 (nec. *Lath.*); Galbula ruficauda, *Sw.* An. in Men. p. 327 (nec. *Cuv.*)

♂ Suprà cum vittâ pectorali aureo-viridis; gutture albo; ventre et 3 extimis utrinque rectricibus rufis; 2. extimis apice viridi notatis; rostro nigro.

♀ Mari similis; sed coloribus minùs claris; gulâ pallidè rufâ.

Long. tota, 9.3; alæ, 3.2; cauda, 3.8; rostri, 2.0.

Habitat South Brazil; Rio de Janeiro (Pr. Max.); Bolivia.

The Prince Maximilian of Neuwied does not distinguish this from the ordinary *Galbula viridis*, and Mr. Swainson calls it *ruficauda*, whereas the true *ruficauda* is that figured by Le Vaillant, which has, as he says, "*toutes* les pennes de la queue d'un roux uniforme." It becomes necessary, therefore, to give this species a new name, and I have called it *maculicauda*.

The first and second pair of rectrices are red with blackish tips, the third pair are wholly red; the fourth part are red only at the base; the middle pair are wholly green.

3. GALBULA RUFICAUDA, Cuvier.

Galbula viridis var. β *Lath.* Ind. Orn. 1. p. 245. —— Galbula ruficauda, *Cuv.* Reg. An. i. 420 (1817). —— Galbula macrura, *Vieill.* Gal. pl. 29 (1820). —— Galbula leptura, *Sw.* An. in Men. p. 327 (1838).

♂ Suprà cum vittâ pectorali aureo-viridis; gutture albo; ventre et 4 extimis utrinque rectricibus rufo-castaneis; rostro nigro.

♀ Mari similis, sed gulâ rufâ, vittâ pectorali angustiore.

Habitat, Trinidad; Guiana (Schomb.)

Figured, Le Vaill. Ois. de Par. t. 50 ♀; Vieill. Gal. des Ois. pl. 29; Lath. Gen. Hist. iv. pl. 26.

This Jacamar may be immediately distinguished from others, by its having the four outer rectrices on each side wholly chestnut red. The length of the bill varies very much in different specimens, in some being only i . ⅝, in others as much as 2 . 2. I was at first inclined to refer these long and short billed varieties to two species; but from having found in a collection of Trinidad skins a large number of these birds with the bills of different lengths varying as I have above stated I have now no doubt that they are specifically identical.

4. GALBULA TOMBACEA, Spix.

Galbula tombacea, *Spix.* Av. Bras. ii. p. 55. —— Galbula cyanescens, *Deville*, Rev. Zool. 1849, p. 56.

G. aureo-viridis; capite gulâque cyanescentibus; mento grisco; ventre toto et rectricibus 3 utrinque extimis castaneis extimâ rectrice apice et margine externa viridi; rostro nigro.

Long tota, 8 . ö; alæ, 3 . ö; caudæ, 3 . ë; rostri, 2 . ö.

Habitat, Amazons (Spix) (Deville).

Figured, Spix, Av. Bras. ii. pl. 58.

This bird may be distinguished from all the preceding by the enlargement of the pectoral band, which covers the whole of the throat except the whitish spot on the chin. My specimen, which is in bad plumage, is apparently from Santa Fé de Bogota.

5. GALBULA CYANICOLLIS, Cassin.

Galbula cyanicollis, *Cassin.* Proc. Ac. Sc. Phil. 1851, p. 154.

G. aureo-viridis; coronâ et colli lateribus sub oculo metallicè purpurascentibus; subtùs rufo-castanea, rectricibus mediis omninò et lateralibus margine externâ viridibus; rostro flavo, mandibulâ apice nigrâ.

Long. tota, 7 . 5; alæ, 3 . ï; caudæ, 3 . ö.

Habitat, Para (Cassin.)

Figured, Pr. Ac. Phil. pl. 7.

Specimens of this bird are in the British Museum. It is very nearly allied to the next following *Galbula albirostris*, but may be distinguished, as Mr. Cassin remarks, by the blue colour on the head and under the eyes.

6. GALBULA ALBIROSTRIS, Latham.

Galbula albirostris, *Latham*, Ind. Orn. i. p. 245.——Galbula flavirostris, *Vieill.* Nov. Dict. d'H. N. xvi. 444.

♂ Suprà smaragdineo-viridis; coronâ rubescenti-cupreo: infrà rufo-castanea, vittâ gutturali albâ; rostro flavo, mandibulâ nisi apice basique nigrâ.

♀ Mari similis; subtùs levior, maculâ gulari nullâ.

Long. tota, 7 . 3; alæ, 2 . 9; caudæ, 3 . ö; rostri, 1 . 5.

Habitat, Demerara (Schomb.); Guia on the Amazons (Wallace).

Figured, Le Vaill. Ois. de Par. 51, ♂; Vieill. Ois. Dor. pl. 4 ♂, 5 ♀.

7. GALBULA CHALCOCEPHALA, Deville.

M. Deville, in the Revue Zoologique 1849, p. 55, describes this species, but does not tell us in what way it differs from the preceding. On a late visit to Paris, I had intended to clear up my doubts on this subject, and for that purpose purchased two specimens of E. Parzudaki, which he told me were procured from M. Deville and were therefore types of the present species. These birds I find to be no other than *G. albirostris*, but as Mr. Cassin considers M. Deville's species distinct, I am unwilling to unite the two without further inquiry.

8. GALBULA LEUCOGASTRA, Vieill.

Galbula leucogastra, *Vieill.* Nouv. Dict. xvi. p. 445. —— Galbula albiventris, *Cuv.* Regn. An. i. p. 448. —— Galbula ænea, *Temm.* Bp. Consp. Av. p. 152.

♂ Cupreo viridis; capite cœrulescente; gula maculâ magnâ triangulari cum imo ventre albis; rostro nigro.

♀ — ?

Long. tota, 7̇ . 0̈; alæ, 2̇ . 6̈; caudæ, 2̇ . 5̈; rostri, 1̇ . 4̈.

Habitat, Barra do Rio Negro (Wallace).

Figured, Le Vaill. Ois. de Par. Supp. pl. H.; Gray's Gen. pl. 29.

9. GALBULA INORNATA, Sclater, Sp. Nov.

G. brunnescens; tectricibus alarum superioribus et uropygio viridi tinctis, mento albescente; pectore rufescentiore brunneo; ventre medio niveo, lateribus et crisso nigricantibus; rostro et pedibus nigris.

Long. tota, 7̇ . 0̈; alæ, 2̇ . 6̈; cardæ, 2̇ . 2̈; rostri, 1̇ . 6̈.

Habitat, Brazil (Parzudaki).

This *Galbula*, which I believe to be previously unnoticed, I purchased in Paris of M. Parzudaki. It was wrongly marked *G. leucogastra*, the true *leucogastra* being the one last described, which was first made known by Le Vaillant's figure. It is of a nearly uniform brown, lightest on the top of the head and breast, darker

on the wings, tail, sides of the belly, and crissum; glossed slightly with green on the upper wing and tail-coverts; the middle of the belly pure white, chin and upper throat whitish. In the Museum of the Jardin des Plantes, at Paris, I saw a bird resembling the present in every respect, except that the bill was white. It was brought by M. D'Orbigny from Guarayos, Bolivia. It was probably a male or full adult of this same species.

10. GALBULA PARADISEA (Linn).

Alcedo paradisea, *Linn.* S. N. i. p. 181.

G. aurato-cæruleo-viridis; capite et mento purpuracenti-brunneis; gutture albo; rostro nigro: caudâ longissimâ.

Long. tota, ♀ . ♂; caudæ, ♂ aut ♀; rostri, ♀ . ♂ aut ♀; alæ, ♀ . ♂.

Habitat, Guiana (Schomb.); Cayenne; Rio Negro (Wallace).

Figured, Edwards pl. 10; Le Vaill. Ois. de Par. II. pl. 82; Vieill. Ois. Dor. pl. 3; Pl. Enl. 271.

The short and long billed individuals doubtless differ in age or sex, but I do not know in what way.

11. GALBULA ALBIGULARIS, Spix.

Spix figures a *Galbula*, Av. Bras. ii. pl. 54, the only species among those mentioned here of which I do not possess specimens. His description is as follows:— *G. minor; violaceo-nigricans; capite fusco-brunneo; gulâ rostroque albidis; caudâ brevi æquali, subtus nigrâ. Hab. Para.* Were the belly white, the description would apply tolerably well to my *G. inornata*. Swainson's *G. lugubris*, arranged by the Prince of Canino as a synonym of this species, is three toed, and belongs therefore to the genus *Jacamaralcyon*.

Corpus Christi College,
Oxford, 2d February, 1852.

VII.—ON A NEW SPECIES OF THE GENUS *NIGRITA*.

To the genus *Nigrita* originally established by Mr. Strickland on a single species, the *Nigrita canicapilla*, Mr. Fraser in his Zoologia Typica added a second, the *N. fusconota*, which, like its predecessor, came from the island Fernando Po. The Prince of Canino in his Conspectus, gives the description of a third, *N. arnaudi*, Pucheran, of the Paris Museum, so called, I believe, from M. Arnaud, who brought this bird from the White Nile. A fourth, recently discovered, is the *N. lutifrons*, Verreaux, received among those many other brilliant novelties from the Gaboon, of which a list has been given by Mr. Strickland in a previous number of the Contributions. I have now the pleasure of making known a fifth species of this interesting genus, which was obtained by M. Parzudaki from Casamanza, a locality widely different from the *habitats* of the foregoing species, being not far south of the Gambia river on the most western part of the African coast. Its form is typical, but style of colouring rather different from that of the previously known members of the genus. I am indebted for the loan of the only example I have seen of it to Mr. Edward Wilson, who bought it for presentation by his brother to the Museum of the Academy of Natural Sciences at Philadelphia.

NIGRITA BICOLOR, Sclater.

Plate LXXXIII. 1852.

Nigrita suprà fusco-nigricans, alis et caudâ nigricantioribus: fronte, oculorum ambitu, capitis lateribus corporeque toto subtùs omninò brunneo-rufis; rostro pedibusque nigris; tarsis carneis.

Long. tota, 4.6; alæ, 2.3; caudæ, 2.0.

Habitat, Casamanza, Afric. occid.

The peculiar brown-red of the front and under parts is difficult to describe, but the bird may be easily recognised by the aid of the plate.

London, March 1, 1852.

Nigrita bicolor, *Sclater*.

1852.

1. Phäeton phœnicurus. 2. æthereus. 3. flavirostris.—

ILLUSTRATIONS OF FOREIGN OOLOGY.

PHAËTHON.

Plate LXXXIV.

The tropic birds are generally met with either far from land or in the vicinity of inaccessible or seldom visited islands, and the notices that occur in the accounts of voyages, except in some of a late date, *That tropic birds were breeding on such an island*, from the resemblance of the species to each other, can almost never be taken with any specific certainty, but merely that one species or other did breed in the locality mentioned. It is therefore with satisfaction, that we are now enabled to give figures of the eggs of the three known species, the identity of which we are certain, specimens of the birds having accompanied the eggs, and no other species being known to breed in the locality where they were obtained.

The nesting places of the different species of Phaëthon have been generally described as formed upon the shelves or ledges of rocks; but holes in the ground and trees are also mentioned, and we transcribe a few of the authorities, that their accounts may be compared with those of our correspondents who have themselves seen and taken the birds from their nests.

Dr. Latham, when writing of *P. æthereus*, states, that they "are said to breed in the woods on the ground beneath them. They are nowhere more numerous than on Palmerston Island, where these birds, as well as the Frigates, were in such plenty, that the trees were absolutely loaded with them, and so tame as to suffer themselves to be taken off the boughs with the hand." Of the *P. rubricauda* the same author writes, "They are found in great numbers in the island of Mauritius, where they make the nest in the ground under the trees."

Lesson in the voyage of Mon. Duperrey, found the *P. rubricauda* in the island of Mauritius, breeding upon the peaks of the most precipitous of the mountains.

In the voyage of Mon. Freycinet, *P. æthereus* in the Isle of France, is said to roost upon trees, and make their nests among inaccessible rocks: and Captain Tuckey states, "That the great tropic bird, *P. æthereus*, breeds in the crevices of the elevated rocks near the shores."

In colour and markings, the eggs of all are nearly similar, the size and form only slightly varying, but they are very peculiar, neither agreeing in the olive tints and large blotching of those of the Gulls and Terns, to which on the one side they are allied, nor to the generally uniform and light colour of the *Pelicanidæ*, which seem to approach them by *Sula*. They remind us more of the eggs of some of the true Falcons, both in form and colouring, and are at variance, in these respects, with those of all the Natatores we are acquainted with.

For specimens of PHAËTON ÆTHEREUS with its eggs, Fig. 1 of our Plate, we are indebted to our old correspondent, Mr. Kirk of Tobago. He states in his notes—

"This species frequents the island of little Tobago, St. Giles, and Smith's Islands, which are all dependencies of Tobago, and situate at no great distance from our coast. They build in holes of the rocky precipices overhanging the raging sea, and are generally both difficult and dangerous to approach. They lay one egg of a dark sombre colour, and during the time of incubation, the female will allow herself to be taken off the nest rather than take wing; but she will at the same time defend herself, by a diligent use of her bill, with which she draws blood freely."

Specimens of P. FLAVIROSTRIS, Brandt, together with an egg, Fig. 2, were sent to us from Bermuda, by Lieut. Wedderburn. This species is migratory in Bermuda, arriving there to breed, and leaving again when the duties of incubation have been performed. Mr. Tristram has given the following dates of the arrival and departure of *P. flavirostris*, observed by himself when resident in the Bermudas, and has also obliged us by extracts from his notes regarding the habits and incubation of these curious birds, which

is the fullest and most detailed account we have yet seen of the manners of any of the species.

First appearance.	*Last observed.*
1847, 5th March, on 20th plentiful.	1846, November, a straggler.
1848, 10th March.	1847, 9th October.
1849, 12th March.	1848, 27th September.

"I have much pleasure in affording you such information, as I can from my notes respecting the *Phaëthon flavirostris* of Bermuda, or 'Long-tail,' as it is there familiarly named. Of all the feathered denizens of these islands, it is the only one which gives any character to the landscape. Man has made sad havoc among the winged aborigines, since Captain Smith, in his History of Virginia, published in 1629, writes "Neither hath the aire for her part been wanting with due supplies of manie sortes of fowles, as the gray and white hearne, the gray and green plover, wild ducks and mallards, coots and redshanks, sea-wigions, gray bitterns, cormorants, numbers of small birds like sparrows and robins, woodpickars, very many crows, the leabourer or egg-bird, and the tropicke bird." Of all these the tropic bird alone remains, save as stragglers or visitants. From early spring to late autumn, this beautiful bird may be seen incessantly sailing near the shores, uttering its shrill and often repeated but not unpleasant note, which is much like the call of the Tern, but deeper and not so rapidly uttered. These birds fish for the most part very early in the morning; and I have often watched them at sunrise, noisily skimming the surface of the calm sea, and gently dipping (for it can scarcely be called darting), as they catch up any small fish within their reach, while their pink-white plumage glistens with a soft rosy hue in the sunbeams. I never but once saw a tropic bird swim; when it did so, the tail was expanded like a fan, perfectly erect, with the long feathers in the centre stiffened as it quarrelled with a comrade over their prey. After mid-day I have seldom observed them fishing, and they fly at a much greater height, generally five or six together, and often so high as to be scarcely visible. Though gregarious in their general habits, while in their summer quarters they do not associate so closely as Gulls or Rooks, but in small parties, and there are seldom more than half-a-dozen

feeding within gun-shot of each other. During the period of incubation they are remarkably fearless, coming within a few yards of a boat, or close along side one while bathing, even within a yard of ones head; nor do they conceal their nests or young, as they fly backwards and forwards, regardless of the presence of a spectator.

"They breed on all parts of the coasts of the Bermudas, but chiefly on the southern side, where the cliffs are most precipitous and inaccessible. They form no nest, but deposit their single egg on the bare rock, upon a ledge seldom more than one or two feet within the face of the cliff, sometimes about fifteen feet above the level of the sea, but more frequently at a much greater elevation. Both the parent birds, I believe, take a share in the labour of incubation, but of this I am not quite certain; I have often observed both feeding the young at the ledge of the rock, clinging to its side much after the fashion of a Swift. While sitting, they will allow any one to take them in their hands rather than leave their egg. In proof of this, on one occasion, I had requested some soldiers, stationed at an outpost near one of their favourite haunts, to procure me a few living specimens and some eggs. Two or three days afterwards, I was shocked to find that they had taken upwards of fifty of the poor creatures on their nests, and shut them up in a dark cellar, waiting my arrival! We immediately relieved the greater part of them, but more than twenty had perished during their night's confinement in this "black hole." A few such razzias as this, and the whole colony might have been extirpated. The first plumage of the nestling is a pure white down, afterwards the broad bars of black are more broadly marked than in the adult. The eggs in my possession vary much, generally of a uniform brownish-red mottled colour, most like the usual colour of those of a Kestrel but browner. Some are only reddish-white, and are darkly marked at the thick end and very pale at the small end.

"They generally withdraw to the southward in September. I observed a few in October, 1847, and one or two in November, 1848. During the winter months, I have never heard of a single straggler. Unlike the *Laridæ*, the *Phaëthon* never flies over the land, or comes up the creeks where there are no cliffs for nidification; nor have I ever seen one settle, except on the ledges, where their young might be directly overhanging the deep sea."

We are indebted to Mr. Gould for the drawing of the eggs of *Phaëthon phœnicurus*, Fig. 3; they were procured from Norfolk Island, east coast of Australia, and from Raine's Islet, in Torres Straits. He states, that August and September are its breeding months, the season when the two previously mentioned species leave their breeding quarters. Mr. Gould did not see these tropic birds breeding, but quotes Mr. Macgillivray's account of their nidification on Raine's Islet: "Upon one occasion, three were observed performing sweeping flights over and about the island, and soon afterwards one of them alighted; keeping my eye upon the spot, I ran up and found a male bird in a hole under the low shelving margin of the island bordering the beach, and succeeded in capturing it after a short scuffle, during which it snapped at me with its beak, and uttered a low harsh and oft repeated croak. It makes no nest, but deposits its two eggs on the bare floor of the hole, and both sexes assist in the task of incubation. It usually returns from sea about noon, soaring high in the air, and wheeling round in circles before alighting. The eggs are blotched and speckled with brownish-red, on a pale reddish-gray ground, and are 2.3 long by 1.4½ broad."

HABITS OF LARUS CANUS.

In the Proceedings of the Berwickshire Club for 1850-51, Mr. A. Hepburn in noticing the birds that are found at St. Abb's Head, writes of the Common Gull: "During the greater part of the year, these birds find their chief sustenance not only along shore, but also in the fields in the interior of the counties of Berwick and East Lothian. Dr. Hood of Aimsfield, near Coldingham, informed me, that they do great injury to the turnip crop, especially during hard weather; and yet, judging by their droppings, such food is not readily digested by them. Similar complaints have been urged against them in Fife."

In our own district, at a distance in a direct line of about twelve miles from the sea, the Common Gull, since we can remember, during winter and spring, daily wends its way inland considerably farther than our locality, and as regularly may be seen returning towards evening in its wedge formed groups. These during the forenoon, frequent the fallows, and often follow the plough; but their chief resort is the pasture lands, and their chief, almost only food, is worms or snails, &c. We have never heard of, or suspected them attacking turnip or other vegetable produce. This would be a very curious and useful subject for the Club to investigate.

1. Todirostrum granadense *Harel.*
2. Todirostrum multicolor *Strickl.*

ORNITHOLOGICAL NOTES

By H. E. STRICKLAND.

V.—ON TWO SPECIES OF *TODIROSTRUM*.

PLATE LXXXV.

Mr. SCLATER recently sent me a specimen of a *Todirostrum* which he believed to be new, but on a close comparison of it with the *T. granadense* of Dr. Hartlaub, described in the Revue Zoologique, 1843, p. 289, I am of opinion that it is referable to that species. In fact, the only discrepancy between them is, that Dr. Hartlaub describes the throat as "obscurè cinerea," while in Mr. Sclater's specimen it is fuscous or approaching to black; and that Dr. Hartlaub omits to mention the white patch which follows this dark throat, and blends into the light cinereous of the breast.

Mr. Sclater describes his bird as follows—

"T. suprà olivaceo-viride; fronte medio cinereo; maculâ magnâ utrinque inter rostrum et oculum albâ; pennis caudâque nigrescentibus olivaceo limbatis; subtùs, gulâ fusco-nigrescente; jugulo et ventre albis; pectore cinereo; lateribus olivascentibus; flexurâ, tectricibus subalaribus crissoque pallidè flavis; rostro nigro; pedibus carneis.

Long. tota, $3.\dot{7}$; alæ, $1.\dot{9}$; rostri, $\ddot{4}\frac{1}{2}$; caudæ, $1.\ddot{6}$.

This *Todirostrum* differs in style of plumage from any other species that I am acquainted with; it agrees in structure and form with *T. gulare* (Temm.). It has a large round white spot before the eye like *T. diops* (Temm.), but may be distinguished from that bird by the peculiar markings of the under plumage. The throat is fuscous black, next follows a triangularly shaped spot of the same pure white as the belly, while the breast is crossed by a broad cinereous band, which passes at the sides into olivaceous green. The bird is believed to be from New Grenada."

As a companion to the above, I add a species of *Todirostrum* from my own collection, of which I can find no description. It was purchased in a collection of Bogota Birds.

TODIROSTRUM MULTICOLOR, *Strickland.*

Crown, cheeks, and ear-covers, deep rufous or chestnut, paler on the chin; anterior margin of the eyes and a spot beneath the ear-covers black; a large patch of cream-colour on the throat, followed by a narrow black band on the breast; rest of lower parts bright yellow. The chestnut crown is margined on the temples and occiput by black, followed by a cinereous band on the hind neck; back yellowish olive; wing-covers, remiges, and rectrices, fuscous, margined with olive yellow; beak blackish; legs pale brown.

Total length, $\dot{3}.\ddot{5}$; beak to front, $\ddot{4}\frac{1}{2}$; to gape, $\ddot{6}$; breadth, $\ddot{2}$; height, $\ddot{1}$; wing, $\dot{1}.\ddot{8}$; medial rectrices, $\dot{1}.\ddot{3}$; external, $\dot{1}.\ddot{1}$; tarsus, $\ddot{6}$.

VI.—ON A NEW SPECIES OF *NECTARINIA*.

PLATE LXXXVI.

IN a collection of birds procured on the shores of the Red Sea, and on the east coast of Africa by James Daubeny, Esq., Surgeon, H. E. I. C. S., are two specimens of a small *Nectarinia*, which appears to me to be a new species. A label attached gave their locality as "Ras Hassoun, African coast." This I presume to be the headland marked "Ras Hafoun" on Arrowsmith's map, near the extreme easternmost point of the African continent, and in the region of Somauly, which has never yet, I believe, been explored by naturalists.

NECTARINIA ALBIVENTRIS, *Strickland.*

♂ Crown, cheeks, and upper parts, glossy green, with a purplish gloss on the front; upper tail-covers steel blue; greater wing-covers and remiges pale fuscous brown; rectrices fuscous, narrowly margined with glossy green; chin and throat steel blue with a violet gloss; breast, belly, and lower tail-covers pure white;

Nectarinia albiventris *Strickland*.

axillary tufts bright orange anteriorly, sulphur yellow posteriorly; beak and legs black.

♀ Uniform pale brown above, dirty white below.

Total length, $3.\dot{7}$; beak to front, $\ddot{6}$; to gape, $\ddot{7}\frac{1}{2}$; wing, $2.\ddot{1}$; all the rectrices, $1.\ddot{6}$; tarsus, $\ddot{6}\frac{1}{2}$.

VII.—ON THE DISTINCTNESS OF *MONASA FUSCA* (Gm.), FROM *M. TORQUATA* (Hahn.)

The bird termed *Bucco fuscus* by Gmelin and *Tamatia brun* by Le Vaillant, has been regarded by Prince Bonaparte, Wagler, and other modern writers, as the young of the species which Hahn named *Bucco torquatus*, and Spix *B. striatus*. A specimen of the former, in the collection of T. C. Eyton, Esq., has enabled me to prove that these two birds, so long confounded, are in fact quite distinct. This will be sufficiently evident on a comparison of their descriptive characters.

(1.) Monasa torquata (*Hahn*).

Syn.—*Bucco torquatus*, Hahn, Ausl. Vög. pl. 13. p. 5.
Bucco striatus, Spix, Av. Braz. v. 1, pl. 40. f. 2.
Lypornix striata, Swains. Birds Braz. pl. 34.
Bucco fuscus, Licht. Verz. Doubl. p. 8.
Monasa fusca, Bonap. in Journ. Acad. Phil. v. 4, p. 370.
Lypornix torquata, adult, Wagl. Syst. Av. sp. 4.

Plumage brown, streaked with yellowish rufous; a rufous patch in front of the eye; a large white patch on the upper breast, followed by a black band; lower breast plain rufous; beak wholly black; tail, $3.\ddot{5}$ long.

Habitat, Brazil.

(2.) Monasa fusca (*Gm.*).

Syn.—White Breasted Barbet, *Lath.* Syn. v. 2, p. 505.
Tamatia brun, Le Vaill. Ois. Parad. v. 2, pl. 43.
Bucco fuscus, Gm. Syst. v. 1, p. 408.
Lypornix torquata, juv. Wagl. Syst. Av. sp. 4.
Monasa unitorques, Dubus in Bullet. Acad. Brux. 1848.

Plumage brown, streaked with yellowish rufous; a whitish patch in front of the eye; a triangular white patch on the upper breast, but no black band; lower breast pale fulvous, streaked with blackish; beak orange, the culmen and tip black; tail, 2.5 long.

Habitat, Cayenne and the Amazons.

Note.—I was not aware when the above was written, that M. de Lafresnaye had already pointed out the distinctness of *Monasa fusca* from *M. torquata* (which he erroneously calls *maculata*), in the Revue Zoologique, 1848, p. 248. The above remarks amount therefore to no more than a confirmation of that eminent ornithologist's conclusions.

VIII.—ON *PARUS IGNOTUS*, GMELIN.

CONTRIBUTIONS to Ornithology may be quite as usefully effected by the sweeping away of error and confusion, as by the collecting of positive knowledge. Now there is a nominal species of *Parus* said to inhabit Norway, which has haunted our systems of Ornithology for nearly a century, but which no recent observer has recognised in nature. Brunnich prophetically called it *Parus ignotus;* Latham named it after its supposed discoverer, *Parus stromei;* and Vieillot went so far as to found a genus for it, under the name of *Megistina*. Still all this book learning was of no avail in adding to our knowledge; the *Parus ignotus* still refused to fall before the gun of the naturalist, or to make its appearance on the shelves of our museums.

This ornithological phantom is, however, at last dissipated by Professor Sundevall of Stockholm, who in a recent letter to myself, has thus replied to my queries about *Parus ignotus*. As the original is in Swedish, I have thought it best to translate his observations.

"As regards *Parus ignotus*, it is well known that Gmelin had it from Latham's Synopsis, vol. iv. p. 537; Latham took his description from Brunnich's Ornithologia Borealis, p. 73; and Brunnich merely transcribed it from Hans Ström's "Physisk og œkonomisk Beskrifvelse over Fögderiet Söndmör, beliggende i Bergens Stift i Norge." 4°, Soröe, 1762. If now we read the original description

in Ström, we shall at once perceive that Ström, who was not a scientific ornithologist, has given a pretty good description of *Anthus pratensis* in the autumnal plumage. This description Brunnich translated into Latin, and in so doing, introduced some little variation into the meaning so that it has been misunderstood. (See especially the phrase "abdomen cæruleum, propè anum flavescens"). Ström himself places the bird next after the *Pari*, and adds, that it was *unknown to him*, and thus the name *Parus ignotus* originated. I have not Ström's work now by me, but several years ago I made this investigation into the origin of "*Parus ignotus*," and am quite satisfied of its correctness. I presume that the expression "abdomen cæruleum" arose from a slip of the pen in Ström, who wrote "bugen mörk blaae," instead of "bugen mörk graae," which last word means *cinereous*. All the rest of his description applies admirably to *Anthus pratensis* in autumnal livery. In the index to Gloger's "Handbuch der Vögel Europas," it is said that *Parus ignotus* was originally a specimen of *Motacilla flava*, but artificially made up; a supposition which I cannot regard as correct, for the description applies far better to *Anthus* than to *Motacilla*."

ILLUSTRATIONS OF INDIAN ORNITHOLOGY

By E. BLYTH.

Curator to the Museum of the Asiatic Society, Calcutta.

We have already had occasion to express our obligations to Mr. Blyth, for his valuable contributions to the Ornithology of India published in our previous volumes, which his position as Curator of the Museum at Calcutta, assisted by his own activity and energy, and his now intimate knowledge of the Indian Fauna, afford him every qualification to give. We have at various times received additional drawings and notes, some of which should have been published before this time; and we have now made arrangements that these should appear regularly, and as early as possible after they reach us. We shall place all Mr. Blyth's papers now under the above title, and will include among them the numerous drawings of nests and eggs, which our subscribers can arrange or not as they may think best, among the "Illustrations of Foreign Oology." The drawings sent by Mr. Blyth are all executed by a native artist with mechanical truth, and we endeavour to preserve their character, rather than introduce accessaries which might be inapplicable. These figures we consider of much importance, as fixing the species indicated by Mr. Blyth in his various papers and catalogues, published in the Journal of the Asiatic Society of Bengal, and in many instances also those of Mr. Jerdon, M'Clelland and others, who have done good service to Indian Ornithology.

I.—INDIAN PARI.

Plates LXXXVII. LXXXVIII.

India is rich in *Pari*, at least the pine forests of the Sub-Himalayas are so, and a few species are found elsewhere, though only in the upland forests. The following have been described, and we have reason to think that others remain to be discovered in the Alpine Punjab and other parts.

1. PARUS FLAVOCRISTATUS (Lafresnaye.)

P. sultaneus, *Hodgson*, Ind. Rev. 1837, p. 81.——Crataionyx flava and C. ater, *Eyton*, Proc. Zool. Soc. 1839, p. 104.——Melanochlora flavocristata et M. sumatrana, *Lesson*.

This is the largest and most powerful *Parus* known, and also one of the most beautiful.* It is also remarkable among the group for a certain dissimilarity of the sexes, in which it resembles the Australian *Oreöica cristata* (Lewin), also referred to *Parus* by Mr. Strickland, and which at least is very closely affined to the *Pari*. It inhabits the South Eastern Himalaya, as the forests of Nipal, Sikkim and of the mountains of Assam, and thence passes southward into the Malayan peninsula and Island of Sumatra. Specimens generally occur in collections from the widely separated localities of Darjeeling and Malacca.

2. P. CINEREUS (Vieillot).

P. atriceps, *Horsfield*.——P. nipalensis, *Hodgson*.

This is the most extensively distributed of the Indian *Pari*, and generally one of the commonest where met with together with other species. Examples from different parts of the Himalaya, Assam, Central and Southern India, Ceylon and Java, are utterly undistinguishable. With the next three, it appertains to the same group as the European *P. major*.

* The most wonderful birds of the group, are the species of *Falcunculus*, which have been commonly classed as *Shrikes*.

3. P. MONTICOLUS (Vigors).

Gould's Century, pl. 29, p. 2.

This species appears to extend throughout the Himalayas, to which region it is however peculiar, so far as hitherto observed.

4. P. GRIFFITHII (Blyth).

Journ. As. Soc. B. xvi. 445.

This species rests as yet solely on the authority of an elaborate coloured drawing of a bird, obtained by the late celebrated botanist, Dr. Griffith, during his journey from Assam to Ava, and now in the possession of J. M'Clelland, Esq. of Calcutta. It is allied in colouring to *P. xanthogenys* and *P. spilonotus*, but is at once distinguished by being crestless and in the details of its markings.

5. P. NUCHALIS (Jerdon).

Madr. Journ. xiii. pl. 2, p. 130; (Ill. Ind. Orn., pl. 46). —*Blyth*, in J. A. S. B. xiv. 553.

As yet observed only on the Coromandal Ghâts.

The next six species are crested, like the European *P. cristatus*, L., with an additional large crested species still undescribed, from the North West Himalya, in the list of desiderata, appended to the Catalogue of the Birds in the Calcutta Museum. *P. flavocristatus*, we may remark, is also one of the species of this genus, adorned with a lengthened crest.

6. P. SPILONOTUS (Blyth).

Catalogue of the Birds in the Museum of the Asiatic Society, Calcutta, P. xanthogenys, apud *Blyth*, J. A. S. B. xvi. 445.

This beautiful species inhabits Nipal and Sikkim, and there replaces the next. We figure both for comparison.

7. P. XANTHOGENYS (Vigors).

Gould's Century, pl. 29, fig. 1.——P. aplonotus, *Blyth*, J. A. S. B. xvi. 444.

There are two varieties of this bird, that originally figured by Mr. Gould from the North West Himalaya, in which the yellow is more brilliant and extended; and that from Central and Southern India, in which the yellow is more contracted and considerably weaker, and the black more developed; but though constant to their distinctions, they can hardly be separated as species.

8. P. RUFONUCHALIS (Blyth.)

Journ. As. Soc. B. xviii. 810.

From the Tyne range of mountains north of Simla.

9. P. MELANOLOPHUS (Vigors.)

Gould's 'Century,' pl. 30, p. 21.

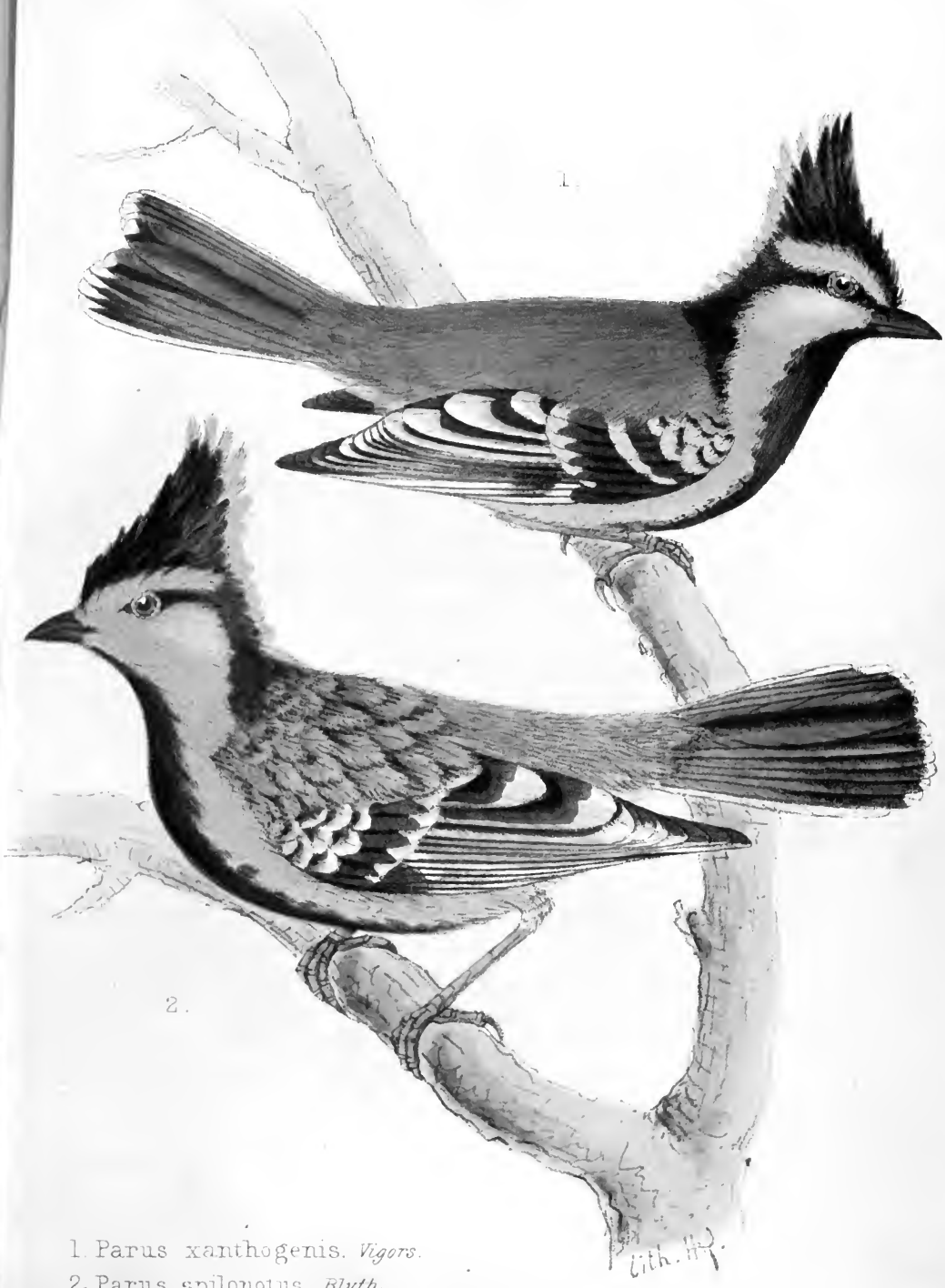
Inhabits the North West Himalaya, and according to Mr. Jerdon also *Gūmsūe*, but we are not aware that specimens from these regions have been compared together.

10. P. RUBIDIVENTRIS (Blyth.)

Jour. As. Soc. B. xvi. 445.

Replaces (or probably co-exists with) the last in Nipal, and was confounded with it. We figure them together for comparison.

In *P. rubidiventris*, the black does not descend so far down the breast as in *P. melalophus*, and the axillaries, middle of the belly and lower tail-coverts, are of a deeper rufous than the rest of the lower parts. No. 2 is very common in the Simla and Mussooree Hills; but a specimen sent to the Calcutta Museum by Mr. Hodgson from Nipal as No. 2, was No. 1; and possibly Hodgson's Nipal *P. melalophus*, of Gray's British Museum Catalogue, is also *P. rubidiventris*.



1. Parus xanthogenis. *Vigors.*
2. Parus spilonotus. *Blyth.*

1852.

1. Parus rubidiventris, Blyth. 2. P. melanophros. Vig.

1852.

17. ÆGITHALUS FLAMMICEPS (BURTON.)

Proc. Zool. Soc., 1835, p. 153.——Dicœum sanguinifrons, *Hay*, Journ. As. Soc. B. xv. 44.

WE follow common usage, in classing this genus with the Tits, though far from being satisfied of the corrrectness of so doing.* It inhabits the North West Himalaya in flocks, which frequent the higher branches of lofty trees. Mr. Hodgson does not appear to have met with it in Nipal.

N.B.—The *Parus quadrivittatus*, Lafresnaye, *Rev. Zool.*, 1840, p. 128, "from Manilla or India," is probably Indian.

II.—RHYNCHEA BENGALENSIS.

PLATE LXXXIX.

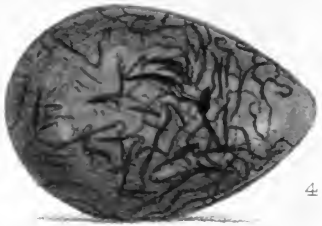
1. 2. 3.

THE Common Painted Snipe of South-eastern Asia and its Islands, differs from that of Australia, in having longer toes, and the female by not presenting the remarkable elongation of the trachea, which Mr. Gould has described in the female of *R. australis*. There is the same remarkable difference, however, in the plumage of the sexes, the female being the larger and handsomer bird. We have several times met with the young, in all stages of growth, in the Calcutta provision bazaar, chiefly during the rainy season, and conclude that they have probably two or even three broods in the year. The chick represented, was one of three obtained together, and the egg we took from the oviduct.

The following is a sportsman's notice of the Indian Painted Snipe, extracted from the Bengal Sporting Magazine for 1839:—"This bird is not considered a very interesting one by sportsmen, from the circumstance of its not being thought so dainty for the table as the regulation one, or at all a good mark for the gunner.

* Figured under the name of *Paroides flammiceps*, in "Contributions" 1850, p. 148.

5.



4.

5.

1.2.3. Rynchæa bengalensis

4. Metopidius indicus.

5. Hydrophasianus sinensis

1852.

1.

3.

2.

"They are solitary, lying very close, and like the little fluttering Jack Snipe, must be kicked up. Their flight is heavy, short, and low to the ground — more a skim than a fly; they come in about November, and frequent rushes and reedy spots, and are not so much found in the paddy *Khets* as the true Snipe. Nevertheless they count, and somehow most sportsmen's bags (about this time) hold them after an afternoon's shooting." Most sportsmen in India demur, however, to the Painted Snipe *counting* as game; and with regard to its flight, we have often heard it compared to that of a huge moth!

III.—METOPIDIUS INDICUS.

HYDROPHASIANUS SINENSIS.

PLATE LXXXIX.

4. 5.

THE *Palamedeadæ*, to which the Jacanas strictly appertain, compose a remarkable and well distinguished family of birds, which bears no particular affinity to the *Rallidæ*, where the species have been often referred. Neither the external characters of the birds, when viewed with the requisite attention, nor the structure of the skeleton, or of the soft parts, nor the gait and carriage when alive, nor the shape and colouring of the eggs, nor the plumage of the chick, exhibit a token of affinity between these families. Two species are common in South-eastern Asia and its Islands,* which are rightly placed in distinct generic divisions, according to the general analogies of modern classification; and besides their external distinctions, which need not be here more than referred to, it is remarkable, that while *Metopidius indicus* moults its plumage but once in the year, retaining the same adult garb at all seasons, *Hydrophasianus sinensis* is very different in its summer and winter dresses, the latter nearly resembling that of the young, except in the development of a broad black pectoral band, continuous with

* A second *Metopidius* inhabits New Guinea and Northern Australia; the *Parra gallinacea*, Temminck; Gould's Birds of Australia, vol. vi. pl. 75.

the line down each side of the neck. The eggs also of these two birds are very dissimilar, as represented in the accompanying plate.

A good notice of the habits of the *Hydrophasianus* occurs in the "Calcutta Sporting Review," vol. v. p. 7. "These birds," remarks the writer, "breed during the rains, in flooded spots, where the lotus is plentiful, the pair forming a rude flat nest of grass and weeds, interwoven beneath with the long shoots of some growing aquatic plant, which retain it buoyant on the surface. Herein are laid six or seven olive-brown pear-shaped eggs, of an inch and a quarter in length. Their slender * bodies and widely extending toes, enable the Jacanas to run with facility, apparently on the water, but in reality, wherever any floating leaves or green herbage meets their light tread. The food consists of the green tender paddy, or other vegetable growth, dependant on inundation for its production, and the numerous species of insects that abound in such spots. The cry is like that of a kitten in distress, whence their native name of *Meewah*. In flight, the legs are trailed behind like those of the Herons. The flesh is excellent. It is remarkable, with respect to these birds, that a winged or only wounded one is never brought to bag. Though not web-footed, they dive instantly on the attempt to capture them, and you see them no more. Now, whether they have the power of remaining an extravagant time submerged, or can proceed to a distance, and at a rate not even attainable by the *Palmipedes;* or whether, unable to rise again after the impetus with which they go under water, they get entangled in weeds and die there, are questions for solution." Of course, like so many other waders and water fowl (*Gallinules* and *Grebes* for instance), they remain concealed amid the aquatic herbage, with the nostrils only above water, and so wait until they consider all danger over.

As remarked by Mr. Jerdon, "this handsome species is (in the peninsula of India) perhaps more generally spread than the other, *M. indicus*, but is not so numerous, except in some few localities. It frequents, like the other, weeded and lily covered tanks, but is also often to be seen feeding at the edges of rivers, and tanks totally devoid of weeds." This accords with our own observation in Bengal, where we have sometimes seen it, to all appearance, walking on the water, and slight and little visible were the supports

* The body is full shaped and broadish to the front, not narrowed, as in the *Rallidæ*.—Z.

on which its long toes really rested. So far as we have seen, it is much less gregarious than *Metopidius indicus;* which latter species, abundant in Lower Bengal, may commonly be observed, thirty or forty together, in weedy tanks and jheels, yet not flying off in a body when disturbed, but each one separately, to collect again at a little distance. They are far from shy, and the voice of *M. indicus* is harsh and disagreeable. We have kept both species tame for months together, thriving well upon the shrimps upon which all our various small *Grallatores* were fed. *H. sinensis* was, in the aviary, rather quarrelsome with its kind, but agreed well with every other species. The egg of *M. indicus* is finely streaked as represented.

BIRDS OF WESTERN AFRICA.

COLLECTIONS OF L. FRASER, Esq.

Mr. CUMMING has forwarded to us for examination another collection, just received from Mr. Fraser, accompanied by a list, bearing the localities of the specimens, and the date of "November, 1851." The collection, procured chiefly at Abomey, a few at Old Calabar, is not so interesting as that noticed in "Contributions," 1851, p. 151; still there are some species that require a short notice, and there are one or two which do not occur in Hartlaub's "Verzeichniss."

HIRUNDO GORDONI, JARD. (No. 184).

WE were glad to see another specimen of this Swallow. It confirms the distinctions pointed out between it and *H. melanocrissus*, Rüpp., and agrees with those described in "Contributions," 1851, p. 141. This specimen is from Abomey.

HALCYON PYGMEA, RÜPP.

Nos. 161, 166.

WE have not been able to compare any specimen not from Western Africa, with our own examples from Sierra Leone, which agree with those now before us, except in the lower breast and under parts being more tinted with sienna. Bonaparte separates the West-African birds from Rüppell's, under the name of *H. striolata*, but a slight difference in size seems the only distinction. Fraser's specimens are from Abomey. This species is not in Hartlaub's list.

Two specimens of an *Irissor* (Nos. 218, 231), are in this collection, marked by Mr. Fraser as *I. erythrorhynchus*, having both the

bills and feet bright vermillion. Vieillot separated the Senegal from the South African birds, because the former had black bills. Lichtenstein called it *melanorhynchus* from the same circumstance; and under that name, Hartlaub introduces it in his Catalogue, while Swainson, in the birds of Western Africa, also keeps the names distinct, though he says, "They are almost precisely the same size, and that the white spots on the wings and tail are the same." He, however, notices the difference in the curvature of the bills and of the tints of plumage. We possess a series of specimens *I. erythrorhynchus* from South Africa, from the collections of Dr. A. Smith, in which the general dimensions vary as well as the length and curvature of the bills. We possess also specimens from Sierra Leone, procured by the late Governor Fergusson, with *black bills*, and Mr. Fraser's birds, with red bills, are now before us. The result of the comparison is, that the southern and western birds are quite distinct, and that the colour of the bills is incident to age or season.

The size and markings of the two are extremely similar, but the white on the wings of *I. senegalensis* is always larger and slightly different in form, so that when the differences are pointed out, there would be no difficulty in separating the birds by their wings only. The woodcut illustrates the form of the white on one of the feathers of the Bustard wing or pinion. 1. The West, 2. the South African bird.

1 2

The white spots on the tail are also larger. In *I. erythrorynchus* the reflected tints of the back are bright yellowish-green, on the scapular feathers bronzed, while in *I. senegalensis* the plumage inclines more to blue reflections, on the shoulders to purple. The colour of the bill is probably dependant on age or season, but the form is very different. In *I. erythrorhynchus* it is strong and triangular at the base, but suddenly becomes slender and attenuated; in *I. senegalensis* the strength and size at the base is gradually carried out to the tip, the whole bill is stronger, deeper, and not so much curved. In the West African bird, the foot is also larger and stronger. These birds are from Abomey.

NECTARINIA TEPHROLÆMUS, Jard. & Fras.

No. 136.

A single specimen of this bird occurs.

NECTARINIA FASCIATA, Jard. & Fras. (April, 1852.)

No. 278.

This species is near to *N. bifasciata*, but we have reason to believe, that the West African species will prove distinct. In notes which we made on M. Bourcier's collection, purchased by Mr. Edward Wilson, and unfortunately lost on its transmission to America, there was a specimen from Sierra Leone, marked with an ?, which differed in the distribution of the pectoral band, but being the only one we had then examined, we were unwilling to separate. The specimen before us is similar to the descriptions of *N. bifasciata* in the upper plumage, but the whole chin and throat are rich green. The fore-part of the neck and upper breast is rich violet, and is succeeded by dull vermillion (without any band of separation), which stretches down upon the sides of breast upon the flanks, the centre of the vent and under tail-coverts only being black; axillary tufts are pale yellow.

Length, 5 . 8; bill to forehead, 1 . 2; wing to third, 2 . 8.

There are at least four distinct species of the very difficult form *Drymoica* in the collection, none of which we can exactly reconcile with figures or descriptions. In regard to the latter, it is almost impossible to separate most of the species by them alone. The birds themselves resemble each other so generally, that the description of one will serve for that of another, unless when some prominent mark or stripe is present to be laid hold of as characteristic. No. 182 is near to *D. mystacea*, Rüpp., except in having a slight sienna tint on the crown, and wanting the superciliary stripe. In other respects, the descriptions would agree.

Length, 4 . 6; wing, 2 . 1.

Another species, No. 254, of small size and unobtrusive plumage, is very conspicuous, when laying among others, by its black bill, which catches the eye at once. It may stand provisionally as —

D. MELANORHYNCHUS, Jard. & Fras. (April, 1852).

♂ *Above* — pale grayish-brown, a broad streak from nostril to eyes, and around the anterior half of eyes, white; bill, deep black. Tail with a darker apical band; rectrices, except centre, narrowly tipped with white. *Below* — white, tinted with pale sienna, darker on vent and under tail-coverts.

Length, 4 . 2; wing, 1 . 9, or 9½.

Habitat, Abomey, *L. Fraser*.

Another belongs to the strong form of *D. lugubris*, *robusta*, &c., of Rüppell, and is very near in form and size to *D. lugubris* of that author. The bill is stronger and more curved, the head and cheeks are darker, and there is no eye stripe, while *D. robusta* seems to differ from it in having a longer tail. It may stand provisionally as —

D. FORTIROSTRIS, Jard. & Fras. (April, 1852).

♂ *Above* — umber, feathers darker in centre, space between eye and nostril pale yellowish-brown, edges of quills at base, pale sienna. Tail with a dark apical band and pale tip. Bill, blackish-brown, strong, curved, with rictorial bristles. *Below* — white, tinted with sienna, darker on vent and flanks.

Length, 5 . 3 to 7; wing, 2 . 7.

Habitat, Abomey, *L. Fraser*.

ORNITHOLOGICAL OBSERVATIONS

By PHILIP LUTLEY SCLATER.

VII.—ON A NEW SPECIES OF *GALBULA*.

G. MELANOGENIA, Sclater.

Since writing the Synopsis of the genus *Galbula*, p. 29 of this year's Contributions, I have purchased from Mr. Leadbeater the only two examples of this new species that I have yet seen. They are ♂ and ♀, and from their appearance, I have little doubt were prepared by no other hand than that of M. Delattre, but in what part of the vast continent of South America he collected them it is impossible to say. The nearest ally of the present bird is the *Galbula ruficauda*, from which it differs principally in having four instead of two medial rectrices wholly green, and the whole chin, both in ♂ and ♀, nearly black, instead of pure white, whence I have called it *melanogenia*. There are likewise no traces of that coppery gloss on the back and pectoral band which is always to be found in the older species. *Galbula maculicauda* may be distinguished from this species by the spots on the outer rectrices.

♂ Suprà cum vittâ pectorali aureo-viridis; mento nigrescente; gulâ albâ; ventre et 3 utrinque extimis rectricibus rufo-castaneis; harum 4 mediis omninò viridibus.

♀ Mari similis, sed gulâ albescente-rufâ.

Long. tota, 9 . 0; alæ, 3 . 3; rostri, 2 . 0; caudæ, 4 . 0.

Habitat, S. A., locality uncertain.

London, 16th April, 1852.

ORNITHOLOGY OF THE ISLAND OF TOBAGO.

It is very seldom that we fall in with persons who will take the trouble to collect specimens, and at the same time communicate notes of the habits and localities, along with their collections. These "Contributions" will however show, that the interest beyond mere sport or shooting is extending itself; but among the many who contribute to our information, and which is one of our chiefest pleasures and inducements to continue ornithological pursuits, no one has employed his leisure time to more advantage than our valued correspondent, James Kirk, who has now been many years a resident in the Island of Tobago. We published in early numbers of the Annals of Natural History, a sketch of the Ornithology of that island, just as the specimens were sent over to us, and with the remarks that accompanied them, with the view of marking at the time whatever was new or peculiar, but more particularly to draw attention to the subject of geographical distribution in islands. Since the publication of these notes as above mentioned, we have obtained various other information, as well as additions to the species at that time enumerated, while the wish to correct and amend some of the descriptions and observations, are reasons why we again reprint a portion of them, and endeavour to render them a more complete guide to the Ornithology of the Island.

The Ornithology of the West Indian Islands, considered with regard to their relations to each other, and with the continents of North and South America, has been much neglected, and although large collections have been brought to Europe from different parts, few attempts have been made to insulate them, if we may so express it, or to point out the species prevailing in, or peculiar to the different islands, the migratory birds from those which are resident in each, or their general affinity with those of the mainlands or adjacent islands.

The West Indian Islands, as they are collectively called, now form an extensive archipelago, situate in that great hollow or bay opposite to the narrow land which at the present time connects the two American continents. Did these islands once form a part of the continental land? Have the great convulsions which have agitated these countries cut them off from the ancient mainland? Have they been partially upraised, and have some new islands been entirely formed? A French author tells us, that "Tobago resembles the eastern part of Trinidad; and every thing tends to declare, that Trinidad and Tobago were separated from the continent by a sudden retreat of the waters of the sea;" while on the other hand, the works of Darwin afford ample proofs of an upraising, at a comparatively modern period, of many parts of the coast of South America. In either case it becomes extremely interesting to trace how these islands have become crowded with animal life, the relations which their species bear with those of the continent or the adjacent isles, and the changes that in a later era may have occurred in their individual fauna. Some of these islands are of very large extent, while others are of very limited bounds, but so far as our present information extends, they exhibit an ornithology sometimes quite distinct from each other, and in a few instances remarkably peculiar. Some serve as a refuge for the migratory species of the northern continent, and receive them; some again have, as it were, only a partial share of the birds of South America; but all our consignments have been so distinct, or as we have termed it, "insulated," that we consider any materials that will determine the species belonging to one member of the archipelago, or that will throw light on their geographical distribution through the whole of it, will be of some service to ornithology.

In lands that have been cut off from any great continent, we can understand the retention or carrying away of at least a proportion of their productions; and in the distribution of species, birds are possessed of that peculiar locomotive power, which would, and which we know does, easily transport them much longer distances than the space which separates any of these islands from the mainland. "We used to wonder" writes the Rev. Lansdown Guilding, "how those islands which owe their origin to volcanic convulsions, or have sprung from the bosom of the ocean, built on reefs of corals, could become peopled with the countless animals which they

now support; especially with insects, those delicate and frail beings, which would perish in the sea, as was formerly supposed, in their flights from distant lands." In this distribution, the migration of insects, the countless flights of various lepidoptera, show the possibility of beings, apparently in no way adapted for lengthened journeys, being transported to immense distances. Many specimens of the migratory locust have been captured in this country, which in all probability crossed from the continent. The accomplished naturalist above quoted, mentions the circumstance of *Acherontia atropos*, flying on board the Chieftain of London, when at least 1000 miles from the nearest land of the Western Islands. Darwin records a species of *Achrydium*, which flew on board the Beagle, when distant from the nearest land 370 miles; and at another time, "When we were about ten miles from the Bay of San Blas, vast numbers of butterflies, in bands or flocks of countless myriads, extended as far as the eye could range; even with the aid of a glass, it was impossible to see a space free from butterflies." In the voyage of the Samarang the same facts occur—"Becalmed off the African coast, some hundred miles from the land, large numbers of insects were observed floating on the surface of the water, some *Achrydia* and locusts being still alive." And it thus ceases to be considered remarkable, that even the smallest and weakest members of the class of birds, should be able to cross vast distances, when we know that more frail beings, and even animals, possessed of neither aquatic or ærial locomotive powers, are often met with much farther from land, than either their strength or structure would allow us to warrant, without a knowledge of the facts themselves.*

In examining insular zoology, we are often much struck with the peculiar fauna of some small patch of land, remote in the ocean, supporting creatures found or at least known to exist nowhere in the world, except on that limited space. It is true, the ornithology of islands always resembles that of the most adjacent

* "It is worthy of being recorded, that a noble specimen of the Boa Constrictor was lately conveyed to us (St. Vincent's) by the currents, twisted round the trunk of a large sound cedar tree, which had probably been worked out of the bank by the floods of some great South American river, while its huge folds hung on the branches as it waited for its prey;" and as a proof that the animal had suffered nothing from its voyage except hunger, it is added, "that the monster was destroyed after killing a few sheep."—*Lansd. Guilding, Zool. Journ.*, iii. p. 406.

continent, and that the types, however different specifically, can be referred to it; but whether these species, so called, formerly confined to some local circle or zone, which is sometimes the case on continents, have been cut off from them entirely and completely — or that the force and change of food and climate, and insulated circumstances, have modified the forms and size, or colours — or that the species have been transferred to those insulated lands by storms or currents, or other circumstances occurring through the agency of nature's ordinary laws — or that these apparently distinct forms have been the subjects of a separate creation altogether — we probably have not sufficient facts yet recorded thoroughly to understand. We know it to be a favourite theory with some, that a creation is presently going on, and some far off insulated points are quoted to prove this; but if the greater attention to facts — of how far species are distinct — what have been introduced species — and what possibility there was of those now known only as insulated to have been transported — will show even a probability of existing laws being the carrying agents — we shall not require to bring in the very convenient, and at the same time for science, very dangerous solution, "They have been created for the locality."

We find this local ornithology every where illustrated. In the great Eastern Archipelago, "that long curved disjointed mass of land, broken by volcanic force from the south-eastern portion of the Asiatic continent," the forms gradually blend away along the chain of islands, from those of the east of Europe and of India to those marking Australia. Taking only one race as an example; Meliphagous Birds at first appear few in individuals and species, but with every degree increase, until their great metropolis is reached; while in turn they vanish in the far-distant New Zealand, itself giving birth to a very limited, but most singular, and in many instances, a fauna entirely its own. Still, through all this long range, the eastern type is recognized, while within its bounds we have remarkable instances of circumscribed or local distribution, as in the Paradise Birds, and the Ornithology of the Sandwich and Friendly Isles, or Pacific Fauna. Appertaining to Africa, we have the same facts brought out in the curious Ornithology of Madagascar. The types are truly African, but there are many species which we know of as inhabiting that island only, which exhibit very curious modifi-

cations of form. The same is borne along to the islands, insignificant in size, but yet bearing strongly on this subject, Mauritius, the isles of Bourbon, and Rodriguez. These once possessed large birds, unwieldy in their form, which are now, like the New Zealand *Dinornis*, known only by their scattered remains. But there are several groups of small islands placed between the Madagascar chain and the eastern shores of Africa, to which no attention has been directed; and it would be of great interest to trace the ornithology of these, and see how far it corresponded with that of the continent or the larger islands.

Again, we have the subject farther illustrated in another small region, which is perhaps the most marked instance known of a peculiar insular zoology. Writing of the Galapagos Archipelago, Darwin remarks—"The natural history of this Archipelago is very remarkable; it seems to be a little world within itself; the greater number of its inhabitants, both vegetable and animal, being found almost nowhere else." In these islands the ornithology retains the South American type, and some of the species are found on the continental lands,* Chili and La Plata; at the same time, there are several birds that were not elsewhere known, inhabiting them, and there are besides a few of a form possessing remarkable characters, beautifully adapted to the curious vegetation of these islands, and which find a supply of food among the groups of cacti, themselves peculiar, and furnishing a common support to them and to the tortoises and lizards, which are also so conspicuous in their fauna. Many of these birds are not known elsewhere; and if we may presume that they are not found upon the mainland, we are driven to the question, How they came upon this insulated space, possessing at the same time continental species?

Now in regard to these statements, until we are in a position to say that we know the zoology of the continent so well, that the animals inhabiting those islands do not exist there or elsewhere, we have no right to presume that a peculiar fauna has been created, and mixed up with another, which we have no hesitation in saying was introduced or transported on the upheaving of these islands; for among the genera of birds which were considered peculiar, there has been

* "It would be impossible, accustomed to the birds of Chili and La Plata to be placed on these islands, and not feel convinced that he was, as far as the organic world was concerned, on American ground."

a species discovered upon the continent since Darwin wrote of the zoology of these islands, and most interestingly brought forward their remarkable peculiarities. The Great Tortoise is known in many other parts of the world; but the question has been ingeniously raised, Are not these islands the distributing point from whence they have been carried to India, the Mauritius, &c.? Instead of the simple circumstance, that they may have been equally easily carried there, and from the solitude, unmolestedness, and abundant food of succulent cacti, have grown in size and increased in numbers, to the extent that the later navigators have found them, an extent which will soon decrease if the present destruction is carried on. The other reptile so much insisted upon as proving this point, and certainly elsewhere yet unknown, is a very remarkable one, but so far from proving its insulation, it possesses properties of transport enjoyed by few.

It is an aquatic animal, going out to sea in pursuit or search for food, is an excellent swimmer, and apparently so formed by internal structure, as to be able to continue under water for a lengthened period, as a seaman performed the experiment and sunk one, with a heavy weight, in expectation of drowning it, but at the expiration of an hour the lizard was alive and quite active—and where then is the difficulty of such an animal passing (one would almost say in numbers) a distance of 500 or 600 miles? The same solitude, and rest, and abundance of food, will account for their increase and size, and making these bleak shores as it were their own adopted territory.

The ornithological distribution in the archipelago of islands now more immediately under consideration, is somewhat regulated by the same general laws; some of the islands possess peculiar species, but in others, separated no great distance, one species seems to be supplied or represented by another quite distinct, and we cannot at once account for the discrepancy where the facility of intercourse with the continents and each island is so nearly equal. The aquatic birds and waders seem to range around all the coasts in nearly equal proportions, and from the facility with which they shift from place to place, there is no great variation within the range occupied by the archipelago; and it is from the incessorial and land birds, that we must draw our conclusions of the ornithological distribution.

DETAILED CHARACTERS

OF

SOME SPECIES OF PLANTAIN EATERS, *MUSOPHAGIDÆ**

By Dr. EDOUARD RÜPPELL,
Frankfort on the Maine.

Translated from the Archiv für Naturgeschichte, vol. xvii part i. page 346, by H. J., April 1852.

Although hitherto only a few species of Plantain Eaters have been described and figured, and although each of them is easily distinguished by well defined characters, yet in the enumeration of them in Bonaparte's latest publication, "Conspectus Generum Avium," Leyden, 1850, fresh errors have crept in, which I feel myself bound to correct, as the rich materials of the Senckenburg Museum supplies me with the best opportunity for doing so. These corrections refer to Cuvier's *Turacus persa*, the *Cuculus persa* of Linnæus, under which appellation Bonaparte has, according to my view, united three very different birds, although he had already admitted the separation of a fourth species, *Turacus albocristatus*, which previously was also referred to *Turacus persa*. Wagler distinguished it (1827) long before Strickland, under the denomination, *Spelectos corythaix*, consequently this bird must bear the specific name of *Turacus corythaix*.

How Bonaparte happened to enumerate under the synonyms of *Turacus persa*, that figured by Jardine and Selby in their Illustrations of Ornithology, pl. 122, as *Corythaix buffonii* (Vieillot), is very surprising, when a mere comparison of this figure, or of the head of one which Swainson published in vol. i. pl. 21, of his Birds

* A correction of a paper written by myself upon the same subject, and published in the 9th Bericht der Basler Naturforschenden Gesellschaft (1851).

of Western Africa, with Edwards's representation of *Turacus persa*, (Natural History of Birds, pl. 7, London, 1743), shows the remarkable difference between these two birds, the latter of which has a white stripe over and under the eye; whilst *Corythaix buffonii* has only one white stripe, and that above the black, between the corner of the mouth and the eye. Le Vaillant's figure of *Turacus buffonii* (Promerop. part iii. pl. 17), is besides not correct.

It has hitherto quite escaped naturalists, that when one compares Edwards's accurate description of the 7th plate of his Natural History of Birds, and his figure of the bird, they do not agree. The words of his description run thus. (In Seligmann's translation, which exactly corresponds to the original text):*—"Von dem Winkel des Mundes zu dem Auge eine breite schwarze Linie, welche schmaler wird unter dem Auge hinweg, und darüber hinaus läuft. Unter dieser schwarzen Linie ist eine weisse, die sich hinterwärts etwas weiter als die schwarze erstrecht, vornen aber nicht so nahe zum Schnabel kommt; eine andere weisse Linie geht vom Winkel des Mundes über das Auge, läuft aber nicht so weit nach hinten als die untere; auf dem Kopfe hat er eine Krone, die er nach Belieben ausbreitet, und an welcher die *Spitzen der Federd roth sind; der Rucken, die Flügel und der Schwanz haben eine schöne bläuliche Purpurfarbe.*" But in the figure, the points of the crest-feathers are the same grey colour as the entire upper head, and of red there is no visible sign; further, the entire upper half of the back and wings is of the same green colour, and by no

* M. Rüppell is mistaken as to the correctness of Seligmann. His words, retranslated, are as follows—"From the corner of the mouth, a broad black line, which becomes narrower and runs under and beyond the eye. Under this black line is a white, which extends backwards somewhat further than the black, but in front does not come so near to the bill; another white line goes from the corner of the mouth above the eye, but does not run so far behind as the under. On the head is a crest, which it expands at pleasure, and on which the points of the feathers are red; the wings and the tail have a beautiful bluish purple colour." But in Edwards's own words it runs thus—"From the corner of the mouth to the eye is a broad black line, which grows narrower, and extends itself under and beyond the eye; under this is a white line, which extends itself a little farther back than the black line, but doth not come forward so near the bill; from the corner of the mouth is extended another white line, which passes above the eye, but not so far back as that beneath; the head, neck, breast, and lesser coverts of the wings, are of a fine dark green colour; on its head it hath a crest, which it raiseth at pleasure; the very tips of the feathers in the crest are red; the thighs, lower belly, and coverts under the tail, are dusky or black; the back, wings, and tail, are of a fine bluish-purple colour."—Copied from Edw. Birds; description of pl. 7.—*Translator.*

means beautiful bluish-purple. As we have specimens of two species of *Turacus* in our Museum, from whose combination of colouring the difference which exists between Edwards's figure and description has arisen, so that discrepancy explains itself by the admission of the truthful Edwards himself, "That he had made his figure (and description?) after two different birds of this species." The one bird of our Museum accurately exhibits the colouring of Edwards's plate; as now Linnæus refers to this plate as that of his *Cuculus persa*,* he in fact gives an accurate description of this plate, without speaking of the red tips of the crest, any more than Brisson does;† so Gmelin appears, in his 13th edition of the Systema Naturæ, to have been the first who, disregarding the colouring of Edwards's plate, has merely adopted the description in his text, as that of Linnæus's *Cuculus persa*, for he speaks of "crista mobilis apice rubens, humeri, tectrices caudæ superiores alarumque majores ex cærulescente purpureæ." That species of *Turacus* which Edwards in his description indicates by the red tips of the crest, and by the fine purple blue colouring of the entire back, wings, and tail, has long existed in our Museum, without any certain indication of its habitat, and it had erroneously borne the title of *Turacus persa*, Linnæus. The white stripe round the eyes, above the black line, between the corner of the mouth and the orbit, is wanting, yet it agrees accurately with Edwards's description. Had we not recently obtained the true *Turacus persa* of Linnæus, that is to say, the bird which Edwards figured, through the kindness of Professor Peter Merian, the founder of the Basle Museum, I should not have been in a position to discover the errors in descriptions and synonyms of the birds denominated *Turacus persa*, the specific character of which I now flatter myself I have established in a satisfactory manner. I propose to indicate one of those birds, that namely with the red tips along the quadrant shaped crest, as a new species, under the name *Turacus meriani*, and for the clearer understanding of all the known species of the whole genus, I give a synopsis of the distinguishing characters of each.

* In the 10th and 12th edition, compiled by himself, Stockholm, 1758 and 1766.

† Cuculus cauda æquali, capite crista erecta, antice viridis, postice subviolaceus, remigibus primoribus rubris, linea alba supra et infra palpebras sanguinea.

TURACUS, Cuvier. — 1st Subdivision.

Nostrils near the base of the bill, partly covered by feathers directed forwards.

1. TURACUS PERSA, Linn. nec Gmelin.

Habitat, Guinea. Head and the compressed feathers of the crest, throat, breast, upper half of the belly, wings, and back, beautiful grass green; hinder half of the wings dark steel blue; wing-feathers carmine red, with greenish-black edges. From the corner of the mouth, extending under the eye, a black stripe; above the same, as far as the half of the orbit, a white stripe; beneath also a white stripe, which begins from the ear, and extends almost to the corner of the mouth. Figured, Edwards's Natural History of Birds, pl. 7.

2. TURACUS MERIANI, Rüppell.

Habitat unknown. Head and the compressed feathers of the quadrant-shaped crest, throat, breast, and upper half of the belly, beautiful grass green; wings and upper back steel blue, with a purple gloss; wing-feathers as in the foregoing species; the tips of the crest-feathers dark carmine red. From the corner of the mouth, extending under the eye, a black stripe; only beneath the same is a white stripe, beginning at the ear and extending towards the corner of the mouth. A figure of this bird is not known to me.

3. TURACUS CORYTHAIX, Wagler.

Habitat, South-west Africa (Cape Colony). Synon. *Turacus albocristatus*, Strickland. *Corythaix*, Lesson.

Head, compressed feathers of quadrant-shaped crest, breast, throat, upper belly and wing-bend, beautiful dark grass green, the points of the crest-feathers white; a black spot between the corner of the mouth and eye, surrounded above and below with a white stripe, the latter of which extends to the ear. Figured, Le Vaillant, Promerop. part iii. pl. 16.

4. TURACUS MACRORHYNCHUS, Fraser.

Habitat, East Africa ?* Head, throat, upper back, breast and upper belly, beautiful grass green ; the vertically compressed feathers of the quadrant-shaped crest have white points, edged with violet purple behind ; behind the eye, towards the ear-coverts, a whitish spot ; wing-coverts and back dark violet purple. Figured, G. R. Gray, Genera of Birds, pl. xcvii.

5. TURACUS BUFFONII, Vieillot.

Habitat, Senegambia ! Synon. *Spelectos persa*, Wagler. *Corythaix senegalensis*, Swains. *Corythaix purpureus*, Lesson.

Head and its crest, which is directed backwards, and not compressed, throat, breast, upper belly, and upper back, as well as the small wing-coverts, fine dark grass green. A black stripe from the corner of the mouth below the eye, as far as the ear ; above the same, as far as the front orbit, a white stripe ; the carmine red of the greenish-black wing-feathers somewhat darker than in *Turacus persa*. Figure of the head—Swainson, Birds of Western Africa, vol. i. pl. 21. Of the birds—Jardine, Illustrations, pl. 122 ; Le Vaillant, Promerop. part iii. pl. 17 ; both indifferent.

6. TURACUS LEUCOTIS, Rüppell.

Habitat, Abyssinia. Forehead, eye region, throat, breast, upper back, upper belly and bend of wing-coverts, grass green ; the crest of the head, which is rounded, greenish-black ; a spot between the corner of the mouth and eye, and a vertical stripe on each ear-covert, of white ; middle of back, coverts of wings and tail, lower body, rump and thigh, greenish ash-grey. Figured, Rüppell, Neue Wirbelthiere, pl. 3.

* Fraser gives the habitat as unknown.

7. TURACUS ERYTHROLOPHUS, Vieillot.

Habitat, Congo? West Africa. Forehead, a stripe along the hinder part of the sides of the throat, fine carmine red; the tips of the rounded crest on the crown, white; region between bill and eye, beneath the eye as far as the ear and gorge, white; throat, breast, and upper body, grass green; back, wing-bends and wing-coverts, dark grass green, with peacock-tail lustre. Figured, Temminck, Planches Color. pl. 23.

TURACUS, Cuvier.—2d Subdivision.

Nostrils placed in the middle of the bill, whose basal feathers *are not* directed forwards.

8. TURACUS PORPHYREOLOPHUS, Vigors.

Habitat, South-east Africa (Port Natal). Synon. *Gallicrax anais*, Lesson.

Forehead and region around the eye, dark green, with peacock-tail lustre; the rounded crest of the head and stripe along the nape, blue black, with steel blue gloss; gorge, throat, breast, upper belly, upper back and coverts on the wing-bends, reddish-green; middle back, and remaining wing-coverts, greenish-blue. Figured, Smith, South African Zoology, pl. 35.—(Jard. and Selby, Illust. Orn. N. S. pl. 46).

9. TURACUS GIGANTEUS, Vieillot.

Habitat, Congo? Forehead, region around eye, throat, breast, back, wings, and upper two-thirds of tail, blue green; on the head a rounded crest of bluish-black; belly, and middle part of the two outer tail-feathers on each side, dirty greenish-yellow; the remaining third of all the tail-feathers black, with greenish-blue tips; thigh and rump, rust red. Figured, Le Vaillant, Promerop. part iii. pl. 19.

In all the known species of *Turacus*, the plumage of both sexes and of the young birds is coloured alike; the same is the case with the *Schizœrhis* and *Colius*. The species of these three genera live together in families—they have only been observed as yet on the African continent—they have similar habits and food; and form together a natural family, with which the American *Opisthocomus* is connected.

ON THE GEOGRAPHICAL DISTRIBUTION

OF

THE GENUS *TURACUS* (CUVIER)

By Dr. G. HARTLAUB of Bremen.

(Translated by H. J., April, 1852.)

D. E. RÜPPELL in the first part of the seventeenth vol. of "Archiv für Naturgeschichte,"* has submitted the entire species of the genus *Turacus*, Cuv. (*Corythaix*, Illig.) to a critical revision, and made a corrective and interesting communication with regard to the true *Cuculus persa*, Linn., for which science owes him thanks. In that work, Bonaparte's Synopsis of these birds, in his "Conspectus Generum Avium," is justly indicated as not free from errors. The same remark will apply to a not unimportant part of Rüppell's work, namely, on the statement of the habitat and the geographical distribution of each species; and in regard to this, it may be permitted to bring forward here some remarks and additions, the publication of which, with a purely scientific object, cannot fail to be acceptable even to Dr. Rüppell himself.

1. TURACUS MERIANI, Rüpp.

"Habitat unknown." Brisson, who unmistakeably describes the adult fully plumaged bird of this species, names Guinea as its habitat; and this statement finds its confirmation, by a late communication of the brothers Verreaux, in the "Revue et Magasin de Zoologie" for 1851; where, in p. 258, a specimen, apparently rather younger, of the same species, coming from Gaboon, is fully described. The diagnosis prepared by Bonaparte, says—"Minor, crista viridi, margine extremo rufo, superciliis vix ullis." He considers in the birds from Gaboon, that he has found the true type of *Cuculus persa*, Linn., and cites thereupon Edwards, pl. 7.

* Translated on preceding pages.

2. TURACUS CORYTHAIX (WAGL.) (ALBOCRISTATUS, STRICKL.)

"Habitat, South-west Africa." This species, described by Le Vaillant, Forster, and others, as numerous in Cape Colony, appears also to occur high up on the east coast, for Bianconi* of Bologna, in his rather inaccessible work, "Specimina Zoologica Mosambicana," p. 34, part iii., very clearly describes a specimen sent by Formasini from Mozambique.

3. TURACUS MACRORHYNCHUS, FRASER.

"Habitat, East Africa.?" We have lately received the most satisfactory information in regard to the habitat of this species. Dr. Thomson, one of the naturalists of the late Niger Expedition from England, collected this species in the forests of the West African island Bimbia, and off the Cameroon Coast, and relates concerning it as follows (p. 290 of the 2d vol. of the "Narrative of the Expedition, sent by H. M. Government to the River Niger)." "We were so fortunate as to procure from the same tree three specimens, each having the crest in a different state; in one it was simply green; in another green with a black margin; in the third green with a thin line of black margined over all with purple. In all other respects they had the same plumage. It is quite clear to us, they were merely of different ages." For a second statement, as to the locality of this species, we are indebted to C. Sundevall, according to whom, a specimen, brought by Afzelius from Sierra Leone, is to be found in the Stockholm Museum: "Foglar fran Sierra Leone." Öfversigt af Kongl. Vetenskaps-Academ. Forhandlingar, 1849, p. 160. Here however it is said—"Apices nigri è filis discretis plumarum cristæ, ferè 5 mm. longi cum spatio brevissimo intermedio *albido*, vix nisi attentè observanti apparent; nullum vero marginem nigrum formant; an detriti?"

* The species of Honey-sucker described in the same place, and named *Cinnyris discolor*, Vieill.? is a new one: "Macula scapulari nitidissimè violacea," well distinguished from *discolor*. We propose to call it *C. bianconii*.

4. TURACUS BUFFONII (VIEILL.)

"Habitat, Senegambia." *T. buffonii* is to be found in every large consignment of Senegambian birds, and moreover, seems to occur along the whole Guinea Coast. One specimen is to be found in the Stockholm Museum, sent from Sierra Leone; Sundev. l. c. p. 159. Dr. Gordon observed and shot this species in the thick forests of Cape Coast Castle, where it is very common; Sir W. Jardine, Contribut. to Ornith., 1849, p. 11. Gordon remarks thereon, that his specimens had a very clearly defined white stripe under the eye. The Verreauxs describe a specimen from Gaboon, and say expressly, that it differs in no respect from the Senegal one; Rev. et Mag. de Zool., 1851, p. 358. The Hamburg Museum received specimens from Elmina. And lastly, Fraser found this species at Fernando Po, and it was from thence that the one figured by Sir W. Jardine came.

5. TURACUS ERYTHROLOPHUS (VIEILL.)

"Habitat, Congo?" In regard to the habitat of this species, more exact particulars are to be desired; nothing authorizes us in assuming Congo as its habitat. Lesson names Senegambia; and Dubois, who figured a specimen which is in the Brussels Museum in his Orn. Galérie, pl. 61, says South Africa — both we fear without good ground. Bowdich represents *C. paulina* as certainly coming from Sierra Leone, without however describing it; Excurs. to Porto Santo, &c., p. 229. Without doubt it is a West African species.

6. TURACUS GIGANTEUS (VIEILL.)

"Habitat, Congo?" Only the rather vague conjecture, that G. Maxwell's "Boolicoco" could mean *T. giganteus*, appears to indicate the occurrence of this species in Congo ("Observat. on the Countries of Congo and Loango;" Edinb. Philosophical Journal, vol. vi.). But a more certain locality appears to be the Island of Fernando Po, where Fraser and Thomson observed it: "Expedit. Riv. Niger, vol. ii. pp. 221, 504." This bird frequents the extreme tops of the highest and most thickly foliaged trees, and is very

difficult to shoot. Further, the Leyden Museum, some years ago, received numerous specimens from the Gold Coast, and one is to be found in Stockholm, brought home by Afzelius from Sierra Leone. Sundev. Öfvers. Kongl. Acad. Förhandl., 1849, p. 160.

So much for the habitats and geographical distribution of these birds.

Whether Rüppell has good reason or not, when he declares that the bird described by Edwards, and the one figured by him, specifically differ from one another, we are unable either to confute or confirm, by means of the specimens which the collection of this place offers for our comparison. But at all events, this conclusion is rendered highly improbable, by the remarkable statements mentioned under Nos. 3 and 4. The following assertion is directly opposed to those observations—"Almost all known species of *Turacus* have the plumage of both sexes and the young birds of the same colour." It follows from what is said above, that in some species the colour of the edge of the crest varies with the age of the bird; and the same we must mention in regard to the clearness and extension of the characteristic white stripe of the eye, founded upon an observation frequently made on specimens of *Cor. buffonii*, where the place of the bright white stripe is only indicated by a few white feathers. Andrew Smith remarks, that in the female of *Turacus porphyreolophus*, the plumage is much less brilliantly coloured, and that especially the beautiful red of the wing-feathers is much less expanded than in the male bird.*

* I have no doubt, that Dr. Rüppell is mistaken in separating *T. meriani* from *T. persa*. Had he consulted Edwards's original work, instead of Seligmann's German translation, he would have seen not only that Seligmann's text varies considerably from the original of Edwards, but that Edwards's plate does in fact entirely correspond with his description. In all the copies of Edwards which I have seen, the bird is coloured with a red margin to the crest, as stated in his description; and it is consequently only from the inaccurate colouring of Seligmann's copy of Edwards's plate that M. Rüppell has been led to separate his *T. meriani* from *T. persa*. The latter specific name will therefore stand for the red-margined *Turacus* of Edw., pl. 7, and the *T. meriani* will sink into a synonyme of it.—H. E. Strickland.

ORNITHOLOGY OF THE ISLAND OF TOBAGO.

(Continued from page 68.)

All the islands vary to a much greater degree in the species that are found in each than would be at first supposed, this is particularly marked in the Humming Birds. In an old work on the "Caribby Islands" it is remarked, that "Tobago and Barbadoes being the most southerly of all the Caribbies, are furnished with several sorts of beautiful birds not to be found in the more northerly"—and of the Humming Birds, "but according to the diversity of the islands, they also differ as to bigness and plumage." Mon. D. Lavaysse tells us, "that although the vegetation is nearly similar in both, there are found in Trinidad, quadrupeds and birds, which do not exist in Tobago; while in Tobago there are some birds which belong to the continent, and which are not found in Trinidad; the Katraka (our *Ortalida ruficauda*) for example; and what is more singular, that although they have been brought in numbers, and have been set at large in the woods, they have not bred or multiplied there. The Hoccos, so well known in Trinidad and on the continent, are not found in Tobago."

The Baron de la Fresnaye, in a recent letter to Mr. Gould, writes —"It is certain, that a great many species of different islands of Antilles, though very nearly allied, constitute nevertheless distinct species, confounded in the same by authors."

Of the two central islands in this archipelago, the principal, as regards their extent, one only has been examined with any care.

Cuba, in the present century, has had more attention directed to its ornithology than most of the other islands. In 1827, William S. Macleay transmitted to Mr. Vigors a collection of bird skins from that island; these were thought worthy of attention, and Mr. Vigors, in bringing a short description of them before the Zoological Society, of which he was then secretary, made the following observations,

which showed the important light in which he held the increase of our facts to geographical ornithology —

" When we can obtain authentic information respecting the range to which species extend, either as indigenous to different countries, or visitors of them during their periodical migrations, we increase the number of these facts on which we are enabled to found some of the higher speculations of science."

M. Temminck figures many interesting Cuban species in the *Planches Coloriès*, and remarks, when describing *Turdus rubripes:* " Le position géographique de l'Isle de Cuba entre les deux Mexiques et les terres de l'Amerique meridionale, ne ferait point supposer que les oiseaux dont elle est peuplée offrissent des differences specifiques avec ceux trouvés dans les contrées des deux Ameriques qui forment le littoral du Golfe du Mexique, si plusieurs especès rapportées récement de cette îsle et de quelques-unes des Antilles n'eusent servi à nous prouver que ces îlles nourissent aussi des espèces d'oiseaux et de mammiferes qu'on n'a point encore trouvées sur le continent."

William Denny, Esq., staff-surgeon, has recorded some observations on the geographical distribution of birds in the West Indian Islands, in the nineteenth volume of the Annals of Natural History. In Cuba, several notices of species are given, which exhibit still a partially northern type, though not so much so as in Jamaica, thus forty-five species, exclusive of the waders and aquatic birds, are made common to Jamaica, Cuba, and the United States ; but Jamaica and Cuba in addition, possess also sixty-seven species unknown in North America. Mr. Denny also in a note written to myself, has well marked the ornithological character of this island and its tropical bearing — " A stranger arriving at Cuba from the United States during winter, would imagine that the ornithological features of that magnificent island were the same as the former. The presence of the *Mimus polyglottus*, the gaudily attired *Pyranga rubra*, and numerous species of *Sylvicolæ* on the land, the Belted Kingfisher and well known aquatic birds on the coast, would strengthen if not confirm the belief. A more accurate observer, however, would not fail to detect, by troops of the *Crotophaga ani*, flocks of Flamingoes, on the margins of the aguados, and *Tachypetes* and *Phäethon*, far overhead, that a tropical character was decidedly added to the zoological aspect of the country. In the mountains

every fresh ascent affords, with a new air and scenery, a change in the plants, birds, fishes, and insects. The traveller is not more delighted with the refreshing coolness of the air and delightful prospects, than with the Parrots (among others the *P. leucocephalus*, totally distinct from the *P. collarius* of Jamaica),* *Trongon* (*temnurus*), Rain-Birds (a modification of *Saurotheræ*, Motmots (*P. momota?*)† and several species of the true *Icterinidæ*. The genera *Phyllostoma*, *Noctilio*, and *Vampyrus*, of the family of *Vespertiliones*, equally characterize this interesting region. I have been informed, from good authority, that districts still higher, present Petrels, Snakes, and Lizards, which have never been described or found their way to the cabinets of Europe.

"In this island the genera *Todus* (*T. viridis* and *multicolor*), and *Ptilogonys* (*P. armillatus*), first make their appearance. The presence of so many South American or tropical groups, demonstrates that a new ornithological region commences; and in my opinion, is evidence of no unimportant nature to lead to the belief, that Cuba was never united to any land further north than the twenty-fifth degree of latitude."

The most detailed account however of the island of Cuba, is that by M. Ramon de la Sagra, the ornithological department of which was intrusted to M. D'Orbigny, and has been published in an 8vo. volume of 336 pages, accompanied by a folio atlas of plates, in which we have to regret the refigruring of so many well-known species, particularly those of North America, thereby adding grievously to its expense. The entire number of species here described is 129; and in conclusion, or as a resumé, D'Orbigny remarks: "Si, aprés avoir passé successivement en revue tous les oiseaux de Cuba, nous voulons résumer ce que nous venons de dire à leur égard, nous trouverons que le cent vingtneuf, especès que nous possédons sont ainsi distribuées sur a sol Américain.

1st. *Quatorze, ou un neuviéme* des espèces, se trouvent en même temps, dans l'Amerique méridionale habitant Cuba comme une dépendence de la zone équatoriale, leur patrie exclusive.

2d. *Quarante-neuf* espèces, ou presque *un tiers* de la totalité, viennent de l'Amerique septentrionale à Cuba, lors des migrations hivernales, étant propres seulement à l'hémisphère boréal.

* Gosse considers *P. collarius* the young of *P. leucocephalus*, but with a ?

† *Momotus* is not enumerated by Ramon de la Sagra.

3d. *Vingt-six* espèces, ou près d'*un cinquième* de la totalité, se trouvent en même temps, sur les deux Ameriques et à Cuba; sur ces vingt-six espèces, *quinze* sont sédentaires et reparties indifféremment sur des zones plus ou moins larges, tandis que *onze* passent seulement à Cuba, dans leurs grandes migrations de l'hémisphère nord à l'hémisphère sud.

4th. *Huit* espèces, ou plus d'*un seizième*, se sont répandues, par les glaces du pôle nord, sur les continents Américain et Européen, sur chacun desquels elles suivent les simples migrations hivernales, des régions foides vers les régions chaudes.

5th. *Cinq* espèces, ou un vingt-sixième du chiffre total, plus indifférentes encore au changement de température, sont également passées par le pôle de l'ancien au noveau monde, où elles exécutent les grands voyages annuels d'un hémisphère à l'autre, en passant par Cuba.

6th. Enfin, *vingt-sept* espèces, ou près d'un cinquième de l'ensemble, sont sédentaires à Cuba ou aux Antilles, leur patrie exclusive.

Il nous paraît donc prouvé, comme on devait s'y attendre, que, par sa position geographique, Cuba reçoit de l'Amérique septentrionale la plus grande partie de ses oiseaux, tandis que l'Amérique méridionale ne lui envoie que les espèces propres à la zone torride, toutes les autres n'y passant même pas dans leurs migrations, ou étant spéciales aux Antilles.

The ornithological productions of the great island of St. Domingo, it is to be regretted, are little known. M. Vieillot resided in it for some time, and on his return to Europe, communicated his observations to Buffon, who was unable to make use of them. He remarks, in the "Avertisment" to the Oiseaux de l'Amerique Septentrionale, that the species resident in St. Domingo are only few in number; and he observes, in the introduction to the same work, that it is used, as well as the neighbouring islands, as a retreat for many northern species, as well as such as breed only in Virginia, Pennsylvania, and Canada. *Trochilus aurulentus* and *swainsonii*, Less., have lately been received from Hayti by Mr. Gould.

Jamaica, now well known ornithologically, from the recent works of Mr. Gosse, from its position to the southward of these two last

mentioned islands, might be expected somewhat to resemble them and the southern continent opposite, but it tends, with a few exceptions, more to the ornithology of North America than any of the others, leading to that of the Carolinas and the southern parts of the northern continent. It possesses a large number of *Sylvicolinæ* and other North American species, but with one exception, it wants all the true northern Woodpeckers. It has however a considerable number of *Psittacidæ;* three Humming Birds—species not common or wanting in most of the other islands. The *Crotophaga* is the large species, differing from that found in Tobago or Trinidad. But being an island of large extent, and abounding with wood, its ornithology is more particularly characterized by the want of the more truly South American genera, such as *Galbula, Momotus, Trogon, Pipra,* &c.

Porto Rico, again, of much larger comparative size than the numerous archipelago circling between it and Trinidad, shows a partially south-continental ornithology; but it will, in all probability, draw a great many of its species from St. Domingo. M. Ledru mentions *Centrurus radiolatus, Loxia (spermophila) portoricensis,* and *Saurothera vetula,* all common Jamaica birds, but which, so far as we know, do not occur towards or in Trinidad. As resembling North America, we have *Falco sparverius,* a considerable number of *Sylvicolinæ, Columba carolinensis* and *leucocephala,* which however may be all entirely or partially migratory. As traced from Guiana, we have *Rupicola aurantia* and *Psittacus guianensis.* Four Humming Birds are mentioned, two of which, *T. margaritaceus* and *mango,* common in Tobago and Trinidad, do not reach Jamaica. On the other hand, the true continental types, *Galbula, Trogon, Momotus, Rhamphastos,* &c., are wanting.

From Trinidad we have no correct or extended lists, but all our information tends to make its productions continental, and nearly allied to those of the opposite mainland. It is perhaps the only member of the group where we now find the *Rhamphastidæ,* and the more splendid *Ampelidæ,* while the Humming Birds are very numerous. According to Lavaysse, various Parrots, two species of *Toucan,* and the *Crax,* are among the continental species. M. Ledru, in the expedition of Baudin, was not permitted to land, and

his remarks are therefore not numerous; he confirms however the continental character of its ornithology. Parrots and one species of *Toucan* are mentioned, and the *Rupicola* is noted. This last bird was met with by Sir R. Schomburgk in Guiana, and we frequently receive skins in collections from Surinam; and it was no great step to Trinidad, if the localities in that island were suitable for its habits; but it is remarkable to find the other nearer islands passed over, and a species locally distributed on the continent inhabiting Porto Rico, a distant island.

Of the smaller isles we know almost nothing; they have not been deemed worthy of examination. A scattered notice here and there, and that often not to be trusted, exists. There is, however, one exception to these remarks, thanks to Sir Robert Schomburgk for his recently published History of Barbadoes. This island presents some curious points to us. Though exceeding Tobago in extent, the entire number of species known to frequent it will not much exceed sixty, Sir Robert only enumerating fifty-five, of which forty are migratory. "The absence of woods or forests, and the scarcity of umbrageous trees, is doubtless the reason that Barbadoes possesses so few of the feathery tribe. The number of indigenous species do not amount to fifteen, and there are perhaps forty species which are considered birds of passage, or are only seen occasionally in the island." The absence of wood is the easy solution of the limited numbers, and also of the great proportion of the species belonging to the waders and true water birds. Of the others, we have three birds of prey, all indigenous, and all North American. We have *Trochilus cristatus* (not that we know of, found in the other islands), *Psittacus passerinus*, *Quiscalus crassirostris*, and two *Spermophilæ*, all indigenous; with the *Turdus jamaicencis*, *Hirundo dominicencis* and *Tachornis phœnicobia*, Gosse, migratory, as the representatives of a southern fauna. All the others are generally spread around the islands, and may be considered as more northern or rather temperate types.

With regard to the more recent changes in the ornithology of the various islands, we possess only partial and limited proofs. No doubt, population and its attendant circumstances would thin out or even extirpate some species, while the cultivation of maize or other grains might attract others; but above all other causes,

the destruction of the wood, which appears to have taken place on many of the islands, would have an influence on the species which inhabited them. This destruction has commonly been caused by fire, frequently raised by mere wantonness or carelessness, and often extended over the whole length and breadth of the forests; it must always have a temporary effect upon the natural productions, while on islands of small extent, the destruction of the entire wood would materially affect, if not completely change their zoology. Writing of the Danish isles, M. Ledru states, that when discovered by Europeans, they were covered with wood, the decomposition of the fallen parts of which formed a layer of soil more or less deep, and well suited for vegetation. These woods were principally destroyed by fire.* Barbadoes privateers, about 1702, landed on the island of Gaudaloupe, and "burnt a great part of the west end of it." † Sir Robert Schomburgk states, "that it is a fact which remains uncontested, that within the last fifty years, Barbadoes was much more wooded than it is now," ‡ and that the greater part of the cocoa-nut trees on the coast regions, were destroyed during the awful hurricane of 1831. § In the island of Tobago, there seem to have been at one time a few species which do not now exist. In an old work relating to "The Famous and Fertile Island of Tobago," by Captain John Poyntz—of fowl, he enumerates and describes the bill-bird (*i. e.* toucan), blackbird, booby, blew-headed parrot, two sorts of parraketoes, macaw, flamingo, duck, sea-gull, sea-mew, plover, turtle-dove, man-of-war-bird, bird of paradise or kingfisher, pelican, cockerrico or Tobago pheasants, curlews, wood-pigeon, and many other birds; and we do not think that Toucans would have escaped the notice of our correspondent, had they been now found on the island. In Tobago, as described in the work of Davies, we have notice of mammalia which do not now exist upon it; and of the ornithology he says, "not to mention the wood-quists, turtles, partridges, and parrots, which are commonly seen there, it affords abundance of other birds not seen in Europe." There are also other causes which may change the Zoology of those islands in a remarkable degree. They are swept over by hurricanes creating immense devastation. Tobago, in 1780, was visited by a severe hurricane, but we have no record of its

* II. p. 367. † Schomb. Barbadoes, p. 309. ‡ P. 27. § P. 649.

effects on the zoology. In 1847, it was again visited by one of great power. In answer to some of my queries in regard to its effects on the ornithology, Mr. Kirk replies—"It would appear that the habits of the birds are now entirely changed, and of the game kinds, especially cockricos (*ortalida*), some are nearly annihilated. The trees were not only divested of leaves and fruit, but were denuded of their branches and limbs, and fully one-half of them were either broken, twisted, or torn from the roots. The result of which was, that all the berry-feeding tribes sought the low lands, and both cockricos, parrots, partridges, and doves, were caught in abundance; indeed, parrots were so weak, that when they alighted upon the ground to pick guavas or limes, when taken by surprise, they were unable to get off; and at this moment, birds found only in the interior, are now abundant on Sandy Point, fourteen or fifteen miles from their native haunts. I have not seen a Trogon since the hurricane, and I fear they are nearly destroyed." We should add to this, that among a small package of skins, sent over after the hurricane, there were continental species which had not been previously observed.

ORNITHOLOGY

OF THE

UNITED STATES EXPLORING EXPEDITION.

THE Ornithology of this expedition was, we understand, intrusted to the charge of Mr. Peale of Philadelphia, and we looked for the publication of the volume with much interest. At the time when we knew the text had been printed, having seen a copy forwarded by the American Government to the British Museum, and which we quoted, "Contributions" 1851, p. 113, we applied to the American and other booksellers in London in vain for it, and copies were ordered equally without success, but at the same time without giving any reason that we thought sufficient, for not being able to procure a work which we had seen in this country. Inquiries from America were also fruitless; but a letter from a correspondent last month, has now explained the matter, and we think it right that our information regarding a work of such importance should be communicated to our subscribers.

"It is now quite impossible to obtain the volume on Quadrupeds and Birds of the Voyage Vincennes and Peacock. The Government of the United States authorized the printing of one hundred copies only of each volume, at the expense of the treasury, but furnished, at the cost of *additional* volumes, as many copies as the authors thought proper to order for their personal benefit, a privilege of which all of them availed themselves except Mr. Peale, author of the volume on Quadrupeds and Birds. Not a single extra copy of his volume was printed, and consequently it has never been for sale. About ninety copies were presented to the National and State Libraries of Europe and America, and those remaining have recently been destroyed by a fire, in the apartments occupied by the library of Congress. The atlas was never completed."

This is one of those unfortunate circumstances which preclude a work from being used or consulted generally, though at the same time it will be used to the annoyance and confusion of those who have no opportunity to consult it, or unravel what may be quoted from it. There are one or two parallel cases, and we almost wish that some recognized usage was adopted, in cases where the work had been nearly destroyed before circulation, or was otherwise virtually inaccessible. The American work, as originally published, is in this condition; but we have reason to believe that it will be reprinted, or rather that an entirely new work, by a well known American ornithologist, will be written from the materials which furnished the matter for that which we may consider lost.

BALÆNICEPS REX, Gould,

BY

Dr. BARON J. W. VON MÜLLER.

Translated from the *Naumannia*, Archiv für die Ornithologie, &c., by H. J., May, 1852.

From one of these islands (near Chartum on the White Nile), I saw two large birds arise which excited my curiosity to the highest; unfortunately I could not obtain them, and it was long before they again came into my view. These two birds differed from all birds known to me, by an enormously large spoon-shaped bill, and I was convinced that it must be a new and interesting genus. After my return from Kordofan, a collection of skins was offered to me, in Chartum, for sale by a resident European (Nicola Ullivi), amongst which I saw two birds, which I immediately knew to be the same as those I had observed on the White Nile. My desire to obtain both these birds caused the man to anticipate their value, and he desired of me the exorbitant price of a thousand dollars for his collection. Gladly as I would have brought away this offering to science, yet my means did not admit of the purchase, as I had been completely plundered in Kordofan. Though somewhat disappointed, I expressed to my secretary, the hope that we should soon see these birds make their appearance in England. My prediction is now fulfilled. The celebrated English ornithologist, Gould, has recently made known this genus, under the name of *Balæniceps*.

The *Balæniceps* of Gould belongs to the class of *Grallatores*. It is the size of a small pelican. Its enormous bill, similar in form to *Cancroma*, ends in a strong hook, is yellow in the male, and in the female brownish-red, with a paler brown ridge. The nostrils

are much extended longitudinally. On the under jaw is a fold of skin, which probably is capable of extension into a sort of pouch. The toes are without webs, and the tibia is black beset with proportionably very small marked scales. The skin round the eye is bare and yellow. Nape feathers lengthened to a short crest. The colour of the whole plumage is ash-grey, on the upper side darker than on the belly and thighs.

P. Reeve, imp.

Galbula melanogenia, *Sclater*

June 1852

ORNITHOLOGICAL OBSERVATIONS

By PHILIP LUTLEY SCLATER.

VIII.—FURTHER REMARKS ON THE *GALBULIDÆ*.

PLATE XC.

SIR WILLIAM JARDINE writes me, that he has an example of *Galbula melanogenia*, described p. 61 of the present year's "Contributions," and of which a figure is herewith given from Veragua, whence it was sent with other skins by Mr. Gould's collectors. Central America is therefore without doubt its true *habitat*, many birds having been brought by M. Delattre, by whom I imagine my skins of this species were collected from that quarter. We have therefore four very similar but yet distinct species of these birds, each inhabiting a different region of tropical America; an additional instance to the thousand others existing, of that remarkable law, by which we find different geographical localities tenanted by different yet closely allied and corresponding ornithic species. The four above mentioned birds are alike in the upper plumage and breast-band of a shining golden green, but may be distinguished at once by examination of the tail-feathers. Taking them geographically, the most northern species first, we have —

1. *G. melanogenia*, from Veragua; 4 medial rectrices green, 3 next on each side pale rufous brown.

2. *G. ruficauda*, from Trinidad, Tobago, Venezuela; 2 medial green, others wholly rufous brown.

3. *G. viridis*, from Cayenne, Amazons; rectrices beneath nearly uniform blackish-green.

4. *G. maculicauda*, from S. Brazil, Bolivia; outer rectrices rufous brown with blackish blotches at the extremities.

Sir William Jardine has also called my attention to the fact that the *Galbulæ* have really twelve rectrices, as the *Alcedinidæ* and the greater part of the *Insessores*, but the outer pair are so diminutive that they are nearly entirely concealed by the under tail-coverts. In describing the *rectrices* of these birds in the synopsis of species given, page 29-33, I have omitted to count this exterior pair, not having been aware of their existence. In *G. maculicauda* and *ruficauda* they measure only $\frac{1}{4}$ in length, the medial rectrices being four times as long or nearly so. In the genus *Jacamaralcyon* they are still more diminutive. In *Jacamerops*, on the other hand, they are of more normal dimensions, measuring $\frac{2}{4}$, while the medial are about $\frac{5}{4}$ in length.

So little has been written, especially in English, on the habits of exotic birds, that I am tempted to give here a translation of the remarks made by an observer of this genus in its native country. The Prince Maximilian of Neuwied, in his most excellent but too little studied work "Beiträge zur Naturgeschicte von Brasilien," vol. iv. p. 437, writes nearly as follows:—

"These birds differ more in habits than in structure from the Kingfishers; and in this respect as in many others, seem to have more connection with the Humming Birds. Like them they have a soft, loose, splendid gold-glancing feathering; a long straight sharp-pointed beak; small, weak delicate feet; and a long strong feathered tail. They differ chiefly in the formation of the tongue, bill, and feet, and their shortness of wing; from which it may be understood that the Jacamars stand somewhere between the Kingfishers and *Colibri*."

After describing accurately the only species met with, and stating that the native name for this bird signifies "*The Great Humming Bird*"—as in Guiana they are called "*Les Colibris des Grands Bois*"—the Prince continues—

"They live solitary and still, in the damp woods and shady brakes, sitting generally on low twigs over the water, flying quick but not far, phlegmatic and difficult to be roused. Their voice is not a pleasing short song as Buffon says; but a loud, clear, oft repeated sound. They are on the look out during the whole day for insects, of which I have found the remains in their stomachs. The Jacamars place their nest, like the Kingfishers, in a round hole in a bank, but I have never been able to find one."

Four other genera besides *Galbula* have been established in this family.

(2.) *Jacamaralcyon*, Cuv. 1829; Canax, Cab. 1847.
J. tridactyla.

(3.) *Galbalcyrhynchus*, Des Murs, 1845; Jacamaralcyonides, Des Murs, 1849.
G. leucotis.

(4.) *Jacamerops*, Cuv. 1817; Lamprotila, Sw. 1837.
J. grandis.

(5.) *Galbuloides*, Des Murs, 1851.
G. boersi.

(2.) Of *Jacamaralcyon* I have seen only the common type species. Does any one know Swainson's *G. lugubris?* He expressly states, An. in Men. p. 329, that it has only three toes. It would therefore form a second species of this genus. The example so marked in the British Museum is my *G. inornata*. Cut off its fourth toe and it would fit Swainson's description tolerably well.

(3.) *Galbalcyrhynchus*, from Santa Fé di Bogota, figured Iconographie Ornithologique, pl. 17, is rare. There is one example in the British Museum.

(4.) M. Deville has described a second species of *Jacamerops*, under the specific name *isidorei* in the Rev. de Zool. 1849, p. 55. M. Des Murs, however, in the newly published Encyclopedie d'Hist. Nat., states his opinion, that this is merely a pale coloured female of the ordinary *grandis*. I have seen the type specimen in the Museum of the Jardin des Plantes, and though I did not pay any very great attention to it at that time, my impression certainly was, that it was a good species.

(5.) Does Le Vaillant's "Le Grand Jacamar," *Galbula boersi*, Ranzani, exist any where? I have always regarded it as fabulous; but as M. Des Murs has lately made a new genus for its sole reception, his ideas upon this subject are probably somewhat different. Le Vaillant states it to be from the Moluccas!

IX.—ON THE BIRDS FROM YUCATAN.

DESCRIBED BY DR. CABOT IN THE JOURNAL OF THE BOSTON NATURAL HISTORY SOCIETY.

Dr. CABOT has written several articles in the above mentioned periodical on the birds collected by himself in Yucatan. Upon reading the descriptions of his new species, I was soon aware that many, if not all of them, had been previously named. Having however some doubt on one or two points, I communicated with Mr. John Cassin, the corresponding secretary of the Academy of Natural Sciences of Philadelphia on the subject. He has been so obliging as to send me the following result of an "examination by himself and Dr. Wilson, of the descriptions of Dr. Cabot, with such aid as his recollection of Dr. Cabot's specimens afforded:"—

Vol. iv. p. 462 (1844) of the Journal of the Boston Natural History Society. *Falco percontator*, Cabot = *Micrastur brachypterus*, Temm.

Vol. iv. p. 464. *Corvus vociferus*, Cabot. I have heretofore taken this to be the young of *Psilorhinus morio*, Licht., but it exactly agrees with *P. chilensis*, Bp. Consp. Av. p. 381. I write now with allusion to a specimen from Dr. Cabot now in our Academy collection, not specially recollecting others which I have seen in Boston. I believe it to be synonymous with *P. morio*.

Vol. iv. p. 465. *Oriolus musicus*, Cabot = *Icterus mesomelas*, Wag.

Vol. iv. p. 467. *Momotus yucatensis*, Cabot = *Crypticus superciliaris*, Sandbach.

Vol. v. p. 90. *Pyrrhula raptor*, Cabot = *Saltator atriceps*, Lesson.

Vol. v. p. 91. *Picus dubius*, Cabot = *Centurus santacrusi*, Bp.

Vol. v. p. 92. *Picus parvus*, Cabot = *P. scalaris*, Wagler.

Vol. v. p. 92. *Picus yucatensis* = *Picus rubiginosus*, Sw., *Chloronerpes rubiginosa* (Sw.), G. R. Gray.

Vol. v. p. 416. *Pyranga roseogularis*, Cabot. There is no bird in the collection of the Academy which is this species, and it may stand good. I am acquainted with no description which is to be suspected, but have no recollection of Dr. Cabot's specimens.

The first six names are therefore synonyms, belonging to previously described species, but I agree with Mr. Cassin in thinking that the *Pyranga* may be really new.

London, May 26th.

Phyllornis jerdoni. Blyth.
Nov.r 1852.

ILLUSTRATIONS OF INDIAN ORNITHOLOGY

By E. BLYTH,

Curator of the Museum of Asiatic Society of Calcutta.

IV.—PHYLLORNIS JERDONI, Blyth.

Plate XCI.

For the interesting nest and eggs of *Phyllornis jerdoni*, Blyth, we are indebted to our kind friend and correspondent, E. L. Layard, Esq., magistrate of the district of Point Pedro (the northernmost extremity of Ceylon), in which district we understand it to have been procured. A large groove along the under side of the nest indicates it to have been placed upon a branch, probably as represented in our figure. The general form is somewhat flat, and it is composed of very soft materials, chiefly dry grass and silky vegetable fibres, rather compactly interwoven with some pieces of dead leaf and bark on the outside, over which a good deal of spider's web has been worked. It contains four eggs, white, abruptly speckled over with dark bister, mingled with some ashy spots.

This species of *Phyllornis* (figured by Mr. Jerdon in the 43d Plate of his Illustrations of Indian Ornithology) inhabits all the peninsula of India and Ceylon. We found it plentiful in the jungles of the Midnapur district (west of Lower Bengal), and think we have also seen it from the Rajmore Hills in Bengal, but certainly never from Upper India. Its only congener in southern India and in Ceylon is the *Phyllornis malabaricus* (or *aurifrons* of Jerdon's Catalogue). The latter we did not observe in the Midnapur district; but a few of *Phyllornis aurifrons*, a species which extends

thence over Central and Upper India to the Sub-Himalayan territories, and eastward into Asam, Sylhet, and Arakan. The south-eastern portions of the Sub-Himalayan ranges, with the provinces of Asam, Munipur, Sylhet, and Arakan, likewise contain the *Phyllornis hardwickii;* and in Arakan we find abundantly the *Phyllornis cochinchinensis* (*moluccensis* of Gray) extending thence southward through the Burmese countries over the Malayan peninsula and archipelago. These five species constitute a particular sub-type of the genus with meliphagous bill, and the bend of the wing ultra-marine blue. Two others inhabit the Malay countries, which have the bend of the wing green like the rest of the plumage, and a bill resembling that of *Iora* (a nearly affined genus which has precisely the same geographical distribution). These are *Phyllornis sonneratii* (Jardine and Selby, *mulleri* of Temminck, and the young of which is *Chloropus gampsorhynchus*, Jardine and Selby, *Chloropsis zosterops*, Vigors, and *Turdus viridis*, Horsfield), and *Phyllornis cyanophagon*, Temminck (the young of which is *Chloropus mysticalis*, Swainson). No others appear to be known, though such may exist in the easternmost parts of southern Asia.

Mr. Jerdon states of *Phyllornis jerdoni*—"I have seen a nest and eggs of this species in possession of S. N. Ward, Esq. It is a neat but slight cup-shaped nest, composed chiefly of fine grass, and was placed near the extremity of a branch, some of the nearest leaves being, it was said, brought down and loosely surrounding it. It contained two eggs, white, with a few claret-coloured blotches. Its nest and eggs, I may remark," continues Mr. Jerdon, "show an analogy with those of the Orioles."*

* *Phyllornis* is now placed among the Tenuirostres, near to the Meliphaginæ; many of the nests of which show a great deal of weaving in their structure, and are often suspended near the extremity of a branch, supported by the leaves being woven into the structure of the nest. Is not *Ch. jerdoni*, Jerd. Illust. Ind. Orn. syn. with *Ch. malabaricus* (Gmel.)?

Leucocercus fuscoventris. Franklin.

Nov.r 1852

V.—LEUCOCERCA.

Plate XCII.

The nest of *Rhipidura albicapa*, Gould, is figured by that naturalist in his "Birds of Australia." We now represent the nest and eggs of the affined *Leucocerca fuscoventris* (Franklin), the common species of Lower Bengal, but replaced in most other parts of India and in Ceylon by *L. albofrontata* (Franklin),* and in the Nilgiris by *L. pectoralis*, Jerdon. Another near affine inhabits the Malayan peninsula and archipelago, the *L. javanica* (Sparrman). These birds differ in several respects from true *Rhipidura*, of which also however, we find an Indian representative in *Rh. hypoxantha*, Blyth, inhabiting the south-eastern Sub-Himalayan regions. *L. albofrontata* is figured in the second plate of Mr. Jerdon's "Illustrations of Indian Ornithology."

The *Leucocercæ* are not Flycatchers in the common acceptation of that term among ornithologists, for they do not watch for their insect prey, and then dart after it and seize it on the wing, returning to their perch to watch again; but they are restless little birds, constantly in motion among the foliage in groves, bamboo jungle and the like, hopping from twig to twig, with broadly expanded wings and tail, and quick jerking movements, every aspect of view in turn presented to the spectator, and they are seen generally if not always in pairs—the male frequently delivering a series of sweet soft ringing notes—"a tinkling sort of song"—as we have elsewhere described it. The nest of *L. fuscoventris* is affixed sometimes to a small stem of bamboo, as represented by our figure in the back ground, and sometimes placed as represented in our principal figure. It is constructed of and lined with fine grass stems, bound round on the outside with some flat leaves of grass, which are more or less completely covered over with spider's web; and there is always a quantity of material hanging from the bottom, so as to produce the appearance of a funnel. This peculiarity

* *L. compressirostris*, Blyth, from Ceylon, differs only in having the beak much more compressed, but it remains to ascertain if this be a permanent distinction.

is much more strongly marked in Mr. Gould's figure of the nest of *Rhipidura albiscapa;* but he says of that species, that it has invariably but two eggs, whereas the nest of *L. fuscoventris* here figured contained three. These much resemble the eggs of *Sylvia curruca* (*Curruca garrula*, Brisson), being of a sullied white with few scattered spots, except those forming a broad zone towards the large end, and the colour of which are greenish olive brown, mingled with some dark ashy spots.

P. Reeve, imp.

1. Dacnis speciosa, *(Pr. Max.)*
2. Dacnis cærebicolor. *Sclater.*

1852.

ORNITHOLOGICAL OBSERVATIONS

By PHILIP LUTLEY SCLATER.

X.—ON CERTAIN SPECIES OF *DACNIS*.

Plate XCIII.

Since writing the synopsis of the genus *Dacnis*, pp. 105–110 of last year's "Contributions," I have obtained specimens of M.M. de Lafresnaye and d'Orbigny's *Dacnis analis*. Upon comparing these with Prince Maximilian of Neuwied's description of his *Sylvia speciosa*, Beitr. z. Nat. iii. 706, and the figure given of the same bird in the Planches Coloriées of Temminck, I cannot doubt their identity, notwithstanding the thicker and more sylvine form of the beak in Temminck's figure. This species will therefore now stand as follows:—

6. DACNIS SPECIOSA, Pr. Max.

Sylvia speciosa, *Pr. Max.* Beitr. z. Nat. iii. 708.——Dacnis analis, *de Lafr.* and *d'Orb.* Mag. de Zool. 1837, p. 21.——Figd. *Temm.* Pl. Col. 293, Fig. 2.

D. plumbeo-cœrulea; remigibus rectricibusque nigris plumbeo-cœruleo limbatis; subtùs plumbeo-cinerea; ventre medio et remigum basi subtùs albis; crisso toto rufo-cinnamomeo.

Long. tota, 4.0; alæ, 2.2.

Habitat, Cayenne; Rio de Janeiro (Pr. Max.); Chiquitos, Bolivia (d'Orb.)

I have also procured several examples of M. Cabanis' *Dacnis plumbea*, which will form a seventh species.

7. DACNIS PLUMBEA (Lath.), Cab.

Sylvia plumbea, *Lath.* Ind. Orn. p. 558. — Sylvia bicolor, *Vieill.* Ois. de l'Am. Sept. pl. 90. bis? — Sylvia cœrulescens, *Max.* Beitr. iii. 713. — Dacnis plumbea, Faun. Per. pp. 37, 236.

D. plumbeo-cœrulea; remigibus rectricibusque nigricantibus plumbeo-cœruleo marginatis, primariorum pogonio externo albicantibus; subtùs cinereo-albida rufescente mixta, ventre medio crissoque rufescentioribus.

Long. tota, $4 . 2\frac{1}{2}$; alæ, $2 . 3\frac{1}{2}$.

Habitat, Trinidad (Ld. Harris); Cayenne; E. Brazil (Max.); Peru (Tsch.)

There is an eighth species, as yet undescribed, in the collection of the Baron de Lafresnaye.

The second figure given in the accompanying plate is of *Dacnis cœrebicolor*, Sclater, Orn. Cont. 1851, p. 106. The specimens there mentioned as in Mr. Warwick's collection are now in the Philadelphian Museum.

I find that the specific appellation *angelica*, used by me for the third species of *Dacnis*, p. 107, was originally published by M. de Filippi in the Atti della 6ta Riunione degli Scienziati Italiani, and there applied to the New Grenadian variety of that species which I described as being of brighter colouring. In the Catalogue* of the Milan Museum, M. de Philippi admits that the bird to which this name is applied is merely a variety of the ordinary species, which he calls "*cayana*." Since however it is not the true "*cayana*" of Linnæus, we must nevertheless use the name "*angelica*" (as adopted in my synopsis) for its specific title, such being the earliest that can be rightly employed.

* This paper appears to be very little known. Mr. Edward Wilson, who is collecting zoological works of every description for the Philadelphian Academy, has allowed me to inspect his copy, which is the only one I believe that has ever been in England. There is no title-page; but it is headed "Museum Mediolanense, No. 1. Animalia Vertebrata Classis IIda. Aves." In an appendix which is signed "Ph. de Filippi Mense Martii, 1847," the following new species of birds are described—*Salicaria italica*, De Fil.; *Formicivora genei*, De Fil.; *Garrulax vittatus*, De Fil.; *Ceblepyris luctuosus*, De Fil.; *Graucalus torquatus*, De Fil.; *Pachyrhamphus dimidiatus*, De Fil.; *Lanius (Collurio) jeracopis*, De Fil.; *Thamnophilus janii*, De Fil.; and *Sturnella bellicosa*, De Fil.

MONOGRAPH

OF

THE OWLS—*STRIGIDÆ*

By Dr. T. T. KAUP.

The First Subfamily — Day Owls, *Surninæ*, Kp.

I. Glaucidium II. Nyctale. III. Athene. IV. Surnia. V. Ieraglaux.

They have the most perfect brain, the handsomest and roundest skull, high-rounded front and small pneumacity. No genus has feather-horns, or a pectinated claw on the middle toe like *Strix*.

I. Genus GLAUCIDIUM, Boie.

The smallest Owls of the whole family, with short wings and long tail. The first quill shorter than the tenth.

a. Subgenus Glaucidium, Boie.—They have the nostrils in the middle of the pea-shaped cere, and a spotted or uniform plumage. They are found in South America.

1. *Gl. pumilum*, Kp.; *Str. pumila*, Temm. Pl. Col. 39; *ferox*, Vieill.; *minutissima*, Wied.—Tail 53 mm. long, with 3-4 white spots only, not reaching to the shafts.

2. *Gl. nanum*, Boie.; *Str. nana*, King, Zool. Journ. iii. p. 426; *Athene leucolaima*, Homb. et Jacq. Voy. pl. iv. p. 2, 3.—Tail 63-70 mm. long, with 8-10 rufous cross bands, reaching to the shaft. Southern America, Straits of Magellan, Peru.

3. *Gl. infuscatum*, Kp.; *Str. infuscata*, Temm.; *Olim. passerinoides*, Temm.; *Gl. gnoma*, Wglr.; *Str. eluta*, Licht. (not *elata*).—Tail 61-66 mm. long, black with 5-6 pairs of white spots not reaching to the shaft. Brazil, Mexico, California.

4. *Gl. ferrugineum*, Kp.—The largest; rufous, wings 105–111; tail 76 mm. long. Brazil.

b. Subgenus MICROGLAUX, Kp.—The nostrils on the margin of the pea-shaped cere, plumage spotted.

5. *Gl. havanense*, Kp.; *Strix havanensis*, Licht.—Size of *Gl. infuscatum*; wings 98–99; tail 65 mm. long, with six narrow bars of rusty yellow colour.

6. *Gl. perlatum*, Kp.; *Strix perlata*, Vieill.; *occipitalis*, Temm. Pl. Col. 34; Vaill. O. d'Afr. t. 284.—Size of *Surnia passerina*; wings 108; tail 78 mm. long; diameter of the eye 10 mm. Whole of Africa.

7. *Gl. licua*, Kp.; *Strix licua*, Licht.—Very near to *Gl. perlatum*, but with darker colouring, more brownish on the upper parts; the white spots on the head and neck broader; the shaft-stripes on the sides and belly broader and blackish; the tail with 5–6 pairs of white spots, not reaching to the shaft; tarsus white with black spots; eye not so large as in *perlatum*. The smaller male has on the under parts broader stripes, and only five pairs of spots on the tail. Head 39–41; wings 100–102; tail 68–70 mm. long. Caffraria.

c. Subgenus TÆNIOPTYNX.—Nostrils like the subgenus *Glaucidium*, with shorter wings and the smaller inner webs of the quills emarginated more towards the shaft; plumage more developed; banded

8. *Gl. brodiei*, Kp.; *Noctua brodiei*, Burt. Proc. Zool. Soc. 1835, p. 152; *Noctua tubiger*, Hodgson.—The whole plumage with rufous yellow or whitish bands. Asia, Nepal.

II. GENUS NYCTALE, BREHM.

Very large (? assymmetric) ear orifice, with a developed operculum and complete veil. They are spread over the northern parts of Europe and America.

N. acadica, Bp.; *Strix acadica*, Gmel.; *acadiensis*, Lath.; *passerina*, Wils. pl. xxxiv. 1.—Wings 131; tail 70 mm. long. Northern part of America.

N. funerea, Bp.; *Str. funerea*, Linn. (Diagnosis not the description); *passerina*, Pall.; *tengmalmi*, Gmel.; *dasypus*, Bechst.—

Wings 163; tail 100–103 mm. long. *Nyctale richardsoni*, Bp. is not different, it is only a little darker, and this is the reason that the white spots are more distinct. The character of Prince Bonaparte, "longer tail," is not correct, as I have seen the original specimen of the Zoological Society.

III. Genus ATHENE, Boie.

The nostrils on the margin of the swollen cere; ear orifice small; wings moderately long, with short wing-end* reaching nearly to the end of the short tail; toes naked, with some bristle-feathers; the emarginations on the maxilla not so distinct as in *Glaucidium*. They are spread over Europe, Asia, and Africa.

a. Subgenus Cephaloptynx, Kp.—The first quill shorter than the tenth; plumage spotted not banded.

1. *Athene punctulata*, G. Gray; *Noctua punctulata*, Quoy and Gaim. Astral. T. 1 fig. 1.—Larger than *Ath. noctua*, with larger head and bill; front, a stripe over the eye, chin, belly, tarsus and inner wing-covers, pure white. Celebes.

b. Subgenus Athene, Boie.—The first quill as long as the sixth or seventh; quills feebly emarginated; tarsus not very high; plumage spotted; ear orifice asymmetric.

2. *Ath. meridionalis*, Kp.; *Noctua meridionalis*, Risso. Hist. Nat. de l'Eur. Mer. iii. p. 32; *Noctua glaux*, Sav.; *passerina*, Rüpp.; *Surnia noctua*, Gr. r. d. Mühle.—Toes with bristly feathers, the lower parts with rufous shaft-stripes; tail with three yellowish dark marginated cross bands. Southern parts of Europe, northern parts of Africa.

3. *Ath. noctua*, Bp.; *Strix noctua*, Retz.; *passerina*, Lath., Temm.; Naum.; Gould, pl. 48.—Toes with bristly feathers, which have some radii on each side of the root; tail with four rufous yellow cross bands. Europe.

4. *Ath. brama*, G. Gray; *Str. brama*, Temm. pl. col. 68; *indica* Frank.; *tarayensis*, Hodgs.—Toes with bristly feathers; tail with

* I call *wing-end* that part of the end of the hand-wings which is not covered by the arm-wings.

4–5 distinct small white cross bands; lower parts with arrow-like black cross bands. Asia and its Archipelago.

c. Subgenus PHOLEOPTYNX.—Middle toe without the nail half as long as the long slender tarsus; wings long; the first quill shorter than the fourth, the first and second distinctly, third and fourth indistinctly emarginated.

5. *Ath. cunicularia*, Bp.—Rufous grey; tarsus $1\frac{3}{4}$ inches long, feathered to the toes. South America, San Paulo, &c.

e. Subgenus TÆNIOGLAUX.—The first quill shorter than the tenth; the plumage barred; size of *Ath. noctua*. They are spread over Asia and Africa.

6. *Ath. castaneoptera*, Blyth; *Strix castaneoptera*, Horsf.; *spadicea*, Reinw.; Temm. Pl. Col. 98.—The head rufous, black banded; shoulder-covers uniform brown with large white brown marginated spots on the margins; tail with six rufous yellow bands.

7. *Ath. erythroptera*, Blyth; *Strix erythroptera*, Gould; *perlineata*, Hodgs.; *radiata*, Tsch.; *undulata*, Blyth.—The head blackish, with rufous yellow or whitish bands; shoulder-covers with very small bands; margins of the wings with larger white spots; tail black, with 9–10 irregular small bands.

8. *Ath. cuculoides*, Blyth; *Noct. cuculoides*, Vig.; *auribarbis*, Hodgs., Gould, Cent. Him. B. t. 4.—Wing entirely brownish; tail with seven cross bands.

9. *Ath. capensis*, A. Smith, Ill. S. Afr. Zool. t. 33.—Tail with fourteen small rufous bands.

IV. GENUS SURNIA, DUM.

Nostrils on the margin of the rudimentary cere; ear orifice small, without operculum; bill curved from the cere and covered with feathers; toes more or less thickly feathered; shafts of the quills strong and stiff.

a. Subgenus MICROPTYNX; *Glaucidium* (Pars), Boie. First shorter than the tenth; 1–4 wing-feathers emarginated; toes very slender, covered with feathers and no bristle-feathers. It represents in its genus the genus *Glaucidium*.

1. *S. passerina*, Kp.; *Str. passerina*, Linn.; *pusilla*, Daud.; *acadica*, Temm.; Vaill. t. 46, Gould t. 50.—Tail 56–62 mm. long, with five arrow-like cross bands reaching to the shaft. Northern and eastern parts of Europe and Asia.

b. Subgenus NYCTEA, Steph.— The long wings cover two-thirds of the tail, which is as long as the body; the first quill shorter than the fourth; 1–4th with broad inner-webs and emarginated to the end; ear-orifice larger than the diameter of the eye (perhaps asymmetric).

2. *S. nyctea*, Selby; *Str. nyctea*, Linn.; *candida*, Lath.; *nivea*, Thunb.; Daud.; Gould, t. 45.—Bill and nails black; total plumage in advanced age pure white, in youth black spotted; size of *Bubo maximus* male. Northern parts of Europe, Asia, and America.

c. Subgenus SURNIA, Dum. — The first quill as long as the seventh, 1–3d quills distinctly emarginated; ear-orifice less than the diameter of the eye; tail longer than the body.

3. *S. ulula*, Bp.; *Str. ulula*, Linn.; *Faun. suec.* 78; *hudsonia*, Gmel.; *funerea*, Lath; Gould, t. 45; Pl. Enl. 463; Edw. t. 62; Wils. t. 50, 6; Aud. 378.—A broad black vertical stripe from the ear to the neck. It inhabits the same countries as the *S. nyctea*, and strays very rarely to England and Germany.

V. GENUS IERAGLAUX, KP.

ATHENE, *Auct. Nov.*

The nostrils on the margin of a long strongly developed cere, which covers the basal half of the bill; wings long with long wing-end; toes long, thinly covered with bristle feathers; in size middling or large.

a. Subgenus CEPHALOGLAUX. — With large head, and strong curved bill; the first quill shorter than the tenth; toes shorter than the tarsus; tarsus covered with strong shafted feathers; toes with strong bristles.

1. *I. superciliaris*; *Str. superciliaris*, Vieill.; *sonnerati*, Temm., Pl. Col. 21.— Wings and tail-feathers rusty red, with white traces

on the margin of the inner webs only, and some more yellowish on the outer webs; breast and belly white, with rather broad brown bars. Diagnosis taken from the specimen in the Paris Museum. Asia.

I. jacquinoti; Ath. jacquinoti, Homb. and Jacq. Voy. au Pole Sud. t. iii. 2.—Chin white with a reddish-brown black banded collar; belly yellowish-white. Solomon Island. Specimen in the Paris Museum.

3. *I. variegatus*; *Noctua variegata*, Quoy and Gaim., Voy. Astral. Ois. t. 1, 2.—Wings 194–198; tail 114–120 mm. long; tail with ten light narrow bands; breast and belly with three rusty brownish bands on each feather. New Ireland.

b. Subgenus, SPILOGLAUX.—The first quill longer than the tenth; the first to the fifth emarginated on the inner web; wing with pretty long wing-end; toes shorter than the tarsus; bill more curved and not so much projected as in the other subgenera. It is certain that they are more sleepy than the others. Mostly inhabitants of New Holland.

4. *I. bubuk*; *Str. boobook*, Lath.; *Athene ocellata*, Homb. and Jacq. Voy. t. 3, fig. 2.—Head 55–58; wing 217–241; tail 140–150 mm. long.

5. *I. fuscus; Strix fusca*, Vieill; *maugei*, Temm. Pl. Col.—Head 51; wing 212; tail 117; tail with nine whitish bands. Porto Rico.

6. *I. maculatus; Noctua maculata*, Vig. and Horsf.; Gould Austr. Birds, tom. i.—Head 58; tail 120 mm. long; tail with six whitish bands.

7. *I. marmoratus*; *Athene marmorata*, Gould Austr. birds, tom. i.—The occiput, neck, margin of the shoulder-covers, and the inferior middle of the small feathers of the wings white, on the outer web spotted; the total colouring on the upper parts light ash brown.

8. *I. novæ seelandiæ; Strix novæ seelandiæ*, Quoy and Gaim. Astral.—Upper parts nearly black; wings 204; tail 117–129 mm. long.

c. Subgenus SCELOGLAUX.—With more projected bill; first to fifth quills emarginated on the inner web; the first a little longer than the tenth; tarsus very high, twice as long as the middle

toe without claw; outer toe half as long as the middle; toes with the bristles developed; plumage like an *Otus*.

9. *I. albifacies; Athene albifacies*, G. Gray, Er. and Terr. Birds, pl. 1.* — Size of the *Otus vulgaris*. New Zealand.

d. Subgenus CTENOGLAUX; *Ninox*, Hodgs. — Head extremely small; margin of the toes with small warts and bristles like a comb; first quill longer than the tenth; first to fourth emarginated on the inner-web. Spread over Asia.

10. *I. scutellatus; Strix scutellatus*, Raffl. — Bill black with yellow culmen $8\frac{1}{2}$–$10\frac{1}{2}$ inches long; tail like a sparrow-hawk, with 3-6 light cross bands.

e. Subgenus IERAGLAUX — The first quill longer than the tenth; first to fifth quills very distinctly, sixth very indistinctly emarginated; tarsus very strong; toes very long; middle toe without claw, as long as the tarsus.

11. *I. connivens; Falco connivens*, Lath. Ind. Suppl. p. 12; *athene*, G. Gray; Gould, tom. i. — Size of *Surnia aluco*; tarsus like the middle toe, about 43 mm. long.

12. *I. strenuus; Athene strenua*, Gould, Austr. Birds, tom. i. — Tarsus like the middle toe without claw, 58 mm. long.

13. *I. rufus; Athene rufa*, Gould, Austr. Birds, tom. i. — Very much resembles the last, but Mr. Gould distinguished it by the reddish lower parts and the dark reddish cross bands, which are nearer together and more numerous. The only specimen in Europe was in the collection of Mr. Gould, which he sold to Mr. Wilson of Philadelphia.

14. *I. humeralis; Athene humeralis*, Homb. and Jacq. Voy. au Pole Sud. Ois. t. iv. 1. — With black face, white chin, and banded over and over with narrow bands. Oceania.

THE SECOND SUBFAMILY — NIGHT OWLS, *Strigina*, Kp.

WE see in this subfamily a greater ear orifice, with large operculum, feather-horns, a very pneumatic skull enlarged on the occiput. Its plumage is softer and darker coloured; the inner webs of the quills broader and covered with a silk-like very soft felt.

* Plate not published, 1st August, 1852.

This subfamily is more nocturnal, and has a noiseless flight. The small species live on insects, small birds and mammalia, but the larger ones confine themselves to mammalia and birds.

I. Genus SCOPS, Sav.

Very small Owls with an ear orifice not so large as the diameter of the eye; feather-horns; round handsome skull. They prefer warm to cold countries, but we find the species spread over the whole world. The first subgenus, which should have the first quill shorter than the tenth, is not yet discovered.*

b. Subgenus Scops.—Wings long and pointed; first quill distinctly emarginated at the end; the second and third not so distinctly; the first longer than the tenth; third or fourth the longest; tarsus feathered; toes always naked and scaled. We find the species in the Old World.

S. ephialtes, Sav.; *Str. scops*, Linn.; Pl. Enl. 436; Gould, Eur. t. 41.—The wings 141; the tail 62 mm. long; first quill as long as the fifth. Southern and Western Parts of Europe, Northern Africa.

2. *S. pennata*, Hodgs.—Very near to *S. ephialtes*. It shows more rusty red on the head, has shorter wings, with finer and more elegant markings. India.

3. *S. senegalensis*, Sw., Birds of Western Africa, p. 127.—Also very near to *S. ephialtes*, but has a stronger bill, shorter wings, and coarser markings; the feathers on the hind ear-margin not so distinct, margined with blackish; and the bars on the inner side of the wing very distinct; the first quill as long as the seventh.

4. *S. latipennis; Str. latipennis*, Licht.—Also very near to *S. ephiales*, but with coarser markings, and the webs on the wings and tail are broader. Caffraria.

5. *S. longipennis; Str. longipennis*, Licht.; *Str. striolata*, Homb. and Ehrenb.—Still nearer to *S. ephialtes*, but also with coarser markings; the wings are longer, 150 mm. Northern Africa.

I consider all these species, so very nearly connected with *S. ephialtes*, as to be only subspecies of one and the same type.

* My subgenus *Pisorhina (Scops manadensis)* is a nominal subgenus, but the character, nostrils in the middle of the cere, given by Qouy and Gaimard, is wrong.

6. *S. leucopsis; Athene leucopsis*, Hartl. — The wings on the inner side uniform blackish without bands; first quill as long as the ninth. A very distinct and handsome species from the Island of St. Thomas in Western Africa.

c. Subgenus ACNEMIS. — The first quill longer than the tenth; tarsus naked and scaled; toes completely naked and scaled.

7. *S. gymnopodus*, G. Gray. — In size and colour it is like *S. ephialtes*, but has shorter wings and tarsus; the wings on the inner side next the root, with three small dirty whitish-yellow bars not reaching to the shaft, and directed from the tail to the head. India.

d. Subgenus PTILOPSIS; *Ephialtes*, Bonap.—The first quill very long, emarginated near the end, shorter than the second and third; bill projected and covered with very long bristle-feathers; toes with thin bristle-feathers.

8. *S. leucotis*, Swains.; *Str. leucotes*, Temm., Pl. Col. 16.—Whole face, feathers of the lorum and front pure white. This species has some analogies with *Bubo lacteus*. Africa.

If we may draw conclusions by analogies, we may expect some time or other to find two species in Asia which will represent *Bubo orientalis* and *coromander*.

e. Subgenus MEGASCOPS. — First quill as long as the seventh or tenth; 1–4th emarginated; tarsus feathered; toes mostly naked.

9. *S. flammeola; Str flammeola*, Licht. (Berl. Mus.) — Wings 120 130; tail 56–66 mm. long. The smallest of the Night Owls. Mexico.

10. *S. trichopsis*, Wagl. Isis. 1832, p. 276. — Toes with bristle-feathers like *Athene noctua*. Mexico.

11. *S. rutilus*, Puch. Archiv. du Mus. d'Hist. Nat. iv. p. 326, tab. xxii.; Revue et Mag. de Zool. 1849, p. 29. — Toes naked, and also the scaled hind part of the slender tarsus; total plumage rusty red; occiput and neck without collars. Madagascar.

The following species from America are so intimately connected, that we discover the distinct character of each only by a close scrutiny. It is certain, that they are only subspecies from one and the same type. The oldest known is

12. *S. asio*, G. Gray; *Str. asio*, Linn.; *nævia*, Gmel.; *albifrons*, Lath.; *lineatus et striatus*, Vieill. — General plumage greyish or rusty red; toes feathered; wings 160; tail 76 mm. long. N. America.

13. *S. braziliensis*, Bp.; *braziliana*, Gmel.; *choliba*, Vieill.; *crucigera et undulata*, Spix.; *decussata*, Licht.; *Sc. portoricensis*, Less.; Spix. 9 and 10; O des Murs. pl. — The cape very dark brown and rusty-red, banded and spotted; toes naked; wings 155; tail 85 mm. long. Brazil.

14. *S. atricapillus*, Cuv.; *Str. atricapilla*, Natterer, Temm. Pl. Col. 145.—With crown of the head black, and pointed feather-horns; wings 177; tail 87 mm. long. Brazil.

Like these last species or subspecies, the Indian species are also so intimately connected, that it is very difficult to make out the distinctions.

15. *S. lempiji*, Bp.; *Str. lempiji*, Horsf.; *Str. noctula*, Reinw., Pl. Col. 99; *Sc. javanicus*, Less.—A little stronger and larger, than *S. ephialtes*, two neck bands of rusty-yellow; wings 137–145; tail 69-73 mm. long.

16. *S. semitorques*, Bp.; *Otus semitorques*, Schl. Fauna, Jap. t. 8. —It is larger, and the difference consists in the feathers on the toes, reaching to the scales of the claws; wings 179; middle toe without claw, 21 mm. long. It differs like *asio* from *braziliensis* in the feathered toes, and also like *asio*, lives in a colder climate; *S. braziliensis* and *S. lempiji* inhabit the Torrid Zone.

17. *S. manadensis*, Quoy and Gaim., Astr. pl. ii. 2.—Very near to *lempiji* and of the same size, but wants the two neck collars; wings 142–148; tail 67–70 mm. long. Celebes.

II. Genus OTUS, Cuv.

The ear orifice like the gill of a fish, reaching from the top of the head to the lower jaws; they are asymmetric; very clear veil, and more or less distinct feather-horns.

a. Subgenus Pseudoscops.—With smaller ear orifice without operculum; larger and projected bill; wing short; first quill as

long as the tenth; 1-4th quills feebly emarginated on the inner web; toes completely naked and scaled like the greatest part of the genus *Scops*.

1. *O. grammicus*, Kp.; *Ephialtes grammicus*, Gosse, B. of Jamaica, t. 19. — The tail 118 mm. long, with ten small bands on a painted ground. Domingo, Cuba.

2. *O. macrurus*, Kp. — The brown tail 148 mm. long, with five small whitish bands and ends. Mexico, Museum of Wurzburg.

b. Subgenus Otus. — With small curved bill and long wings; the first quill not so long as the fourth, distinctly emarginated near the end; the second not so distinct; the pectinated margin of the first quill very much developed; toes mostly covered with feathers to the scales next the claws. This subgenus is connected with the fourth subgenus, *Brachyotus*, Gould. It appears that this subgenus contains species which are more night birds than the other subgenera of *Otus*.

The following *O. vulgaris*, *americanus*, and *zonurus*, are formed upon one and the same type. *Otus stygius* is the other type.

3. *O. stygius*, G. Gray, Puch. Arch. du Mus. d'Hist. Nat. p. 336, pl. xxiv.; *Nyctalops stygius*, Wagl. Isis. 1832; *Otus seguapu*, Orb. Voy. Cuba, t. 2; *Strix melanopis*, Licht. Berl. Mus. — Head and the upper parts dark brown; toes naked like the species of the subgenus *Pseudoscops*, the largest of the whole genus. A handsome very distinct species. St. Paul, Cuba.

O. vulgaris, Flem.; *Strix otus*, Linn.; Naum. t. 45; Gould, t. 39. —The wings 275–279 mm. long; the wings with 4–7; the tail with 6-9 cross bands. Europe, India.

O. americanus, Bp.; *Str. americana*, Gmel.; *Otus wilsoni*, Less.; Wilson, 51; Aud. 383. — The inner wings with 5–7 broad bands; the under side of the tail with nine line like cross bands; wings 290 mm. long. It inhabits the northern parts of America and Mexico, and may possibly be found still farther south.

O. zonurus, G. Gray. — The under part of the wings and tail with twelve cross bands; the plumage is darker; black predominates on the upper and lower parts.

c. Subgenus Rhinoptynx.—Bill long and projected; wings short and obtuse; the first quill longer than the 6–9; the first and second distinctly emarginated; toes feathered.

O. mexicanus, Cuv.; *Str. mexicana*, Gmel.; *longirostris*, Spix.; *maculosa*, Wied.; *Bubo clamator*, Vieill.; Vieill. Ois. d'Am. Sept. t. 20; Spix. Av. Braz. 9a; Aud. 412. — With white face and fine zigzag lines on the superior parts.

O. madagascariensis, Smith; A. Smith Catal. of S. Afr. Mus.; *Bubo madagascariensis*, Puch. Arch. du Mus. t. iv. pl. 23. — With dark face; tarsus 37 mm. long. It is wrong to bring this species into the genus *Bubo;* it shows only analogies but no affinities.

d. Subgenus BRACHYOTUS,* Gould. — Head smaller, with small curved bill; long wings; the first quill shorter than the second, and nearly as long as the fourth, clearly emarginated near the end; the second not so distinct; the pectinated margin of the first quill not so developed; toes covered with feathers to the scales of the claws. The type of this small subgenus differs in its manner of life very much; it lives in meadows, fields, and amongst reeds, and is more a Day Owl than a Night Owl. In the northern parts of Europe it makes its nest among reeds.

O. brachyotus, Boie; *Strix brachyotus*, Gmel.; Naum.; *Ulula*, Gmel. &c. &c.; Gould, t. 40; Pl. Enl. 438; Nozemann, t. 33, 34; Frisch. t. 98.—Black around the eye; wing 295–300; tail 150 mm. long; weight nearly twelve ounces. This species is spread over the whole world; Australia excepted.

I have not been able to separate the *O. galapagoensis* of Mr. Gould, or the *Br. palustris*, (*americanus*,) Bp.

e. Subgenus PHASMOPTYNX. — The bill small and curved; wing long; first quill not so long as the fifth; 1–3 two inches from the end more or less emarginated; the first quill like *brachyotus;* toes very short, pectinated, thin feathered; feather-horns not distinct.

O. capensis, A. Smith; Ill. S. Afr. Zool. t. 67. — Head 67; tail 153 mm. long. It is found from the Cape of Good Hope to the extreme parts of Africa.

* By an exact comparison of this subgenus with the subgenus *Otus* and the others, we see that it shows no generic difference in its skeleton. For this purpose I intend to give, in my larger work, the skulls of European species.

III. Genus BUBO, Cuv.

Large Owls with ear orifices as large as the diameter of the eye, without operculum; feather-horns more or less distinct; the skull on the occiput very much enlarged. The greatest number are the largest birds. They must be divided into five different subgenera, of which the most are erroneously considered as true genera by the latest authors. This is a very grave fault!

a. Subgenus Lophostrix, Less.—Bill long and projected; *the first* quill, *like all the subgenera of the first rank, as long as the tenth; toes naked* with broad soles, and the claws, like the third and fifth subgenus, *Ketupa*, *Pseudoptynx*, *are falcated.* This subgenus, as the first, represents *Scops*, and this is the reason why some authors give that a place as a true genus next to this, which is quite wrong.

1. *B. cristatus*, Kp.; *Str. cristata*, Daud.; *griseata*, Lath.; *superciliosa*, Shaw; Vaill. Afr. t. 48; Mr. and Mrs. Strickland in Sir W. Jardine's Contr. Orn. cum fig. var. (1848).—It is nearly the size of *Otus vulgaris*, but appears larger from its long tail. It shows a great number of analogies with *Podargus*, which forms also the third subfamily in the second family of *Hirundinidæ*.

b. Subgenus Bubo.—With small, curved and black bill; wing long; the first quill distinctly shorter than the fifth; 2d to 5th obtusely emarginated. They are the representatives of the genus *Otus* in its own genus.

2. *B. bengalensis*, G. Gray; *Otus bengalensis*, Frank.; *Bubo* (*Urrua*) *cavearius*, Hodgs., Gmel.; Cent. Him. B. t. 3. The black vertical margin-feathers of the ear bound the veil; the feather-horns 62-67 mm. long, black at the root, and margined with rufous on the interior webs.

3. *B. ascalaphus*, Sav., Exped. Egypt, Ois. 3, 2; *Otus ascalaphus*, Cuv.; *Ascalaphia savignyi*, Geoff.; Gould. Eur. t. 38; Pl. Col. 57; Brit. Zool. pl. B. fig. 3.—A black vertical stripe bounds the veil of the ear; the feather-horns short, 44 mm. long, rusty yellow with black points; sides and belly rusty yellow, with round, white, black margined spots. Egypt, Nubia. Strays sometimes into Sardinia, Sicily, and even England.

4. *B. maximus*, *Strix bubo*, Linn.; Gould, 37, The veil or margin-feathers of the ear, not bounded by a black stripe. A handsome variety exists in the northern regions, which is very light coloured, nearly white. This is the *Bubo sibiricus*, Eversm.; Gray and Mitchell, Genera of Birds; Susemihl Vogel Europas. From Prince Buonaparte we learn that the *Bubo virginianus*, in high northern latitudes, also changes to a similar colour. The *Bubo capensis*, Daud., *Africanus steph.* Vaill. Ois. d'Afr. t. 40; Smith, Ill. S. Afr. Zool. B. t. 70, is not a distinct species; it has too few characters to separate it as a good species from the *Bubo maximus*. It may be possible that these mentioned varieties are subspecies from one and the same type (*Bubo maximus*). Europe, Africa, Asia.

5. *B. africanus*, Boie; *Str. Africana*, Temm. Pl. Col. 50; *Otus*, Cuv.; *Bubo maculosus*, Cass.; *Str.* Daud.; *Bubo cinerascens*, Guér.; *Bubo dilloni*, Desm. et Prev. Larger than *Syrn. aluco*; a black vertical stripe bounds the veil; feather-horns 60-70 mms. long, black with rusty yellow spots or bands; wings 308-365 mms. long. The smallest species of the whole subgenus. It is spread over the whole of Africa.

6. *B. virginianus*, Briss.; *Str. virginiana et Str. magellanicus*, Gmel.; *Bubo virginianus et articus*, Rich. and Swains. t. 30; *Bubo ludovicianus*, Daud.; *Str. crassirostris*, Vieill.; *Str. macrorhynchus*, Temm., Pl. Col. 62; Wils. t. 50; Aud. t. 61; Pl. Enl. 385; Vieill. t. 19. The veil bounded with a black vertical stripe; the feather-horns 62-84 mm. long, black at the root, the inner web rufous; wings 360 mm. long. It has in proportion to its body the largest bill. I cannot find a true difference between *virginianus* and *magellanicus*.

c. Subgenus KETUPA, Less. — Tarsus and toes naked; the claws, except that of the middle toe, sharp and falcated; the wings short; first quill as long as the eighth; the 1–4 curved, emarginated in the middle of the inner-web; bill large, projected. The greatest part of species are Asiatic; only one species African.

7. *B. ceylonensis*, Kp.; *Str. ceylonensis*, Gmel.; *Ketupa ceyl.* G. Gray; *Str. leschenaulti*, Temm. Pl. Col. 20; *Str. hardwickii*, Ill. Ind. Zool. pl. 31; *Cultriunguis nigripes*, Hodgs. The size of *B. virginianus;* the under side gray, with black shaft stripes and innummerable fine cross lines; feet blackish.

8. *B. flavipes*, Kp.; *Ketupa flavipes*, G. Gray; *Cultriunguis flavipes*, Hodgs., As. Soc. Beng. 1836, 964, pl. 26. Size of *Bubo maximus*. Lower parts of the body rufous, with black shaft-spots, feet yellow. Nepal.

9. *B. ketupa*, Kp.; *Str. Ketupa*, Horsf.; *ceylonensis*, Temm. Pl. Col. 74; *Scops ketupa*, Cuv.; *Ketupa javanensis*, Less. Size of the *Bubo africanus*; lower parts rusty-yellow, with narrow black shaft-spots. In Java common.

To this subgenus also belongs —

10. *B. peli*, Kp.; *Strix peli*, Temm.; *Scotopelia peli*, Bp. It is the largest of all, and is from Western Africa. I am very sorry that circumstances did not give me an opportunity to describe this very interesting species, which is typical of the whole subgenus *Ketupa* and the genus *Bubo*.

d. Subgenus URRUA, Hodgs.—Bill very strong and projected; the first quill to sixth distinctly emarginated, more in the middle of the wing; tarsus feathered; toes thinly feathered; claws of the usual form. They have more affinity with the second subgenus *Bubo* than with the first, third, or fifth.

11. *B. coromandus*, G. Gray; *Str. coromanda*, Lath.; *Urrua coromanda*, Hodgs.; J. Gray, Ind. Zool. pl. 20.—Size of the *Bubo africanus*. Total plumage ash-grey, with dark shaft-stripes and fine cross lines. The smallest in this subgenus.

12. *B. orientalis*, G. Gray; *Strix orientalis*, Horsf.; *sumatrana*, Raffl.; *strepitans*, Temm. Pl. Col. 174, ♂ 229 juv.; *Bubo strepitans*, Cuv.—Size 370-475 mm. long; the veil not bounded by a black stripe.

13. *B. nepalensis*, Hodgson.—Size of *Bubo maximus*; 600 mm. length; feather-horns, occiput, and lower parts with black arrow like spots; toes thinly feathered.

14. *B. lacteus*, Cuv.; *Str. lactea*, Temm. Pl. Col. 4.—The veil bounded by a black vertical stripe; total plumage rufous and ash-grey, with fine irregular markings. Africa.

e. Subgenus PSEUDOPTYNX; *Ketupa* with feathered tarsus and indistinct feather-horns.

15. *B. philippensis*, Kp.; *Syrnium philippense*, G. Gray.—Size

of *Bubo ketupa;* upper parts dark brown, with rusty yellow or rufous margins.

IV. Genus STRIX, Linn.

The claws of the middle toe on the interior margin distinctly pectinated. The ear orifice quadrangular, placed in the middle between two skin flaps, and bounded on the upper and lower margin by a membrane; the hind ear flap is small and equal in breadth, the anterior or operculum broadest in the middle; the ear slit begins over the eye and reaches nearly to the gape like *Otus*; symmetric. They are spread over all parts of the world.

a. Subgenus Phodilus, Is. Geoffr.—Wing short; first quill as long as the tenth; toes naked, scaled, without bristle-feathers.

1. *Str. badia*, Horsf.; Pl. col. 318; *Ph. badius*, Is. Geoff.—Smaller than *Str. flammea*, but very near to it in colour. Java. Rare in collections.

b. Subgenus Strix.—Middle size and very light; the first quill nearly as long as the second, the third a little shorter; first quill only, indistinctly emarginated on the end of the inner web; toes finely scaled, with bristle-feathers; the long wing overreaching the short tail.

2. *Str. punctatissima*, G. Gray, Voyage of Beagle B. p. 34, pl. 4. The smallest; the wing only 235 mm. long; the first quill shorter than the fourth. Galapagos Islands; British Museum.

3. *Str. glaucops*, Kp.—With silver grey face; the first quill as long as the fourth. Jamaica; British Museum.

4. *Str. st. thomae*, Hartl.—The upper parts nearly black grey with white black-bounded spots; margins of the feathers of the hind ear rusty yellow, with black shafts, or black shaft stripes next the gape and chin. Western Africa. I have not compared this species with Fraser's *Strix poensis*, from the Island of Fernando Po.

5. *Str. flammea*, Linn.; Pl. Enl. 440; Gould, t. 36.—The outermost series of feathers on the hind ear-margin pure white, or along the shaft with an indistinct line pointed at the end with dark

brown. I cannot find a difference in specimens from the Cape of Good Hope, Europe, Africa.

6. *Str. perlata*, Licht.; *furcata*, Temm. Pl. Col. 432.—Tarsus 73-79; wing 300-315 mm. long.—In this species we see specimens whose wings are nearly white; the end of the tail is more or less furcated than that of *Str. flammea*. Northern and South part of America.

7. *Str. delicatula*, Gould, B. of Austr. t. i.—Tarsus 67-67; wing 255-280 mm. long; the webs of the hind ear margin have a black stripe along the shaft, which is closed on the top with a zigzag crossband, or an arrow-like figure. Very near to the European, but the predominant colour is grey. I cannot find any difference between the examples of this species from Australia and those from Java; and I feel quite sure that *delicatula* and *javanica* belong to one and the same species.

8. *Str. candida*, Tick. Journ. A. S. R. ii. p. 572 (1833); *longimembris*, Jerd. Madr. J. Lit. and Sc. p. 86 (1839); *capensis*, A. Smith Ill. S. Afr. Zool. pl. 45.—Tarsus 85 mm. long; upper parts more or less uniform brown or blackish. Cape of Good Hope and Madras.

In this subgenus I have mixed the types of two small subgenera. Possibly the species with very long tarsi may form a new subgenus, which we can call in future *Scelostrix*.

d. Subgenus Dactylostrix.—With shorter wings and shorter wing-ends, which do not overreach the end of the tail; second quill the longest; third as long as the second. They have not the light aërial body of the second subgenus *Strix*, but they have a stronger bill, powerful toes, and stronger shafts to the quills; the toes yellow with fine scales and bristle-feathers. They are large Owls, and prey upon animals larger than mice.

9. *Str. castanops*, Gould, B. of Aust. tom. i.—Middle toe 57-58 mm. long. Australia, Van Diemen's Land.

10. *Str. personata*, Vig. Proc. Zool. Soc. p. 60 (1831); *Str. cyclops*, Gould, B. of Aust. tom. i.—wings 312; tarsus 61-33; middle toe 42-46 mm. long.

e. Subgenus Megastrix.—With short wings and short and obtuse wing-end. The first quill as long as the sixth, the second and

fourth a little longer, third the longest; toes completely naked and scaled like *Phodilus*, or thinly covered with short bristles.

11. *Str. tenebricosa*, Gould, B. of Aust. tom. i.—With dark grey face, plumage blackish, marbled with grey; toes yellow.

V. Genus SYRNIUM, Sav.

Without feather-horns; claw of the middle toe not pectinated; veil distinct; the first quill shorter or just as long as the tenth.

a. Subgenus Ciccaba, Wagl.—Ear orifice very small like a Day Owl and without operculum; toes naked and scaled like *Scops*; the second quill to the sixth on the exterior web, the first to the fifth on the inner web, emarginated; bill feeble and projected; middle size.

1. *S. huhula*, Kp.; *Str. huhula*, Lath.; *lineata*, Shaw; *albomarginata*, Spix., pl. 10, a.—Black with numerous white cross-bands. Cayenne.

2. *S. hylophilum*, G. Gray; *Str. hylophila*, Temm. Pl. Col. 373; *Syrn. albotarse*, G. Gray; *Ulula fasciata*, O des Murs, Pl. xxxvii.—Size of *Syrn. aluco*. Breast and belly with dark cross-bands, one or two on each feather. Brazil.

3. *S. nudipes*, Kp.; *Str. nudipes*, Daud.; *La choutte nudipede*, Vieill., Am. pl. 16.—Size of *Athene noctua;* the greatest part of the tarsus without feathers. Porto Rico. In the Museum at Paris are two specimens, one is more greyish and the other more rufous. I have no doubt that the naked tarsus is natural. A very young one out of the nest, from St. Domingo, has the same character, and has the greatest part scaled.

4. *S. albipunctatum*, Kp.; *Scops albipunctatus*, G. Gray; *Syrn. albogulare*, Cass.; *Syrn. macabrum*, Bp.—Tail 128 mm. long with fourteen regular bands on the lower side. Colombia.

5. *S. cayanense*, Kp.; *Strix cayanensis*, Gmel. (juv.); *fasciata*, Vieill.; *Syrn. zonocircum et polygrammicum*, G. Gray; *Str. sunda*, Vieill. (juv.); *squamulata*, Licht.—The lower parts rufous, with dark brown shaft-spots; wings 240–265; tail 143–157 mm. long.

6. *S. woodfordi*, Cass.; *Athene woodfordi*, A. Smith, Ill. S. A. Zool. 71.—The lower parts with four line like cross bands on each

feather; between the last cross lines a white band; the margin rufous. Cape of Good Hope.

b. Subgenus SYRNIUM.—Bill feeble and yellow; ear orifice middle size and asymmetric, with large operculum; toes thickly feathered; first quill, second to fifth, pectinated on the emarginations. Between the size of *Aluco* and *Bubo maximus*. They are spread over the whole world, New Holland excepted.

7. *S. aluco*, Cuv.; *Str. aluco* and *stridula*, Linn.; *Syrn. ululans*, Sav.; Gould, Eur. 17.—Head 70, tail 170 mm. long. Found in woods of Europe and Asia.

8. *S. cinereum*, Bp.; *Str. cinerea*, Gmel.; *lapponica*, Retz.; *barbata*, Pall.; *Ul. microphthalma*, Tyzenski; Gould, Eur. 42.—The face ash-grey with concentric rings. Europe, Asia, and America.

9. *S. nebulosum*, Boie.; *Str. nebulosa* and *chichictli*, Gmel.; Wilson, 33, 2; Aud. 46; Gould, Eur. 46.—Size between *aluco* and *uralense*; head 84; wing 320; tail 205 mm. long. Northern parts of America, never in Europe.

10. *S. uralense*, Brehm.; *Str. uralense*, Pall.; *liturata*, Retz.; *macroura*, Natt.; *macrocephala*, Meisn.; Gould, Eur. t. 44.—The grey or whitish face without concentric rings; margin of the shoulder covers with large white spots. Size of a little *Bubo maximus*, or 26 inches long. Northern parts of Europe and Asia (Siberia).

11. *S. nivicolum*, Hodgs.—Head 74; wings 286; tail 185; bill 23 mm. long. Larger than *Aluco*, and the colour more variegated and brilliant. Central Asia.

c. Subgenus BULACA, Hodgs.—Ear orifice not larger than the diameter of the eye with small operculum; bill strong, straight, projected and mostly black; first to sixth quill emarginated near the middle; toes feathered.

12 *S. indranee*, G. Gray; *Strix indranee*, Syk. Proc. Zool. Soc. p. 82 (1832); Gray & Mitchell, Genera of Birds, pl. 14; *Bulaca newarensis*, Hodgs.; *monticola*, Jerd.; *Urrua umbrata*, Blyth.—The lower parts white with numerous black cross bands; head, neck, and back, uniform dark brown. Country of the Mahrattas. Rare. (Sykes).

13. *S. sinense*, G. Gray; *Str. sinensis*, Lath; *orientalis*, Shaw; J. Gray, Ill. Ind. Zool. t. 21.—Lower parts rufous with large white spots, each feather with two to five narrow black cross bands; head, neck and back, whitish, variegated on a rufous ground.

14. *S. seloputo*, Kp.; *Str. seloputo*, Horsf.; *pagodarum*, Temm. Pl. Col. 230.—Cheeks, lorum, and front, bright rusty red. Java.

15. *S. leptogrammicum*, Cass.; *Str. leptogrammica*, Temm. Pl. Col. 525.—Breast rusty red without bands; head without spots or bands; cheek and lorum whitish; a black brown stripe from the front round the ear-covers. Borneo.

d. or e. Subgenus PULSATRIX.—Bill strong, high, curved from the root, with sharpened culmen; ear without operculum, not so large as the diameter of the eye; first quill to the sixth emarginated nearer the root than the end; toes feathered to the scales of the claws.

16. *S. torquatum*, Kp.; *Str. torquata* and *personata*, Daud.; Vaill. 42, 44 (juv.); *Str. perspicillata*, Lath.; *superciliosa et larvata*, Shaw.—Blackish with front and stripe over the eye white; lower parts white, with brown chin and breast band. Guiana, Brazil.

LIST

OF

A COLLECTION OF BIRDS

MADE

BY JAMES DAUBENY, ESQ.

ON

THE COASTS OF THE RED SEA IN 1851,

BY PHILIP LUTELY SCLATER.

THE collection of bird skins of which the following is the catalogue, was formed by Mr. James Daubeny, principally on the shores of the Red Sea. The greater number of the species are Abyssinian, and were collected apparently near Massowa, a village on the coast of that country, though some few are from Ayoun Mousa, or Moses' Wells, not far from Suez; one or two from Mocha, and others from Mokolla on the South coast of Arabia. They are consequently nearly all included in the very full list of North-East African birds given by M. Rüppell in the latest and most complete of his works, the *Systematische Uebersicht der Vögel Nord-Ost-Afrika's*. The Ornithology of this portion of Africa has in fact been pretty well worked out, and there remain probably but few new species to be found on the west coast of the Red Sea; but on the eastern or Asiatic side, where the African Fauna passes into that of India, the Ornithology is nearly unexplored, and there are doubtless many discoveries still to be made.

Mr. Strickland has assisted me in naming some of the following species, which I had some difficulty in determining.

1. *Tinnunculus alaudarius*, G. R. Gray. From the ruins near Hansley Bay.

2. *Melierax polyzonus*, (Rüpp.)♀; *Falco polyzonus*, Rüpp., Faun. Abyss., t. xv. fig. 1. Cosso. Mr. Gray identifies M. Rüppell's species with the South African one figured by Le Vaillant, pl. 27, *M. musicus* (Daud.); but when at Frankfort last summer, Dr. Rüppell showed me the two species in the Senckenberg Museum, apparently quite distinct.

3. *Scops* ——*?* Red sea; flew on board.

4. *Cotyle riparia* (Linn.) From Zanzibar. Agrees well with English specimens.

5. *Cypselus ambrosiacus* (Gm.)

6. *Coracias abyssinica*. Linn. Abyssinia.

7. *Coracias caudata* (Linn.) This Roller has been much confounded with *Coracias abyssinica*. It is however more like *C. bengalensis*. It is a rare species. The present specimen is probably from Zanzibar, as it is not found in the more northern portion of Africa.

8. *Coracias pilosa* (Lath.) Abyssinia.

9. *Ceryle rudis* (Linn.)

10. *Halcyon pygmæa*, Rüpp. Atlas, t. xxviii. Moses' Wells.

11. *Halcyon semicærulea*, Förskal. Rüpp. Wirb. t. xxiv. Fig. 1. Abyssinia.

12. *Merops apiaster*, Linn. Moses' Wells.

13. *Merops lamarcki*, Cuvier. Near Hansley Bay.

14. *Merops albicollis*, Vieill. Massowa; or rather Winayoore, about 180 miles from it; not noticed by M. Rüppell.

15. *Merops nubicus*, Gm. Moses' Wells.

16. *Irrisor erythrorhynchus* (Lath.)

17. *Nectarinia metallica*, Rüpp. Atlas, t. 7. Abyssinia.

18. *Nectarinia abyssinica*, Ehr. Symb. Phys. t. 4. Cosso.

19. *Nectarinia natalensis*, Jardine. *Var.* Zanzibar. M. Jules Verreaux, considers the Port Natal and Zanzibar specimens as distinct species.

20. *Nectarinia albiventris*, Strickland. Sp. nov. Ras Hassoun, African coast. This new species is described and figured in the present volume of Contributions to Ornithology, page 42, plate lxxxvi.

21. *Prinia gracilis*, Rüpp. From Cosso.

22. *Oligura micrura*, Rüpp. Abyssinia.

23. *Aedon galactotes* (Temm.) About Mokolla. Not included by M. Rüppell in his List of the Ornithology of N. E. Africa.

24. *Turdus olivaceus*, Linn. An immature specimen.

25. *Saxicola leucomelas* (Gm.) Abyssinian Coast.

26. *Saxicola stapazina* (Gm.) Near Massowa.

27. *Saxicola isabellina*, Rüpp. Mokolla, Febry.

28. *Motacilla alba*, Linn. Zanzibar.

29. *Anthus arboreus* (Linn.)

30. *Oriolus galbula*, Linn. Juv.

31. *Dicrurus lugubris*. Ehr. Symb. Phys. t. 8.

32. *Lanius algeriensis*, Lesson. From Mokolla. Near Massowa.

33. *Lanius* ——*?* —— This species seems intermediate between *L. isabellinus*, Ehrenb., and *L. arenarius*, Blyth.—*(H. E. Strickland)*.

34. *Dryoscopus æthiopicus* (Rüpp.) = *Telophonus æthiopicus*, Rüpp. Syst. Ueb. t. xxiii.

35. *Telophonus senegalus* (Linn.), (Shaw.) Abyssinia.

36. *Laniarius erythrogaster* (Bodd.) Abyssinia.

37. *Prionops cristatus*, Rüpp.

38. *Juida leucogastra* (Linn.) Abyssinia.

39. *Juida* ——*?* —— Abyssinia.

40. *Buphaga erythrorhyncha* (Stanley.) Mokolla.

41. *Hyphantornis galbula* (Rüpp.) Cosso.

42. *Passer swainsoni* (Rüpp.) — *Pyrgita swainsoni*, Rüpp. t. xxxiii. fig. 2.

43. *Euplectes ignicolor* (Vieill.) Abyssinia.

44. *Vidua paradisea* (Linn.) Cosso.

45. *Amadina fasciata* (Gm.) Abyssinia.

46. *Alauda cristata* (Linn.) The Prince Canino separates the Abyssinian Crested Lark from the European, under the title of *Galerida abyssinica*; but I cannot find much difference in the present specimen.

47. *Pyrrhulauda leucotis* (Stanley.)

48. *Colius macrurus*, Linn. Cosso. Figured Gray's Genera.

49. *Toccus nasutus* (Linn.) Cosso.

50. *Turacus leucotis* (Rüpp.) Abyssinia.

51. *Agapornis tarantæ* (Stanley.) Abyssinia. The genus *Agapornis* was instituted by Mr. Selby for the reception of the small

Parrots, known by the name of Love Birds and Guinea Sparrows; Mr. Gray has united it to the American group *Psittacula*, Brisson. The only African examples of the present genus that I am acquainted with, are, besides the present, *Agapornis swinderniana* (Kuhl), said to be from South Africa, and *Agapornis pullaria* (Linn.), from the Guinea Coast.

52. *Pogonias melanocephalus* (Rüpp.) This specific name has the advantage of two years' priority over M. Ehrenberg's, which is the one adopted by Mr. Gray.

53. *Trachyphonus margaritatus* (Rüpp.) Abyssinia.

54. *Centropus senegalensis* (Linn.) Zanzibar.

55. *Treron abyssinica* (Lath.) Abyssinia.

56. *Turtur migratorius*, Selby. Mokolla. Moses' Wells.

57. *Æna capensis* (Linn.) Mokolla, Febry.

58. *Peristera chalcospilos*, Swains. Rüpp. Syst. Ueb. pl. 38.

59. *Pterocles exustus* (Temm.) Abyssinia.

60. *Œdicnemus* —— *?* —— Arkego.

61. *Vanellus leucurus* (Eversm.) Sav. Descript. de l'Egypte Ois. t. vi. fig. 2.

62. *Squatarola helvetica* (Linn.) Arkego.

63. *Hoplopterus spinosus* (Linn.)

64. *Herodias garzetta* (Linn.)

65. *Herodias schistacea* (Ehr.) Symb. Phys. t. vi.

66. *Buphus coromandus* (Bodd.) Abyssinia.

67. *Scopus umbretta*, Gm.

68. *Dromas ardeola*, Payk.

69. *Numenius arquata*, Linn.

70. *Totanus calidris*, Linn. Suez.

71. *Tringa minuta* (Leisler.)

72. *Pelidna alpina*, Linn.

73. *Podiceps cornutus*, Linn. Juv. Moses' Wells.

74. *Sterna affinis*, Rüpp. Mocha.

75. *Sterna hirundo*, Linn. Suez.

76. *Sterna minuta*, Linn. Suez.

F Reeve, imp

Pæcilornis rufivertex, *Lafr.*

1852.

ORNITHOLOGICAL NOTES

By H. E. STRICKLAND.

DESCRIPTION OF *IRIDOSORNIS DUBUSIA* (Bon.)

Plate XCIV.

The bird before us has never hitherto been figured, and as it has given rise to a considerable amount of synonymical confusion, it presents an appropriate subject for illustration.

There is a bird somewhat resembling this, to which Florent Prevost gave the name of *Tanagra ruficervix*, and which he figured in the "Voyage de la Vénus," pl. 5, f. 1. It is the *Calliste ruficervix* of Mr. Sclater, "Contrib. Ornith.," 1851, p. 58, who also there defines two other species, *C. leucotis* and *C. atrocærulea*, both of which have been erroneously referred to the *Tanagra ruficervix* of Prevost. But besides these two species there is also a third, the subject of my present notice, which was referred to the original *ruficervix* by M. de Lafresnaye, in the "Revue Zoologique," 1842, p. 335. In quoting Prevost's species, however, he inadvertently wrote the name *rufivertex* instead of *ruficervix*, an error which the Prince of Canino, who first detected it, terms "une heureuse inadvertance, car c'est uniquement à cause d'elle que le nom specifique de *ruficervix* [the Prince himself evidently meant to have written *rufivertex*] peut être conservé à cette espèce, rendant inutile celui de *Tanagra dubusia*, sous lequel je l'ai décrit dans mon *Conspectus*." Now I do not agree with this eminent ornithologist, in thinking that a mere *lapsus calami* has any claim for perpetuation on the ground of priority. M. de Lafresnaye, when he wrote the name *rufivertex*, thought that he was quoting Prevost's denomination, and had no

intention of conferring an original name of his own. The originality of the name was due to an accidental but very excusable blunder, which ought to have been corrected in the *errata*, in which case its originality would have vanished. It is moreover a proof of the confusion likely to arise from retaining *rufivertex* and *ruficervix* as independent titles for these two distinct species, that the Prince of Canino, when in the very act of pointing out the clerical error committed by Lafresnaye, has himself perpetrated the converse of the same mistake, by writing *ruficervix* for *rufivertex*.

It appears evident, that this is a case, in which without any departure from the spirit of the "law of priority," we are justified in cancelling altogether the name *rufivertex* as a mere *lapsus calami* for *ruficervix*; and as this name is shown to belong to a distinct species from the bird before us, we must retain for the latter the specific name *dubusia*, given to it in 1850 by Prince Bonaparte, prior to his criticism above quoted.

This bird has been adopted as the type-species of three distinct generic names, viz. — *Iridosornis*, Lesson, in "Echo du Monde Savant," June, 1844; *Pœcilornis*, Hartlaub, "Revue Zoologique," October, 1844; and *Euthraupis*, Cabanis, 1850. *Iridosornis* being the oldest of these, is here retained, though the name *Pœcilornis* has been inadvertently printed on the Plate.

Desc. — Crown, rich golden orange; rest of head, throat and nape, black; back, lesser wing-covers and belly, deep Prussian blue; greater wing-covers, remiges and rectrices, black, margined externally with greenish-blue; vent rufous; upper mandible, horn colour; lower, paler; legs brown.

Total length $\dot{5}.\ddot{8}$; beak to front $\ddot{4}$, to gape $\ddot{5}$, height $2\frac{1}{2}$; wing $\dot{3}$; tail $\dot{2}.\ddot{7}$; tarsus $\ddot{9}$.

DESCRIPTIONS

OF SOME

NEW SPECIES OF BIRDS FROM THE PARISIAN COLLECTIONS.

For the illustrations accompanying this paper we are indebted to Mr. Edward Wilson of Tenby, to whom we have often had occasion to express our acknowledgments for the kind interest he has taken in these "Contributions." When in Paris lately, Mr. Wilson saw some figures of birds executed by Mon. Chenu, printed entirely in colours; and being struck with their execution, directed three plates to be prepared for this work (Plates XCVI. XCVII. XCVIII.) It will easily be seen that some subjects will work better and more harmoniously than others, while some may require a slight assistance or touching by the hand; but in any circumstances, if figures such as are now given can be procured at a lessened expense by printing, thereby saving the laborious and expensive operation of colouring by hand, a great assistance will be gained to the production of coloured illustrated works. The other two figures (Plates XCIX. C.) are lithographed and coloured in the usual way, being drawn by Oudart, whose name is so well known in the continental works upon Ornithology. These may be usefully contrasted with the former.

The birds have been described by Mr. Sclater in conjunction with M. Deville, from specimens in the Collection of the Jardin des Plantes, and published in the "Revue et Magazin de Zoologie," from which we now quote.

COTINGA PORPHYROLÆMA, Deville et Sclater.*

Plate XCVI.

"Suprà nigra, dorsi plumis pennisque, nisi primariis, albo marginatis; infrà, gulâ violacea purpureâ; rostro et pedibus nigris; uropygii plumis laxis admodum elongatis.

"Long. tota, 17 c. 5 m.; alæ, 9 c. 5 m.; caudæ, 6 c. 5 m.

"Dessus de la tête et oreilles noires; ventre blanc; gorge d'un violet pourpré; dos squammé de plumes noires et blanches, chaque plume étant terminée par une bande blanche qui lui donne cette apparence squammeuse. Ailes noires, une bande blanche étendant sur toutes les couvertures des ailes; les plumes latérales du ventre sont squammeuses à leur extremité; celles du croupion ont le blanc plus étendu; queue noire; bec et pattes d'un gris plombé; œil d'un brun clair.

"Cet oiseau qui ne se rencontre que dans les bois humides, se tient généralement au sommet des arbres, où il est tres-dificile de l'apercevoir, malgré son chant rauque et tres prolongé, qui, du reste, est le même que celui de tous les *Cotingas*. Il ressemble au son d'une cloche grave; il est fort en commençant, et aigu vers la fin.

"Le Cotinga est essentiellement frugivore, et j'ai toujours trouvé, dans tous les estomacs que j'ai ouverts, ces derniers remplis de fruits, et surtout de fruits aromatiques.

"Cet oiseau vit généralement par paires, et son vol est très-léger.

Le seul individu type de l'espèce que l'expédition ait pu se procurer a été tué près la mission de Sarayacou, rivière de l'Ucayale (Pérou, Pampa del Sacramento)."

The next plates refer to the descriptions of some birds, which Mr. Sclater when examining the Tanagrine birds in the Parisian collection, considered as undescribed. These were published in the same periodical.†

* Description d'une nouvelle Espèce de Cotinga provenant de l'Expédition de MM. Castelnau et Deville dans l'Amérique du Sud.; par MM. E. Deville et Sclater. Rev. et Mag. de Zoologie, No. V., 1852, p. 226.

† Description de Six Oiseaux Nouveaux appartenant à la Collection du Muséum d' Histoire Naturelle de Paris, par Philip Lutley Sclater. Rev. et Mag. de Zoologie, No. I., 1852, p. 8.

"M'étant occupé, depuis un certain temps, des oiseaux Américains, et principalment des familles *Tanagridæ* et *Pipridæ*, je suis venu exprès visiter le musée de Paris dans l'intention d'y examiner les types rares et d'une valeur inappréciable que renferme cette magnifique collection.

"Après avoir parcouru minutieusement ces divers groupes, et trouvé quelques espèces nouvelles, M. le professeur de zoologie ayant bien voulu m'autoriser à les décrire, je m'empresse de les enregistrer dans la liste de la science.

"Les cinq premières espèces ont été envoyés de la Nouvelle-Grenade par M. Lewy, et la sixième est sans indication de localité."

ARREMON MYSTICALIS, Sclater.

Plate XCIX.

"A. suprà olivaceus, pennis caudâque nigris, olivaceo limbatis; pileo rufo; fronte et capitis collique lateribus cum gulâ, nisi mediâ, atris; mento, gulâ mediâ, et lineâ a basi rostri collum utrinque descendente albidis; abdomine crissoque flavis, lateribus olivascentibus; rostro nigro pedibus corneis.

"Long. tota, $6\frac{1}{4}$ poll. angl.; alæ, $3\frac{7}{8}$ poll."

PIPILOPSIS FLAVIGULARIS, Sclater.

Plate XCVIII.

"P. suprà olivacea, pennis caudâque nigris olivaceo limbatis; infrà abdomine toto cum mento cinereis, gutture flavo, crisso flavescente: rostro plumbeo, basi albo notato; pedibus plumbeis; ventre medio albescentiore.

"Long. tota, $5\frac{1}{2}$ p.; alæ, $3\frac{1}{4}$ p.

"Obs. — Rostro *Pipilopsi flavipectori* similis sed paululùm fortiore."

PIPRAEIDEA ALBIVENTRIS, Sclater.

Plate C. Fig. 2.

"P. suprà cœrulea, pennis nigris angusté cœruleo marginatis; caudâ nigrâ; ventre crissoque albo; rostro pedibusque nigris.

"Long. tota, $3\frac{1}{4}$ p.; alæ, $2\frac{1}{8}$ p.

"Obs. — *P. vassori*, Lesson., affinis sed rostro minore debiliore."

PIPRA ISIDOREI, Sclater.

Plate C. Fig. 1.

"P. atra; capite albo; uropygio cyaneo.

"Long. tota, 3 p.; alæ, $1\frac{1}{8}$ p.

"Obs.—Species capitis et uropygii coloribus inter *Pipras leucocillam* et *cæruleicapillam* media locanda."

PIPRA FLAVICAPILLA, Sclater.

Plate XCVII. Fig. 2.

"P. flavo-olivacea, remigibus rectricibusque nigricantibus olivaceo limbatis; capite toto cum cervice suprà aurantio-flavis; subtùs aureo-flava gutture et cervicis lateribus olivaceo tinctis; pedibus nigricantibus; rostro plumbeo.

"Long. tota, $4\frac{1}{2}$ p.; alæ, 3 p.; caudæ, $1\frac{3}{4}$ p.

"Obs.—Longitudine caudæ, rostri formâ, capite quoque subcristato generi *Masio* affinis sed tarsis brevioribus."

PIPRA PYROCEPHALA, Sclater.

Plate XCVII. Fig. 1.

"P. roseo-brunnea; subtùs dilutior, leviter saturatiore striata: alis et lateribus cervicis olivaceis; remigibus et rectricibus nigricantibus; capite suprà flavo, vertice mediâ ruberrimâ; rostro nigricante, pedibus albescentibus.

"Long. tota, $3\frac{1}{4}$ p.; alæ, $2\frac{1}{4}$ p.

"Obs. — Affinis *Pipris strigillatæ et striolatæ*, auctorum, sed capite flavo, vertice solum mediâ coccineâ facile dignoscenda."

Imp. Leme

COTINGA PORPHYROLŒMA. *Sclater et Deville.*

1. PIPRA PYROCEPHALA . *Sclater.*
2. PIPRA FLAVICAPILLA . *Sclater.*

Imp. Lemercier, r. de Seine 57, Paris

PIPILOPSIS FLAVIGULARIS, *Sclater*.

P. Oudart, pinx.t et lith.

Becquet frères, imp.

Aremon mysticalis, *Sclater.*

Becquet frères, imp.

1. Pipra Isidori, *Sclater.*

2. Pipræidea albiventris, *Sclater.*

Euchlornis sclateri Corn.
1852.

ON A NEW SPECIES

OF

THE FAMILY OF *AMPELIDÆ*,

By Dr. EMILIO CORNALIA of Milan.

EUCHLORNIS SCLATERI, Cornalia.

Plate CII.

E. smaragdino-viridis; mento, gulâ pectoreque coccineo, parte basali pennarum lætè flavâ indè albidâ; crisso pallidè flavo; remigibus quinque primariis nigris extùs, viridi atque flavo leniter limbatis, primâ exceptâ albo terminatis; secundariis viridibus maculâ albo-flavâ, lunulâ nigrâ superiùs limitatâ, sordidè terminatis, necnon internè circumdatis; rostro flavo-rubro, apice nigricante; pedibus rubris; caudâ viridi, subtùs brunneâ, plumis albicante terminatis, necnon quasi in punctum protractis; rictalibus vibrissis nigris.

Long. tota, 0.128m; alæ, 0.075m.

Hab. Peruviam.

Museo Civico Mediolanensi,
Milano, Oct. 28, 1852.

NOTE

UPON

Dr. HARTLAUB'S *CINNYRIS BIANCONII.*

"Contributions" for 1852, p. 78.

Mons^r. Philip Lutley Sclater,

Je profite de votre bienveillante médiation pour prier Sir Wm. Jardine de vouloir bien donner insertion à la note suivante dans ses interessantes "*Contributions.*"

Je remercie M. Hartlaub, de la bonté qu'il a eu pour moi (Contribut. 1852, p. 78). Aussitôt que j'ai pu consulter le vol. iv. de cette même ouvrage, j'ai pu me convaincre que le *Cinnyris* que j'avais appellé *C. discolor*, avec la difference de la *maculâ coloris violacei nitidissimi ad summum angulum alarum*, s'était deja elevé au rang d'espèce nouvelle par Sir William Jardine, *Cinnyris natalensis*. C'est une faute que je vais corriger dans la suite des *Specimina Zoologiæ Mosambicanæ*.

Après il me semble qu'il se plaigne de ce que les publications Italiennes ne parviennent pas aux savants qu'avec beaucoup de peine. Je regrette bien vivement que la chose n'est que trop vraie; cependant pour en diminuer quelque peu la difficulté j'ai toujours offert aux naturalistes mes amis, de leur procurer dans l'interêt de la science, et de mon pays, les ouvrages d'hist. naturelle, qu'ils chercheront peut-être inutilement ailleurs.

Veuillez donc en profiter vous même, M^r., et vos amis aussi.

Votre très devoué,

J. Joseph Bianconi,

Prof^r. d'Hist. Natur. à l'Université.

Bologna (Italie), Octob. 1852.

DESCRIPTIONS

OF

THREE NEW SPECIES OF HUMMING BIRDS,

By J. GOULD, Esq., F.R.S., &c.

My Dear Sir William,

I send for insertion in your Contributions, descriptions of three new species of Humming Birds, two of which are from Bolivia, the third from Mexico — affording further evidence, that we are still unacquainted with many species of this lovely group of Birds.

Ever yours truly,

John Gould.

29, Broad Street, Golden Square,
London, Oct. 22, 1852.

RAMPHOMICRON VULCANI.

Head, sides, back of the neck and wing-coverts, greenish-brown; back and rump deep violet blue; wings purplish-brown; upper tail-coverts and tail dark bluish-green; down the centre of the throat a series of scale-like feathers, broad at the chin and tapering to a point on the breast, the upper part of which is of a brilliant metallic emerald green, passing into steelly amethystine blue; under surface dark brownish-grey; under tail-coverts greyish-white, with a streak of steel-blue down the centre of each feather; bill and feet black.

Total length, $4\frac{1}{2}$ inches; bill, $\frac{9}{16}$; wing, $2\frac{5}{8}$; tail, $2\frac{1}{4}$.

Habitat. Bolivia.

Remark—Nearly allied to *R. stanleyi*, but of a much smaller size; greyer on the breast, and the lower part of the beard steelly amethystine blue, with little or none of the reddish tinge seen in that species.

Collected by M. Warszewicz.

BOURCIERIA INCA.

On the forehead a spot of splendid metallic green; crown of the head, back of the neck and wing-coverts, bronzy green; back and abdomen lustrous metallic green; throat and a gorget-like band across the chest reddish-buff; two centre tail-feathers bronzy green, the two next on each side white at their base, broadly tipped with olive green; the two next white throughout their length, except that on the apical portion of the margin of the inner web there is a broad streak of blackish-brown, and a narrow streak of the same hue opposed to it on the outer web; the next on each side is also white, with a narrow hair-like line of blackish-brown on the apical portion of the margin of the inner web, and a broader one of the same hue opposed to it on the outer web; lastly, the outer feather is white, with the exception of the apical two-thirds of the outer web, which are blackish-brown; bill black; feet yellow.

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

Habitat. Bolivia.

Remark—The above description is taken from an immature male. In the adult, the throat, I have reason to believe, will be brilliant green, bounded by a well defined gorget of reddish-buff across the breast.

Whenever the adult becomes known, it will doubtless prove to be one of the finest species of the *Trochilidæ* yet discovered. In size and structure it closely assimilates to *Trochilus conradi*, *T. torquatus*, and *T. insectivorus*.

Collected by M. Warszewicz.

TROCHILUS (——?) AURICEPS.

Forehead and crown of the head of a glittering metallic golden hue; upper surface and wing-coverts golden green; throat and the whole of the under surface lustrous metallic green; wings purplish-brown; tail, which is deeply forked and longer than the body, purplish-black, all but the outer feather on each side obliquely tipped with greyish-green; bill reddish at the base, and black for the remainder of its length.

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

Habitat. Mexico.

Remark—Allied to *T. caniveti*, but differs from that species in its long and deeply forked tail, the feathers of which are extremely narrow.

From the Collection of Don Floresi d'Areais.

DESCRIPTION

OF

SIGMODUS CANICEPS, Bonap.

Some time since, by the attention of Mr. Gould, we received a specimen of this curious form, which he procured from a London dealer, but without being able to ascertain its exact locality. We had prepared a figure of it nearly at the same time that we received a letter from Dr. Hartlaub, who has been long writing upon the Birds of Western Africa, and which contained an accurate description. His views upon its position we have printed entire. It has, in addition, a remarkable alliance to *Prionops* in the structure of the feathers of the crown, and in the structure and marking of the wings. The dimensions at the conclusion of the description are given from our own specimen.

Bremen, March 26, 1852.

Sir—Knowing your interest in the Birds of Western Africa, I thought it would give you perhaps some pleasure to become acquainted with one of its rarest and most extraordinary types, the *Sigmodus caniceps* of Temm. in Mus. Lugdun. Bonaparte has given the first notice of it, and a very short and unsatisfactory description in his Conspectus Generum Avium, page 365. I do not know at present *the exact locality* whence the bird came. It was collected by the Dutch collectors on the *Gold Coast*, very probably together with *Musophaga gigantea*, which the Leyden Museum received in the same way. As to the generic position of *Sigmodus*, Bonaparte was very right in placing it near *Chaetoblema*, Cuv. The feathers of the uropygium and under part of the back, are rather long, silk-like, soft, *but not in such a degree* as in *Hapolophus*, *Chaunonotus*, &c.

Yours, Sir, most truly,

Dr. E. Hartlaub.

SIGMODUS, Temm.

"Char. Gen. — *Rostrum* longiusculum, rictus aduncum, culmine rotundato, naribus linearibus, plumis frontalibus setaceis antrorsum incumbentibus suboccultis.

Pedes breves, graciles, debiles, digitus externus, internus et posticus subaequales; ungues debiles, pallidi.

Ala elongata, dimidium caudae attingens, subrotundata, remix 4 ta. longissima, 3 et 5 subaequales, secunda multo brevior, prima spuria.

Cauda mediocris, subrotundata.

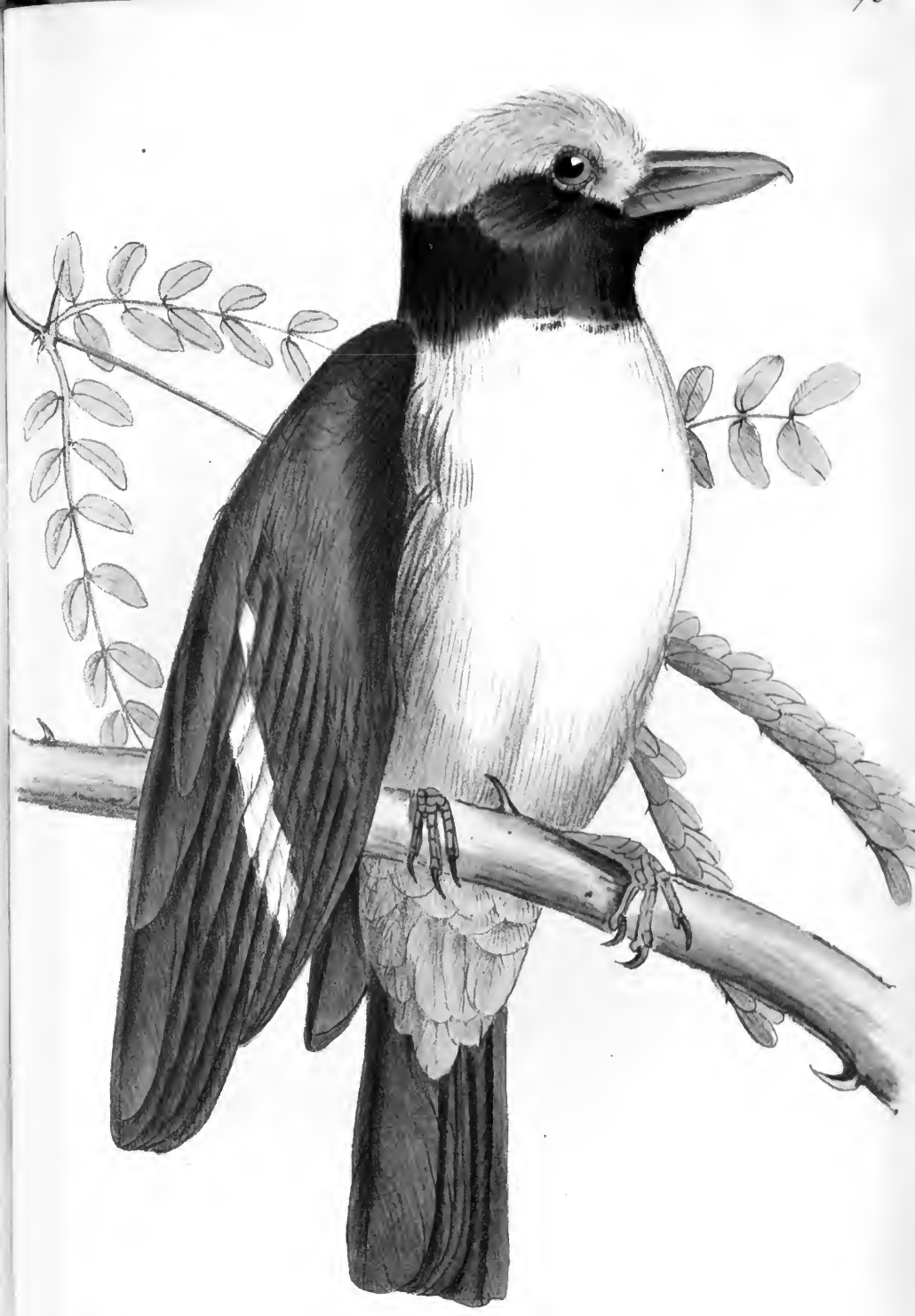
Ptilosis sericea, tergi et uropygii plumae longiusculae, molles, laxae.

S. caniceps, Temm.—Niger, nitore nonnullo aeneo, pileo cano; pectore et epigastrio albis; abdomine et sub-caudalibus dilute fulvis; rostro et pedibus rubris.

Body above, wings, tail, head, neck all round, throat and chin, black, with a faint greenish or brown gloss; crown of a circumscript beautiful light bluish-grey; nasal feathers the same; the whole breast white. Body below, vent and under tail-coverts ochraceous; all the larger remiges have a large square snow-white spot *on the inner web*, by which a very regular white band is formed on the inner side of the wing; inner coverts all black; the soft long feathers of the tergum are mixed with white but not very distinctly; bill and feet coral red.

Gold Coast. Mus. Brem."

Entire length, $\dot{7}.\ddot{5}$; wing to fourth quill, $\dot{4}.\ddot{7}$.



Sigmodus caniceps, Temm.
1852.

LIST

OF

A COLLECTION OF BIRDS

PROCURED

BY MR. C. T. ANDERSSON

IN

THE DAMARA COUNTRY IN SOUTH WESTERN AFRICA

WITH NOTES

BY H. E. STRICKLAND AND P. L. SCLATER.

Mr. FRANCIS GALTON, an active member of the Royal Geographical Society, set out in the autumn of 1850, with the intention of penetrating the interior of Southern Africa. He started from Walvish Bay, on the south west coast, in latitude 23° south; and passing through the Damara country, reached the longitude of 21° east—a distance of about 500 miles in the interior. An account of his journey will be found in the Journal of the Geographical Society, vol. xxii. p. 140. He was accompanied by Mr. C. T. Andersson, a Swede, who formed a considerable collection of birds, which were consigned to Mr. A. D. Bartlett of London for sale. Unfortunately, as too often happens in such cases, many of these birds were dispersed before any catalogue was made of them. Some were purchased for the British Museum; others were bought by Mr. Frank, a dealer in Amsterdam; and of the residue, about 100 specimens have passed into my possession.

As the Damara country is intermediate between the regions of Southern and Western Africa, the Ornithology of each of which has been pretty fully investigated, it is the more to be regretted, that no complete list of these birds is now attainable, as it would have thrown much light on the geographical distribution of species. Mr. Sclater and I have done our best to supply this loss, by compiling a list of the species purchased by myself, including also some of those which are now in the British Museum.

The Namaqua Land, where Levaillant collected many of his birds, being adjacent to the Damara country on the south, it is interesting to recognize in this collection several of his species, which are unknown in the Cape colony, and some of which have been hitherto recorded on his authority alone. Dr. Andrew Smith also penetrated in the same direction; and we accordingly find many of the Damara Birds delineated in his Illustrations of the Zoology of Southern Africa.

It is remarkable, that among the sixty-two species of birds from Caffraria, described by Prof. Sundevall in the "Öfversigt af Kongl. Vetenskaps-Akademiens Förhandlingar," 1850, p. 97, there is not one which I have been able to identify in the Damara collection. This fact shows, that as is the case of South America, the birds of Southern Africa are to a great extent limited to special localities; a circumstance which of course greatly increases the numerical richness of the fauna. Prof. Sundevall estimates the total amount of the Ornithology of the South African continent at 700 species.—H. E. S.

1. *Milvus parasiticus*, Daud.; Levaill. Ois. Af. pl. 22.

2. *Accipiter gabar*, Daud.; Ois. Af. pl. 33.

3. *Accipiter niger*, Vieill.; Gal. Ois. pl. 22; (*A. carbonarius*, Licht.) Vieillot describes it as only 9 (French) long, but my specimen (probably a ♀) measures 12 (English.)

4. *Tinnunculus rupicolus* (Daud.)

5. *Scops leucotis*, Tem., pl. col. 16.

6. *Scops senegalensis*, Swains. Birds West. Af. v. i. p. 127. This species is quite distinct from *Scops zorca* of Europe. The wing measures only 5.1, while that of *S. zorca* is 6, and the differences in the length of the primaries, indicated by Swainson, appear to be constant.

7. *Athene licua* (Licht.); Verz. Säug. u. Vög., aus dem Kaffernlande, p. 12.

8. *Caprimulgus pectoralis*, Vieill.; Levaill. Ois. Af. pl. 49; (*C. rufigena*, Smith, Zool. S. Af. pl. 100.)

9. *Caprimulgus lentiginosus*, Smith, Zool. S. Af. pl. 101.

10. *Caprimulgus damarensis*, Strickland. Size, small. Ground colour of crown and upper parts pale grey, minutely speckled with fuscous; each feather on the crown has a conspicuous medial black streak, broad on the front and occiput, narrower on the hind head; cervical collar fulvous, each feather margined with black dots; feathers of back, rump, and upper tail-covers with a black longitudinal streak about $\frac{1}{20}$th of an inch broad on each; external row of scapulars with a broad pointed medial black streak, their inner margin fulvous, speckled with black, the outer, plain fulvous, contrasting strongly with the black medial stripe; middle and greater covers fuscous, with a large squarish or circular fulvous spot at the tip of the outer web, and some broken bars of fulvous near the base of the same web; primaries with three or four square fulvous spots on the basal two-thirds of their outer webs, separated by equal intervals of fuscous, on their inner webs are three or four larger fulvous spots united at the margins of the web; terminal third of the primaries fuscous, speckled with grey at the tips; secondaries regularly barred with four or five fulvous bars, divided by the black shaft, and separated by equal intervals of fuscous; rectrices pale grey, speckled and barred with fuscous; the medial pair have about nine narrow fuscous bars; these become broader and more numerous externally, so that on the two outer pair they amount to fourteen or fifteen, and the ground colour on these outer remiges is obscure fulvous. Over the eye is a pale superciliary streak; the cheeks dark fulvous, speckled with fuscous, the ear-covers pale fulvous; chin and throat pale fulvous, obscurely barred with fuscous; a nearly white spot on each side of the throat; upper breast grey speckled with fuscous, with a medial fuscous streak on each feather; the feathers of the lower breast have a large subtriangular fulvous patch, surrounded by fuscous; belly pale fulvous, with narrow transverse fuscous bars, three on each feather; vent and lower tail-covers plain pale fulvous.

Total length, 9.5; beak to front, 3, to gape, 9; wing, 6.4; medial rectrices, 4.5, external, 4.4; tarsus, 7, feathered for half its length; middle toe and claw, 9; outer and inner ditto, 5.

11. *Hirundo rustica*, Linn. Identical with British specimens.

12. *Platystira pririt* (Vieill.); Levaill. Ois. Af. pl. 161.

13. *Platystira albicauda*, Strickland. Size, large. Front pure white, extending laterally as far as the eyes; crown, lores, and cheeks, deep glossy black; a white spot on the nape surrounded by black; back slaty grey; scapulars black externally, slaty grey within, and obscurely tipped with white; wings black, the margins varied with white; the middle and greater covers next the body pure white; basal third of primaries and the extreme tips of the three first, white; secondaries and tertials black, tipped with white, the four inner secondaries next the tertials, white for one-fourth from the base; rump and upper tail-covers thick and downy, cinereous like the back, each feather with an elongate subterminal tear-like white spot, the extreme tips blackish; tail wholly pure white except an elongate tear-like spot of black on the medial pair, nearly bisected longitudinally by the white shaft. Chin, throat, and sides of neck, pure white, below which is a black pectoral collar; sides of breast cinereous; lower wing-covers black; middle of breast, abdomen, and lower tail-covers, pure white; feathers of the tibiæ white at the tips, black at the base; beak and legs black.

Total length, $\dot{5}.\dot{3}$; beak to front, $\ddot{6}\frac{1}{2}$, to gape, $\ddot{9}$, wide, $\ddot{2}\frac{1}{2}$, high, $\ddot{2}$; wing, $\dot{3}.\ddot{5}$; medial rectrices, $\dot{1}.\ddot{8}$, external, $\dot{1}.\ddot{7}$; tarsus, $\dot{1}.\ddot{2}$.

This is the largest species of *Platystira* that I have seen. The beak is stronger and more compressed at the sides than in the other species, the tail shorter in proportion, and the first primary longer, being nearly two-thirds the length of the fourth.

14. *Dicrurus divaricatus*, Licht. Agrees with specimens from Kordofan.

15. *Lanius subcoronatus*, Smith; Zool. S. Af. pl. 68.

16. *Lanius collaris*, Linn.; Levaill. Ois. Af. pl. 62.

17. *Lanius minor*, Gm. Differs from specimens from South Europe only in the base of the lower mandible being whitish, and in the rather smaller extent of black on the third pair of lateral rectrices.

18. *Enneoctonus anderssoni*, Strickland. Front, crown, and ear-covers ferruginous; a cream colour streak from the nostrils over the eye; upper parts deep ferruginous, tinged with greyish on the hind neck and rump; remiges pale fuscous, margined with fulvous; tail obscure ferruginous; chin, throat and lower parts very pale cream colour, with a darker shade on the breast; beak horn colour; base of lower mandible pale; legs horn colour.

The specimen before me is not quite adult, and the feathers of the wing-covers, rump and tail, are bordered by a submarginal fuscous band, and those of the breast and flanks have two bars of the same.

Total length, 6 . 3; beak to front, 5, to gape, $7\frac{1}{2}$, high, $2\frac{1}{2}$; wing, 3 . 6; medial rectrices, 2 . 8, external, 2 . 7; tarsus, $9\frac{1}{2}$.

Allied to *E. melanotis* (Val.) of India, but differs in the ferruginous ear-covers, longer wing, shorter tail, &c.

19. *Dryoscopus cubla* (Lath.); Levaill. Ois. Af. pl. 72.

20. *Laniarius atrococcineus* (Burchell); Zool. Journ., vol. i. pl. 18.

21. *Telophonus senegalus* (Linn.); Levaill. Ois. Af. pl. 70.

22. *Nilaus brubru* (Lath.).

23. *Eurocephalus anguitimens*, Smith.

24. *Turdus strepitans*, Smith.

25. *Pycnonotus capensis* (Levaill.), Ois. Af. pl. 105.

26. *Crateropus bicolor*, junior. Differs from the adult in having the front, eyebrows and cheeks hoary brownish-white; crown and upper parts umber brown, palest on the crown and rump, which last may almost be termed dirty white; wings and tail deep umber brown; remiges margined internally with fulvous; throat white; feathers of breast pale greyish-brown, broadly margined with white; sides and lower wing-covers pale fulvous; belly, vent, and lower tail-covers whitish; beak black; legs horn colour.

Total length, 9.5; beak to front, 9, to gape, 1.1; wing, 4.8; all the rectrices, 4; tarsus, 1.3.

Gonys straight; commissure and culmen considerably decurved.

Allied to *Crateropus leucocephalus* (Rüpp.), but differs in not having the whole head white, the fulvous colour of the flanks, &c.

27. *Saxicola leucomelæna*, Burchell, Travels in S. Africa, vol. i. p. 335. This bird precisely agrees with Mr. Burchell's description, except that he makes no mention of the white which occupies three-fourths of the length from the base of the four external pairs of rectrices. Mr. Gray refers *S. leucomelæna* of Burchell to *S. cursoria*, Vieill.; Levaill. Ois. Af. pl. 90, but that differs in its larger size, black abdomen, &c. It is however possible, that the bird before us may be an immature state of *S. monticola*, Vieill., such as is represented in Levaillant, Ois. Af. pl. 185, f. 2. The entire crown and hind neck is white, with a faint brownish tinge; the lesser and medial wing-covers, upper tail-covers, abdomen, and four outer pair of rectrices, except the tips, also the basal portion of the outer web of the fifth pair, pure white; lower tail-covers black, tipped with white; rest of the bird deep black.

28. *Saxicola hottentotta* (Gm.); (*Sylvia pileata*, Lath.; *Œnanthe imitatrix*, Vieill.; Levaill. Ois. Af. pl. 181.) There seems no doubt that this is the "Grand Motteux du Cap de Bonne-espérance" of Buffon, on which Gmelin founded his *Sylvia hottentotta*; though Buffon erroneously states it to be 8 long. A specimen which has long been in my collection measures 7 in total length, and the wing 4. Mr. Andersson's specimen from Damara is still smaller, being only about 6.3 long, and the wing 3.4. Its colouration however is identical with that of the larger specimen.

29. *Saxicola*. Light fulvous brown above, pale cream colour beneath; wing and tail-feathers fuscous, margined with fulvous; beak horn colour; legs black.

Total length, 7.3; beak to front, 5½, to gape, 8, high, 2; wing, 4.4; all the rectrices, 3.1; tarsus, 1.

This is probably a ♀ or immature, and I do not at present venture to name it. It approaches *S. pallida* of Rüppell, Atl. Nord. Af. pl. 34, f. *a*, but has a much stouter beak, darker tail, &c.

30. *Monticola brevipes*, Waterhouse, in Alexander's Exped. Int. Af. vol. ii. p. 263. Front and crown hoary white; lores blackish; chin, throat, ear-covers, upper back and wing-covers, deep slaty grey; remiges blackish, narrowly margined with whitish; breast, abdomen, lower wing-covers, rump, upper and under tail-covers, and tail, bright ferruginous; beak and legs blackish.

N.B.—The two medial rectrices are wanting in my specimen, but probably are more or less marked with fuscous, as in other species.

Total length, 6·8; beak to front, $7\frac{1}{2}$, to gape, 9; wing, 4·2; tail, 2·9; tarsus, 1.

♀ Above greyish fuscous, wing-feathers margined with pale brown; rump and upper tail-covers ferruginous; tail deep ferruginous chestnut, the middle pair of rectrices fuscous, the rest fuscous on the outer webs near the tips; feathers of cheeks, chin and throat whitish, margined with fuscous; lower parts ferruginous, feathers of breast with a subterminal fuscous bar on each; wing only 3·8.

I adopt Boie's original name *Monticola*, given in 1822 for this genus, because I know no reason for changing it to *Petrocossyphus* or *Petrocincla*.

31. *Erythropygia galtoni*, Strickland. This bird agrees with a specimen in Sir W. Jardine's collection, procured by Dr. A. Smith, except in being of a rather paler tinge above and below. This latter specimen is labelled "*Saxicola familiaris*," a name founded on the "Tracquet familier" of Levaillant, Ois. Af. pl. 183. But the latter is described as having the outer webs of the lateral rectrices fringed with rufous, whereas in the present bird the whole of the rectrices except the middle pair are rufous, tipped with brown for about 4. The upper parts are light fulvous brown; wing-covers and remiges fuscous, narrowly margined with whitish-brown; whole lower parts pale cream colour; rump, upper tail-covers and tail deep rufous; medial rectrices fuscous, rufous at the base, the rest tipped with fuscous.

Total length, 6; beak to front, 5, to base, 7; wing, 3·4; medial rectrices, 2·8, external, 2·7; tarsus, 1.

32. *Drymœca* (commonly misspelled *Drymoica*) *levaillanti*, Smith, Zool. S. Af. pl. 73. In reference to this species I may mention,

that the *Cisticola* (misspelled *Cysticola*) *campestris* of Gould, afterwards named by him *C. magna*, and figured in his Birds of Australia, vol. iii. pl. 41, is evidently identical with the South African *Drymœca levaillanti*. Mr. Gould's figure was taken from a specimen which has been for many years in my own possession, the locality of which was unknown, but which being stuffed with wool, as is frequent in specimens from Australia, I conjectured to be from that country. Mr. Gould accordingly figured it as a new species in his Birds of Australia. The occurrence of a specimen in the Damara collection has enabled me to detect this error.

Mr. Gould's specific name *campestris* was given in 1845, and must therefore yield to *levaillanti*, Smith, 1842.

33. *Drymœca flavicans*, Vieill.; Levaill. Ois. Af. pl. 127.

34. *Drymœca flavida*, Strickland. Front, crown and cheeks, pale cinereous; back and wings yellowish-olive; remiges fuscous, margined with clear olive yellow; rectrices olive, margined with olive yellow, and tipped with pale yellow, the external pair wholly pale yellow; chin whitish; throat and breast pure pale yellow; belly silvery white; sides, under wing-covers and under tail-covers pale yellow; beak horn colour; base of lower mandible pale; legs pale brown.

Total length, 4.2; beak to front, 4, to gape, 5, high, 1, broad, 1½; wing, 2; medial rectrices, 1.6, external, 1.2; tarsus, 8.

The cuneate tail and form of beak refer this little bird to the vicinity of *Drymœca* or *Prinia*, though the coloration is more like that of *Phylloscopus*. It seems allied to the "*Malurus pulchellus*" of Rüppell, Atl. Nord. Af. pl. 35, *f. a.*, but that has a longer tail, tipped with white, and otherwise differs.

35. *Sylvietta brachyura*, Lafr. Rev. Zool. 1839, p. 258.

36. *Sphenœacus pycnopygius*, Sclater. D. capite et dorso superiore nigro brunneoque striatis: lineâ utrinque à rostro super oculum, gulâ et pectore albis; maculis crebris in pectore nigris; ventre toto, crisso, tibiis et tectricibus caudæ superioribus et inferioribus rufo-brunneis; alis caudâque nigricantibus, illis brunneo limbatis; hujus rectricibus lateralibus pallidè brunneo terminatis; mandibulâ inferiore albâ, superiore nigrâ; pedibus brunneis.

Total length, 6.8; beak to front, 6½, to gape, 8; wing, 2.9; medial rectrices, 3, external, 2.6; tarsus, 1.—(P. L. Sclater.)

Allied to *Sphenœacus africanus* (Gm.), but differs in the longer beak, shorter tail, broader and more developed webs of the rectrices, &c.

37. *Parisoma subcœruleum* (Vieill.); Levaill. Ois. Af. pl. 126; (*Parisoma rufiventer*, Swainson). This bird evidently belongs to the *Sylviinæ*, not to the *Parinæ*, and is closely allied to *Curruca*.

38. *Ægithalus smithi*, Jard.

39. *Parus cinerascens*, Vieill.; Levaill. Ois. Af. pl. 138.

40. *Juida australis* (Smith), Zool. S. Af. pl. 47. (*Lamprotornis burchelli*, Smith.)

41. *Spreo nabouroup* (Daud.); Levaill. Ois. Af. pl. 91. (*Lamprotornis fulvipennis*, Swains.).

42. *Spreo bispecularis*, Strickland; Levaill. Ois. Af. pl. 90. Whole plumage glossy bluish-green; head, rump and tail, with a purplish tinge when held *towards* the light; lesser wing-covers violet-purple, with a coppery gloss towards their tips; middle and greater covers greenish, with a small indistinct velvety-black spot at their tips; primary covers violet purple, but without any coppery gloss.

Total length, 8; beak to front, 8, to gape, 1.1, high, 2½; the gonys nearly straight; wing, 5; medial rectrices, 3.3, external, 3.1; tarsus, 1.3.

Closely allied to the true *Spreo nitens* (Linn.) of Angola (*Merula viridis angolensis* of Brisson), of which I possess a specimen, but differs in the more slender beak, and in the primary covers being purple instead of greenish like the rest of the wing. Sir William Jardine has some specimens from Southern Africa, in which the beak is intermediate between the Damara bird and the true *nitens*.

43. *Dilophus carunculatus* (Gm.).

44. *Buphaga africana*, Gm.

45. *Textor niger* (Smith), Zool. S. Af. pl. 64; (*Textor erythrorhynchus*, Smith.)

46. *Vidua regia*.

47. *Plocepasser mahali*, Smith, Zool. S. Af. pl. 65; (*Leucophrys pileatus*, Swains.).

48. *Ploceus abyssinicus*, Gm.; Smith, Zool. S. Af. pl. 7; (*Euplectes taha*, Smith.)

49. *Ploceus sanguinirostris* (Linn.).

50. *Philetærus squamifrons* (Smith), Zool. S. Af. pl. 95.

51. *Estrilda granatina* (Linn.).

52. *Estrilda lipiniana*, Smith, Report Exped. S. Af. p. 49.

53. *Estrilda astrild* (Linn.). The specimen from Damara is rather paler on the upper parts and tail than specimens in Sir William Jardine's collection from S. Africa, and in my own from Mauritius.

54. *Pytelia melba* (Linn.); Edw. Birds, pl. 128; Buff. pl. Enl. 203, *f.* 1; Vieill. Ois. Chant. pl. 25; *Fringilla elegans*, Gm.; *Fringilla speciosa*, Boddaert.

There has been much confusion between this species, which seems to inhabit Southern and South-Western Africa, and the species figured by Edwards, pl. 272, lower figure, from Abyssinia, Kordofan, and Senegal. The present bird is evidently the same as plate 128 of Edwards, upon which Linnæus, in his 10th edition of the Systema Naturæ, founded his *Fringilla melba*, though afterwards Brisson, and Linnæus himself in his 12th edition, united with it Edwards's pl. 272, lower figure, an error followed by most succeeding authors. The first author who in modern times has distinguished these two species is I believe the Prince of Canino, in his Conspectus Generum Avium, p. 461, where he gives their respective diagnoses, but erroneously assigns the specific name *melba* to the species of Edwards's

plate 272. The latter species in fact requires a new name, and I propose to term it *Pytelia citerior*, in allusion to its less distant habitat.

The *P. melba*, as above indicated, is distinguished by having the front (not including the eyes), chin, and whole of the throat deep scarlet, breast yellowish-olive, crown, cheeks, and nape, deep cinereous, belly and sides fuscous, barred and spotted with white, each feather having two medial white bars and two subterminal transversely ovate white spots, separated by fuscous bars nearly equal in breadth to the white ones; lower tail-covers cream colour; back and wings yellowish-olive; upper tail-covers brick-red; rectrices fuscous, margined externally with brick-red; beak reddish; legs pale brown.

The *P. citerior*, Strickland (Edw. Birds, pl. 272 f. inf., *Estrilda elegans*, Rüppell, and *Pytelia elegans* of my list of Kordofan birds in Proc. Zool. Soc. 1850, p. 218), differs in having the front (including the eye), forepart of cheeks, and chin, scarlet; throat and breast light yellow; crown and hind neck pale cinereous; belly and sides white, with narrow bars of pale brown, three or four on each feather; lower tail-covers white; back, wings, rump, tail, beak, and legs, as in *P. melba*.

55. *Colius erythropus*, Gm.; (*C. leuconotus*, Lath.).

56. *Colius macrurus* (Linn.); (*C. senegalensis*, Gm.).

57. *Crithagra*. Brown, streaked with deep fuscous above, dirty white below.

Length, $\dot{4}.\ddot{4}$; wing, $\dot{2}.\ddot{7}$; beak and legs pale. Probably a ♀, but is identical with a specimen in my collection from Kordofan.

58. *Fringillaria capensis* (Linn.); Buff. Pl. Enl. 158, f. 2; (*Fringilla nævia*, Gm.; *Fringillaria vittata*, Swains.).

59. *Alauda erythrochlamys*, Strickland. Whole upper parts and wings nearly uniform ferruginous, becoming paler on the upper tail-covers and medial pair of rectrices. All the wing-feathers narrowly margined with pale cream colour externally; the remiges light fuscous on their shafts and inner webs. A streak above and

a spot below the eye pale cream colour; ear-covers pale rufous; chin white; breast and lower parts pale cream colour; beak long, gonys nearly straight, flesh-coloured; legs apparently flesh coloured; hind claw short, straight.

Total length, 6.5; beak to front, 7, to gape, 8, high, 2; wing, 3.7; rectrices, 2.8; tarsus, 1.1; hind claw, 2¼.

A well-marked species, leading, by its lengthened beak, to *Certhialauda*. The *A. ferruginea* of Lafresnaye approaches it in colouration, but is said to have the beak shorter than *A. calandra*, the breast streaked with black, &c.

60. *Alauda spleniata*, Strickland. Lores and superciliary streak whitish; front and crown chestnut; feathers of back and wing-covers fuscous in the middle, broadly margined with pale greyish-brown; margins of the greater covers and tertials nearly white; remiges light fuscous, narrowly margined externally with a pale impure rufous tinge; their tips and inner webs narrowly margined with whitish; upper tail-covers pale chestnut, tipped with whitish; rectrices deep fuscous, narrowly margined externally and slightly tipped with white, outer webs of the external pair wholly white; ear-covers light brown; cheeks, chin, throat, and lower parts whitish; a faint brownish tinge on the middle, and a large chestnut patch on each side of the breast; beak subconical, the margin nearly straight, the gonys slightly curved upwards, the culmen rather more curved downwards, the tip brownish, the base flesh colour; tarsi flesh colour; toes and claws brownish, hind toe short, slightly curved.

Total length, 6; beak to front, 4½, to gape, 6, high, 2, wide, 2; wing, 3.5; medial rectrices, 2.4, external, 2.1; tarsus, 8; hind claw, 3.

Allied to *A. ruficeps*, Rüppell, Neue Wirbelthiere, pl. 38, f. 1, but that has a black not a rufous patch on each side of the breast. Specimens of this bird were collected in S. Africa by Dr. Smith, and labelled by him "*Alauda ruficapilla*," which is Stephens's name for the "Calotte Rousse" of Levaillant, Ois. Af. pl. 198 (*A. rufipileus*, Vieill.), a very distinct species.

61. *Alauda nævia*, Strickland. Crown greyish-brown, back of neck paler, back and wing-covers fulvous—the feathers of all these

parts with a broad, distinct, longitudinal fuscous streak on each; remiges fuscous, margined externally and internally towards the base with pale fulvous; upper tail-covers rufo-fulvous; rectrices deep fuscous, the middle and external pairs broadly, the rest narrowly, margined with fulvous; a whitish streak above and below the eye; cheeks and ear-covers light brown; chin whitish; breast pale cream colour, with a small longitudinal fuscous streak on each feather; belly and vent pale cream colour; beak corneous, paler towards the base; margin nearly straight, gonys curved upwards, and culmen equally so downwards; feet and claws flesh-coloured, tinged with light brown; hind claw short, slightly curved.

Total length, 6; beak, to front, 6, to gape, 7, high, 2½, broad, 2½; wing, 3.4; all the rectrices, 2.3; tarsus, 9; hind claw, 3.

62. *Nectarinia anderssoni*, Strickland. Head, back and lesser wing-covers metallic green, the crown with a coppery gloss; upper tail-covers bluish-green; rectrices black, margined with bluish-green; greater wing-covers and remiges deep fuscous, margined externally with greyish-brown; chin bluish-green; cheeks and throat bright coppery green; a broad zone on the breast of violet purple, followed by a narrow one of dull greyish-brown; axillary tufts gamboge yellow; abdomen, sides and lower tail-covers, dirty white; beak and legs black.

Total length, 4.3; wing, 2.3; medial rectrices, 1.6, external, 1.5; tarsus, 7.

Not unlike the East African species which I lately described as *N. albiventris* (p. 42, *suprà*), but has a longer wing, no orange on the axillary tuft, &c. My specimen has lost the extremity of the beak, so that I cannot assign its dimensions.

63. *Nectarinia fusca* (Vieill.); Levaill. Ois. Af. pl. 296.

64. *Nectarinia senegalensis* (Linn.); Levaill. Ois. Af. pl. 295, f. 2.

65. *Nectarinia bifasciata* (Shaw.)

66. *Halcyon damarensis*, Strickland. Plate . Crown and wing-covers greyish-brown, streaked with black; upper back and scapulars sooty brown; lower back and upper tail-covers vivid blue;

remiges fuscous, margined externally with blue; primaries white at the base on both, secondaries on the inner, webs; tail bluish; chin white; cheeks, hind neck, breast and belly yellowish-white, with a black line down the centre of each feather; beak fuscous, base of lower mandible red; feet brown.

Total length, 7.3; beak to front, 1.3, to gape, 1.6; wing, 3.5; rectrices, 2.2; tarsus, 5.

Almost identical in colouring with *H. chelicuti*, Stanley (*Alcedo striolata*, Licht.; *Dacelo pygmæus*, Rüpp.), from Abyssinia and Senegal, but much larger in size. A specimen of the present bird in the British Museum is erroneously labelled "*A. striolata*," which name, as defined by Lichtenstein, refers to the smaller species.

67. *Coracias caudata*, Linn.

68. *Melittophagus hirundineus* (Licht.); (*Merops furcatus*, Stanley; *M. taiva*, Cuv.; *M. hirundinaceus*, Swains.; *M. chrysolæmus*, Jard., Ill. Orn. ser. i. pl. 99).

69. *Irrisor erythrorhyncus* (Lath.)?

The Damara specimen has the beak 2.2 long to the gape, considerably curved, and red, as in specimens from the Cape. But the white band on the primaries is broad, as in *I. senegalensis*, the shaft being nearly white, and extends over both webs of the fourth to the tenth primary; while in the Cape bird the band is narrow, commencing on the outer web with the fifth primary, and is distinctly divided by the black shaft. Another distinction is also pointed out at p. 58 *suprà*, in the greater extent of white at the tips of the *primary covers* (not the *bastard wing*, as inadvertently stated) in the Senegal than in the Cape species. In this respect also the present specimen agrees with the West African, and not with the South African species. The Damara bird thus approaches in plumage the *red-beaked* specimens of *I. senegalensis* from Kordofan, described by me in Proc. Zool. Soc. part xviii. p. 216, but in these the beak is short and nearly straight, as in the *black-beaked* specimens from Senegal. Whether these variations indicate a plurality of ill-defined species, or a single but very variable one, must be decided by future inquiry. Sir W. Jardine (p. 58 *suprà*) considers the colour of the beak to depend on age or season, but I am

not aware that any *red-beaked* specimens have ever been brought from Senegal.

70. *Rhinopomastus cyanomelas* (Vieill.), Zool. Journ. vol. iv. pl. 1; (*Upupa purpurea*, Burchell; *Rhinopomastus smithi*, Jardine.)

71. *Upupa minor*, Shaw.

72. *Buceros nasutus*, Linn.; Levaill. Ois. Af. pl. 236. This is clearly the same species as Levaillant's bird, though it differs in possessing an elevated casque, with a sharp though obtuse-angled keel along its ridge. This casque is about ⅔ high, and extends to within 1.⅔ of the tip of the beak, its anterior extremity being abruptly truncated. Levaillant's bird had no casque, being probably immature.

73. *Pogonius leucomelas* (Bodd.); Buff. Pl. Enl. 688, f. 1; (*Bucco niger*, Gm.; *Trogon luzoniensis*, Scop.; *Pogonius stephensi*, Leach.).

74. *Dendrobates namaquus* (Licht.); Levaill. Ois. Af. pl. 251; (*Picus mystaceus*, Vieill.; *P. diophrys*, Stephens; *P. biarmicus*, Wagl.).

75. *Dendrobates fuscescens*, Vieill.; Levaill. Ois. Af. pl. 253; (*Picus fulviscapus*, Licht.; *Colaptes capensis*, Steph.; *P. chrysopterus*, Less.).

76. *Campethera capricorni*, Strickland. ♂ Front, crown, and a broad streak from the base of the lower mandible along each side of the chin crimson; a broad streak of white from the nostrils, under the eye, and across the ear-covers; hind neck, back, scapulars and tertials, olive brown, with two or three ⅓ wide bars of yellowish-white on each feather (five or six bars on the tertials); wing-covers similar, but barred on the outer webs only, and with a small roundish terminal spot of whitish; remiges blackish internally, yellowish-olive externally; the shafts golden yellow, the outer webs with five or six marginal spots of yellowish-white, the inner with as many but larger; rump and upper tail-covers yellowish-white, each feather with a subterminal black heart-shaped spot, and two or three medial

transverse interrupted black bars; tail fulvous brown, with six or seven pale fulvous bars, the shafts golden yellow, the tips black; chin and throat white; breast, belly, and lower tail-covers yellowish-white, middle of belly plain; the other parts with a longitudinally ovate tear-like black spot on each feather, those on the breast largest, and about ï in diameter; beak and feet horn colour.

Total length, 8.5; beak to front, 1.ï, to gape, 1.3; nasal ridge, ½ distant from culmen; wing, 4.9; medial rectrices, 3, external, 2.3; tarsus, 1.

Near *C. benneti* (Smith)—(*Picus guttatus*, Licht.; *C. variolosa*, Gray)—but differs in having a stouter beak, smaller spots on the breast, and the rump *spotted* instead of *barred*.

77. *Campethera abingoni*, Smith; (*C. smithi*, Malherbe, Rev. Zool. 1845, p. 403). ♀ Feathers of front and crown blackish, with a round white spot on each; hind head crimson; back and wings olive, barred and spotted with yellowish-white; rump barred fuscous and greenish-white; remiges fuscous, spotted on both shafts with whitish, the shafts golden yellow; rectrices similar, but the marginal spots are obscurely fulvous; ear-covers and stripe down sides of neck white; chin, throat, and upper breast brownish-black, with a subterminal roundish white spot, and sometimes a second medial one on each feather; lower parts yellowish-white, with a conspicuous longitudinal streak of black on each feather, broadest on the breast, becoming transverse and heart-shaped on the thighs and vent; beak and legs horn colour.

Total length, 7.5; beak to front, 1.ï, to gape, 1.3; nasal ridge nearly ï distant from culmen; wing, 4.7; tail, 2.5; tarsus, 8.

78. *Pœocephalus meyeri* (Rüpp.), Atl. Nord. Af. pl. 11.

79. *Pœocephalus rüppelli* (Gray), Proc. Zool. Soc. ♂ Olive brown; lesser wing-covers, lower wing-covers and tibiæ, yellow; rump, lower belly, upper and lower tail-covers blue. ♀ like the ♂, but wanting the blue colour.

Total length, 8; wing, 5.7.

80. *Agapornis roseicollis*, Vieill.; St. Hil. Perroqu. pl. 91.

81. *Columba guinea*, Linn.; Levaill. Ois. Af. pl. 265.

82. *Turtur vinaceus* (Gm.); Levaill. Ois. Af. pl. 268.

83. *Peristera afra* (Linn.); Levaill. Ois. Af. pl. 271.

84. *Steganura paradisea*.

85. *Francolinus swainsoni*, Smith, Zool. S. Af. pl. 12.

86. *Francolinus gariepensis*, Smith, Zool. S. Af. pl. 83, 84.

87. *Pterocles variegatus*, Burchell; Smith, Zool. S. Af. pl. 10.

88. *Pterocles bicinctus*, Tem.; Pig. et Gall. v. iii. pp. 247, 713. There has been much confusion in ornithological works between various African and Indian species of *Pterocles*, to which the specific names *bicinctus*, *tricinctus*, and *quadricinctus* have been given. In the proceedings of the Zoological Society, part xviii., p. 220, I have pointed out the distinctions between the true *P. quadricinctus*, Tem., of Africa (*P. tricinctus* of Swainson), and the *P. fasciatus* (Scop.) of India, erroneously named *P. quadricinctus* by Indian ornithologists. Mr. Andersson's collection has now enabled me further to clear up the subject, by affording specimens of the *P. bicinctus*, Tem. (to which Mr. Gray erroneously referred the *P. tricinctus* of Swainson). This rare species, first discovered by Levaillant in the Namaqua country, has never been figured. Though closely resembling the *P. quadricinctus* of Senegal and Kordofan in the colours of its head and under parts, it is at once distinguished by the absence of the black stripes on the back and wings, the feathers on those parts being of a greyish-brown, with a terminal subtriangular white spot. It also wants the chestnut band on the breast, but possesses a very distinct band of white, succeeded by one of black, between the fulvous colour of the breast and the finely rayed black and white of the abdomen.

I may add that this, the *P. bicinctus* of Temminck, is not the *P. bicinctus* of Lichtenstein, the latter being the *P. lichtensteini* of Wagler and other authors.

89. *Coturnix dactylisonans*, Meyer? Plumage darker than European and Indian specimens, and of a deeper rufous on the cheeks and breast.

90. *Turnix lepurana*, Smith, Zool. S. Af. pl. 16. My specimen has the breast bright rufous, in which respect it agrees with the "pectore nitidè rufo" of Smith's Latin diagnosis, but not with the "pale Dutch orange" of his description, nor with the faint yellowish tinge of his figure.

91. *Otis ruficrista*, Smith, Zool. S. Af. pl. 4.

92. *Squatarola helvetica* (Linn.).

93. *Charadrius hiaticula*, Linn.

94. *Charadrius damarensis*, Strickland. Crown, nape, ear-covers, back and wings uniform "hair brown" (of Syme's Nomenclature), paler on the rump and upper tail-covers; a dark fuscous mark at the anterior and lower margins of orbits; front, broad superciliary streak, cheeks, chin and throat dirty white; breast, pale brown, the shafts darker; belly, axillary feathers, vent and lower tail-covers white; primaries fuscous, darkest at the tips, the shafts white in the medial portions, the sixth to the ninth white at the base of the outer web; secondaries pale fuscous; rectrices pale fuscous, darker towards the tips, which are margined with white; outer pair narrow, margined externally with white; beak black; legs dark brown; acrotarsia scutate.

Total length, $\dot{8}$; beak to front, $\ddot{8}$, to anterior termination of nasal groove, $\ddot{4}$, to gape, $\dot{1}$; wing, $\dot{5}.\ddot{3}$; medial rectrices, $\dot{2}.\ddot{3}$; external, $\dot{2}.\ddot{1}$; naked part of tibia, $\ddot{7}$; tarsus, $\dot{1}.\ddot{5}$.

95. *Charadrius pallidus*, Strickland. Crown and upper parts pale greyish-brown, darker on rump; front, supercilium, cheeks, and cervical collar white; ear-covers pale brown; greater wing-covers tipped with whitish; primaries fuscous, darkest at tips, shafts medially white; the 5th to the 9th white at base of outer web; secondaries tipped with white; all the remiges margined internally with white; medial pair of rectrices deep fuscous, the two next pairs paler, margined with white; the three outer pairs pure white; whole lower parts pure white; beak and legs black.

Total length, $\dot{6}$; beak to front, $\ddot{5}$, to gape, $\ddot{6}\frac{1}{2}$; wing, $\dot{4}$; medial rectrices, $\dot{1}.\ddot{6}$, external, $\dot{1}.\ddot{5}$; tarsus, $\dot{1}.\ddot{2}$.

96. *Charadrius nivifrons*, Less. Agrees with Pucheran's description, Rev. Zool. 1851, p. 280, except in the isabelline or cream coloured tinge on the lower parts, probably the breeding dress. Differs from *C. varius*, Vieill., *C. pecuarius*, Licht., in the larger patch of white on the front, the absence of the black patch on the side of the neck, the fulvous tinge of the upper parts, the pale brown (not black) rump, &c. Resembles *C. alexandrinus*, Linn. (*C. cantianus*, Lath.), but differs in having an isabelline tinge on the breast and belly, and in having the three proximal secondaries (next the tertials) pure white, instead of pale grey with white margins.

Total length, 7; beak to front, 6½, to gape, 8; wing, 4.1; medial rectrices, 2.3, external, 2.1; tarsus, 1.½.

97. *Hoplopterus coronatus* (Gm.) Pl. Enl. 800.

98. *Machetes pugnax* (Linn.).

99. *Pelidna subarquata* (Gm.). The Damara specimen is remarkable for the shortness of its beak, which only measures 1.3 to the front, while specimens from Kordofan and various parts of Europe measure 1.6.

100. *Pelidna minuta*, Leisler; Gould, Birds Europe, pl. 332.

101. *Glottis canescens* (Gm.).

102. *Totanus glareola* (Linn.).

103. *Rhynchæa capensis* (Linn.).

104. *Himantopus melanopterus*, Meyer.

105. *Strepsilas interpres* (Linn.).

106. *Ciconia* —— ?

Atra, viridescens; dorso imo cum ventre toto albis.—(P. L. Sclater.)

107. *Phœnicopterus minor*, Geoff.

108. *Nyroca brunnea*, Eyton, Monog. Anat. pl. 23.

109. *Podiceps minor* (Linn.).

110. *Xema phœocephala*, Swainson. Swainson calls this species *pœocephala* (misspelled by him *poiocephala*), a name which would imply green-head, not grey-headed. He no doubt meant to have written *phœocephala*, and I have altered the name accordingly.

Differs from *X. brunneicapillum* of India, in having the white at the base of the remiges confined to the *outer* web.

111. *Sternula balœnarum*, Strickland. Front, round the eyes and crown black; back, wings and tail very pale grey; primaries hoary fuscous, shafts and inner margins white; below wholly white: beak black; legs brownish flesh colour.

Total length, 8.5; beak to front, 1.2, to gape, 1.4; wing, 6.6; medial rectrices, 1.8, external, 2.4; tarsus, 6.

Remarkable for the shortness of its tarsus.

Buceros cultratus
1853.

F. Reeve imp

ON

BUCEROS CULTRATUS,

A NEW SPECIES FROM SIERRA LEONE

BY

PROFESSOR CARL SUNDEVALL.

(In the "Öfversigt af Kongl. Vetenskaps-akademiens Förhandlingar" for 1849, p. 156, is a valuable notice by Professor Sundevall of the birds, twenty-three in number, procured in 1790 by Afzelius at Sierra Leone, and which are still preserved in the Museum of Upsala. One of these Professor Sundevall describes as new, and as in a recent letter to myself he communicates some additional observations respecting it, together with a drawing of the specimen, I have thought it deserving of a place in the "Contributions."—H. E. Strickland.)

Professor Sundevall's original description is as follows—"*Buceros cultratus*, n. sp.—Niger, capite comoso, colloque fulvo-albidis; rostro mutico (albo) lævi, culmine tereti, anticè compresso. Avis magna et speciosa è Sierra Leona allata. Circiter 30-pollicaris; rostrum ab angulo, 110 mm.; ala, 360; cauda, 310; tarsus, 48. Rostrum (siccatum) album, sat crassum, culmine æquè arcuato, absque incisurâ vel prominentiâ. Tomia integra. Nares longius ante oculos, in sinu baseos rostri sitæ. Carinula obtusa, suprà nares incepta, ante apicem rostri evanescit. Maxilla inferior lævis, gnathidiis basi deorsùm obliquè rotundatis. Plumæ capitis longæ, laxæ, paullùm adscendentes, pulchrè lacero-decompositæ, fulvescentes, in occipite longiùs dependentes. Caput et collum fulvo-albida. Pectus, usque ad pedes, maculatum; plumis nigris, pallido limbatis. Cauda rotundata. Rectrices laterales, utrinque 3, totæ

albæ; 4ta basi ad medium nigra, dein alba, limite coloris angulato; 2 mediæ totæ nigræ.. Alæ et dorsum tota nigra. Pennæ primariæ pollicem circiter excedunt cubitales; nulla angustata; proportio ut in omnibus. Pedes fusco-pallescentes apparent. Tarsi posticè et lateribus crebrè reticulati, scutis anticis minùs latis. Digiti ut in congeneribus; medius tarso longior."

Professor Sundevall's later observations, translated from his letter of July 20, 1852, are as follows—"In a recent visit to Upsala, I examined this bird somewhat more closely, and found that the sides of the neck are in fact naturally bare, but obliquely traversed by a stripe of feathers. I at first thought that the feathers had been denuded by some external agent, such as insects, or by the application of preservative ointments. The skin is in fact in very indifferent condition and badly stuffed. This bareness on the neck was accordingly omitted in my former description, which however was an error. Should you have an opportunity of publishing this rectification, it may prevent some writer or other from establishing a useless synonyme, as it is probable that this bird may also occur in the rich collections of Britain. I regret also to say, that the colour of the crest is erroneously described as *fulvo albidus*, it is more properly *pallidè lætè rufus*, which I was not aware of on the former occasion, as I could not conveniently clear these fine feathers from dust and dirt. I may therefore be excused for such an error in the description of an old damaged specimen which was neglected and dirtied."

In a note appended to the figure, it is added—"Verisimiliter avis non plenè adulta, lateribus colli ex parte mentoque plumosis. Facies cum plagâ gutturali magnâ, et plagâ ad latera cervicis verè nudis. In medio jugulo adest plica, palear parvum simulans, cujus verò forma hodiè ob statum cutis pejorem, non benè distingui potest."

Sphenæacus pycnopygius, *Sclater.*
1853.

J. Reeve, imp.