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THE

BIRDS OF AUSTRALIA.

BY

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SUPPLEMENT.

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INTRODUCTION.

In the preface to my seven volumes on the Birds of Australia, published just twenty years ago, I ventured an opinion that although the work comprised every species known to inhabit that vast country up to the date of its completion, each new district that might be explored would probably afford additional species; this prediction has been fully verified, and I have now the gratification of completing a Supplemental volume, containing figures and descriptions of the novelties that have been obtained during the interval between 1848 and 1868. Were I asked if I think there are many more undescribed birds yet to be discovered in that great southern land, I should answer in the affirmative, and add my belief that, as exploration proceeds and fresh colonies are established, new birds will be brought to light. Whether I may be permitted to see these novelties, and to produce a second Supplementary volume, must depend upon the will of that High Power which has enabled me to devote so large a part of my life to the illustration of one of the most beautiful of its manifold creations. If the blessing of health be continued to me, I trust I shall not be found wanting in energy or desire to do justice to the delineation and description of any novelties that may be discovered, it being as much a labour of love to be thus engaged now as when ardour and youth went hand in hand during my visit to the distant country one portion of whose natural productions I trust I have not in vain attempted to illustrate.

It might naturally have been supposed that the newly explored regions, distant as they are from the old and well-trodden tracts, would present us with some new genera as well as new species; and this has been the case, but only to a limited extent, the ornithology of Australia proving to be very persistent, the forms of which it is composed being much the same in the north as in the south. It is true that there are a few exceptions to this law; and exceptions they are in the strictest sense of the word. The most important addition to

our knowledge of Australian Birds is the discovery of a fine species of Cassowary in the rich colony of Queensland, a district in which have also been found many other interesting species, such as *Tanysiptera Sylvia*, *Pitta Mackloti*, *Orthonyx Spaldingi*, and the beautiful *Ptiloris magnifica*. Western and Southern Australia have presented us with the extraordinary *Geopsittacus occidentalis*; Northern Australia is no less conspicuous in her novelties, since it is the home of the lovely *Malurus coronatus*, as the central portion of the country is of the *Polytelis Alexandræ*, and the south-eastern coast of the *Menura Alberti*.

As in the preceding seven volumes, so also in this Supplement, I have not strictly confined myself to the ornithological productions of Australia and its islands, but have given figures and descriptions of some few birds from other, but not distant localities, which appeared to me of surpassing interest; as instances in point, I may cite among others the inclusion in the former volumes of the extraordinary *Didunculus* of the Samoan Islands and the two species of *Apteryx* (*A. Australis* and *A. Oweni*) of New Zealand, and in the present volume some equally interesting novelties from the latter country, such as *Sceloglaux albifacies*, *Nestor Esslingi*, *N. notabilis*, *Strigops habroptilus*, and the now nearly extinct *Notornis Mantelli*. A few new birds from Lord Howe's and Norfolk Island are also figured for the first time; while the countries northward of those islands are represented by two important struthious birds, the *Casuarius Bennettii* and *C. uniappendiculatus*, of which I could not resist the temptation to give figures, more especially as opportunities occurred for delineating them from life; by which means their heads have been represented of the natural size, and the colouring of their soft parts with strict fidelity, which could not otherwise have been done.

Note.—Mr. James Cockerell, who has spent two or three seasons in the Cape-York district, believes that my *Malurus amabilis* and *M. hypoleucus* are male and female of the same species, for he has seen and shot them in company many times—the *M. amabilis* being the male, and *M. hypoleucus* the female. If this should prove to be the case, it will be contrary to what I have hitherto believed to be an invariable law with these birds; for I have always supposed the females of the variegated *Maluri*, like the Common Superb Warbler (*Malurus cyaneus*), to be of a nearly uniform brown, that the males have a breeding and non-breeding attire, and that in the latter dress their appearance is very similar to that of the females. If Mr. Cockerell's opinion be correct, then both males and females of the Cape-York bird will carry in winter the kind of plumage shown in my figure of *M. hypoleucus* on the 22nd Plate of this Supplement.

August 1st, 1869.

INDEX TO SUPPLEMENT.

Page

Acanthiza, Great 55
magna 55
Actitis Bartramia 149
Actiturus Bartramius 149
Aplonis metallica 65
Shining 65
Arses Kaupi 19
Artamus melanops 13
Athene albifacies 3
Atrichia rufescens 51

Barita Keraudrenii 17
Bartramia laticauda 149
Blackbird, Grey-headed 59
Vinous-tinted 61
Bower-bird, Fawn-breasted 71
Guttated 69
Rawnsley's 67
Brachyurus Mackloti 57
(Erythropitta) Mackloti 57
Bristle-bird, Rufous-headed 49
Bronzewing, Rust-coloured 137
White-bellied 139

Cacatua aterrima 123
Cacomantis castaneiventris 107
Calornis metallica 65
Carpophaga assimilis 135
Cassowary, Australian 141
Bennett's 143
One-carunculated 145
Casuarius australis 141
Bennetti 143
Johnsonii 141
Kaupi 145
new sp. 145
unappendiculatus 145
uniappendiculatus 145
uno-appendiculatus 145
Centrourus australis 117
Chalybæus cornutus 17
Chlamydera cerviniventris 71
guttata 69
Chlamydodera guttata 69
Chrysococcyx minutillus 111
Cinclosoma castaneithorax 63
castaneothorax 63
Cockatoo, Black 123
Great Black 123
Great Palm- 123
Grey 123
Craspedophora magnifica 101
Crow-Shrike, Keraudren's 17
Cuckoo, Chestnut-breasted 109
Little 111
Cuculus (Cacomantis) castaneiventris . . 109
Cyclopsitta Coxeni 131

Page

Drymodes superciliaris 31

Eopsaltria capito 33
leucura 35
Epimachus magnificus 101
paradiseus 101
Erythropitta Mackloti 57
Euliga Bartramia 149

Falcinellus magnificus 101
Flycatcher, Kaup's 17
White-bellied 25
White-eared 23
Yellow-breasted 21

Gallinula ruficrissa 153
Gallinule, Rufous-vented 153
Gelochelidon macrotarsa 157
Geopsittacus occidentalis 133
Gerygone, Masked 27
personata 27

Halcyon flavirostris 9
(Syma?) flavirostris 9
Honey-eater, Cockerell's 85
Fasciated 79
Helmeted 77, 87
Streaked 83
Yellow-spotted 81

Kakapo 113
Kakatoës noir, Le 123

Lamprotornis metallicus 65
L'Ara gris à trompe 123
noir à trompe 123
Lophophaps ferruginea 137
leucogaster 139
Lyre-bird, Albert 37

Machærirhynchus flaviventer 21
Malurus amabilis 41
callainus 45
coronatus 39
hypoleucus 43
leuconotus 47
Manucodia Keraudreni 17
Menura Alberti 37
Merula Nestor 59
poliocephala 59
vinitincta 61
Microglossum aterrimum 123
Microglossus ater 123
aterrimus 123
Monarcha albiventris 25
leucotis 23
Mooruk 143

Page

Nectarinia australis 89
Nestor Esslingii 119
hypopolius 117
notabilis 121
Novæ-Zelandiæ 117, 119
Notornis 147
Mantelli 147

Orthonyx Spaldingi 105
Spalding's 105
Owl, Grass- 1

Paradisea Wallacei 103
Pardalote, Yellow-rumped 15
Pardalotus xanthopyge 15
xanthopygius 15
xanthopygus 15
Parrakeet, Coxen's 131
Golden-backed 129
The Princess of Wales's 125
Blue-cheeked 127
Nocturnal Ground- 133
Parrot, Ka-ka 117
Kea 121
Prince of Essling's 119
Southern Brown 117
Perroquet à trompe 123
Petroica? cerviniventris 29
Philedon buceroides 87
Phonygama Keraudreni 17
Keraudrenii 17
Lessonia 17
Pigeon, Allied Fruit- 135
Pitta Mackloti 57
Macklot's 57
Platycercus cyanogenys 127
Podargus, Marbled 7
marmoratus 7
Papuan 5
Papuensis 5
Polyteles Alexandræ 125
Polytelis Alexandræ 125
Pomatorhinus, Chestnut-crowned . . . 75
ruficeps 75
Promefil, Le 101
Promerops à parures chevelues 101
Psephotus chrysopterygius 129
Psittacus aterrimus 123
australis 117
gigas 123
Goliath 123
griseus 123
hypopolius 117
meridionalis 117
Nestor 117
(Kakadoe) Nestor 117
Ptiloris magnifica 101

INDEX TO SUPPLEMENT.

Page

Ptiloris Victoriæ 99
Ptilotis cassidix 77
Cockerelli 85
fasciogularis 79
filigera 83
notata 81
Ptilonorhynchus Rawnsleyi 67
Pycnoptilus, Downy 53
floccosus 53

Rail, Red-necked 151
Rallina tricolor 151
Rallus tricolor 151
Rifle-bird, Magnificent 101
Victoria 99
Robin, Buff-sided 29
Eastern Scrub- 31
Large-headed 33
White-tailed 35

Sandpiper, Bartram's 149
Sceloglaux albifacies 3
Scelostrix candida 1
Scrub-bird, Rufescent 51
Semioptera 103
Semioptera Wallacei 103
Shoveller, Variegated 155
Sittella striata 107
Striated 107
Spatula variegata 155
Sphecotheres flaviventris 73
Yellow-bellied 73
Sphenura Broadbenti 49
Standard-wing 103
Strigops habroptilus 113
Strix candida 1
longimembris 1
Walleri 1
Sun-bird, Australian 89

Tanysiptera Sylvia 11
White-tailed 11
Tern, Great-footed 157
Thrush, Ash-headed 59
Chestnut-breasted Ground- . . . 63
Sooty 59
Totanus Bartramia 149
Bartramius 149
campestris 149
melanopygius 149
Totanus variegatus 149
Tringa Bartramia 149
longicauda 149
Tringoïdes Bartramius 149
Tropidorhynchus buceroides 87
Turdus fuliginosus 59
poliocephalus 59

Warbler, Fawn-breasted Superb . . . 43
Turquoisine Superb 45
White-backed Superb 47
Wekau 3
Wood-Swallow, Black-faced 13
Wren, Crowned 39
Lovely 41

Zosterops albogularis 91
Grey-breasted 97
lateralis 93
Robust 95
Slender-billed 93
strenuus 95
tenuirostris 93
tephropleurus 97
White-breasted 91

LIST OF PLATES.

SUPPLEMENT.

Strix candida, *Tickell*	Grass-Owl	1
Sceloglaux albifacies	Wekau	2
Podargus Papuensis, *Quoy & Gaim.*	Papuan Podargus	3
——— marmoratus, *Gould*	Marbled Podargus	4
Halcyon flavirostris, *Gould*	Yellow-billed Kingfisher	5
Tanysiptera Sylvia, *Gould*	White-tailed Tanysiptera	6
Artamus melanops, *Gould*	Black-faced Wood-Swallow	7
Pardalotus xanthopygius, *M'Coy*	Yellow-rumped Pardalote	8
Manucodia Keraudreni	Keraudren's Crow-Shrike	9
Arses Kaupi, *Gould*	Kaup's Flycatcher	10
Machærirhynchus flaviventer, *Gould*	Yellow-breasted Flycatcher	11
Monarcha leucotis, *Gould*	White-eared Flycatcher	12
——— albiventris, *Gould*	White-bellied Flycatcher	13
Gerygone personata, *Gould*	Masked Gerygone	14
Petroica? cerviniventris, *Gould*	Buff-sided Robin	15
Drymodes superciliaris, *Gould*	Eastern Scrub-Robin	16
Eopsaltria capito, *Gould*	Large-headed Robin	17
——— leucura, *Gould*	White-tailed Robin	18
Menura Alberti, *Gould*	Albert Lyre-Bird	19
Malurus coronatus, *Gould*	Crowned Wren	20
——— amabilis, *Gould*	Lovely Wren	21
——— hypoleucus, *Gould*	Fawn-breasted Superb Warbler	22
——— callainus, *Gould*	Turquoisine Superb Warbler	23
——— leuconotus, *Gould*	White-backed Superb Warbler	24
Sphenura Broadbenti, *M'Coy*	Rufous-headed Bristle-Bird	25
Atrichia rufescens, *Ramsay*	Rufescent Scrub-Bird	26
Pycnoptilus floccosus, *Gould*	Downy Pycnoptilus	27
Acanthiza magna, *Gould*	Great Acanthiza	28
Pitta Mackloti, *Müll. & Schleg.*	Macklot's Pitta	29
Merula poliocephala	Grey-headed Blackbird	30
——— vinitincta, *Gould*	Vinous-tinted Blackbird	31
Cinclosoma castaneothorax, *Gould*	Chestnut-breasted Ground-Thrush	32
Aplonis metallica	Shining Aplonis	33
Ptilonorhynchus Rawnsleyi, *Diggles*	Rawnsley's Bower-bird	34
Chlamydera guttata, *Gould*	Guttated Bower-bird	35
——— cerviniventris, *Gould*	Fawn-breasted Bower-bird	36
Sphecotheres flaviventris, *Gould*	Yellow-bellied Sphecotheres	37
Pomatorhinus ruficeps, *Hartl.*	Chestnut-crowned Pomatorhinus	38
Ptilotis cassidix, *Jard.*	Helmeted Honey-eater	39
——— fasciogularis, *Gould*	Fasciated Honey-eater	40
——— notata, *Gould*	Yellow-spotted Honey-eater	41
——— filigera, *Gould*	Streaked Honey-eater	42
——— Cockerelli, *Gould*	Cockerell's Honey-eater	43
Tropidorhynchus Buceroïdes	Helmeted Honey-eater	44
Nectarinia australis, *Gould*	Australian Sun-bird	45
Zosterops albogularis, *Gould*	White-breasted Zosterops	46
——— tenuirostris, *Gould*	Slender-billed Zosterops	47
——— strenuus, *Gould*	Robust Zosterops	48
——— tephropleurus, *Gould*	Grey-breasted Zosterops	49
Ptiloris Victoriæ, *Gould*	Victoria Rifle-bird	50
——— magnifica	Magnificent Rifle-bird	51

Semioptera Wallacei, *G. R. Gray*	Standard-Wing	52
Orthonyx Spaldingi, *Ramsay*	Spalding's Orthonyx	53
Sittella striata, *Gould*	Striated Sittella	54
Cacomantis castaneiventris, *Gould*	Chestnut-breasted Cuckoo	55
Chrysococcyx minutillus, *Gould*	Little Cuckoo	56
Strigops habroptilus, *G. R. Gray*	Kakapo	57
Nestor hypopolius	Ka-ka Parrot	58
—— Esslingii, *Souancé*	Prince of Essling's Parrot	59
—— notabilis, *Gould*	Kea Parrot	60
Microglossus aterrimus	Great Palm-Cockatoo	61
Polytelis Alexandræ, *Gould*	The Princess of Wales's Parrakeet	62
Platycercus cyanogenys, *Gould*	Blue-cheeked Parrakeet	63
Psephotus chrysopterygius, *Gould*	Golden-backed Parrakeet	64
Cyclopsitta Coxeni, *Gould*	Coxen's Parrakeet	65
Geopsittacus occidentalis, *Gould*	Nocturnal Ground-Parrakeet	66
Carpophaga assimilis, *Gould*	Allied Fruit-Pigeon	67
Lophophaps ferruginea, *Gould*	Rust-coloured Bronzewing	68
—— leucogaster, *Gould*	White-bellied Bronzewing	69
Casuarius australis, *Wall.*	Australian Cassowary (two heads, natural size)	70
—— —— ——	—— —— (whole figure)	71
—— Bennetti, *Gould*	Bennett's Cassowary (two heads, nat. size)	72
—— —— ——	—— —— (whole figure)	73
—— uniappendiculatus, *Blyth*	One-carunculated Cassowary (head and feet, nat. size)	74
—— —— —— ——	—— —— (whole fig.)	75
Notornix Mantelli, *Owen*	Notornis	76
Actiturus Bartramius	Bartram's Sandpiper	77
Rallina tricolor, *G. R. Gray*	Red-necked Rail	78
Gallinula ruficrissa, *Gould*	Rufous-vented Gallinule	79
Spatula variegata, *Gould*	Variegated Shoveller	80
Gelochelidon macrotarsa, *Gould*	Great-footed Tern	81

STRIX CANDIDA, *Tickell*.

J.Gould & H.C.Richter, del. et lith.

Walter, Imp.

STRIX CANDIDA, *Tickell.*

Grass-Owl.

Strix candida, Tickell, in Journ. Asiat. Soc. Beng., vol. ii. p. 572.—Jerd. Ill. Ind. Orn., pl. xxx.—Id. Birds of India, vol. i. p. 118.
—— *longimembris*, Jerd. in Madras Journ. of Lit. and Sci., vol. x. p. 86.
Scelostrix candida, Blyth in Ibis, 1866, p. 251.
Strix Walleri, Diggles, Orn. of Aust., part 7. pl. 1.

I am indebted to Mr. Waller, of Brisbane, for the loan of a specimen of this fine Owl, which has lately been added to the list of the Queensland fauna; and I very much regret that the specific name of *Walleri*, assigned to it by Mr. Diggles, cannot be retained, but must sink into the rank of a synonym, the bird having long previously been described by Tickell as *Strix candida*, and by Jerdon as *Strix longimembris*. I make this affirmation after a careful comparison of two fine Indian examples with the specimen sent by Mr. Waller from Queensland, through Charles Coxen, Esq., in the course of which I found no sufficient difference to warrant my regarding them as distinct. In size, markings, and, indeed, in every particular the Indian and Australian examples are closely alike. When we remember that the bird is strictly a grass-frequenter, and that the grassy plains of India and Australia are of a very similar character, we need not feel surprised at its being found in both countries, although they are so wide apart. It is now clearly established that the White Herons or Egrets, and many of the Plovers and Sandpipers, of the two countries are specifically identical; and their avifaunas may be regarded as still more closely united by the discovery that this fine Owl ranges from the base of the Himalayas (through, perhaps, the intervening countries of Java and the Philippines, as suggested to me by Mr. Blyth) to Australia.

As I have no information of my own to offer respecting this bird, I take the liberty of transcribing Mr. Diggles's account of it from his work above quoted, which comprises all that is known of it in Australia. "It does not often happen in a country so well searched since the visit of Mr. Gould in the years 1838, 1839, 1840, that so important and interesting a bird is brought to light; and the fact of its having been shot in the immediate neighbourhood of Brisbane may serve to encourage others interested in the study of ornithology, more especially in the newly settled districts where novelties are mostly to be looked for, to endeavour to add to our knowledge of the fauna of their adopted country.

"The habits of this bird doubtless assimilate in every important respect to those of the other members of the family. Its nearest ally is *Strix delicatula*, a much smaller species, which, like the present, has the tarsi naked for about half their length, the remainder of the Australian Owls yet known being feathered to the toes."

The following is Mr. Diggles's description of this bird, which, as it was probably taken from a recent specimen, I give in preference to one of my own :—

"Crown, back, and upper tail-coverts blackish brown, intermingled with tawny buff, each feather with a small white spot at the tip; facial disk buffy white, with a patch of blackish brown in front of the eye; fringe around the disk bright buff, the shaft of each feather marked with black; wings blackish brown, intermingled with bright tawny of a deeper tint than that of the back, and with a spot of white at the tip of each feather; from the shoulder to the body a broad space of bright tawny buff, speckled with numerous small black spots; primaries and secondaries bright tawny buff, tipped for a considerable portion of their length with brownish; the larger portion of their inner webs pure white, the former are barred with four, and the latter with three bands of blackish brown; scapularies blackish brown, with a spot of white at the tip of each feather; central tail-feathers beautiful bright buff, with four black bands; the nearest of the lateral feathers partake of the same colour; but the outer ones are much paler, being nearly white, and the bands almost obsolete; sides of the neck, chest, and upper portion of the abdomen buff, becoming gradually paler towards the tail; the whole of the undersurface marked with small brown spots near the tip of each feather; thighs buff externally, and white internally; underside of the wings white, slightly mixed with buff, and marked with arrowhead-shaped spots of blackish brown; undersurface of the quills white, banded and tipped with dark brown; tarsi long, rather slender, and feathered for about half their length, the remaining portion being clothed with short hairs; legs and feet yellowish flesh-colour; bill flesh-colour; irides dark brown.

"The female is not so bright in colour, but in other respects is very similar to the male.

The figure is of the natural size.

SCELOGLAUX ALBIFACIES.

J. Gould and H.C. Richter, del. et lith.

Hullmandel & Walton, Imp.

SCELOGLAUX ALBIFACIES.

Wekau.

Athene albifacies, G. R. Gray, Voy. of Ereb. and Terr. Birds, p. 2.—Ib. List of Birds in Coll. Brit. Mus., part i. 2nd edit. p. 90.
Sceloglaux albifacies, Kaup.—G. R. Gray, Cat. of Gen. and Subgen. of Birds in Brit. Mus., p. 8. No. 110.

The bird here figured is another of the strange inhabitants of our antipodal country New Zealand. An owl it unquestionably is, but how widely does it differ from every other member of its family! Its prominent bill, swollen nostrils, and small head are characters as much accipitrine as strigine; its short and feeble wings indicate that its powers of flight are but limited, while its lengthened legs and abbreviated toes would appear to have been given to afford it a compensating increase of progression over the ground. On what does this bird live? There are no indigenous small quadrupeds in the country upon which we might infer, from its structure and what we know of the economy of other terrestrial Owls (such as the Burrowing Owl of North America, *Surnia cunicularia*), it would feed. Does it partially feed on the larvæ of such Lepidoptera as *Hepialus virescens*, so subject to the attack of that singular fungus the *Sphæria Robertsi*? It would indeed be interesting to ascertain how it maintains existence.

Of this very rare and singular bird only two examples are known to me: of these, one is in the British Museum, the other in the collection of J. H. Gurney, Esq., of Norwich, a gentleman much attached to Ornithology, as his liberal donations to the Norwich Museum abundantly testify. Both these specimens were collected on the middle and south islands of New Zealand: that in the British Museum is the original of Mr. G. R. Gray's *Athene albifacies* and the type of Dr. Kaup's genus *Sceloglaux*.

The present is the first time the bird has been figured, and as its appearance in this work may be the means of making it more generally known, I trust that the attention of travellers will be directed to the species, and that ere long we may be furnished with some account of its habits and economy, of which, at present, nothing is known.

Mr. Percy Earl, who obtained the specimen in the British Museum at Waikonaiti, in the south island of New Zealand, states that it is known to the natives by the name of *Wekau*.

Plumage of the upper surface chocolate-brown, each feather margined with fulvous; some of the scapularies with a lengthened mark of dull white within the margin and others on the edge; primaries spotted along the outer margin with buffy white; secondaries and tertiaries crossed by indistinct or interrupted bars of buffy white, assuming on those near the body the form of spots; spurious wing very dark brown; tail brown, crossed by five narrow irregular bars of buffy white and tipped with fulvous; fascial disk pale sandy-brown, except on the forehead, throat and ear-coverts, which are whitish, each feather with a streak of brownish-black down the centre; feathers of the under surface deep fulvous, with a broad mark of dark brown down the centre of each, the former tint increasing on the lower part of the abdomen and thighs, when it again gradually fades into dull white on the lower part of the tarsi; toes sickly-green, thinly beset with hair-like feathers; cere much developed and of a lead colour; bill bluish horn-colour at the base, passing into yellowish horn-colour at the tip, the under mandible yellow.

The figure is of the natural size.

PODARGUS PAPUENSIS, *Quoy et Gaim.*

J.Gould and H.C.Richter del. et lith.

Hullmandel & Walton, Imp.

PODARGUS PAPUENSIS, *Quoy et Gaim.*

Papuan Podargus.

Podargus Papuensis, Quoy et Gaim. Voy. de l'Astrol., Ois. t. 13.—Gray and Mitch. Gen. of Birds, vol. i. p. 45, *Podargus*, sp. 9.—Bonap. Consp. Gen. Av., p. 57, *Podargus*, sp. 6.

The great country of Australia is certainly the head-quarters of the larger members of the *Caprimulgidæ*, constituting the genus *Podargus*, of which the present species may be considered a typical example. Of this fine bird several specimens were procured during the late voyage of Her Majesty's Ship Rattlesnake, under the command of Captain Owen Stanley, with Mr. MacGillivray as Naturalist, whose names will ever hold a prominent place in the annals of science for their discoveries in various branches of natural history. All the specimens were obtained at Cape York, the contiguity of which to New Guinea induced me to believe the bird to be identical with the one described and figured by MM. Quoy and Gaimard in the Voyage of the Astrolabe under the name of *Podargus Papuensis*; but on comparing the Australian bird with their plate, I had some doubts on the subject; I therefore conveyed the specimen to Paris and Leyden, for the purpose of instituting a comparison between it and the original New Guinea examples from which MM. Quoy and Gaimard took their figure and description; and from the following note made at the time, it will be seen that I came to the conclusion that they are identical. I think it necessary to mention this, because my Plate and that in the Voyage of the Astrolabe will not be found to agree: every care has been taken to render mine as correct a representation of the bird as possible: any comment on that in the French work is unnecessary.

"The *Podargus* from Cape York is too near to *P. Papuensis* to rank as a distinct species. The two specimens in the Leyden Museum differ very considerably in colour; one being freckled with fine markings of brown and buff, like the common *Podargus* of Australia, the other covered with large blotches of greyish-white and conspicuous markings of brown and black from the crown of the head to the end of the tail-feathers; the breast too of the larger specimen is conspicuously blotched with white, while that of the smaller one is finely freckled with grey, brown and black; the thighs of both are darkish brown. The Cape York specimen is precisely the same size as the larger of these birds, in colour it is somewhat intermediate between the two, but most nearly resembles the lighter-coloured one; its thighs are of a lighter brown, slightly tinged with olive, than either of the Leyden specimens, both of which are from New Guinea. The Paris specimen has a larger and more denuded bill than those at Leyden, but in other respects they are very similar."

The *P. Papuensis* is the largest species of the genus yet discovered; the beauty of its markings and the extreme length of its cuneate tail render it also one of the most graceful. The only specimen that came into my possession from Mr. MacGillivray, for the purpose of figuring, before being deposited in the National Collection, was a male. This, as will be seen in the accompanying Plate, is light brown, beautifully marbled on the under surface with large blotches of white. I have another specimen, received through a different channel, but also from Cape York, which is said to be the female; and such, judging from its redder colouring and smaller size, I believe to be the case, as a similar difference is found to exist between the sexes of *P. marmoratus*.

The male has the whole of the upper surface mottled with greyish-white, brown and black, presenting a very close resemblance to some of the larger kinds of moths, the lighter tints prevailing in some parts and the darker in others; on the primaries the marks assume the form of bars, and are of a redder hue; tips of the coverts white, forming irregular bars across the wing; tail very similar, but here also the markings assume the form of alternate darker and lighter bands with a rufous tint on the edges of the feathers; the under surface is much lighter than the upper; the greyish-white assumes a larger and more blotch-like form, and the darker marks that of an irregular gorget across the breast; bill and feet olive.

The female, which I think somewhat immature, is altogether of a more sandy hue; the dark marks proceed down the centre of the feathers, and terminate in a round spot of buff; the wing-coverts are tipped with white, and the lighter blotches on the wing are very conspicuous; the under surface, like the upper, is also of a redder hue than in the male, and the markings are of a smaller and more freckled character.

The figure is that of an adult male of the natural size.

J. Gould and H.C. Richter, del. et lith

PODARGUS MARMORATUS, *Gould.*

Hullmandel & Walton, Imp.

& Walton, Imp.

PODARGUS MARMORATUS, *Gould.*

Marbled Podargus.

Podargus marmoratus, Gould in App. to MacGillivray's Voy. of Rattlesnake, vol. ii. p. 356.

This species, like the *P. Papuensis*, has been subjected to a careful comparison with MM. Quoy and Gaimard's original specimen of *Podargus ocellatus*, now in the Museum of the Jardin des Plantes, and I find so great a difference between the New Guinea and Australian examples, that I cannot regard them otherwise than as distinct from each other. The *P. ocellatus* is a smaller bird, has a redder tail, and very conspicuous large round white spots on the wing, arranged in the form of three distinct semicircular bars,—characters which do not exist in the Australian bird; I have, therefore, no alternative but to give the latter a distinctive appellation, and add it to the list of the Australian fauna, a fauna rich in the extreme in certain groups, such as the *Meliphagidæ*, *Maluridæ*, *Psittacidæ*, and the present form, *Podargus*, of which at least eight distinct species are now known to exist. How numerous, then, must be the *Cicadæ*, *Phasmidæ* and other insects upon which these birds feed!

The present little species is particularly elegant in form, and is, in fact, a miniature representative of the *P. Papuensis*; both have lengthened tails, a feature which adds much to their gracefulness of form.

As will be seen on reference to the accompanying Plate, much difference exists in the colouring of the sexes, the female being of a deep rusty hue, while the male, particularly on the under surface, is beautifully marbled with pearl-white interspersed with freckles of brown and black.

Both the specimens from which my figures were taken were shot by Mr. MacGillivray on the Cape York Peninsula, one on the 14th, the other on the 19th of November 1849. These specimens now grace the National Collection, where they will be available for comparison should any nearly allied species be discovered.

The male has the whole of the upper surface and wings minutely mottled with brown, grey and buff, the buffy tint prevailing over the eyes, on the scapularies and on the tips of the wing-coverts; on the outer webs of the primaries the markings assume the form of bars of mingled buffy, buffy-white and rufous; tail light brown, crossed with numerous defined bands of grey, freckled with black, and with a rufous hue on the lateral feathers; under surface pearly-white, minutely freckled with brown and with a line of brown down the stem; a series of these darker marks, forming an irregular line, down each side of the neck; bill and feet brownish-olive.

The markings of the female are similar, but her general tint is very much darker and of a more rufous hue; the under surface, too, is dark brown, with here and there large blotches of buffy-white; a series of nearly quadrangular blotches, bordered with dark brown, descends down each side of the neck.

The figures represent the two sexes of the natural size.

J. Gould and H. C. Richter del. et lith.

HALCYON FLAVIROSTRIS: *Gould.*

Hullmandel & Walton Imp.

HALCYON FLAVIROSTRIS, *Gould.*

Halcyon (Syma?) flavirostris, Gould in Proc. of Zool. Soc., July 23, 1850.—Jard. Cont. Orn., 1850.

This species might easily be mistaken for the *Syma Torotoro* of M. Lesson; but if the figure in the "Voyage de la Coquille" be at all correct, there can be little doubt of its being distinct and new to science: its lesser size, less brilliant colouring, the yellow instead of orange hue of the bill, and the smaller size of the serrations of the mandibles, are some of the characters by which it may be distinguished from M. Lesson's species: in form it is so similar to the typical *Halcyons*, that I have not considered it advisable to adopt M. Lesson's subgenus *Syma*; the slight serrations of the mandibles, the only point in which it differs from *Halcyon*, appearing to me too trivial to warrant its separation from that genus.

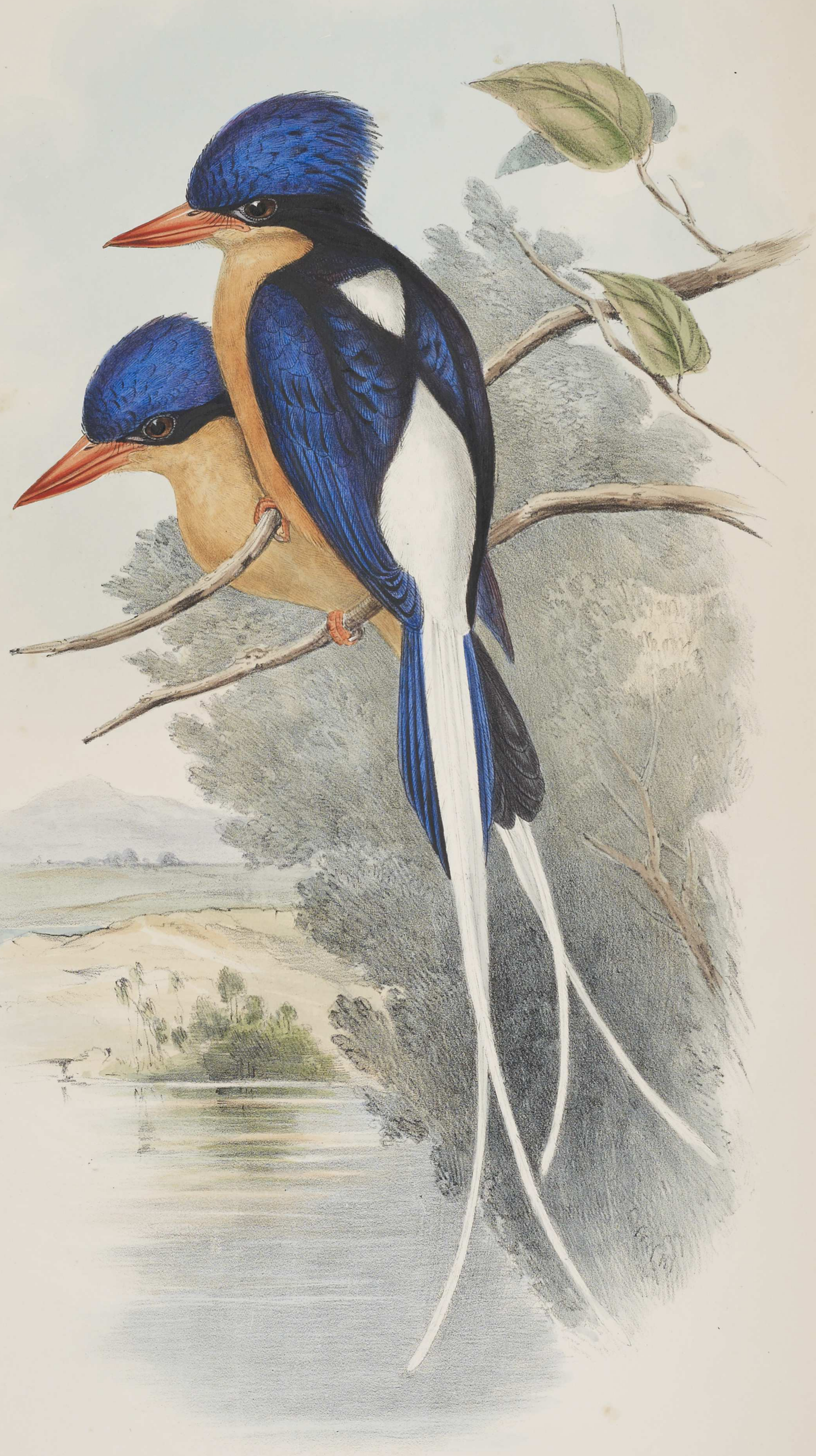
It was in that rich district of the peninsula of Cape York, which appears to have a fauna peculiar to itself, (many of the species not being found in other parts of Australia) that the present bird was procured; the following notes by Mr. MacGillivray comprise all the information I have been able to obtain respecting it:—

"The *Poditti*, as it is called by the aborigines, appears to be a rare bird; for although it was much sought for, not more than four or five examples were obtained during our stay. Like the *Tanysiptera Sylvia*, it is an inhabitant of the brushes, while the *S. Torotoro* of Lesson is a mangrove bird. I myself saw it alive only once, in a belt of tall trees, thick underwood and clumps of the *Seaforthia* palm fringing a small stream about three miles from the sea. Attracted by the call of the bird, which was recognized by the accompanying natives as that of the much-prized *Poditti*, three or four of us remained for about ten minutes almost under the very tree in which it was perched, intently looking out for the chance of a shot, before I discovered it on a bare transverse branch, so high up as scarcely to be within range of small shot; however, it fell, but our work was only half over, as the wounded bird eluded our search for a long time; at length, one of our sable allies—his eyes brightened, I dare say, by visions of a promised axe—found it lying dead in a corner to which it had retreated. The more intelligent natives whom I questioned separately agreed in stating that its mode of nidification is similar to that of the *Tanysiptera Sylvia*, and that, like that species, it lays several white eggs."

The male has the crown of the head, back of the neck, ear-coverts and flanks cinnamon-red; at the back of the neck a narrow broken collar of black; throat and lower part of the abdomen tawny white; back and wings sordid green; rump and tail greenish blue; bill pale orange, the apical two-thirds of the ridge of the upper mandible dark brown.

The female differs in being less brightly coloured, and in having an oblong patch of black on the centre of the head extending a little way down the occiput.

The figures represent the two sexes of the natural size.



TANYSIPTERA SYLVIA: *Gould.*

J. Gould and H.C. Richter del. et lith.

Hullmandel & Walton Imp.

TANYSIPTERA SYLVIA, *Gould.*

White-tailed Tanysiptera.

Tanysiptera Sylvia, Gould in Proc. of Zool. Soc., July 23, 1850.—Jard. Cont. Orn., 1850.
Quatăwur, of the Aborigines at Cape York.

Every new species discovered after the publication of a work on the Birds of a country must be regarded with interest; and the interest is much enhanced, when, as in the present instance, the additional species is of a scarce and beautiful form. One, or at the utmost two species of the genus *Tanysiptera* are all with which we were previously acquainted; the beautiful *T. Dea* is well known to be a native of New Guinea, and in all probability the range of the present species will extend to that country; but hitherto it has only been found on the northern coast of Australia, Cape York being the sole locality it is at present known to inhabit; and where, judging from the numerous specimens lately sent to this country, it appears to be by no means scarce: independently of those brought home by Mr. MacGillivray and the officers of H.M.S. Rattlesnake, I have also received fine examples from Mr. James Wilcox of Sydney.

As is the case with the *Halcyonidæ* generally, the sexes appear to present but little difference in size and colouring, but the female may be distinguished from the male by being somewhat less brilliant in colour and in the lesser development of the central tail-feathers.

"This pretty *Tanysiptera*," says Mr. MacGillivray, "is rather plentiful in the neighbourhood of Cape York, where it frequents the dense brushes, and is especially fond of resorting to the small sunny openings in the woods, attracted probably by the greater abundance of insect food found in such places than elsewhere: I never saw it on the ground, and usually was first made aware of its presence by the glancing of its bright colours as it darted past with a rapid, arrow-like flight, and disappeared in an instant among the dense foliage. Its cry, which may be represented by '*whee-whee-whee*' and '*wheet-wheet-wheet*,' is usually uttered while the bird is perched on a bare transverse branch or woody rope-like climber, which it uses as a look-out station, and whence it makes short dashes at any passing insect or small lizard, generally returning to the same spot. It is a shy suspicious bird, and one well-calculated to try the patience of the shooter, who may follow it in a small brush for an hour without getting a shot, unless he has as keen an eye as the native to whom I was indebted for first pointing it out to me. According to the natives, who know it by the name of '*Quatăwur*,' it lays three white eggs in a hole dug by itself in one of the large ant-hills of red clay which form so remarkable a feature in the neighbourhood, some of them being as much as ten feet in height, with numerous buttresses and pinnacles. I believe that the bird also inhabits New Guinea; for at Redscar Bay, on the south-east side of that great island, in long. 146° 50′ E., a head strung upon a necklace was procured from the natives."

Crown of the head, wings, and five lateral tail-feathers on each side blue; ear-coverts, back of the neck and mantle black; in the centre of the latter a triangular mark of white; rump and two middle tail-feathers pure white; under surface cinnamon-red; bill and feet sealing-wax-red.

The Plate represents the two sexes of the natural size.

J.Gould & H.C.Richter, del. et lith.

ARTAMUS MELANOPS, *Gould.*

Walter Imp.

ARTAMUS MELANOPS, *Gould.*

Black-faced Wood-Swallow.

Artamus melanops, Gould in Proc. of Zool. Soc., 1865, p. 198.—Id. Handb. Birds of Aust., vol. i. p. 149.

"This fine species is unlike every other known member of the genus. It is most nearly allied to *Artamus albiventris*, but differs from that bird in the jet-black colouring of its under tail-coverts, and from *A. cinereus* in its smaller size and the greater extent of the black on the face. The specimen from which my description was taken has been kindly sent to me by Mr. S. White, of the Reed-beds, near Adelaide, South Australia, who informs me that it was shot by him at St. à Becket's Pool, lat. 28° 30′, on the 23rd of August, 1863, and who, in the notes accompanying it, says, 'I have never seen this bird south. It collects at night, like *A. sordidus*, and utters the same kind of call. It seems to be plentiful all over the north country, and particularly about Chamber's Creek and Mount Margaret. It feeds on the ground, soars high, and clings in bunches like the others. The two sexes appeared to be very similar in outward appearance; but the young are much speckled with dusky brown, particularly on the back.'"

Since the above paragraph appeared in the first volume of my 'Handbook to the Birds of Australia,' several other specimens have been kindly forwarded to me by Mr. G. F. Waterhouse, Curator of the Museum of the South Australian Institute at Adelaide, in a note accompanying which that gentleman says:—

"In compliance with your wish, I forward herewith by return of post some specimens of *Artamus melanops* lately received from a friend located about 300 miles north of this place, who informs me that they make their appearance in large numbers about August, and remain for a month or six weeks, after which they become scarce."

The preceding brief passages comprise all that is at present known respecting the *Artamus melanops*.

Lores, face, rump, and under tail-coverts black; stripe over the eye, ear-coverts, sides of the face, and throat greyish buff, increasing in depth on the chest so as to form a well-marked band; under surface delicate vinous grey; two middle tail-feathers black, the remainder black largely tipped with white; upper surface of the wings grey, their under surface white; bill leaden grey, darkest at the tip; feet blackish brown.

The figures are of the natural size.

J.Gould & H.C.Richter, del. et lith.

PARDALOTUS XANTHOPYGIUS, *M.ᶜ Coy.*

Walter imp.

PARDALOTUS XANTHOPYGIUS, *M'Coy*.

Yellow-rumped Pardalote.

Pardalotus xanthopygus, M'Coy in Ann. & Mag. Nat. Hist., 3rd ser. vol. xix. p. 184.
———— *xanthopyge*, M'Coy in Ann. & Mag. Nat. Hist., 3rd ser. vol. xx. p. 178.

The discovery of this beautiful little Pardalote teaches us that the old adage of "a bird in the hand is worth two in the bush" should never be lost sight of; for the present species must have been frequently seen by me during my rambles in South Australia; but, owing to its general resemblance to the *P. punctatus* when among the leafy branches of the *Eucalypti*, I did not consider it necessary to kill a bird I had procured plentifully elsewhere. In my 'Handbook' I have stated that the Spotted Diamond-bird (*P. punctatus*) inhabits the whole of the southern part of Australia, from the western to the eastern extremity of the continent, and the island of Tasmania, all of which, with the exception of the western, had been visited by myself, and that, as I believed, I had collected every species inhabiting these countries: in this, however, I evidently deceived myself; for Mr. White informs me that the Yellow-rumped Diamond-bird is more common in South Australia than the Spotted; and this fact is confirmed by Mr. Waterhouse, the able Curator of the Natural History Museum at Adelaide, having had no difficulty in procuring and sending me half-a-dozen beautiful specimens at a moment's notice. I have also received others by way of Victoria, which had been collected near Lake Meran in the district of the Lower Murray. From a letter addressed to me by Professor M'Coy, it appears that this novelty was pointed out to him by Mr. Leadbeater, of Victoria, a scion of the house in London so well known to all ornithologists.

The *Pardalotus xanthopygius* is closely allied to the *P. punctatus*, but is even more beautifully coloured; its bright-yellow rump is a character by which it may at all times be distinguished from its congeners; this yellow mark is less conspicuous in the female; and hence the females of the two species are very similar and might be considered identical by persons not versed in ornithology.

The area over which this new bird ranges is at present but imperfectly known; probably the districts bordering the embouchure of the Darling and the Murray, and South Australia generally, constitute its true home. Professor M'Coy's description in the 'Annals and Magazine of Natural History' above referred to being very correct, I take the liberty of transcribing it; indeed it is only an act of justice so to do, since he was the first to make us aware of the existence of the species.

"Male. Crown of the head, wings, and tail black, most of the feathers having a round spot of white near the tip, largest on the secondaries; a stripe of white commences on the nostril, and passes over each eye; ear-coverts and sides of the neck grey, the margins being lighter, so as to give a slight tranverse mottling; feathers of the back dark grey at the base, with a large triangular greyish-white spot near the tip, followed by a black edge; lower part of the back, under tail-coverts, throat, and front of the chest rich yellow; upper tail-coverts crimson; abdomen pale-brownish cream-colour; flanks greyish; bill black; feet brown.

"Female differs in having the head greyish, like the back, and the throat whitish.

"Total length, from tip of bill to end of longest tail-feathers, 3 inches 8 lines; bill, from forehead, rather more than $2\frac{1}{2}$ lines; wing, from shoulder, 2 inches $3\frac{1}{2}$ lines; tarsus 8 lines.

"This beautiful species belongs to the same section of the genus as *P. rubricatus*, *P. punctatas*, and *P. quadragintus*, and is distinguished from the others by wanting the red sealing-wax-like appendages to the spurious wing-feathers. It most nearly resembles the *P. punctatus*, from which it differs in its more slender and slightly longer bill, the white instead of brownish spots on the fore part of the back, the paler abdomen, greyish instead of brownish flanks—and conspicuously by the hinder part of the back being of the same bright yellow colour as the throat and under tail-coverts.

"Specimens are in the National Museum at Melbourne, from Swan Hill, near the junction of the Murray and the Darling; and Mr. Waterhouse has presented some from near Adelaide in South Australia."

The Plate represents two males and a female, of the size of life.

J.Gould and H.C.Richter, del. et lith.

MANUCODIA KERAUDRENI.

Hullmandel & Walton, Imp.

MANUCODIA KERAUDRENI.

Keraudren's Crow-Shrike.

Barita Keraudrenii, Less. Voy. de la Coq., t. 13.
Chalybæus cornutus, Cuv. Règn. Anim., tom. i. p. 354, edit. 1829.—Gould in MacGill. Voy. of Rattlesnake, vol. ii. p. 357.
Phonygama Keraudrenii, Less. Man. d'Orn., tom. i. p. 141.—Ib. Compl. Buff., t. 7.—Ib. Traité d'Orn., p. 344.—Gray and Mitch. Gen. of Birds, vol. ii. p. 302, *Phonygama*, sp. 2.
———— *Lessonia*, Swains. Class. of Birds, vol. ii. p. 264.
———— *keraudreni*, Bonap. Consp. Gen. Av., p. 368, *Phonygama*, sp. 2.

This is perhaps the most marked New Guinea form that has yet been discovered on the continent of Australia. As might be presumed, the extreme northern parts of the latter country, those in fact most contiguous to New Guinea, are the districts in which it was found. It would be interesting to know if a migration of such forms as the present annually takes place between the two countries. With many other birds having greater wing-powers, such a migration would be performed with ease, and doubtless such a change of locality occurs with many of them. At present, New Guinea, owing to the hostile character of its native population, is a sealed country to the collector, and we really know but little of its natural productions. There are doubtless many fine birds in the mountain districts of that country which never quit their own forests, while others, of a more wandering disposition, will be from time to time captured on the Cape York Peninsula and other northern promontories of Australia; by this means we shall be made acquainted with at least a part of the fauna of that *terra incognita*; time and the advance of civilization will make us acquainted with the remainder. It is not to be expected, nor indeed can it scarcely be wished, that all the species of birds should be ascertained in one or two generations, as, in that case, future research would be deprived of the charm which novelty communicates to the mind; let us, then, be satisfied with the gradual unfolding of nature's works, and leave to future generations the pleasure of discovering those which are at present withheld from us.

I have seen two or three specimens of this bird, all of which were collected during Captain Stanley's Expedition. A fine example in the British Museum, obtained at Cape York, is stated by Mr. MacGillivray to be a male; it is from this that my figures were taken.

Centre of the crown, the lengthened ear-plumes, the lanceolate feathers on the sides of the neck, back, rump and breast green; shoulders, primaries and tail purplish-black, as are also the thighs, lower part of the abdomen and under tail-coverts; bill and legs black.

The figures are of the natural size.

Hullmandel & Walton, Imp.

J. Gould and H.C. Richter del. et lith.

ARSES KAUPI: *Gould.*

Hullmandel & Walton Imp.

ARSES KAUPI, *Gould.*

Kaup's Flycatcher.

Arses Kaupi, Gould in Proc. of Zool. Soc., December 10, 1850.

I HAVE some little doubt as to the propriety of placing this bird in the genus *Arses*, but rather than multiply the number of genera, perhaps unnecessarily, I have assigned it a place therein, as it accords more nearly with that form than with *Monarcha*, the only other genus to which it offers alliance. I am happy to have this opportunity of paying a just compliment to my friend Dr. Kaup of Darmstadt, an ornithologist of vast acumen and research, and whose philosophical labours are well known to all naturalists: the compliment is the more appropriate, as he is at this time (1851) engaged in preparing a Monograph of the *Muscicapidæ*, to which family the present bird belongs.

The specimen here represented is the only one I have seen: it was killed on the north coast of Australia; and this is all, I regret to say, that is at present known respecting it.

Small spot on the chin, crown of the head, lores, line beneath the eye, ear-coverts, broad crescentic band across the back, and a broad band across the breast, deep shining bluish black; wings and tail brownish black; throat and a broad band across the back of the neck white; lower part of the back and abdomen white, the base of the feathers black, which occasionally showing through give those parts a mottled appearance; bill bluish horn-colour, becoming lighter at the tip; feet black.

The figures are of the natural size.

Allmand del & Walton Imp.

MACHÆRIRHYNCHUS FLAVIVENTER: *Gould.*

J. Gould and H.C. Richter del. et lith.

Hullmandel & Walton

MACHÆRIRHYNCHUS FLAVIVENTER, *Gould.*

Yellow-breasted Flycatcher.

Machærirhynchus flaviventer, Gould in Proc. of Zool. Soc., December 10, 1850.

A SINGLE specimen of this extraordinary form is all that has come under my notice; it was collected at Cape York in Northern Australia, and now forms part of the Collection of the Zoological Society of London, to whom it was presented by the late Captain Owen Stanley, R.N. All that is known respecting it is comprised in the following note communicated to me by Mr. MacGillivray:—

"A single specimen only of this Flycatcher was procured, during our last visit to Cape York. It was shot by Mr. James Wilcox, who was employed by the late Captain Stanley to procure specimens of natural history for the Norwich and Ipswich Museums, and to whose zeal and industry as a collector I was often much indebted. He told me that he observed it on the skirts of one of the dense brushes or jungles, making short flights in the air, snapping at passing flies, and returning again to the same tree, the *Wormia alata* of botanists, distinguished by its red papery bark, large glossy leaves and handsome yellow flowers, which attract numbers of insects. The place was frequently visited afterwards, but no other example was seen."

Crown of the head, lores, ear-coverts, wings and tail black; wing-coverts tipped with white; secondaries margined with white; outer tail-feathers margined on the apical portion of the external web, and largely tipped with white, the white becoming less and less, until only a slight trace of it is found on the central feathers; back olive-black; throat white; line from the nostrils over each eye, and the breast, abdomen, and under tail-coverts bright yellow; bill black; feet bluish black.

The figures are of the natural size.

J. Gould. and H.C. Richter. del. et lith.

MONARCHA LEUCOTIS: *Gould.*

Hullmandel & Walton Imp.

MONARCHA LEUCOTIS, *Gould.*

White-eared Flycatcher.

Monarcha Leucotis, Gould in Proc. of Zool. Soc., July 23, 1850.—Jard. Cont. Orn., 1850.

I HAVE refrained from making the White-eared Flycatcher the type of a new genus until more information has reached us respecting it, and in the mean time have assigned it a situation with the other members of that form to which it seems to me to be most nearly allied. Like most of the other new birds figured in this Supplement to the Birds of Australia, it is a native of Cape York, and in all probability its range is a somewhat wide one, since it has been killed on Dunk Island. "Respecting this bird," says Mr. MacGillivray, "I regret to say I can afford you very little information. A specimen was obtained at Dunk Island, off the north-east coast of Australia, in lat. 17° 56′ S., where it was shot during its flight from one tree to another: a second individual was afterwards procured at Cape York, which renders it probable that its range extends between these two places."

Crown of the head, back of the neck, primaries, and six middle tail-feathers black; three lateral tail-feathers on each side black, with white tips; lores, a broad mark over the eye, ear-coverts, sides of the neck, scapularies, and upper tail-coverts, white; throat white, bounded below with black, the feathers lengthened and protuberant; chest and abdomen light grey; bill and feet lead-colour.

The figures are of the natural size.

J. Gould & H.C. Richter, del. et lith.

MONARCHA ALBIVENTRIS, *Gould.*

Walter, Imp.

MONARCHA ALBIVENTRIS, *Gould.*

White-bellied Flycatcher.

Monarcha albiventris, Gould in Proc. of Zool. Soc., 1866, p. 217.

Before recording the little that is known respecting this new species, it will be as well, perhaps, to state that Mr. G. R. Gray has pointed out, in the 'Proceedings of the Zoological Society' for 1860, p. 352, that the true *Monarcha trivirgata*, which is a native of the island of Timor, is distinct from the bird of the south-eastern parts of Australia, so called in the second volume of this work, Plate 96, and in my 'Handbook to the Birds of Australia,' vol. i. p. 253, and has dedicated the latter to myself, calling it *Monarcha Gouldi*. This gentleman, moreover, states that the bird which he has named *M. bimaculata*, and which was brought to this country from Batchian by Mr. Wallace, is different from both. To this I may add that the bird here figured, which is a native of the Cape-York district, differs from all of them, and is distinguished for the pure whiteness of the under surface of its body, its axillaries, and the underside of the wings; whereas in the south-eastern species (*M. Gouldi*) the chestnut colouring of the breast is continued down the entire length of the flanks, over the under surface of the wings, and on the axillaries also in very old specimens.

The Northern-Queensland bird, *M. albiventris*, is also a little smaller in size than the New-South-Wales *M. Gouldi*, which more nearly assimilates, in size, colour, and markings, to the Timor *M. trivirgata*; but the latter has a longer and much narrower bill than the former, and, moreover, has a greater amount of white on the three outer tail-feathers, in which respect it resembles the Cape-York bird; but as the Timor species has buff sides and axillaries, like *M. Gouldi*, it cannot be regarded as identical.

The *M. albiventris* is abundantly dispersed over the Cape-York peninsula, where, according to Mr. James Cockerell, it is stationary, breeding on the edges of the scrubs. In actions it is a complete Flycatcher, sallying forth to capture insects, and returning to the same branch, all the while moving the tail from side to side.

Mr. Cockerell brought me the eggs of this bird, which may be described as of creamy white, covered with minute rufous dots, thinly dispersed over the middle and smaller end, and so thickly at the larger end as nearly to coalesce and form a rufous cap; they are about five-eighths of an inch in length by half an inch in breadth, and are generally two in number, laid on a small, shallow, round, and neatly formed nest.

Bill and legs olive lead-colour; forehead and a narrow stripe above the eye, upper portion of the ear-coverts, and the throat jet-black; cheeks, lower part of the neck, and the chest bright ferruginous; abdomen, axillaries, and a considerable portion of the under surface of the wing snow-white; crown of the head, back of the neck, and back bluish grey; primaries greyish brown; upper tail-coverts and tail black, the three outer feathers of the latter largely tipped with white.

There seems to be but little difference in the outward appearance of the sexes; the accompanying Plate may therefore be regarded as representing a male and a female, of the natural size.

J.Gould & H.C.Richter, del. et lith.

GERYGONE PERSONATA, *Gould.*

Walter, Imp.

Walter Imp.

GERYGONE PERSONATA, *Gould.*

Masked Gerygone.

Gerygone personata, Gould in Proc. of Zool. Soc. 1866, p. 217.

The accompanying illustration represents one of the novelties lately transmitted to me by my brother-in-law, Charles Coxen, Esq., of Brisbane. It was procured in the Cape York district, through, as I believe, the instrumentality of the Messrs. Jardine, father and sons. This new species, together with the other leaf-loving little birds to which the generic term of *Gerygone* has been applied, constitute a very marked group in the avifauna of Australia. Most, if not all, of them frequent the smaller branches of trees growing in the brushes, where they flit about, like the Wood-Wren of our own island, and live on the *aphides* and other minute insects which there abound, and which they capture in the air or seek for among the foliage: and we know that some of the species also feed upon larvæ of various kinds. Generally speaking, the sexes are alike; but on this point I have no certain information with regard to the present bird, of which I have as yet seen only the single example figured in two positions on the accompanying Plate.

As stated in my 'Handbook,' all the known species of the genus are of small size, unobtrusive in colour, sprightly in their movements, and but little skilled in singing. The Masked Gerygone differs in so many particulars from all others yet discovered, that it is rendered conspicuously distinct from every one of them.

Crown and all the upper surface olive-green; throat and chest deep olive-brown; behind each nostril a spot of white; a stripe of white also descends from the base of the bill down each side of the neck, and separates the deep olive-brown of the throat from the lighter olive of the ear-coverts; axillæ, all the under surface of the body, and the under tail-coverts delicate yellow; wings and tail olive-brown; bill and legs olive-black.

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

The figures are of the natural size.

PETROICA? CERVINIVENTRIS, *Gould.*

J. Gould and H.C. Richter, del et lith.

Hullmandel & Walton, Imp.

PETROICA? CERVINIVENTRIS, *Gould.*

Buff-sided Robin.

Petroica cerviniventris, Gould in Proc. of Zool. Soc., part xxv. p. 221.

So far as regards Ornithological science, it was fortunate that Mr. Elsey remained for a long time encamped near the Victoria River, on the north-west coast of Australia, since it enabled him to pay some attention to the natural objects which surrounded him; and the discovery of the present bird, which is quite new to science, is one of the results of his long stay in that spot in charge of a portion of Mr. Gregory's Expedition. All who have read my work on the Birds of Australia, will have observed that a species of *Petroica* is figured in the third volume under the name of *P. superciliosa*, which bird was collected by the late Mr. Gilbert in the neighbourhood of the Burdekin Lakes, towards the Gulf of Carpentaria; with this species the one here figured is very nearly allied; and as both differ somewhat in form from the typical members of the genus, or true *Petroicæ*, it may in all probability be found necessary to institute a distinct genus for their reception: they are doubtless representatives of each other in the respective countries they inhabit, the *superciliosa* dwelling on the eastern parts of the continent, and the *cerviniventris* in the western.

The following is a correct description of the species:—

All the upper surface, wings, and tail chocolate-brown; line over the eye, throat, tips of the greater wing-coverts, base of the primaries, base and tips of the secondaries, and tips of the tail white; breast grey; abdomen deep fawn-colour, becoming almost white in the centre; bill black; feet blackish brown; irides dark brown.

The figures are of the natural size.

uld.

Hullmandel & Walton, Imp.

J. Gould and H.C. Richter del et lith.

DRYMODES SUPERCILIARIS: *Gould.*

Hullmandel & Walton Imp.

DRYMODES SUPERCILIARIS, *Gould.*

Eastern Scrub Robin.

Drymodes superciliaris, Gould in Proc. of Zool. Soc., July 23, 1850.—Jard. Cont. Orn. 1850.
Trokāroo, Aborigines of Cape York.

Perhaps one of the most interesting of the smaller birds discovered by me in the brushes of South Australia, was a species of this form to which I gave the name of *Drymodes brunneopygia*, and which I found to be a very recluse bird, inhabiting the densest scrub, retreating from danger and shrouding itself from observation by hopping beneath the thick herbage. I did not fail to remark, also, that its habits were very similar to those of the Saxicoline birds: the new species, represented on the accompanying Plate, is an inhabitant of the north-east coast of Australia; and it will be seen by the following notes by Mr. MacGillivray, that the two birds, as might be supposed, accord as nearly in their habits as they are allied in structure.

"While traversing on the 17th of November, 1849, a thin open scrub of small saplings growing in a stony ground thickly covered with dead leaves, about five or six miles inland from Cape York, I observed a nest placed on the ground at the foot of a small tree; its internal diameter was four inches and a half; it was outwardly composed of small sticks with finer ones inside, and lined with grass-like fibres, and was moreover surrounded with dead leaves heaped up to a level with its upper surface; it contained two eggs an inch long by seven-tenths of an inch broad, of a regular oval shape, and of a very light stone-grey thickly covered with small umber blotches, which increased in size and were more thickly placed at the larger end: they were placed side by side, with the large end of one opposite the small end of the other. After watching near the nest for some time, one of the owners appeared, and was procured; but putrefaction having commenced before my return to the ship, I could not ascertain the sex with certainty: it approached me within three or four yards, hopping with sudden jerks over the leaves, and moving by fits and starts like the Robin of Europe; it uttered no cry or note during the time I was watching its motions; two others were afterwards procured in the same kind of open scrub, and the birds being probably in the immediate neighbourhood of their nest, hopped up quite close to the observer."

The sexes assimilate in colour, but the female is somewhat smaller than the male.

Lores white; immediately above and below the eye a black mark forming a conspicuous moustache; crown of the head and upper surface reddish brown, passing into chestnut-red on the rump and six middle tail-feathers; remainder of the tail-feathers black, tipped with white; wings black, with the base of the primaries and the tips of the coverts white, forming two bands across the wing; throat and centre of the abdomen fawn-white; chest and flanks washed with tawny; irides umber-brown; legs and feet flesh-colour.

The Plate represents the two sexes of the natural size.

Hullmandel & Walton Imp

EOPSALTRIA CAPITO, *Gould.*

J. Gould and H.C. Richter, del. et lith.

Hullmandel & Walton, Imp.

EÖPSALTRIA CAPITO, *Gould.*

Large-headed Robin.

Eöpsaltria Capito, Gould in Proc. of Zool. Soc., part xix. p. 285.

The great country of Australia is characterized by many striking and varied physical features; in none other, I believe, does the earth's surface present so many different aspects, or are the contrasts more strongly marked, the central area being either a sterile waste of burning sand or an inland sea, as a drouthy or rainy season prevails; while on the inner slopes of the mountain ranges towards this area, there exist beautiful and fertile downs richly clothed with grass, interspersed with *Eucalypti* and *Angophoræ*, presenting a park-like picture to the eye. Again, the outer slopes of the high ranges which skirt along the south and eastern coasts, at a distance of from forty to sixty miles from the sea, have in the course of time changed into a soil so rich and deep as to be favourable, not only to the growth of the largest kinds of *Eucalypti*, but to magnificent cedars, fig-trees and palms of two or three species. Favoured by an aspect which commands the rays of the sun, and by humidity from the sea, the vegetation here becomes of that dense and peculiar character technically known in New South Wales by the name of Brushes; these districts are tenanted by a bird-life equally peculiar; so that the fauna of the brushes is as distinct from that of the plains as if hundreds of miles of sea rolled between. The unobtrusively coloured bird here represented is a native of the brushes of the south-east coast, and is tolerably plentiful in the neighbourhood of the Clarence, the Manning and the Brisbane rivers. Its existence was not known to me when the "Birds of Australia" were published; and its discovery is due to the late Mr. Strange, who sent me several specimens a short time after its completion. Of its habits nothing is known, but they are doubtless very similar to those of the other *Eöpsaltriæ*. Like them the sexes do not differ in colour, but the female may generally be distinguished by her somewhat smaller size.

Upper surface olive-green, inclining to brown on the head; wings and tail slaty-brown, faintly margined with olive-green; ear-coverts grey; lores, a line below the eye and the throat greyish white; under surface yellow; irides hazel; bill black; feet brownish flesh-colour.

The figures are of the natural size.

d & Walton, Imp.

J.Gould & H.C.Richter del. et lith.

EOPSALTRIA LEUCURA, *Gould.*

Walter Imp.

EOPSALTRIA LEUCURA, *Gould.*

White-tailed Robin.

Eopsaltria leucura, Gould in Ann. and Mag. Nat. Hist., 4th ser., vol. iv. p. 108.

The late John Gilbert was probably the first person who shot this fine species of *Eopsaltria*, of which I have had a mutilated skin, obtained by him at Port Essington, in my possession for the last twenty years. The specimen alluded to is too imperfect for describing or figuring; but I am enabled to supply these desiderata from two others now before me in the finest state of preservation. Unfortunately nothing is known respecting the *Eopsaltria leucura*, except that it inhabits the great beds of mangroves bordering the coasts of the northern part of Australia (to which, according to Mr. Cockerell, it is confined), that it is very quiet in all its actions, and rather rare in the neighbourhood of Somerset. There appears to be no difference whatever in the colouring of the sexes, in which respect this new species assimilates to the little group of Yellow-breasted Robins (*Eopsaltria australis*, *E. griseogularis*, &c.). Its nearest ally is the *E. leucogaster* of Western Australia; but it differs from that species in being of larger size, and in the basal portion of the five outer tail-feathers on each side being white.

The following description of the colouring of this new species was published by me in the 'Annals and Magazine of Natural History,' above referred to:—

"Forehead, lores, and a line nearly surrounding the eye and the ear-coverts black; head and upper surface dark leaden grey, fringed posteriorly with greyish white; wings blackish brown, darkest on the shoulders; upper tail-coverts black; two centre tail-feathers black, the next on each side black, with a stripe of white on the basal part of the shaft and outer web; the remaining four on each side white at the base, and black for the remainder of their length; all the under surface and the under tail-coverts white, with the exception of a broad band of pale grey across the breast; bill and feet black.

"Total length $6\frac{1}{2}$ inches, bill $\frac{13}{16}$, wing $3\frac{1}{4}$, tail 3, tarsi 1."

"*Habitat*. The Cape-York district," and other parts of the north coast as far as the Coburg Peninsula.

The figures are supposed to represent a male and a female, of the size of life.

F. Gould and H.C. Richter del et lith.

MENURA ALBERTI: *Gould.*

Indlewandel & Walton Imp.

MENURA ALBERTI, *Gould.*

Albert Lyre Bird.

Menura Alberti, Gould in Proc. of Linn. Soc., February 5, 1850.—Bonap. Consp. Gen. Av., p. 215.—Jard. Cont. Orn., 1850.

The dense, luxuriant, and almost impenetrable brushes which skirt along the eastern coast of Australia from Sydney to Moreton Bay, are, as might be supposed, tenanted by many forms both of mammalia and birds peculiarly their own; many of these districts are very partially known, and some of them may be said to be as yet untrodden, hence it is not surprising that an additional species of this extraordinary form should have been there discovered. I must fairly admit, however, that I was not prepared for the acquisition of so remarkable a bird within the limits of the colony of New South Wales.

I have great pleasure in naming this species *M. Alberti*, in honour of His Royal Highness Prince Albert, as a slight token of respect for his personal virtues, and the liberal support he has rendered to my various publications.

The specific differences between the present bird and the older known species, *M. superba*, are very apparent; they consist in the rufous colouring of the plumage, and in the total absence of the brown barrings of the lyre-shaped tail-feathers, which, moreover, are much shorter than the other feathers of the tail, while in *M. superba* they are the longest; they are "composed," says Sir William Jardine, who has carefully compared the specimens of the two species in my possession, "of very broad webs, loose but not separated. The next six feathers on each side are similar in structure, having wide separated barbs, but they are finer and shorter than in *M. superba*. The two centre feathers are also of the same structure, and cross each other at the base; but the inner webs are broader, the outer rudimentary barbs stronger and placed more thickly; the entire tail considerably shorter."

The first specimens of this bird that came under my notice were sent to me by Mr. Strange of Sydney; my friend Dr. Bennett also forwarded to me almost simultaneously a fine example belonging to the Museum, which the Directors with their wonted liberality, had at his request permitted to be sent to England for illustration in the present work.

"I have often seen this new species of *Menura*," says Dr. Bennett, "but always regarded it as a young male of *M. superba*, until Dr. Stephenson residing at York Station, Richmond River, (who accompanied Sir Thomas Mitchell on his last expedition,) informed me that he believed it to be new, which on comparison I found to be the case. I cannot, perhaps, do better than send you the following extract from Dr. Stephenson's letter, dated Sept. 20, 1849:—"In a collection of birds made in the year 1849 on the Richmond, are two specimens of a nondescript *Menura*, one of which I present to you for examination and description. You will perceive a very close affinity between it and the *superba*, except in the tail, which is very different. Since the idea of its being distinct occurred to me and to my friend Augustus A. Leycester, Esq., I have made every possible inquiry respecting the bird amongst the sawyers and others, all of whom agree that it is distinct; some of them had shot specimens of the *M. superba* at Camden Haven and other localities to the southward, but had never seen the present bird further to the south than the Nambucca River; they also state that the new bird is not so timid as the old one, and is consequently more easily shot. The locality it frequents consists of mountain ridges not very densely covered with brush; it passes most of its time on the ground, feeding and strutting about with the tail reflected over the back to within an inch or two of the head, and with the wings dropping on the ground. Each bird forms for itself three or four '*corroboring places*,' as the sawyers call them; they consist of holes scratched in the sandy ground about two feet and a half in diameter by sixteen, eighteen or twenty inches in depth, and about three or four hundred yards apart or even more. Whenever you get sight of the bird, which can only be done with the greatest caution and by taking advantage of intervening objects to shelter yourself from its observation, you will find it in one or other of these holes, into which it frequently jumps and seems to be feeding, then ascends again and struts round and round the place, imitating with its powerful musical voice any bird it may chance to hear around it; the note of the *Dacelo gigantea* it imitates to perfection; its own whistle is exceedingly beautiful and varied. No sooner does it perceive an intruder than it flies up into the nearest tree, first alighting on the lowermost branches and then ascending by a succession of jumps until it reaches the top, whence it instantly darts off to another of its play-grounds. The stomachs of those I dissected invariably contained insects, with scarcely a trace of any other material."

Mr. Strange informs me that he met with the bird "in the cedar brushes which skirt Turanga Creek,

Richmond River. Like the *M. superba* it is of a shy disposition; when alarmed and running away it carries the tail erect, and not dropping downward like that species. I spent ten days in the midst of the cedar brushes in the hope of learning something of its nidification, but did not succeed in finding any nest with eggs; I found, however, one large domed nest made of sticks and placed in the spur of a large fig-tree, which the natives assured me was that of the *Colwin*, their name for this bird; it resembled that of *Orthonyx*, except that the inside was not lined with moss, but with the litter from a large mass of parasitical plants that had fallen to the ground. The natives agree in asserting that the eggs are only laid in the cold weather, by which I apprehend they mean in the spring, as I shot a young bird about four months old, on the 24th of November, which had the whole of the body still covered with a brown and greyish down. I have seen this species take some extraordinary jumps of not less than ten feet from the ground on to some convenient branch, whence it continues to ascend in successive jumps, until it has attained a sufficient elevation to enable it to take flight into the gulley below."

The male has the crown of the head and back of the neck sooty black, with a tinge of chestnut on the forehead and some of the crest-feathers; all the upper surface, particularly the upper tail-coverts, rich rusty chestnut; primaries blackish brown, tinged with rufous on their external edges; throat rusty red, passing into a paler tint of the same colour on the breast; abdomen grey, washed with sandy buff; thighs grey, slightly washed with buff; under tail-coverts bright rufous; upper surface of the tail-feathers slaty black, their under surface silvery grey; the outer lyre-shaped feather on each side much shorter than the corresponding feathers in *Menura superba*, and entirely destitute of the bars so conspicuous in that species; the two centre feathers narrow, prolonged, crossing each other at the base, curving outward at the tip, and webbed only on their external side.

The female is similar in colour to the male; but distinguishable by the feathers of the tail being much less filamentous in their structure, and by the two middle feathers being shorter, broader and straighter, than in the opposite sex, and broadly webbed on both sides of the shaft.

The Plate represents the two sexes, about half the natural size.

MALURUS CORONATUS, *Gould.*

J.Gould and H.C.Richter, del et lith.

Hullmandel & Walton, Imp.

MALURUS CORONATUS, *Gould.*

Crowned Wren.

Malurus coronatus, Gould in Proc. of Zool. Soc., part xxv. p. 221.

Charming as are many of the smaller Australian birds, I think the present species is entitled to the palm for elegance and beauty, not only among the members of its own genus, numerous and beautiful as they really are, but among any other groups of birds yet discovered; the charm, too, is considerably enhanced by the great novelty in the style of its colouring; for in how few birds do we find the lovely lilac tint which encircles and adorns the head of this bird: a similar tint, it is true, pervades the nape of the *Chlamyderæ* (Bower birds); but I scarcely know of any third instance.

Having premised thus much respecting this new *Malurus*, I now come to the painful task of naming its collector; I say painful because the gentleman who shot and brought it to this country has fallen, like many other Australian explorers, a victim to the climate of that country, good and congenial to Europeans as it generally is. It will be recollected by all those who take an interest in scientific explorations, that Mr. Elsey accompanied A. C. Gregory, Esq., as surgeon and naturalist on his great journey from the Victoria River, on the north-west coast of Australia, to Moreton Bay, where the entire party safely arrived, and Mr. Elsey returned to England; it soon, however, became evident that he had contracted the disease called *hæmoptysis*, and he was speedily obliged to remove to a warmer climate: he selected one of the West India Islands, and, on arriving, commenced his investigations with his usual spirit; but he rapidly became worse, and science shortly had to deplore the loss of one of her most enthusiastic votaries. The little I saw of this gentleman impressed me with the belief that he had a lively taste for nature; and had he been spared, I feel assured he would have distinguished himself greatly in one or other branch of the natural sciences.

All that is known of the *Malurus coronatus* is that it is an inhabitant of the countries bordering the Victoria River. Both sexes were procured, and they now form part of our collection at the British Museum.

The male has the crown of the head rich lilac-purple, with a triangular spot of black in the centre, and bounded below by a band of velvety black, which, commencing at the nostrils, passes backwards through the eye, dilates upon the ear-coverts, and meets at the back of the neck; back and wings light brown; tail bluish green, becoming of a deeper hue towards the extremity; lateral feathers margined externally and tipped with white; under surface buffy white, becoming gradually deeper on the flanks and vent; irides brown; bill black; feet fleshy brown.

The female has all the upper surface light brown; lores and space behind the eye white; ear-coverts chestnut; in other respects she is similar to the male.

The figures are of the natural size. The plant represented in the upper part of the Plate is the *Schœnia oppositifolia*; that below is the *Genetyllis tulipifera*.

MALURUS AMABILIS, *Gould*.

J. Gould and H.C. Richter, del. et lith.

Hullmandel & Walton, Imp.

MALURUS AMABILIS, *Gould.*

Lovely Wren.

Malurus amabilis, Gould in Proc. of Zool. Soc. 1850, p. 277.—Ib. MacGill. Voy. of Rattlesnake, vol. ii. p. 357.

All the members of the genus *Malurus* that have yet been discovered are natives of Australia, and of the eleven species with which we are now acquainted the present yields to none of them either in the elegance of its form or in the beauty of its plumage. The great stronghold of the members of the genus is the southern rather than the northern portion of the continent; indeed, until the discovery of the present species the *Malurus Browni* was the only one known to inhabit the northern coast. The officers of Her Majesty's Surveying Ship Rattlesnake so well employed their time in collecting the natural productions of the Cape York district, that they added very considerably to our knowledge of the fauna of that part of the continent. A single and somewhat imperfect specimen of this bird, bearing the words "Cape York, 1849," was transmitted by the late Captain Owen Stanley to the Zoological Society of London, and it is from this specimen that my figure was taken. It is most nearly allied to the *Malurus Lamberti*, but differs from that bird in its larger bill, in the deeper and more uniform blue of the cheeks and crown, in the darker colouring of the thighs, and in the much greater extent of the white on the tips and margins of the outer tail-feathers.

The female figure in the accompanying Plate is taken from an example of that sex of *M. Lamberti*, which I feel assured the female of *M. amabilis* will be found to closely resemble whenever it is our good fortune to have examples transmitted to us; and that this desideratum may soon be obtained, as well as additional skins of the male, is much to be wished. When the Cape York Peninsula is closely explored, not only this, but many other interesting species will reward the collector, and the fauna will probably be found to partake of that of the adjacent island of New Guinea, as well as of forms peculiar to New South Wales.

Head, ear-coverts and centre of the back delicate violet-blue; lores, throat, breast, crescent across the upper part of the back and the rump deep bluish-black; scapularies chestnut; wings brown, the secondaries slightly margined with white; abdomen white, very slightly tinged with buff on the flanks; tail dull greenish-blue, the four lateral feathers margined externally and largely tipped with white; hinder part of the thighs black; bill black; irides and feet dark brown.

The figures are of the natural size.

J. Gould & H.C. Richter, del. et lith.

MALURUS HYPOLEUCUS, *Gould.*

Walter, Imp.

MALURUS HYPOLEUCUS, *Gould.*

Fawn-breasted Superb Warbler.

Malurus hypoleucus, Gould in Ann. & Mag. Nat. Hist., 3rd. ser. vol. xix. p. 369.

Since I published a description of this very distinct species of *Malurus* in the work above referred to, I have received examples direct from Queensland. They formed part of a collection of birds procured in the Cape York district, and sent to this country by John Jardine, Esq. The males contained therein were accompanied by a specimen which I consider to be the female; hence a description of that sex, with which I was previously unacquainted, will be given below. All the male examples that have come under my notice are very similarly coloured, and, I feel confident, are fully adult and in their nuptial dress. The colouring of this new bird will doubtless be governed by the law which prevails in all the other members of the genus; in that case, its spring and autumn plumage will greatly differ.

The *Malurus hypoleucus* is easily distinguished from all the other known members of the subfamily to which it belongs by the fawn-white colouring of its under surface, by its white lores and eye-ring, and the deep-blue tint of its upper surface; it has not the projecting ear-tufts which constitute so remarkable a feature in *M. cyaneus* and its immediate allies; it also differs from the variegated group, *M. Lamberti* &c., in its bicoloured garb; to the black-headed and red-rumped *M. melanotus* and *M. Browni* it has no more affinity than it has to the white-winged *M. leucopterus* and the white-backed *M. leuconotus*. Were I asked if I observed an indication of a departure from the ordinary type of this genus of birds in any one of its members, I should say that something of the kind is apparent in the colouring of its plumage and in the more gibbous form of the bill of the present species; still it is a *Malurus* and nothing else. As is the case with many of the species recently discovered in that rich country, Queensland, we as yet know nothing of its habits and economy.

The male has the crown of the head and all the upper surface dull indigo-blue, somewhat brighter on the head; ear-coverts azure-blue; lores and a narrow ring round each eye white; wings nearly uniform brown, with a slight tinge of dull blue at the base of the primaries; under surface cream-white from the chin to the vent, with a wash of fawn-colour on the flanks; all the tail-feathers blue, except the outer web of the external one and the tips of the remainder, which are white, gradually diminishing in extent as the feathers approach the central ones; bill black; legs light brown.

Total length $4\frac{5}{8}$ inches, bill $\frac{7}{16}$, wing $1\frac{7}{8}$, tail $2\frac{1}{4}$, tarsi $\frac{5}{8}$.

The female has the whole of the upper surface, wings, and tail light brown, with a tinge of rufous on the wing-coverts, rump, and upper tail-coverts; under surface creamy white, washed with light fawn-colour on the sides of the neck, chest, and flanks; bill brown.

The Plate represents two males and a female, of the size of life.

MALURUS CALLAINUS, *Gould.*

J. Gould and H.C. Richter, del. et lith.

Walter, Imp.

MALURUS CALLAINUS, *Gould.*

Turquoisine Superb Warbler.

Malurus callainus, Gould in Proc. of Zool. Soc. 1867, p. 302.

For a knowledge of the existence of this lovely species I am indebted to S. White, Esq., of the Reed Beds, Adelaide, who informs me that he was under the impression it was a new bird the moment he saw the first example that came under his notice, and was therefore induced to shoot and skin eight or ten others of both sexes, all of which, with the exception of two males, he had the misfortune to lose in crossing Spencer's Gulf. They were procured in the "Salt Bush Scrub," about 300 or 400 miles north-west of Adelaide. Upon measuring them Mr. White found that the extent of their wings from tip to tip varied from $5\frac{1}{2}$ to 6 inches, the specimen sent to me being one of the smaller examples; their habits were very similar to those of the other members of the genus, and were not characterized by any peculiarity. The males, as is usual when adorned with their nuptial dress, were very shy; and those secured by Mr. White were obtained by a kind of *ruse* (placing his hat on the ground and hiding himself in the bush until curiosity prompted the birds to examine the unusual object). That this gentleman may again visit the home of the species and obtain the female is my ardent wish; he should bear in mind that, the locality being maiden ground, in all probability other unknown species of birds will be found, the discovery of which will amply reward him for the trouble of the research; and I have no doubt he will do so; for I have reason to believe that no one of my many correspondents in Australia is more keenly alive to the interest which attaches to our favourite branch of science—Ornithology.

The *Malurus callainus* pertains to that section of the genus which comprises the richly-coloured *M. splendens*, of Western Australia, and the *M. melanotus*, of the more central parts of the continent; it differs, however, from both those species sufficiently to warrant its being regarded as distinct.

Entire crown of the head, mantle, and upper tail-coverts light turquoise-blue; ear-coverts similar in colour, but of a conspicuously lighter hue; throat rich cobalt-blue; entire abdomen and under tail-coverts rich verditer-blue; the turquoise-coloured feathers of the crown are separated from those of the mantle by a band of jet-black, while the mantle is again separated from the upper tail-coverts by a conspicuous patch of the same colour; a lunate band of deep black also separates the cobalt-blue of the throat from the verditer-blue of the under surface; tail-feathers dull green, slightly tipped with greyish white; wings brown, each feather tinged with greyish green on its outer web; under surface of the shoulder buff; bill and legs brownish black.

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

The figures are of the size of life.

J.Gould & H.C.Richter del. et lith.

MALURUS LEUCONOTUS, *Gould*.

Walter, Imp.

MALURUS LEUCONOTUS, *Gould.*

White-backed Superb Warbler.

Malurus leuconotus, Gould in Proc. Zool. Soc. 1865, p. 198, and Handb. Birds of Aust., vol. i. p. 332.

I BELIEVE that up to the present time there has not been a single species of the genus *Malurus* found in any other country than Australia and the adjacent islands; but wherever a voyager may step on shore on the coast of that continent, whether it be at Port Essington or Cape York on the north, at the Swan on the western coast, Rockingham or Moreton Bays on the east, Victoria and South Australia or Tasmania, he cannot take a lengthened walk into the interior without meeting with one or other of the numerous species of these lovely birds, popularly known as Superb Warblers. They are, indeed, to be found in every district, even in the sterile interior. None were known to Linnæus or his contemporaries; but one of them attracted the notice of the voyagers of the latter part of the last century, and was figured in White's 'Voyage to Botany Bay,' at page 286. White's figure, however beautiful may be the bird it portrays, did not lead us to suspect that so many other species of the form would be discovered, or that the whole would constitute a very distinct subfamily; for so the *Maluri* may in justice be considered. In their structure, in their style of colouring, and in the changes to which they are subject, they appear to be isolated from most other known birds, and seem to be naturally divided into several sections. First there is the lovely *Malurus coronatus*, which for the present stands alone as the largest and as having the most beautifully coloured crown of any of the other members of the genus. Secondly, the *M. Lamberti*, *M. elegans*, *M. pulcherrimus*, and *M. amabilis* constitute a section distinguished for the variegated character of their plumage. In a third may be arranged the *M. splendens*, *M. melanotus*, *M. callainus*, *M. longicaudus*, and *M. cyaneus*. Fourthly there is the Red-backed *M. melanocephalus*, and *M. cruentatus*; fifthly, the white winged *M. leucopterus*, *M. leuconotus*, and *M. cyanotus*, if the bird discovered by Quoy and Gaimard, in the "Voyage de l'Uranie," on Dirk Hartog's Island should prove to be different from the species found in New South Wales, which I think probable,—a doubt I could have cleared up if their original specimen had been in existence; but on inquiry at Paris I found it was not; sixthly, the new species lately described by me from Cape York under the appellation of *Malurus hypoleucus*, and which differs from all others in having the entire under surface of a uniform buffy white. These numerous species, and others which I believe remain undiscovered, are somewhat allied to *Amytis* and *Stipiturus*: but none of the members of these latter genera change their plumage according to the season, or differ materially in the colouring of the sexes; on the other hand the transformations which the *Maluri* undergo and the consequent difference of colour in the same individual at opposite seasons of the year are most surprising.

I wish it were in my power to give some authentic information respecting the true habitat of the fine bird figured on the accompanying Plate; but I can only say that a single example was forwarded to England in company with the beautiful plumed *Lophophaps* I have named *leucogaster*, by Mr. Galbraith, of Machrihanish station, South Australia, to his sister Mrs. Craufuird, of Budleigh Salterton, Devon, in whose possession it now remains. In all probability the interior of South Australia is its true home. It is a longer-tailed bird than the *M. leucopterus* vel *cyanotus*, and has the back silvery white, while that part is blue in the bird from New South Wales.

The entire head, neck, under surface, rump, and tail deep blue; back, shoulders, greater and lesser wing-coverts and secondaries silky white; primaries brown; bill black; feet brownish black.

The figures are of the natural size.

J.Gould & H.C.Richter, del. et lith.

SPHENURA BROADBENTI, *M.Coy.*

Walter Imp.

SPHENURA BROADBENTI, *M'Coy.*

Rufous-headed Bristle-bird.

Sphenura Broadbenti, M'Coy, Ann. & Mag. Nat. Hist., 3rd ser. vol. xix. p. 185, and vol. xx. p. 179.

My thanks are hereby tendered to Professor M'Coy and the Governors of the National Museum at Melbourne, for their liberality in sending to London, for my use, the only specimen of this bird which has as yet been discovered, and which I consider to be one of the most important and interesting species that the colony of Victoria has unfolded to us, because it is the third species of a genus characterized by many peculiarities, and of a form that hitherto has only been found in Australia. It will scarcely be necessary to point out the difference between this bird and the old *Sphenura brachyptera* and *S. longirostris*; for they can never be confounded, the feature which has induced Professor M'Coy to assign to the former the trivial name of Rufous-headed Bristle-bird being non-existent in the others, which are nearly uniform in their colouring; it is also much the largest and finest bird of the three. Professor M'Coy states that, not having seen a second example, he is not certain if the individual he has described had attained to maturity; but on this point I have no doubt, and unhesitatingly assert that it is fully adult. In all probability the female, when discovered, will not differ in colouring, but, as is the case with the other species, will be somewhat smaller than the male. My Plate, which represents the bird in two positions, will enable ornithologists, both in Australia and elsewhere, to form a just conception of this *rara avis*. Many other new species of birds will doubtless yet come to light when the dense scrubby portions of Australia are more closely investigated than they have yet been. Many peculiar physical features characterize that great southern land; and each has to be closely searched before we can gain a complete knowledge of its inhabitants.

I have carefully compared the bird with Professor M'Coy's description, published in the Annals and Magazine of Natural History above referred to, and find it to be so correct that it is only an act of justice to that gentleman to transcribe it and his accompanying remarks.

"Back, shoulders, and flanks dull brown; wings and tail of a slightly richer and more rufous brown, the tail-feathers in some lights seeming to be transversely marked with faint, glossy, transverse, narrow bands of a slightly lighter shade; crown, nape, and ear-coverts rich chestnut or rufous brown; a triangular spot in front of and slightly over each eye, and the throat, greyish white; feathers of the breast lunulated, greyish white at their margins, dull brownish like the flanks at the base; the greyish white extends in a narrow track along the middle of the abdomen; legs, feet, upper part, and tip of the bill dark brown; lateral margins of the upper mandible and the basal portion of the lower one yellowish.

"Length 7 inches 9 lines; bill, from gape 11½ lines, from forehead 7 lines; wings 3 inches 4½ lines; tail 4 inches 10 lines; tarsi 1 inch 2 lines.

"The greater length of the wing, tarsi, and bill easily distinguish this species from the two previously known, as well as the rufous head and ears and the greyish-white instead of buff colour over the front of the eye. I am uncertain what value should be attached to the much darker and stronger lunulation of the breast-feathers, as I have only seen one specimen, and am not certain whether it has attained maturity. The bill is stronger, being deeper as well as longer, and slightly more arched in the culmen than in the *S. brachyptera*, to which it is most nearly allied. The sixth primary is also slightly longer than the fifth and seventh, which are equal; the claws are rather stouter than in that species, and the three or four large rictal bristles are weaker.

"The specimen described was presented to the museum at Melbourne by Mr. Broadbent, who shot it in December 1858, in a dense scrub 24 miles from Portland Bay, while it was uttering a note like that of an English Thrush, and running over logs on the ground. I have not since seen another specimen."

The figures are of the natural size.

J. Gould and H.C. Richter, del. et lith.

ATRICHIA RUFESCENS, *Ramsay.*

Walter Imp.

ATRICHIA RUFESCENS, *Ramsay*.

Rufescent Scrub-bird.

Atrichia rufescens, Ramsay in Proc. of Zool. Soc., 1866, pp. 438, 439.

In my account of *Atrichia clamosa* (vol. iii. pl. 34), I stated that few of the novelties received from Western Australia more highly interested me than the bird which Gilbert met with among the dense scrubs of that country, and to which his attention had been directed by its peculiar noisy notes long before his patient watching was rewarded by his obtaining examples. In my 'Handbook' I also remarked that the then only known species is "as singular in its structure as it is shy and retiring in its habits; the total absence of vibrissæ in a bird so closely allied to *Sphenura*, in which they are so much developed, renders it one of the anomalies of the Australian fauna." I have considered it desirable to make the foregoing brief remarks on the type species of the genus before entering upon the history and description of a second, which has lately been made known to us by Edward P. Ramsay, Esq., of Dobroyde in New South Wales, and whose account of it cannot fail to be interesting to all ornithologists, as it throws considerable light upon the economy of this singular genus of birds, the members of which appear to be especially adapted for frequenting the interior of forests, and for living on the insects which are abundant among decaying trees and fallen logs of timber: here the *Atrichiæ* creep mouse-like over the bark, or sit on a dripping stem and mock all surrounding notes.

In his remarks on this new species, communicated to the Zoological Society, Mr. Ramsay says:—

"The specimen from which my description was taken is one of two obtained by Mr. James F. Wilcox during an excursion made by himself and Mr. J. MacGillivray to the brushes of the Richmond River in June 1865; and he has favoured me with the following transcript from his notes made at the time. 'November 17, 1865, while in the Bowling Creek, Richmond River, in a dense scrub, my attention was drawn to the note of a bird I had never before heard, and which I at once knew would prove a prize, should I be fortunate enough to procure it. The scrub being too thick to admit of my standing upright, I followed the sound on my hands and knees until it appeared to be almost at the muzzle of my gun; here I remained fixed quite half an hour, and I can scarcely describe my feelings during that time. Although not superstitious, I was almost inclined to think some evil spirit was playing me a trick; for at one moment the bird would give out what seemed to be its own notes, apparently just in front of me, and the next minute mimic those of the Spine-tailed Orthonyx in another direction; then the Scrub-Robin's notes would be imitated in some other place; sometimes its voice seemed to come from the ground, and at others from the trees above me. This state of things lasted until I became painfully cramped from the position I had to lie in, and my eyes painful from staring about so long. I was just about to give up the search, when, to my delight, I saw my tormentor hop from one bush to another, not more than 7 or 8 feet from me; the scrub, however, was so dense that I could not bring the gun to bear upon it; but marking well the spot where the bird was sitting, I managed to back a little through a narrow open space, fired, and, to my intense satisfaction, succeeded in bringing it down. I am positive it kept in the same place during the whole time, and yet its mimicking voices were heard in different places.'"

In a note subsequently sent to me, Mr. Ramsay writes:—

"During a visit to Tarrango Creek, on the North Richmond River, I obtained more than a dozen, but, to my surprise and disappointment, did not find a female among them. Only on one occasion did I meet with more than a single bird in the same place. They are always among the logs and fallen trees overgrown with weeds, vines, nettles, &c., and are the most tiresome birds to procure imaginable. As to their ventriloquial powers, *they must be heard to be believed.* They will mock a Spine-tail's chirp so well, that more than once I have turned round in expectation of seeing that species on the log behind me; and upon one occasion the note of *Pachycephala gutturalis* sounded so close above me, that I went my way believing I had mistaken a "Thickhead" for an *Atrichia*, and immediately after heard the latter uttering its usual chirping note, which closely resembles that of *Climacteris picumnus*, and may be imitated by whistling the words *chip! chip! chip!* several times in succession; it also indulges in a kind of scolding hiss, like that of the *Cisticolæ*. It is impossible to say what its own note really is. I have frequently stood on a log waiting for it to show itself from among the tangled mass of vines and weeds at my feet, when all of a sudden it would begin to squeak and imitate first one bird and then another, now throwing its voice over my head, then on one side, and then again apparently from the log on which I was standing. This it will continue to do for hours together; and you may remain all day without catching sight of it."

It is evident that the female is even more shy than the male; whenever that sex may be detected I believe it will be very similar in colour, but probably somewhat less in size.

The figures in the accompanying plate are of the size of life.

J. Gould and H.C. Richter del et lith.

PYCNOPTILUS FLOCCOSUS: *Gould.*

Hullmandel & Walton Imp.

PYCNOPTILUS FLOCCOSUS, *Gould.*

Downy Pycnoptilus.

Pycnoptilus floccosus, Gould in Proc. of Zool. Soc., May 14, 1850.

In the Birds of Australia I instituted the genus, *Hylacola*, for the *Acanthiza pyrrhopygia* of Vigors and Horsfield, adding thereto another species under the name of *H. cauta*. The present bird is allied to that form, but still differs in so many points, that I am constrained to make it the type of a new genus, with the appellation of *Pycnoptilus*, from the dense and silky character of its plumage: unfortunately I know nothing of its habits and economy. I purchased it of Mr. Warwick, who had obtained it in a small collection of birds said to have been formed in the interior of New South Wales towards the River Morumbidgee: judging from its very thick clothing and overhanging back feathers, I conclude that, like the members of the genus *Dasyornis*, it is a frequenter of the ground in dense and scrubby places; a conjecture which I should be happy to have verified by residents in New South Wales who may be favourably situated for observing it.

General plumage brown, inclining to rufous on the lower part of the back, upper tail-coverts and tail; forehead, lores, throat and breast dark reddish buff, with a very narrow crescent of dark brown at the tip of each feather; centre of the abdomen greyish brown, crossed by crescentic bands of black; flanks and vent brown, passing into deep rufous on the under tail-coverts; bill brown; base of the under mandible fleshy brown; legs and feet fleshy brown.

The Plate represents the bird in two positions, of the natural size.

Hullmandel & Walton lith

ACANTHIZA MAGNA, *Gould.*

J. Gould and H.C. Richter, del. et lith.

Hullmandel & Walton, Imp.

ACANTHIZA MAGNA, *Gould.*

Great Acanthiza.

For the knowledge of this new and very distinct species of *Acanthiza* we are indebted to Ronald C. Gunn, Esq., a gentleman who has long resided in Van Diemen's Land, and whose name will be for ever perpetuated in the annals of science for the numerous botanical discoveries made by him in the island he has adopted as his home. I am, moreover, indebted to Mr. Gunn for the only specimen of this bird which has come under my notice, and which was collected by him in one of the districts of the northern part of the island. I have carefully compared this specimen with every other member of the genus, and have no hesitation in pronouncing it an entirely new species of this Australian form. In size it approaches the smaller species of *Sericornis*; but in its structure and the character of its plumage, it is closely allied to the members of the genus in which I have placed it.

Head, all the upper surface, sides of the neck and flanks olive-brown, becoming of a more rufous hue on the rump and upper tail-coverts; wings blackish-brown, washed with olive on the external webs; coverts, particularly the greater ones, tipped with white; primaries narrowly edged with grey, innermost secondaries margined all round the tip with white; tail olive, crossed near the tip by a broad band of dusky-brown, beyond which the external feathers are margined on both webs with greyish-white; lores black; ear-coverts slaty-brown; throat and under surface straw-yellow; bill blackish-brown; feet fleshy-brown.

The figures are of the size of life.

PITTA MACKLOTI, *Müll & Schleg.*

J.Gould & H.C.Richter, del. et lith.

Walter Imp.

PITTA MACKLOTI, *Müll. et Schleg.*

Macklot's Pitta.

Pitta Mackloti, Müll. et Schleg. Verh. Nat. Gesch. Neder. &c. Land-en Volk., p. 22.—Temm. Pl. Col. 547.—G. R. Gray, Proc. of Zool. Soc., 1858, p. 175, and Gen. of Birds, vol. i. p. 213, *Pitta*, sp. 20.
Brachyurus Mackloti, Bonap. Consp. Gen. Av., tom. i. p. 255, *Brachyurus*, sp. 14.
Erythropitta Mackloti, Bonap. Consp. Vol. Anisod., p. 7. no. 187.
Brachyurus (Erythropitta) Mackloti, Elliot, Mon. of Pittidæ, pl. xxi.

Since we have become better acquainted with the zoology of Australia, and particularly with that of the district termed Cape-York Peninsula, naturalists are more than ever convinced that that country, New Guinea, and probably the Aru Islands were at one time united—an opinion which seems to be strikingly confirmed when we find several species of birds common to them all. The *Pitta Mackloti* is an instance in point; for it is found in each of the countries above mentioned, and, although I have not received any of its eggs from New Guinea or the Aru Islands, I possess undoubted examples, as well as young birds, from the neighbourhood of Somerset, in the Cape-York district, where they were collected by Mr. James Cockerell, who informs me that, although not common, it is sufficiently abundant there to render the obtaining examples a matter of no great difficulty. It inhabits thick viny scrubs, based with stones, and overrun with rank herbage of various kinds. Its mournful whistle, which is most frequently uttered near sundown, is very deceptive, appearing to come from an opposite direction to that in which the bird is stationed; it is, in fact, a perfect ventriloquist. It sometimes leaves the ground, and may occasionally be seen perched on the tops of the highest trees, where it sits very close. One of the nests of this bird, found by Mr. Cockerell, was placed on the head of a stump about six or seven feet from the ground; it was a loose structure of interlaced grasses and fine woody fibres. The eggs in this instance were three in number, of a creamy white, covered all over with small speckles and streaks of a purplish hue, many of which were much paler than others and appeared as if beneath the surface of the shell. In some specimens, these markings are less numerous, but in all instances are alike in character. The eggs appear to vary in size, even in the same nest, some being one inch in length by thirteen sixteenths in diameter, while others measure one inch and an eighth in length by fifteen sixteenths of an inch in breadth.

This species is much less noisy than the *Pitta simillima*; its note, too, is less varied; and it appears to make a more or less distant migration, since Mr. Cockerell tells me that it arrives in the neighbourhood of Somerset in October and November, and departs again in January and February; whither, he knows not, but supposes to New Guinea.

The Editor of 'The Ibis' for 1868 suggests that this Australian bird may be specifically distinct from the true *P. Mackloti*, hitherto only known from New Guinea, as it seems not to have the entirely black throat and cheeks of the Papuan; but, after a careful examination of specimens from both countries, I can affirm that New-Guinea and Australian examples are precisely alike.

Crown of the head dark reddish brown, striated with a few streaks of light blue; nape and back of the neck dull red; throat reddish brown, deepening into a gorget of velvety black; ear-coverts brown, indistinctly tipped posteriorly with blue; across the breast a broad band of verditer-blue, below which is a narrower one of velvety black; abdomen, flanks, vent, and under tail-coverts deep scarlet; back and scapularies dark green; wing-coverts and secondaries deep blue, with lighter edges, and with a white spot on the shoulder, mostly hidden by the coverts; primaries black, washed with grey near the tips of the outer webs; the third with a broad patch of white on the inner web, near its base; the fourth with a band of white at the same part across both webs and the shaft; and the fifth with a patch of white on the same part on the outer web and shaft and slightly intruding on to the inner web, these white marks forming a small but conspicuous spot on the centre of the wing; rump and tail deep blue; bill black; legs and feet flesh-colour.

In the immature state, the head and neck are brown, with indications at the back of the neck of the future red colouring; the green of the upper surface is mottled with brown; the blue of the wings and tail is much paler; moreover there are a greater number of white feathers on the shoulder than in the adult; the throat and breast are striated with brown, amidst which are a few feathers of the future black gorget and blue and black breast-bands; in like manner, the abdomen is tawny, with a few red feathers appearing on the upper part, down the centre, on the flanks, and the vent.

The Plate represents the two sexes, of the size of life.

MERULA POLIOCEPHALA.

J. Gould and H.C. Richter, del et lith.

Hullmandel & Walton, Imp.

MERULA POLIOCEPHALA.

Grey-headed Blackbird.

Turdus poliocephalus, Lath. Ind. Orn. Supp., xliv. 25.—Gray and Mitch. Gen. of Birds, vol. i. p. 219, *Turdus*, sp. 72.

——— *fuliginosus*, Lath. in Lamb. Icon. ined., vol. ii. pl. 42.

Merula Nestor, Gould.—Jard. and Selb. Ill. Orn., new series, pl. 37.

Ash-headed Thrush, Lath. Gen. Syn. Supp., vol. ii. App. p. 373.—Shaw, Gen. Zool., vol. x. p. 226.

Turdus fuliginosus, Lath. Ind. Orn. Supp., xlii. ?

Sooty Thrush, Lath. Gen. Syn. Supp., vol. ii. p. 185 ?.—Shaw, Gen. Zool., vol. x. p. 195 ?.—Lath. Gen. Hist., vol. v. p. 125 ?.

The present species of *Merula* appears to have been known for a much longer period than I had supposed; indeed I was not aware that Latham had given a good description of the bird under the name of *Turdus poliocephalus*, otherwise I should not have proposed the additional name of *Nestor*. When Norfolk Island was first made a penal settlement, this bird was doubtless very common there; but I have reason to believe it has now become scarce, having been partially extirpated by the Government officers and convicts who tenanted this beautiful island for so many years. Some short time since, I described a second species of this form from Lord Howe's Island, under the name of *Merula vinitincta*; and I have seen a third species in the British Museum (*Merula xanthopus* ?, *Turdus aurantius*, var. β Gmel.), which I believe is from New Caledonia. All these have a general resemblance both as to form and style of colouring; and it would be as well perhaps if they were formed into a new genus among the *Merulinæ*, for I have always considered them somewhat removed from the true Blackbirds of Northern Asia and Europe. I have long wished to know something of the habits and economy of these birds, but at present nothing has been ascertained: there appears to be less difference in the colouring of the sexes than occurs among the true *Merulæ*; for the birds I consider to be females are very similarly coloured, and are only a trifle less in size.

Head, neck, and front of the throat light ashy brown, the remainder of the plumage dark sooty black; in some specimens the under tail-coverts have a stripe of dull white down the centre of each; bill, eyelash and feet yellow.

The figures are of the natural size.

MERULA VINITINCTA, *Gould.*

J. Gould and H.C. Richter, del. et lith.

Hullmandel & Walton, Imp.

MERULA VINITINCTA, *Gould.*

Vinous-tinted Blackbird.

Merula vinitincta, Gould in Proc. of Zool Soc., July 24, 1855.

Among the various writers on ornithology, some confine their labours to the birds of particular countries, while others take up the subject in the most extended sense by studying the birds of our globe generally. Those of the latter class cannot but have been struck with the facts, that while certain forms are universally dispersed, others have a less extended range; and that while in some countries certain genera are numerous, in others of close proximity, and apparently quite as well adapted for their residence, they are entirely absent. For instance, members of the genus *Corvus*, or typical crows, are to be found in North America, but not in South America: of this form, too, members of which are numerous throughout the Old World, that is in Europe, India, China and Africa, and in Australia, no example is to be found in New Zealand or in Polynesia. The Swallow tribe may also be cited as a case in point; numerous species being found in Australia, while none occur in New Zealand, and few if any among the more northern Polynesian Islands. The genus *Merula*, of which the bird now under consideration is a typical example, is a familiar form in Europe, India, Africa and South America; but in the great country of Australia and in New Zealand no species has yet been discovered; yet, strange to say, the form does exist, and two very distinct species have been discovered in Lord Howe's and Norfolk Island—two small spots lying nearly midway between those two countries. This is most puzzling to an ornithologist who makes the birds of the world his study, for he is at a loss to conceive why this form and some few others should thus be dotted over the face of the globe; and the mystery I fear will not be readily solved. That, however, such is the fact, is proved by Mr. MacGillivray having procured two fine examples of the present bird on Lord Howe's Island. I regret that no account of their habits accompanied the specimens, as it would be most interesting to know what is the character of the vegetation and other circumstances favourable to the existence of a species so intimately allied to our own well-known Blackbird. In size and form this bird very closely approximates to the *Merula Nestor* of Norfolk Island, but differs very considerably in its colouring.

The male has the head and nape blackish-brown; upper surface and wing-coverts reddish-brown; wings brown, margined with olivaceous; tail brown; throat dark bluish-grey; under surface vinaceous red; bill bright gamboge-yellow; eyelash yellow; tarsi and toes yellow.

The Plate represents the two sexes of the size of life.

CINCLOSOMA CASTANEOTHORAX, *Gould.*

J. Gould and H.C. Richter, del. et lith.

Hullmandel & Walton, Imp.

CINCLOSOMA CASTANEOTHORAX, *Gould.*

Chestnut-breasted Ground Thrush.

Cinclosoma castaneothorax, Gould in Proc. of Zool. Soc. 1848, p. 139, Aves, pl. vi.
———— *castaneithorax*, Bonap. Consp. Gen. Av. p. 278, *Cinclosoma*, sp. 4.

For a knowledge of this richly coloured and very distinct species of Ground Thrush, science is indebted to Charles Coxen, Esq., who discovered it in the scrubby belts of trees growing on the table-land to the northward of the Darling Downs in New South Wales. In size it nearly equals the *Cinclosoma castanotus*, but differs from that bird in the buffy stripe over the eye, in the colouring of the back, and in the band of chestnut-brown which crosses the breast. I regret to say that only a single male specimen has yet been forwarded; I trust, however, that through the kindness of Mr. Coxen or some other lover of natural history, we may ere long be favoured with an example of the female.

Every ornithologist will I am sure hail the discovery of this new species with pleasure, since it is not only an interesting addition to the ornithology of Australia, but an additional species to a singular form, of which, when I commenced my work on the Birds of that country, but one species, the *Cinclosoma punctatum*, was known; I myself shot for the first time the *C. castanotus* in the Murray scrub; and Captain Sturt had the honour of making us acquainted with the beautiful little species to which I have given the name of *cinnamomeus*; with the addition of the present bird, four well-defined species of the genus are now known to exist. Are there not others yet to come? Yes, in all probability, but we must wait for them until the vast tracts of hilly and sterile country to the northward of Moreton Bay have been explored, for it is not in the rich plains that the members of this group are to be found; stony ridges and deep rocky gullies are more favourable to their habits and modes of life.

Crown of the head, ear-coverts, back of the neck and upper tail-coverts brown; stripe over the eye and another from the base of the lower mandible, down the side of the neck, white; shoulders and wing-coverts black, each feather with a spot of white at the tip; all the upper surface, the outer margins of the scapularies and a broad longitudinal stripe on their inner webs next the shaft deep rust-red; primaries, secondaries, and the central portion of the scapularies dark brown; tail black, all but the two central feathers largely tipped with white; chin and throat black; chest crossed by a band of rich rust-red; sides of the chest and flanks brownish-grey, the latter blotched with black; centre of the abdomen white; under tail-coverts brown, deepening into black near the tip, and margined with white; bill and feet black.

The figures are of the natural size.

APLONIS METALICA.

J. Gould and H.C. Richter del et lith.

Hullmandel & Walton imp.

APLONIS METALLICA.

Shining Aplonis.

Lamprotornis metallicus, Temm. Pl. Col. 266.
Calornis metallica, Gray and Mitch. Gen. of Birds, vol. ii. p. 327, *Calornis*, sp. 2.
Mooter, Goodang tribe of Aborigines at Cape York.

Many years have now elapsed since I established the genus *Aplonis* for the reception of a bird, which at the time I considered to be Australian, but which I have since ascertained was from Norfolk Island; the form is common, and many species have been described from the islands of the Louisiade Archipelago, the Navigator Islands, New Guinea and Java, but the present is the first and only species of the genus yet discovered on the Australian continent. It is apparently very common at Cape York, where it was found breeding in great numbers: it also inhabits New Guinea, Timor, the Celebes, Amboyna, and New Ireland.

As is the case with other members of the genus, a very striking difference exists between the plumage of the immature and adult birds—so great in fact is the difference, that were we not aware of it, we could scarcely regard them otherwise than as distinct species: when fully adult, the sexes of the present bird are so precisely alike, that dissection must be resorted to, to distinguish the one from the other,—a circumstance ascertained by Mr. MacGillivray, who has obligingly furnished me with the following interesting account of its habits and nidification:—

"During the early part of our last sojourn at Cape York, this bird was often seen passing rapidly over the tops of the trees in small flocks of a dozen or more. In their flight they reminded me of the Starlings, and like them made a chattering noise while on the wing. One day a native took me to a breeding place in the centre of a dense scrub, where I found a gigantic cotton-tree standing alone, with its branches literally hung with the pensile nests of the bird: the nests, averaging two feet in length and one in breadth, are of a somewhat oval form, slightly compressed, rounded below and above, tapering to a neck by the end of which they are suspended; the opening is situated in the centre of the widest part; they are almost entirely composed of portions of the stem and the long tendrils of a climbing plant (*Cissus*) matted and woven together and lined with finer pieces of the same, a few leaves (generally strips of *Pandanus* leaf), the hair-like fibres of a palm (*Caryota cereus*), and similar materials: the eggs, usually two, but often three in number, are an inch long by eight-tenths of an inch broad, and of a bluish grey speckled with reddish pink, chiefly at the larger end; some have scarcely any markings, others a few minute dots only. The note of the bird is short, sharp and shrill, and resembles '*twee-twee*,' repeated, as if angrily, several times in quick succession.

"On the tree above mentioned the nests were about fifty in number, often solitary, but usually three or four together in a cluster—sometimes so closely placed as to touch each other. Tempted by the promise of a knife, the lad who accompanied me offered to climb the tree, though how he was to do so I was at a loss to know, on account of the smoothness of the bark and the size of the trunk, which measured four feet and a half in diameter at the base, and rose to the height of sixty feet before a branch was given off; after much exertion, however, he succeeded in reaching the nests,—a feat which he accomplished with the aid of a piece of tough pliant vine (*Cissus*), sufficiently long to pass nearly round the tree; holding one end of this in each hand and pressing his legs and feet against the trunk, he ascended by a series of jerks, and threw me down as many nests as I desired, one of which is now in the British Museum.

"The bird appears to enjoy a wide range. During the progress of the expedition two were shot at the Duchateau Isles in the Louisiade Archipelago, and I saw a specimen on board H.M.S. Meander which had been procured at Carteret Harbour in New Ireland.

"The stomachs of those examined contained triturated seeds and other vegetable matter."

The general plumage is a mixture of dark rich bronzy green and purple, the green hue predominating on the lower part of the throat and the upper part of the back; wings and tail bluish black, washed on the margins with bronzy green; bill and feet black; irides vermilion.

The young of both sexes have the upper surface similarly coloured, but not so bright as in the adult; wings brown, narrowly margined with brownish white; all the under surface buffy white, streaked on the breast, flanks and under tail-coverts with brownish black.

The Plate represents an adult male and a young bird of the year of the natural size.

J. Gould & H.C. Richter, del. et lith.

PTILONORHYNCHUS RAWNSLEYI, *Digg.*

Walter, Imp.

PTILONORHYNCHUS RAWNSLEYI, *Digg.*

Rawnsley's Bower-bird.

Ptilonorhynchus Rawnsleyi, Diggles, Orn. of Austr., part xv. pl. 3.

I am greatly indebted to H. C. Rawnsley, Esq., of Brisbane, in Queensland, for his kindness in forwarding for my inspection his specimen of a bird which, for the last two years, has been a subject of much interest to every Australian ornithologist, the point which renders it of interest being whether it is a distinct species or a hybrid between the Satin Bower bird (*Ptilonorhynchus holosericeus*) and the Regent-bird (*Sericulus melinus*). It is evident, from the letters I have received on the subject, that both Mr. Coxen and Mr. Rawnsley himself have a lurking suspicion that it is a hybrid; for myself, after having carefully compared the specimen with examples of the Satin- and Regent-birds over and over again, I am unable to arrive at any satisfactory conclusion, but am inclined on the side of hybridism. We know for certain that the Regent-bird, like the Satin-bird, makes a bower or playing-place, where the sexes meet, the females coquet, and the males, perhaps, fight for mastery; and as both these birds inhabit the same brushes, it is just possible that the Hall of Assembly of one of them may have been visited by a member of the other; and hence, probably, sprang the bird under consideration. Whether it be a hybrid or not, time alone can determine. The following extracts from Mr. Rawnsley's and Mr. Coxen's letters respecting it may prove of interest, and influence the opinion of those European ornithologists who have not seen the specimen, a figure, or a description of it.

"It may interest you," says Mr. Rawnsley, "to learn the circumstances under which the bird was killed. A large flock of Satin-birds were feeding in the garden around my house at Witton, near Brisbane, on the 14th of July, 1867, and I had just shot an adult black male, when my attention was attracted by, as I thought, another, which had alighted on a tree a short distance off. Loading as quickly as possible, I fired and killed the bird; as it fell, the yellow portion of its plumage caught my eyes, and I made sure it was a Regent-bird; but on picking it up, I was, as you may suppose, greatly astonished. The bird was quite dead; I instantly drew back the eyelid, and found that the iris was of a pale sea-green, without a trace of the beautiful magenta tint which encircles and radiates from the pupil in the Satin-bird. I took the bird to Mr. A. C. Gregory, the explorer and now Surveyor-General of Queensland, who immediately recognized it as a species seen by him near the Suttor River, a branch of the Burdekin, on his route from the Gulf of Carpentaria to Moreton Bay, about the month of October 1856." "Mr. Gregory," says Mr. Diggles, "always took considerable trouble to distinguish the different notes of birds and cries of bush-animals, knowing that the natives frequently use them as decoy-notes or signals of communication; and his attention was drawn to the present species from its peculiar note, which was a prolonged *o-hao* several times very distinctly repeated in a minor key, giving it a very plaintive character. Mr. Gregory states he had an excellent opportunity of observing its plumage, and cannot possibly be mistaken, and that on mentioning the circumstance to Mr. Elsey, the surgeon and naturalist attached to his party, it became a matter of discussion between them as to whether it ought to be placed in the genus *Ptilonorhynchus* or that of *Sericulus*. The country in which it was seen was an open box-flat, with brigalow-scrubs in the neighbourhood."

"It certainly partakes much of the character of both the Satin- and the Regent-bird," remarks Mr. Coxen; "but hybrids, I believe, never occur in a state of nature, especially between the members of different genera. Mr. Gregory is very clear as to his having seen the bird on the Suttor; he watched it some time, and on his return to the camp he mentioned it to Mr. Elsey, who, not having himself observed it, very naturally imagined for some time that Mr. Gregory had merely seen a Regent-bird. Mr. Gregory told me it was its peculiar note that first drew his attention to it, and that he could have made no mistake on the subject." I suspect, however, that he did make a mistake (for neither the Satin- nor the Regent-bird gives utterance to such a sound), and that the note heard was that of an adult black or an immature black-and-buff male of the Australian Koel (*Eudynamis Flindersi*), it being well known that the Indian bird, which is probably identical, does emit a note similar to the one he describes.

"Head, throat, neck, chest, abdomen, back, upper and under tail-coverts rich glossy bluish black; wing-coverts and spurious wing jet-black, edged with the former colour; primaries black, with the exception of a small portion of the outer webs and a large portion of the inner webs near the base, which are bright yellow; secondaries brilliant orange for the greater part of their length, their basal portions being edged with black, and there is a large rounded or oval patch of black near their tips; a narrow stripe of deep orange runs in a wavy form through the centre of the outer webs of the tertiaries; their inner webs wholly black; tail jet-black; all the feathers, except the two middle ones, slightly tipped with golden brown; feet olive-black; bill the same, but lighter at the tip; irides greenish blue. Length 11¼ inches, wing 6, tail 4, tarsus 1¾, bill 1¼." (*Diggles.*)

I have figured the bird in two positions, as near the natural size as possible.

Walter, Imp.

CHLAMYDERA GUTTATA, *Gould.*

J.Gould and H.C.Richter, del. et lith.

Walter, Imp.

CHLAMYDERA GUTTATA, *Gould.*

Guttated Bower-bird.

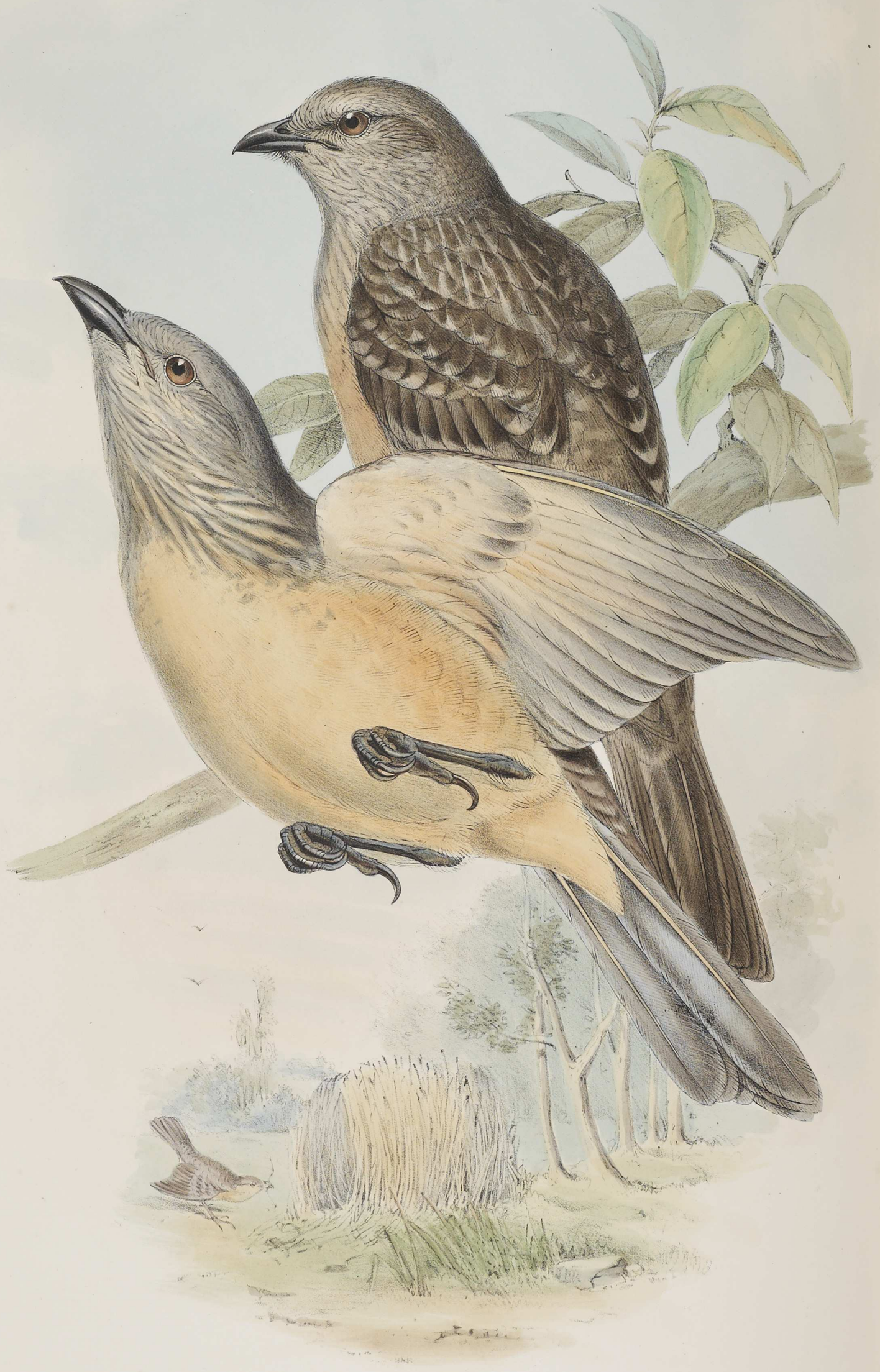
Chlamydera guttata, Gould in Proc. of Zool. Soc., 1862, p. 161.
Chlamydodera guttata, Id. Handb. Birds of Aust., vol. i. p. 452.

I am indebted to the researches of T. F. Gregory, Esq., for a knowledge of this new species. It was collected in North-western Australia, and is doubtless the bird which constructs the bowers described by Captain (now Sir George) Grey in his 'Travels,' vol. i. pp. 196 and 245, where he states that, on gaining the summit of one of the sandstone ranges forming the watershed of the streams flowing into the Glenelg and Prince Regent's Rivers, "we fell in with a very remarkable nest, or what appeared to me to be such. We had previously seen several of them, and they had always afforded us food for conjecture as to the agent and purpose of such structures. This very curious sort of nest, which was frequently found by myself and other individuals of the party, not only along the sea-shore, but in some instances at a distance of six or seven miles from it, I once conceived must have belonged to a Kangaroo, until I was informed that it was the run or playing-place of a species of *Chlamydera*. These structures were formed of dead grass and parts of bushes sunk a slight depth into two parallel furrows in sandy soil, and then nicely arched above. But the most remarkable fact connected with them was, that they were always full of broken sea-shells, large heaps of which protruded from each extremity. In one instance, in a bower the most remote from the sea that we discovered, one of the men of the party found and brought to me the stones of some fruit, which had evidently been rolled in the sea; these stones he found lying in a heap in the nest, and they are now in my possession."

The bird sent to me by Mr. Gregory is rather larger, but bears a general resemblance to the *Chlamydera maculata*, being spotted all over like that species; but it differs in the guttations of the upper surface being of a larger size and much more distinct, in the abdomen being buff, and in the shafts of the primaries being of a richer yellow. In all probability the specimen is a female; for it is entirely destitute of the beautiful lilaceous mark seen in the males only of *C. maculata* and *C. nuchalis*. Since Mr. Gregory discovered this interesting bird, Mr. Stuart, as all the world knows, has crossed the continent of Australia from Adelaide to the Victoria River; and that he met with this bird in some part of his journey is shown by his having kindly left at my house the head of a male adorned with fine lilaceous feathers at the back of the neck, like *C. nuchalis* and *C. maculata*. Having seen no more than this head of a male, the remaining portion of my figure of that sex is imaginary; at the same time, judging from analogy and the close alliance of the bird to *C. maculata*, I may venture to predict that my delineation of it is not far wrong. The species last mentioned is confined to New South Wales, Queensland, and the south-eastern portion of Australia; the *C. guttata*, on the other hand, was discovered more than two thousand miles to the westward; the two species must therefore be regarded as representatives of each other in the countries they respectively inhabit,—a view which is confirmed by neither of them having yet been found in the intermediate country of South Australia.

Of the very remarkable genus to which these birds belong, we now know four very distinct species, viz. *Chlamydera nuchalis*, *C. maculata*, *C. guttata*, and *C. cerviniventris*, all of which are peculiar to Australia. That they are intimately allied to *Ptilonorhynchus* on the one hand, and *Sericulus* on the other, is very evident from the similarity in their structure, and from the circumstance of the members of all the three genera constructing the wonderfully curious bowers described in my account of each species; we have yet to learn whether the Cat Bird (*Ailurœdus*) has a similar habit; I think it likely that this may prove to be the case, although we find in that form a departure from those of the other members of this singular family.

The figures are of the natural size.



CHLAMYDERA CERVINIVENTRIS, *Gould.*

J Gould and H C Richter, del et lith

Hullmandel & Walton, Imp.

CHLAMYDERA CERVINIVENTRIS, *Gould.*

Fawn-breasted Bower-bird.

Chlamydera cerviniventris, Gould in Proc. of Zool. Soc., part xviii. p. 201.

If any one circumstance more than another would tend to hand down the name of the author of the "Birds of Australia" to posterity, it would be the discovery and the publication of the singular habits of the Bower-birds. In figuring and describing, then, an additional species of this group of birds, I feel that I am presenting to the notice of the ornithological world another of the most interesting birds with which we are acquainted. The discovery of the present species is due to Mr. John MacGillivray, who procured a specimen at Cape York, secured its curious bower, and transmitted both to the British Museum. The two formerly known and nearly allied species being both conspicuously adorned with a lovely frill of liliaceous feathers at the nape of the neck, I naturally supposed that the same kind of ornament would be found in all the species; but it appears that such is not the case, for there is not a trace of it in any of the examples of *C. cerviniventris* I have yet seen; and I believe some of them are very old birds. In size this species is rather larger than *C. maculata*, or almost intermediate between that species and *C. nuchalis*; it has also a similar character of markings on the back, but the brown spots are neither so large, so round, nor so deeply coloured: the distinguishing feature of the present species is its rich, uniformly-coloured, buff under surface, a feature which does not exist either in the *C. maculata* or *C. nuchalis*. The bower differs very remarkably from those of the other two species; it is about 13 inches long and 10 or 11 inches high; its walls, which are very thick, are nearly upright, or but little inclining towards each other at the top, so that the passage through is very narrow. This elevated structure, which is formed of fine twigs, is placed on a very thick platform of thicker twigs, nearly 4 feet in length and almost as much in breadth: here and there a small snail-shell or berry is dropped in the way of decoration.

The following note relative to this bird is extracted from Mr. MacGillivray's "Narrative of the Voyage of H.M.S. Rattlesnake:"—

"Two days before we left Cape York, I was told that some Bower-birds had been seen in a thicket or patch of low scrub, half a mile from the beach; and after a long search I found a recently-constructed bower, 4 feet long and 18 inches high, with some fresh berries lying upon it. The bower was situated near the border of the thicket, the bushes composing which were seldom more than 10 feet high, growing in smooth sandy soil without grass.

"Next morning I was landed before daylight, and proceeded to the place in company with Paida, taking with us a large board on which to carry off the bower as a specimen. I had great difficulty in inducing my friend to accompany me, as he was afraid of a war party of Gomokudins, which tribe had lately given notice that they were coming to fight the Evans Bay people. However, I promised to protect him, and loaded one barrel with ball, which gave him increased confidence; still he insisted upon carrying a large bundle of spears and a throwing-stick.

"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 *churr-r-r*, and imitating the notes of various other birds, especially the Leatherhead. 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, I saw the bird enter the bower and disappear, when I fired at random through the twigs, fortunately with effect. So closely had we concealed ourselves latterly, and so silent had we been, that a kangaroo, while feeding, actually hopped up within fifteen yards, unconscious of our presence until fired at. My Bower-bird proved to be a new species, since described by Mr. Gould as *Chlamydera cerviniventris*; and the bower is exhibited in the British Museum."

When Mr. MacGillivray speaks of the bird alighting on the top of the bower, he must mean on the platform, as, from the fineness of the twigs of which the bower itself is constructed, with the weaker ends upwards, they could not support the weight of the bird.

Upper surface brown, each feather of the back and wings margined and marked at the tip with buffy white; throat striated with greyish brown and buff; under surface of the shoulder, abdomen, thighs, and under tail-coverts light pure fawn-colour.

The front figure is of the size of life.

SPHECOTHERES FLAVIVENTRIS; *Gould*

J. Gould and H.C. Richter del et lith.

Hullmandel & Walton Imp.

SPHECOTHERES FLAVIVENTRIS, *Gould.*

Yellow-bellied Sphecotheres.

Sphecotheres flaviventris, Gould in Proc. of Zool. Soc., 1849, p. 111.

By the discovery of another species of this form on the north-eastern coast of Australia, we know that the fauna of that country is graced by at least two well-defined species of the genus, namely the *S. Australis* and the present bird, which may always be distinguished from its near ally by the beautiful jonquil-yellow of its under surface. Mr. MacGillivray informs me that it is a very common bird in the neighbourhood of Cape York, where he daily observed it either in pairs or in small parties of three or four individuals, which were generally very shy and difficult of approach. It frequents the open forest land in company with the *Tropidorhynchus argenticeps*, and resorts to the branches for its food, which consists of fruit of various kinds, such as figs, &c. His specimens were procured by keeping himself carefully concealed beneath one of its favourite feeding trees and watching until an opportunity offered of getting a shot. He once saw several nests which he had no doubt belonged to this species, nearly all of which were built among the top-most branches of very large gum-trees, which he could not induce the natives to attempt to climb; a deserted nest was however within reach, being placed on an overhanging branch not more than twenty feet from the ground; it measured about a foot in diameter, and was composed of small sticks lined with finer ones. As is the case with the other members of the genus, the sexes offer a marked difference in colour.

The male has the crown of the head and cheeks glossy black; orbits, and a narrow space leading to the nostrils naked, and of a light buffy yellow, or flesh-colour; all the upper surface, wing-coverts, outer webs of the secondaries, and a patch on either side of the chest, olive-green; chin, chest, abdomen and flanks beautiful yellow; vent and under tail-coverts white; primaries and inner webs of secondaries black, edged with grey; tail black, the external web and the apical half of the internal web of the outer feather on each side white; the apical half of the second feather on each side white; the next, or third, on each side with a large spot of white at the tip; bill black; feet flesh-colour.

The female is striated on the head with brown and whitish; has the upper surface olive-brown; the wing-feathers narrowly edged with greenish grey; the under surface white, with a conspicuous stripe of brown down the centre of each feather; and the vent and under tail-coverts white, without striæ.

The Plate represents the two sexes of the natural size.

Hullmandel & Walton imp

POMATORHINUS RUFICEPS, *Hartl.*

J. Gould and H.C. Richter, del. et lith.

Hullmandel & Walton, Imp.

POMATORHINUS RUFICEPS, *Hartl.*

Chestnut-crowned Pomatorhinus.

Pomatorhinus ruficeps, Hartl. in Cabanis' Journ. für Orn., vol. i. p. 21.—Ib. Mag. de Zool. 1852, p. 316.

At the period of my visit to South Australia (1838) the colony was in its infancy, and the city of Adelaide a chaotic jumble of sheds and mud huts, with trees growing here and there in the newly marked-out streets and squares. Among these trees Parrakeets of various kinds, and Honey-eaters still more numerous, were busily occupied in search of food or otherwise engaged; the former principally among the *Eucalypti*, while the latter paid their devoirs to the *Banksiæ*: here and there also might be seen groups of newly-arrived emigrants, both English and Irish, who had chosen this distant country for their future home; groups of Germans, too, whose fatherland no longer offered opportunities for enterprise, were dotted about the country busily engaged in constructing their little villages and getting their gardens under cultivation. It was one of these German emigrants, whose name I have heard, but which I now forget, who, inspired by the works of nature with which he was so profusely surrounded, employed some of his leisure hours in collecting the novel ornithological forms which came under his notice and transmitting them to the Museum at Bremen. Among the birds so collected and transmitted was the present new and very beautiful *Pomatorhinus*, the discovery of which has both surprised and gratified me: to me, indeed, as the author of the "Birds of Australia," it is of especial interest; and not the less so from the singular circumstance that it should have escaped the researches of Sir George Grey, Captain Sturt, and every other person who has attended to ornithological science since the establishment of the colony; a very fine species it certainly is, and so precisely does it accord in form with the other Australian members of the genus, that, had it been shown me without its habitat being mentioned, I should undoubtedly have named Australia as the country to which it belonged. Dr. Hartlaub of Bremen, to whom among many other favours I am indebted for the loan of the specimen from which my figure is taken, has given a description of this species, and assigned it the specific appellation of *ruficeps* in the first volume of Cabanis' "Journal für Ornithologie" above quoted, with the following remarks, which I beg to transcribe:—

"Of this fine and typical species the Bremen Collection received two examples, scarcely differing in colour, in a collection of South Australian birds sent from Adelaide. It is remarkable that the bird escaped the researches of Mr. Gould and his collectors, and one cannot help imagining that it must have recently arrived from some part of the interior of the country, and accompanied other stragglers towards the coast.

"In size and colour *P. ruficeps* is more nearly allied to *P. superciliosus* than to any other, but it differs from that species in the brown-red colour of the head, in the white bars on the wings, and in the black mark which separates the reddish-brown of the flanks from the white of the breast. In our two specimens the sexes have not been ascertained; one of them is rather less brilliantly coloured than the other."

Crown of the head and nape chestnut- or brown-red, bounded below by a conspicuous line of white; lores blackish-brown; behind the eye and ear-coverts brown; upper part of the back and wing-coverts grey, each feather with a dark brown centre, giving those parts a mottled appearance; lower part of the back and rump pure dark grey; greater and lesser wing-coverts and secondaries tipped with white; throat, breast and centre of the abdomen white; flanks reddish-brown, separated from the white of the abdomen by a stripe of black; under tail-coverts brown, spotted with greyish-white; four central tail-feathers dark brown, indistinctly rayed with black; the three outer feathers on each side brown, largely tipped with pure white; bill and feet blackish horn-colour, the base of the mandibles lighter.

The figures are of the size of life.

J. Gould and H.C. Richter, del. et lith.

PTILOTIS CASSIDIX, *Jard.*

Walter, Imp.

PTILOTIS CASSIDIX, *Jard.*

Helmeted Honey-eater.

Ptilotis cassidix, Jard. in Proc. of Zool. Soc., 1866, p. 558.

While on a visit to Scotland in the autumn of the year 1866, my friend Sir William Jardine sent to me in the Highlands a well-executed drawing, made by his daughter, Mrs. Strickland, of a bird which he believed to be new to science, and which had been obtained by him in Edinburgh from among a collection of ordinary Australian species. On inspecting the drawing, I at once perceived that Sir William was right in his conjecture, and that the bird was not only new, but one of the finest species of the genus *Ptilotis* yet discovered. Subsequently the original specimen was sent to me to be exhibited at the December meeting of the Zoological Society of London; and the name of *Ptilotis cassidix* was assigned to it. Almost simultaneously with the arrival of the above and a second example in Edinburgh, others were transmitted to London; the latter were obtained at Western-Port Bay, near Port Phillip Heads, in the colony of Victoria; and now that the bird is figured, and the characters by which it may be distinguished from its nearest ally (the *Ptilotis auricomis*) are pointed out, we shall not, I trust, long remain ignorant of its habits and economy.

The *P. cassidix* differs from *P. auricomis* in its much larger size, in the dark olive-black colouring of its upper surface, wings, and tail, in the greater amount of black surrounding the eye, in the erect tuft of wax-yellow feathers on the forehead, in all but the four central tail-feathers being tipped with white, and in the chin and centre of the throat being black or black interspersed with light yellow.

This I am sorry to say is all I have to communicate respecting a species which must hereafter be placed in our museums at the head of the genus *Ptilotis*, the members of which are nearly as numerous as the various kinds of *Eucalypti*, upon the flowers of which they mainly subsist, and with which their yellow ear-tufts vie in beauty of colouring.

The following is a description and admeasurement of one of my own specimens, which does not materially differ from that exhibited at the meeting of the Zoological Society above alluded to.

Raised tuft of feathers on the forehead, crown, nape, breast, and under surface wax-yellow; cheeks and ear-tufts rich yellow; lores, sides of the face, and ear-coverts jet-black; all the upper surface, wings, and tail olive-black; primaries and lateral tail-feathers fringed with wax-yellow; all but the four central tail-feathers tipped with yellowish-white; bill black; feet bluish.

Total length of the male $8\frac{1}{2}$ inches; bill $\frac{7}{8}$; wing $4\frac{1}{4}$; tail $4\frac{3}{8}$; tarsi 1. The admeasurements of the female are considerably less.

In some specimens I find the black of the throat interspersed with yellow; these I suspect are females, and I also believe that this sex, like the young birds, has the upper surface more or less tinged with wax-yellow.

The figure is rather less than the natural size.

PTILOTIS FASCIOGULARIS, *Gould.*

J. Gould and H.C. Richter, del. et lith.

Hullmandel & Walton Imp.

PTILOTIS FASCIOGULARIS, *Gould.*

Fasciated Honey-eater.

Ptilotis fasciogularis, Gould in Proc. of Zool. Soc., part xix. p. 285.

It is pleasing to record for the first time a new species so well marked as the present, and differing as it does from all other members of its genus, in the distinct bars of pale yellow and brown which occupy the throat and fore part of the neck, whence its specific name of *fasciogularis*; perhaps *fasciigularis* would have been more correct, and if such should be the opinion of learned grammarians, I would suggest that the latter spelling be the one adopted. All the specimens of this new bird that have yet come under my notice were sent to me a few years since by Mr. Strange, who collected them on the low swampy islands lying off the eastern coast of Australia, to the northward of Moreton Bay. Some of them have the locality of Mangrove Island, Moreton Bay, written on the labels attached to them: it would seem then that the islands lying off this coast generally are their proper home. My specimens comprise examples of both sexes, ascertained by actual dissection, and the only difference between them consists, as is usual with the other members of the genus, in the smaller size of the female, their markings and colouring being alike.

For a *Ptilotis* this is a large and robust species, equalling in size the *P. chrysotis*, to which it bears the nearest affinity.

All the upper surface, wings and tail olive-brown, the feathers of the head and back with darker centres, and the primaries and tail-feathers narrowly margined externally with wax-yellow; lores and a streak down the side of the head from the posterior angle of the eye blackish-brown; ear-coverts pale yellow; on each side of the neck a patch of yellowish-white; feathers of the throat brownish-black, each bordered with pale yellow, presenting a fasciated appearance; breast blackish-brown; under surface striated with brown and buff, becoming paler towards the vent; irides lead-colour; bill bluish-black, with a yellow gape; feet black.

The figures are of the natural size.

J.Gould & H.C.Richter, del. et lith.

PTILOTIS NOTATA, *Gould.*

Walter Imp.

PTILOTIS NOTATA, *Gould.*

Yellow-spotted Honey-eater.

Ptilotis notata, Gould in Ann. and Mag. Hist. 1867, 3rd ser. vol. xx. p. 269.

This species of *Ptilotis* is a native of the Cape-York peninsula, where it appears to be tolerably common. It belongs to a section of the genus of which three or four species are known; of these, the largest is the *P. crysotis* of New South Wales, and the smallest the bird to which I have assigned the name of *P. gracilis*; all three are distinguished by possessing disproportionately large bills. The fourth species of the section is the *P. similis* of Hombron and Jacquinot, from the Aru Islands, a bird which, in the size of its body, resembles the *P. notata*, but has a more lengthened patch of yellow behind the ears and a much shorter and stouter bill; the *P. similis* also differs from all the others in the profusion of its rump-feathers, the dark bases of which show conspicuously in certain positions. The late Mr. John Macgillivray brought a *Ptilotis* from Dunck Island which so nearly resembles the *P. notata* that, although its wings are somewhat shorter, I believe them to be identical. Of the habits and economy of these birds nothing is known; and it would be interesting to ascertain upon what particular trees they obtain their food. On the southern coast of Australia the members of the genus *Ptilotis* frequent the *Eucalypti* which there abound; whether any of that class of trees also exist on the Cape-York peninsula, or on Dunck and the Aru Islands, I know not, but I may be reasonably inferred that some of them do.

I have lately received specimens, through John Jardine, Esq., from the Cape-York district of Queensland; and Gilbert collected a bird very nearly allied, if not the same as this, at Brown's Lagoon, on the 20th of December, 1844, when travelling with Leichardt from Moreton Bay to Port Essington.

The following is a copy of my original description as published in the 'Annals and Magazine of Natural History' above quoted, to which I have nothing to add:—

"Crown and all the upper surface greenish olive; lores, a line beneath the eye, and the anterior portion of the ear-coverts brownish black; from the angle of the mouth a pale-yellow stripe; posterior part of the ear-coverts pale yellow, assuming the form of a nearly round spot; under surface pale greyish olive, obscurely streaked with pale grey down the throat and breast; bill black, with a thick fleshy yellow gape; legs bluish.

"Total length $6\frac{1}{4}$ inches, bill $1\frac{1}{16}$, wing $3\frac{3}{8}$, tail $2\frac{7}{8}$, tarsi $\frac{7}{8}$."

The Plate represents two birds, supposed to be one of each sex, of the natural size.

J.Gould and H.C.Richter del. et lith.

PTILOTIS FILIGERA: *Gould.*

Hullmandel & Walton Imp.

PTILOTIS FILIGERA, *Gould.*

Streaked Honey-eater.

Ptilotis filigera, Gould in Proc. of Zool. Soc., December 10, 1850.

Australia is evidently the head-quarters of this genus of birds, inasmuch as I have already figured no less than fifteen species; and here we have another quite distinct from either of them, but which is, perhaps, more nearly allied to *P. unicolor* than to any other.

The *P. filigera* is one of the novelties which rewarded the researches of Mr. James Wilcox, who obtained two examples among some mangroves at Cape York, where he observed it in company with another species of the same genus. These specimens are now in the possession of the Zoological Society of London, to whom they were presented by the late Captain Owen Stanley, R.N. Although on the whole a dull-coloured species, it is rendered interestingly different from all its congeners by the thread-like streak beneath the ear-coverts, and by the small striæ which decorate the back of the neck and the upper part of the mantle.

Upper surface, wings and tail rich olive-brown, with numerous small marks of greyish white on the apical portion of the nuchal feathers; the wing-coverts broadly and the remainder of the feathers narrowly edged with brownish buff; from the gape beneath the eye a streak of white; ear-coverts blackish grey; from the centre of the lower angle of the ear-coverts a very narrow streak of silky yellow, which proceeding backwards joins the line of white from beneath the eye; throat brownish grey; under surface sandy buff, the feathers of the breast and the middle of the abdomen with lighter centres; bill olive-black; naked space beneath the eye yellow; legs and feet slate-colour.

The young are destitute of the white marks on the nape, and have the under surface more rufous and without the lighter centres.

PTILOTIS COCKERELLI, *Gould.*

J.Gould & H.C.Richter, del et lith.

Walter Imp.

PTILOTIS COCKERELLI, *Gould.*

Cockerell's Honey-eater.

Ptilotis Cockerelli, Gould in Ann. and Mag. Nat. Hist., 4th ser., vol. iv. p. 109.

It is but an act of justice that at least one of the birds of Australia should be named after Mr. James Cockerell, inasmuch as he is a native-born Australian, has collected very largely in the northern parts of that great country, and discovered more than one new species, among which must be enumerated the present very interesting bird. Mr. Cockerell informs me that it frequents the forests of the little-explored parts of the Cape-York peninsula, often in company with the Blue Mountain-Lory and the Yellow-spotted Honey-eater (*Ptilotis notata*), to which latter bird it assimilates in its actions and habits; it appears to be most numerous in the neighbourhood of Somerset in October, November, and December, when the trees are in blossom, and is tolerably common in the districts above mentioned. When chacterizing it in the volume of the 'Annals and Magazine of Natural History' above referred to, I remarked that "although I have placed this beautiful new species in the genus *Ptilotis*, I am by no means certain that I am correct in so doing; for the bird possesses characters which ally it to at least three genera, namely *Stigmatops*, *Meliphaga*, and *Ptilotis*, while it also possesses characters peculiar to itself of almost sufficient importance to demand a distinct generic appellation. It somewhat resembles in its colouring the *Ptilotis polygramma* of Mr. G. R. Gray (*vide* Proc. Zool. Soc., 1861, pp. 429, 434)."

The male has the fore part of the head grey, merging into the brown of the upper surface, which has a mottled appearance, owing to each feather being of a darker hue in the centre; lesser wing-coverts dark brown, with a spot of dull white at the tip of each, forming a spotted band across the shoulder; greater coverts and primaries dark brown margined with wax-yellow; tail brown, the lateral feathers margined externally at the base with wax-yellow; ear-coverts silvery, with a few of the anterior feathers pale yellow, and a posterior tuft of rich gamboge-yellow; throat and breast clothed with narrow lanceolate white feathers, a few on the sides of the chest tinged with deep yellow; abdomen dull greyish white, changing to a creamy tint towards the vent; bill black; feet horn-colour.

The female in colouring differs only in the spots at the tips of the lesser wing-coverts being nearly obsolete, but, as is the case with many other species of the family, is much smaller than the male, as will be seen by the following admeasurements:—

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

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

The figures are of the natural size.

TROPIDORHYNCHUS BUCEROÏDES.

J. Gould and H.C. Richter, del. et lith.

Hullmandel & Walton, Imp.

TROPIDORHYNCHUS BUCEROÏDES.

Helmeted Honey-eater.

Philedon buceroïdes, Swains. Anim. in Menag., p. 325.

Tropidorhynchus buceroïdes, Gray and Mitch. Gen. of Birds, vol. i. p. 125, *Tropidorhynchus*, sp. 2.—Bonap. Consp. Gen. Av. p. 390, *Tropidorhynchus*, sp. 9.

Nothing is more evident than that every peculiar kind of vegetation is accompanied by a corresponding peculiarity of animal life; be that life mammal, bird or insect. In no country are the trees and general vegetation of so peculiar and so marked a character as in Australia; in proof of which I may cite as instances in point, the *Eucalypti* and *Banksiæ*. These trees are frequented by a numerous family of birds called Honey-eaters, among the species of which a general similarity of structure reigns, but certain differences in form occur, corresponding in a great measure with the different botanical groups among which they obtain their subsistence; thus, the large *Eucalypti* are tenanted by the members of the genera *Anthochæra*, *Entomyza*, and *Tropidorhynchus*, while the smaller species are resorted to by the *Ptilotes*, *Glyciphilæ*, *Melithreptes*, &c., and the *Banksiæ* afford shelter and food to *Acanthogenys* and the true *Meliphagæ*. All these birds have lengthened tongues with filamentous brush-like tips, extremely small stomachs, and live partly on the pollen and honey which they extract from the flower-cups and partly on the insects attracted by the nectar.

The bird here represented belongs to a genus the members of which are widely dispersed over Australia wherever the *Eucalypti* abound. It may be regarded as the representative on the north coast of the *Tropidorhynchus corniculatus* of the southern part of the country, for it was in the Cape York Peninsula that it was obtained; not, however, by Mr. MacGillivray, who, I believe, mistook it for the common species, and did not procure examples; which is much to be regretted, since the bird is so extremely rare in our collections that I beg to direct attention to it, in the hope that, should any other expeditions visit the northern shores of Australia, so fine a species might not be overlooked.

The *Tropidorhynchus Buceroïdes* differs very considerably from the *T. corniculatus* and every other Australian species; these differences, which will be readily seen by reference to the accompanying Plate, consist in its much larger size, in the great elevation of the culmen, and in the crown of the head being clothed with feathers.

Feathers of the crown and nape brown, with pale greyish or silvery edges; all the upper surface, wings and tail light brown; feathers of the under surface lighter brown with a silky lustre, those of the throat with darker centres; face leaden-black; bill black; feet blackish-brown.

The figure is of the natural size. The beautiful plant is the *Stenocarpus Cunninghami*.

J. Gould and H.C. Richter del. & lith.

NECTARINIA AUSTRALIS; *Gould.*

Hullmandel & Walton

NECTARINIA AUSTRALIS, *Gould.*

Australian Sun-bird.

Nectarinia Australis, Gould in Proc. of Zôol. Soc., July 23, 1850.—Jard. Cont. Orn. 1850.
Terrĭdirri, Aborigines of Cape York.

I HAIL with great pleasure the discovery of a true *Nectarinia* in Australia, a discovery which, however, might have been expected, when we consider how short is the distance between the northern part of that country, and Timor and New Guinea, where these birds are known to abound.

I have carefully compared the present bird with all the species from those islands, and find it different from the whole of them. It offers a very close alliance to the *N. frænata* of the Celebes; it will be found, however, to differ from that species in its considerably larger size, in the mark above the eye being less conspicuous, and in the straighter form of the bill; I have therefore thought it but right to assign to it the name of *Australis*, as indicative of the only country in which it has yet been found. For my first knowledge of this species I am indebted to the researches of my late much-valued friend Captain Ince, R.N., who, while attached to H.M.S. Fly, paid unceasing attention to the natural history of the various parts of Australia visited by that vessel, and who, since his recent appointment to the command of H.M.S. Pilot in the China Seas, has paid equal attention to the ornithology of that region; but a short time has elapsed since his first interesting consignment reached me, and within the last few days (Feb. 19, 1851) the melancholy intelligence of his premature death has communicated a degree of grief to his friends which will be participated in by all who take an interest in the welfare of a most excellent officer and an ardent lover of natural history.

"This pretty Sun-bird," says Mr. MacGillivray, "appears to be distributed along the whole of the north-east coast of Australia, the adjacent islands, and the whole of the islands in Torres Straits. Although thus generally distributed, it is nowhere numerous, seldom more than a pair being seen together. Its habits resemble those of the *Ptilotes*, with which it often associates, but still more closely to those of *Myzomela obscura*; like those birds, it resorts to the flowering trees to feed upon the insects which frequent the blossoms, especially those of a species of *Sciadophyllum*: this singular tree, whose range on the north-east coast and that of the Australian Sun-bird appears to be the same, is furnished with enormous spike-like racemes of small scarlet flowers, which attract numbers of insects, and thus furnish an abundant supply of food to the present bird and many species of the *Meliphagidæ*. Its note, which is a sharp, shrill cry, prolonged for about ten seconds, may be represented by '*Tsee-tsee-tsee-tss-ss-ss-ss*.' The male appears to be of a pugnacious disposition, as I have more than once seen it drive away and pursue a visitor to the same tree; perhaps, however, this disposition is only exhibited during the breeding season. I found its nest on several occasions, as will be seen by the following extracts from my note-book:—

"Nov, 29, 1849. Cape York. Found two nests of *Nectarinia* to-day: one on the margin of a scrub, the other in a clearing. The nests were pensile, and in both cases were attached to the twig of a prickly bush: one, measuring seven inches in length, was of an elongated shape, with a rather large opening on one side close to the top; it was composed of shreds of *Melaleuca* bark, a few leaves, various fibrous substances, rejectamenta of caterpillars, &c., and lined with the silky cotton of the *Bombax Australis* so common in the neighbourhood. The other, which was similar in structure, contained a young bird, and an egg with a chick almost ready for hatching. The female was seen approaching with a mouthful of flies to feed the young, and the male was not far off. The egg was pear-shaped, generally and equally mottled with obscure dirty brown on a greenish grey ground.

"Dec. 4th.—Mount Ernest, Torres Straits. A nest of *Nectarinia* found to-day differs from those seen at Cape York in having over the entrance a projecting fringe-like hood composed of the panicles of a delicate grass-like plant. It contained two young birds, and I saw the mother visit them twice with an interval of ten minutes between; she glanced past like an arrow, perched on the nest at once, clinging to the lower side of the entrance, and looked round very watchfully for a few seconds before feeding the young, after which she disappeared as suddenly as she had arrived."

The male has the crown of the head and upper surface olive-green; over and under the eye two inconspicuous marks of yellow; throat and chest steel-blue; remainder of the under surface fine yellow; irides chestnut; bill and feet black.

The female differs in having the whole of the under surface yellow, without a trace of the steel-blue gorget so conspicuous in the male.

The Plate represents two males and a female of the natural size.

J. Gould and H.C. Richter, del. et lith.

ZOSTEROPS ALBOGULARIS, *Gould.*

Hullmandel & Walton, Imp.

ZOSTEROPS ALBOGULARIS, *Gould.*

White-breasted Zosterops.

Zosterops albogularis, Gould in Proc. of Zool. Soc., part iv. p. 75; and in Syn. Birds of Aust., pl. . fig. 2.—Gray and Mitch. Gen. of Birds, vol. i. p. 198, *Zosterops*, sp. 6.

The members of the genus *Zosterops* have a most extensive range over the old world. India proper has its own peculiar species, and so have Southern Africa, Japan, and China; but the countries in which the species are most numerous are Australia, Lord Howe's and Norfolk Islands, and the great Papuan group, including New Caledonia and the adjacent islands: in all these localities they occur in abundance. Every island appears to have its own particular species, and some of them two or three: Lord Howe's Island has two, and in Norfolk and Philip Islands two others occur. On the continent of Australia there are at least three or four very distinct species, all different from those of the islands, Tasmania excepted. Of all these numerous species, the present bird is one of the largest; it was characterized and figured by me as long since as January 1837; its native country is Norfolk Island, whence specimens have been sent from time to time ever since it was formed into a penal settlement. As is the case with the other members of the genus, there appears to be but little difference in the outward characters of the sexes, all the specimens that have reached this country being very similar.

All the upper surface and wing-coverts greenish olive, strongly tinged with chestnut on the back; wings and tail brown, margined with olive-green; a broad zone of white feathers surrounds each eye, bounded in front and below with black; throat and centre of the abdomen white; flanks pale chestnut, under tail-coverts pale yellow; bill and legs lead colour.

The figures are the size of life.

ZOSTEROPS TENUIROSTRIS, *Gould.*

J. Gould del. et H.C. Fischer, dd. et lith.

Hullmandel & Walton, Imp.

ZOSTEROPS TENUIROSTRIS, *Gould.*

Slender-billed Zosterops.

Zosterops tenuirostris, Gould in Proc. of Zool. Soc., part iv. p. 76, and in Syn. Birds of Aust., pl. . fig. 1.
——— *lateralis*, Gray and Mitch. Gen. of Birds, vol. i. p. 198, *Zosterops*, sp. 5.

The specific name of *tenuirostris* has been given to this bird from the circumstance of its bill being somewhat prolonged when compared with the bills of the other members of the genus; not only is its bill more lengthened, but its body is also more slender and elegant in contour than that of any of its congeners. Its native country is Norfolk Island, whence all the specimens I have seen have been forwarded to this country, by way of New South Wales. It is a very distinct and well-defined species, and is of large size when compared with most of its near allies. Of its habits, manners, and mode of life nothing has yet been recorded, which is much to be regretted, as they might present some peculiarities consequent upon the particular character of the vegetation of this remote island, which differs very considerably from that of Australia. I fear the time is gone by when we might expect to glean any information respecting it from some intelligent Government officer stationed in this famed Paradise of climate and vegetation; it can scarcely be supposed that the Pitcairn Islanders, who now inhabit it, can have contracted a taste for natural history.

All the specimens I have seen being similarly coloured, it is believed that the sexes, like those of *Zosterops albogularis*, do not differ in outward appearance.

Head, all the upper surface, and wing-coverts olive-green, brightest on the head and upper tail-coverts; wings and tail brown, margined with olive-green; throat yellow, stained with red in the centre; centre of the abdomen and under tail-coverts pale yellow; flanks olive-brown; bill and legs light brown, inclining to lead-colour; eye surrounded by a narrow zone of white feathers, bounded below by a line of blackish brown.

The figures are of the natural size.

ZOSTEROPS STRENUUS, *Gould.*

J.Gould & n.d. H.C.Richter, del. et lith.

Hullmandel & Walton, Imp.

ZOSTEROPS STRENUUS, *Gould.*

Robust Zosterops.

Zosterops strenuus, Gould in Proc. of Zool. Soc., July 24, 1855.

The present new species is the largest member yet discovered of a group of birds comprising numerous species, and which are very generally dispersed over the old world from India to Australia; some of the islands of the South Pacific are also tenanted by their own peculiar species; Norfolk Island claims two which have not been found elsewhere, and we now find that Lord Howe's Island, although but scantily supplied with vegetation, is not devoid of bird-life even of the great order of Insessores, it being inhabited by at least two species of the present genus. Her Majesty's Ship Herald, commanded by Captain Denham, having paid a visit to this interesting spot in the wide ocean, Mr. MacGillivray had an opportunity of extending his fame as a successful naturalist by securing and sending, with many other interesting objects, an example of each of these species, which I find to be quite different from all others that have come under my notice. The bird here represented is the larger of the two, and its prominent characters consist in its comparatively great size, robust form of body and unusually lengthened and powerful bill; at the same time, in the general style of its colouring, in its snow-white eye-ring, and in all other essential points, it closely agrees with the other species of the genus of which it is a member.

The only specimen of this new bird which has yet been transmitted to this country, now forms part of the National Collection, where all the other novelties which may be acquired by Captain Denham's Expedition will be deposited.

Head and upper surface bright olive-green, with a mark of dark grey across the shoulders; wings and tail slaty-brown, margined with greenish-olive; eyes surrounded by the usual ring of white feathers, beneath which is a narrow line of black; chin and throat yellow; flanks pale vinaceous-brown; centre of the abdomen nearly white; under tail-coverts pale yellow; bill and feet bluish-black.

The figures are of the natural size.

ZOSTEROPS TEPHROPLEURUS, *Gould.*

J.Gould and H.C.Richter, del et lith *Hullmandel & Walton, Imp*

ZOSTEROPS TEPHROPLEURUS, *Gould.*

Grey-breasted Zosterops.

Zosterops tephropleurus, Gould in Proc. of Zool. Soc., July 24, 1855.

At least three species of the genus *Zosterops* are inhabitants of Australia, all of which have been seen in a state of nature, either by myself or by my collector Mr. Gilbert, and we found that no difference occurred in the plumage, and scarcely any in the size of the sexes: had I not positive evidence of this, as far as regards the Australian species, I should have thought it probable that the two species (the present bird and the *Z. strenuus*) sent from Lord Howe's Island by Mr. MacGillivray were only different sexes of the same bird, so similarly are they coloured; I feel convinced, however, that such is not the case, and that the *Z. tephropleurus* differs from all other known species. In size it rather exceeds the well-known Australian *Z. dorsalis*, and moreover differs in having a much more robust bill and less highly coloured flanks.

Among the many pleasing recollections connected with my explorations in Australia, none are more grateful than those pertaining to this little group of birds, whose pretty cup-shaped nests and spotless blue eggs so vividly reminded me of home, my early life, and the nest and eggs of our own Hedge Accentor.

Head and upper surface bright olive-green, with a wash of grey across the shoulders; wings and tail slaty-brown, margined with olive-green; throat dull yellow; around the eyes a circle of white feathers, below which is a mark of black; under surface pale vinaceous-brown, becoming gradually paler on the lower part of the abdomen, and passing into the pale yellow of the under tail-coverts.

The figures are of the natural size.

P. Gould & and R. C. Richter del. et lith.

PTILORIS VICTORIÆ: *Gould.*

Hullmandel & Walton imp.

PTILORIS VICTORIÆ, *Gould.*

Victoria Rifle Bird.

Ptiloris Victoriæ, Gould in Proc. of Zool. Soc., 1849, p. 111, Aves, pl. xii.

The discovery of a new and beautiful Rifle bird has enabled me to fulfil a wish I had long entertained, of dedicating to our most gracious Queen one of the loveliest of the ornithological productions of her antipodal dominions; and I had therefore no ordinary pleasure in naming the present species *Victoriæ*, as a just tribute of respect for the many virtues which have endeared Her Majesty to all classes of her subjects, and as some slight acknowledgment on my part of her kindness and liberality in permitting me to dedicate to her my great work on the 'Birds of Australia.'

The *Ptiloris Victoriæ* is one of the many novelties which have rewarded the researches of Mr. MacGillivray, the able Naturalist of the late expedition of H.M.S. Rattlesnake. The value of its acquisition is greatly enhanced by the notes he has recorded of its habits; which are particularly interesting to myself, inasmuch as they tend to confirm the opinion I have expressed in the Introduction as to the alliance of the members of this genus to the *Climacteres*. The present species is smaller in all its admeasurements than the *Ptiloris paradisea*, but is still more resplendent in colour; it may be distinguished by the purple of the breast presenting the appearance of a broad pectoral band, bounded above by the scale-like feathers of the throat, and below by the abdominal band of deep oil-green, and also by the broad and much-lengthened flank feathers which show very conspicuously.

It appears to be strictly an inhabitant of the north-eastern portion of Australia, and the chain of islands lying between the Barrier Reef and the mainland. The following notes respecting it have been transmitted to me by Mr. MacGillivray:—

"This bird was seen by us during the survey of the N.E. coast of Australia on the Barnard Isles, and on the adjacent shores of the mainland at Rockingham Bay, in the immediate vicinity of Kennedy's first camp. On one of the Barnard Isles (No. III. in lat. 17° 43′ S.) which is covered with dense brush I found the Victoria Rifle Bird (supposed at the time to be the *P. paradisea*), in considerable abundance. Females and young males were common, but rather shy; however, by sitting down and quietly watching in some favourite locality, one or more would soon alight on a limb or branch, run along it with great celerity, stop abruptly every now and then to thrust its beak under the loose bark in search of insects, and then fly off as suddenly as it had arrived. Occasionally I have seen one anxiously watching me from behind a branch, its head and neck only being visible. At this time (June) the young males were very pugnacious, and upon one occasion three of them were so intent upon their quarrel that they allowed me to approach sufficiently near to kill them all with a single charge of dust shot. The adult males were comparatively rare, always solitary and very shy. I never saw them upon the trees, but only in the thick bushes and masses of climbing plants beneath them; on detecting the vicinity of man they immediately shuffled off among the branches towards the opposite side of the thicket and flew off for a short distance. I did not observe them to utter any call or cry; this, however, may have arisen from my attention not having been so much directed to them as to the females and young males, which I was more anxious to procure, the very different style of their colouring having led me to believe they were a new species of *Pomatorhinus*."

The male has the general plumage rich deep velvety black, glossed on the upper surface, sides of the neck, chin and breast with plum-colour; feathers of the head and throat small, scale-like, and of a shining, metallic bronzy green; feathers of the abdomen very much developed, of the same hue as the upper surface, but each feather so broadly margined with rich deep olive-green, that the colouring of the basal portion of the feather is hidden, and the olive-green forms a broad abdominal band, which is sharply defined above, but irregular below; two centre tail-feathers rich shining metallic green, the remainder deep black; bill and feet black.

The female has all the upper surface greyish brown, tinged with olive; head and sides of the neck dark brown, striated with greyish brown; over each eye a superciliary stripe of buff; wing-feathers edged with ferruginous; chin and throat pale buff; remainder of the under surface, under wing-coverts, and the base of the inner webs of the quills rich deep reddish buff, each feather with an irregular spot of brown near the tip, dilated on the flanks into the form of irregular bars; bill and feet black.

The Plate represents two males and a female of the natural size.

J. Gould and H.C. Richter del. et lith.

PTILORIS MAGNIFICUS.

Hullmandel & Walton imp.

PTILORIS MAGNIFICA.

Magnificent Rifle Bird.

Le Promefil, Levaill. Ois. de Parad. p. 36. pl. 16.
Falcinellus magnificus, Vieill. Nouv. Dict. d'Hist. Nat. tom. xxviii. p. 167. pl. G. 30. No. 3.—Ib. Ency. Méth. Orn. pt. 11. p. 579.
Epimachus magnificus, Cuv. Règn. Anim. pl. 4. fig. 2.—Wagl. Syst. Av. *Epimachus*, sp. 10.—Less. Cent. Zool. p. 22. pl. 4. fem., p. 27. pl. 5. young.—Gray and Mitchell, Gen. of Birds, vol. i. p. 94.—Less. Traité d'Orn. p. 321, Atlas, pl. 74. fig. 1.—Hist. Nat. des Ois. de Parad. pls. 32, 33, 34.
Epimachus paradiseus, Gray and Mitch. Gen. of Birds, vol. i. pl. xxxii.
Promerops à parures chevelues, Dum. Dict. des Sci. Nat. tom. xliii. p. 367. avec fig.
Craspedophora magnifica, G. R. Gray, List of Gen. of Birds, 2nd Edit. p. 15.

Here then we have a third species of *Ptiloris*, rendering the ornithology of Australia still more interesting: unlike the *P. Victoriæ*, however, this has no claims to novelty, inasmuch as it has been known to us for nearly fifty years. "It is New Guinea," says Vieillot, "that country in which are found the most beautiful birds in the world, and the most remarkable for the singularity of their plumage, that is the habitat of this species, one of the richest of its family." "It is still," says M. Lesson, writing in 1830, "very rarely met with in collections; the individual in the gallery of the Museum (at Paris) was procured in London, at the sale of Bullock's collection. During our sojourn at New Guinea with the corvette 'La Coquille,' we only obtained two mutilated skins; and M. Dumont-Durville, commander of the expedition of the 'Astrolabe,' secured only a single skin deprived of its wings and feet, the manner in which they are usually prepared by the natives. It is in the dense and vast forests which surround the harbour of Dorehy in New Guinea, that this fine species resides." The researches of Mr. MacGillivray and others enable me to state that it also inhabits the north-eastern portion of Australia, a circumstance of no ordinary interest, since besides adding another fine species to the already exceedingly rich fauna of that country, we now know that our museums will ere long be graced with fine and perfect specimens in lieu of the mutilated skins hitherto procurable. We have abundant evidence of its being frequently met with at Cape York, since not only Mr. MacGillivray, but nearly every officer of the "Rattlesnake" procured and brought home specimens.

The following are Mr. MacGillivray's notes respecting it:—

"This fine Rifle Bird inhabits the densest of the brushes in the neighbourhood of Cape York. The natives are familiar with it under the name of '*Yagoonya*'; the Darnley Islanders also recognized a skin shown them, and described it to be a native of *Dowde* or the south coast of New Guinea, near Bristow Island. Its cry is very striking: upon being imitated by man, which may be easily done, the male bird will answer; it consists of a loud whistle resembling *wheeoo* repeated three times and ending abruptly in a note like *who-o-o*. Both sexes utter the same note, but that of the male is much the loudest. The old males were generally seen about the tops of the highest trees, where, if undisturbed, they would remain long enough to utter their loud cry two or three times at intervals of from two to five minutes. If a female be near, the male frequently perches on a conspicuous dead twig in a crouching attitude, rapidly opening and closing his wings, the feathers of which by their peculiar form and texture produce a loud rustling noise, which in the comparative stillness of these solitudes may be heard at the distance of a hundred yards, and may be faintly imitated by moving the feathers of a dried skin. The full-plumaged males are much more shy than the females or immature birds. According to the testimony of several of the Cape York natives whom I questioned upon the subject, the *P. magnifica* breeds in a hollow tree and lays several white eggs. The ovary of a female shot in November, the commencement of the rainy season, contained a very large and nearly completely formed egg.

"From the shyness of this Rifle Bird, it is difficult to catch more than a passing glimpse of it in the dense brushes which it inhabits; I once, however, saw a female running up the trunk of a tree like a Creeper, and its stomach was afterwards found to be filled with insects only, chiefly ants; while the stomach of a male, shot about the same time, contained merely a few small round berries, the fruit of a tall tree, the botanical name of which is unknown to me."

I would here add a note pertaining to the history of the *P. paradisea*, sent to me by Mr. Strange, which cannot fail to be regarded with interest, as increasing our knowledge of that species and confirming Mr. MacGillivray's account of the rustling noise produced by the wings of the *P. magnifica*.

The *Ptiloris paradisea* "appears to be strictly confined to eastern Australia; at all events I have not heard, during a sojourn of fourteen years, of its having been shot or seen to the westward of the dividing ranges which run parallel to the coast at a distance of from 90 to 130 miles; its range southward does not extend farther than Port Stephens; one or two have been shot as far north as Wide Bay, but its principal stronghold is the large cedar brushes which skirt the mountains and creeks of the Manning, Hastings, MacLeay, Bellinger, Clarence, and Richmond rivers, where during the breeding months of November and December the male bird is easily found; at that season of the year, as soon as the sun illumines the tops of the trees, up rises the Rifle Bird from the thickets below to the top of some lofty pine, such as the *Araucaria Macleayana* which there abounds, always, however, selecting a spot where three or four of these trees occur at about two hundred feet apart; the morning is then spent in short flights from tree to tree, in sunning himself and cleaning his feathers, and in uttering during his short flights a cry resembling the word *yass*, by which name the bird is known to the natives of the Richmond river; besides this cry it also emits during flight a most singular noise, produced by the action of the wings, more nearly resembling that which would be produced by shaking a lot of new stiff silk than anything else with which I can compare it. As its short and peculiarly truncate wings would indicate, its powers of flight are very limited, and appear to be seldom employed for any other purpose than to transport the bird from tree to tree."

The male has the general plumage deep velvety black, slightly tinged with purple; wings dull purplish black, glossed with a greenish hue on the margins of the feathers; feathers of the head small, scale-like, and of a shining metallic bronzy green; feathers of the throat similar in form, and of a shining metallic oil-green, bounded below by a crescent of velvety black, to which succeeds a narrower crescent of shining yellowish green; under surface purplish black, the flank-feathers prolonged into a filamentous form and reaching beyond the extremity of the tail; two central tail-feathers shining metallic green, the remainder deep black; irides umber-brown; feet lead-colour, the soles ochraceous.

The female has all the upper surface brown; wings reddish brown, margined with bright rufous; tail rufous; over each eye a superciliary stripe of buffy white; throat buffy white; from the lower angle of the bill on each side a narrow streak of brown; breast and under surface buffy, crossed with numerous irregular bars of dark brown.

The Plate represents two males and a female of the natural size.

SEMIOPTERA WALLACEII, *Gray*

J. Gould and H.C. Richter, del. et lith.

Hullmandel & Walton, Imp.

SEMIOPTERA WALLACEI, *G. R. Gray.*

Standard-Wing.

Paradisea wallacei, G. R. Gray in Proc. of Zool. Soc., part xxvii. p. 130.
Semioptera, G. R. Gray, *Ib.*

One of the most remarkable Insessorial birds that has been discovered for many years is the one just sent to London by A. R. Wallace, Esq., from the island of Batchian, and to which Mr. G. R. Gray has given the generic appellation of *Semioptera*. How much gratified Mr. Wallace must have been when this remarkable form first met his gaze! and how enthusiastically does he write on this and the other objects with which he is surrounded!—determining to keep his discovery secret, yet not resisting the temptation to make it known when next he writes home. As many of my readers may not be acquainted with the position of the island of Batchian, I may state that it is one of the Moluccas, and, according to Guthrie's 'Geography,' "produces cloves, is very fruitful, and belongs to the Dutch; long. 125° 5′ E." Now, if there be one nation which has paid more attention to the natural productions of their foreign possessions than any other, it is the Dutch: how, then, is it that so conspicuous a bird as the *Semioptera* should not have been sent to Holland, and made known by Temminck or Schlegel? With what pleasure and enthusiasm would its arrival have been hailed at their great Leyden Museum! Thus much by way of prelude: I shall now proceed to give a copy of Mr. Wallace's letter to Mr. S. Stevens, in which he announces his interesting discovery:—

"Batchian, Moluccas, Oct. 29, 1858.

"Here I have been as yet only five days; but from the nature of the country, and what I have already done, I am inclined to think it may prove one of the best localities I have yet visited. Birds are as yet very scarce; but I still hope to get a fine collection, though I believe I have already the *finest and most wonderful* bird in the island. I had a good mind to keep it a secret, but I cannot resist telling you. I have a new *Bird of Paradise*! of a new genus!! quite unlike anything yet known, very curious and very handsome!!! When I can get a couple of pairs, I will send them overland, to see what a new Bird of Paradise will really fetch. Had I seen the bird in Ternate, I should never have believed it came from *here*, so far out of the hitherto supposed region of the *Paradiseidæ*. I consider it the *greatest* discovery I have yet made; and it gives me hopes of getting other species in Gilolo and Ceram. There is also here a species of Monkey—much further eastwards than in any other island; so you see this is a most curious locality, combining forms of the East and West of the Archipelago, yet with species peculiar to itself. It also differs from all the other Moluccas in its geological formation, containing iron, coal, copper, and gold, with a glorious forest vegetation, and fine large mountain streams: it is a continent in miniature. The Dutch are working the coals; and there is a good road to the mines, which gives one easy access to the interior forests.

"I can do nothing at drawing birds, but send you a horrible sketch of my discovery, that you may not die of curiosity. I am told the wet season here is terrible, and that it begins in December; so I shall probably have to leave then."

The sketch alluded to in the above extract having been placed in Mr. G. R. Gray's hands for examination and comparison with other known species, the following notes of that gentleman relative to it were read to the meeting (of the Zoological Society, March 22nd, 1859):—

"This bird proves, as Mr. Wallace remarks in his letter, to be a new form: it has, springing from the lesser coverts of each wing, two long shafts, both of which are webbed on each side at the apex. It is the possession of these peculiar winged standards that induces me to propose for it the subgeneric appellation of *Semioptera*; and I further add the provisional specific name of *wallacii*, which appellation I think is justly due to Mr. Wallace for the indefatigable energy he has hitherto shown in the advancement of ornithological and entomological knowledge, by visiting localities rarely if ever travelled by naturalists."

On the 28th of June 1859, in the absence of Mr. G. R. Gray from London, I exhibited to the meeting of the Zoological Society, held in the evening of that day, some specimens of both sexes of this singular bird which had just arrived, and took the opportunity of remarking that, while I considered Mr. Gray right in giving it a new generic appellation, the family to which Mr. Wallace had assigned it was not, in my opinion, the right one. This beautiful bird is not indeed a Bird of Paradise if we regard the *Paradisea apoda* and *P. Papuana* as typical examples of that group; it is in fact very closely allied to *Ptiloris*, so nearly so, indeed, as scarcely to be separable from that form; for on comparing it with the well-known Rifle-bird of Australia, *Ptiloris paradisea*, it will be seen that they are very similar both in their structure and in the disposition of their markings: the same great difference in the outward appearance of the sexes also occurs in both. Second only in interest to the discovery of this bird, would be an account of its habits and manners; and I trust Mr. Wallace will ere long enlighten us on these points. In the absence of this information, I would venture an opinion that it is partially a creeper in its habits; but whether it frequents the boles of the larger trees or the faces of rocky precipices is uncertain; neither do we know in what way the males display the plumes which spring out at right angles from the outer part of the shoulder: that the bird has the power of erecting and depressing them at will is without doubt. In the female they are entirely absent.

The male may be thus described:—

"On the basal half of the upper mandible a series of erected tuft-like feathers of a pale sandy buff, blending on the forehead into the delicate velvety dove-coloured feathers of the crown and occiput; sides of the head, back of the neck, and upper surface light brown, becoming darker and having a velvety appearance on the back and scapularies; each of these feathers has also a very narrow edging of a lighter hue; wings light brown, fading into buffy white, with a silvery gloss at the tips of the primaries and secondaries; shafts of the primaries white; the two lengthened plumes springing from each shoulder snowy white; tail brown with white shafts, and becoming of a silvery light brown at the tip; throat, neck, chest, and projecting side-plumes fine emerald-green, becoming very brilliant on the tips of the plumes; under surface brown, the feathers of the breast bordered with brilliant green, giving it a scaled appearance; flanks washed with the same colour, but less brilliant; thighs light brown; bill brownish horn-colour; feet yellow.

The female has the tuft on the upper mandible and the crown of the head the same as in the male, and is entirely devoid of the green colouring and lengthened plumes both of the breast and wings, her entire plumage being brown, without ornamentation of any kind.

The Plate represents one male of the natural size, and a second male and a female considerably reduced.

J.Gould & H.C.Richter, del. et lith.

ORTHONYX SPALDINGI, *Ramsay.*

Walter, Imp.

ORTHONYX SPALDINGI, *Rams.*

Spalding's Orthonyx.

Orthonyx Spaldingi, Rams. in Proc. of Zool. Soc., 1868, p. 386.

Ornithologists will, I am sure, join with me in congratulating Mr. Spalding, the discoverer, and Mr. Ramsay, the describer, on the acquisition of a second species of this remarkable genus. Further research in the untrodden scrubs and brushes of Northern Australia may yet unveil to us other species of a form especially adapted for roaming over prostrate trees, moss-covered stones, and leafy dells, and obtaining food amidst the herbaceous and other plants peculiar to such situations.

Although the *Orthonyx Spaldingi* is nearly twice the size of *O. spinicaudus*, it will be seen that the two species closely assimilate in their structure, and in certain parts of the colouring of the respective sexes. I wish it were in my power to communicate any information respecting the nidification of the new bird; whenever it may be obtained it will doubtless prove of considerable interest, inasmuch as the form of the nest and the white colour of the eggs of *O. spinicaudus* are strikingly different from those of every other Australian bird, and we may reasonably infer that those of the new species will be very similar.

The following notes by Mr. Ramsay, which comprise all that is at present known respecting the *Orthonyx Spaldingi*, are extracted from the 'Proceedings of the Zoological Society' for 1868, p. 386:—

"This fine bird was obtained in a dense brush about thirty-five miles inland from Rockingham Bay, Queensland, and is a valuable addition to our avifauna, being the second species of the anomalous genus *Orthonyx*. Its much greater size and jet-black plumage at once distinguish it from the *Orthonyx spinicaudus* of the New-South-Wales brushes, to which, however, it closely assimilates in habits and actions, frequenting the thickest parts of the scrubs, and obtaining its food by scratching among the fallen leaves and *débris*.

"I beg to propose the name of *Spaldingi* for this new species, after its discoverer, who has worked hard in the ornithological line for many years, and added to my collection many valuable and rare birds.

"*Male*. The whole of the head, cheeks, and ear-coverts, the sides of the head, sides and back of the neck, the sides of the chest, and the shoulders jet-black. Wings above brownish black, the feathers broadly margined with dark brown; primaries and outer webs of the secondaries brown, lighter on the outer webs of the primaries. Chin, throat, chest, and centre of the breast as far as the abdomen white; sides of the breast, flanks, upper and under tail-coverts, rump, and back olive-brown; base of the feathers and abdomen dull slaty brown; the tail, lower part of the hind neck, and between the shoulders blackish brown; bill black; eyelids flesh-white; irides blackish brown; legs and feet brownish black. The tail is long and pointed, the two outer feathers one-fourth less than the centre ones, the shafts of which are black and much curved downwards, but not so much worn into spines as in the remainder of the feathers.

"Total length (of skin) 11 inches; wing, from flexure 5·2; tail 5 inches; tarsi 1·9; bill, from angle of mouth 1 inch, from forehead 0·9, its width at base 0·4, height 0·4.

"The female differs from the male in having the olive-brown tinge on the upper and under parts of a reddish-brown tint, and in having the centre of the chin, throat, and chest rich deep rust-red, from which a triangular patch of white descends, lessening in width, over the breast to the abdomen; the rest of the plumage as in the male; bill black, irides blackish brown, eyelid flesh-white; legs and feet blackish brown.

"Total length (of skin) 5·5 inches; tail 4·1; wing, from flexure 4·5; bill, from angle of mouth 0·9, from forehead 0·85, height 0·3, width 0·3; tarsi 1·8."

The Plate represents the two sexes, of the natural size.

SITTELLA STRIATA, *Gould.*

J.Gould & H.C.Richter, del. et lith.

Walter, Imp.

SITTELLA STRIATA, *Gould.*

Striated Sittella.

Sittella striata, Gould in Ann. and Mag. Nat. Hist., 4th ser., vol. iv. p. 110.

Since the discovery of the *Sittella chrysoptera* of the southern coast of Australia, some seventy or more years ago, five additional and well-defined species of this peculiarly Australian genus of tree-runners have been discovered, namely, the *S. leucocephala* of Southern Queensland, *S. leucoptera* of the Cobourg Peninsula, *S. pileata* of Southern and Western Australia, *S. tenuirostris* (found by Captain Sturt in the interior, and so named by me in my 'Handbook to the Birds of Australia,' vol. i. p. 610), and the present species. *S. tenuirostris* I have not yet figured; for the only specimen I have ever seen is in an imperfect state of plumage, and I therefore anxiously await the arrival of others to enable me to do so correctly.

Of this new species I have seen four or five examples, collected on the Cape-York peninsula by Mr. Cockerell, who tells me that the bird is common there, moving about in little bands of five or six in number, and if one be shot the whole may be procured, as the remainder immediately come fluttering round; it is constantly engaged in running over the branches of the larger trees, like the other species of the genus. Some specimens have jet-black heads and throats, that hue even extending on to the chest, while in others the black colouring is nearly confined to the crown; but one and all are conspicuously striated with blackish brown, both on the upper and under surface. It has not been ascertained by dissection whether the black-throated individuals are males; one would naturally suppose that they are; and I should not have had any doubt on the subject, had I not been aware that in *S. pileata* there is more black on the head of the female than on that of the other sex—a circumstance which induced me to describe the former as distinct, under the specific appellation of *melanocephala*, a term which is strictly applicable to the present species, but which, of course, cannot be used. I therefore selected the term *striata* as expressive of its next most conspicuous feature. It will be observed that one of the three specimens figured on the accompanying Plate is greyish white immediately above the bill—a feature which may indicate a youthful state of the bird.

The male has the whole of the head, neck, throat, and breast black; all the upper surface pale brown, with a blackish-brown stripe down the centre of each feather: under surface striated in a similar manner; but the streaks are narrower, not so dark, and the edges of the feathers are also lighter and on the centre of the abdomen are nearly pure white: primaries black, with a large spot of white near the base, and faintly tipped with brown; secondaries dark brown, margined with pale brown; upper tail-coverts white; under tail-coverts white, with a large tear-shaped spot of dark brown in the centre of each; tail black, the lateral feathers tipped with white increasing in extent as the feathers recede from the centre; circle round the eye, base of the bill, and the legs and feet yellow; tip of the bill black.

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

The female differs in having the crown and nape only black, and in the striation of the under surface extending from the bill to the vent.

The figures are of the natural size.

J. Gould & H.C. Richter, del. et lith.

CACOMANTIS CASTANEIVENTRIS, *Gould*.

Walter, Imp.

CACOMANTIS CASTANEIVENTRIS, *Gould.*

Chestnut-breasted Cuckoo.

Cuculus (*Cacomantis*) *castaneiventris*, Gould in Ann. & Mag. of Nat. Hist., 3rd ser. vol. xx. p. 269.

This is a new species belonging to a small section of the *Cuculidæ* which is peculiar to Australia and the islands lying to the northward of that continent as far as the Philippines. In their general contour, the *Cacomantes* are slender and elegant; on the other hand their colours are in general plain and unobtrusive; while in their demeanour they are sedate and quiet, making less display in their attitudes and actions than the true Cuckoos, and they never emit that well-known sound. Of the other Australian species, it is most nearly allied to the old *Cacomantis flabelliformis*, but differs in its smaller size and in the uniform deep chestnut colouring of its under surface. Its native country is undoubtedly Queensland, as the specimen I have figured was received thence direct, in a collection formed by J. Jardine, Esq., in the Cape York district. In all probability this is the species spoken of by Mr. E. P. Ramsay, in the 'Ibis' for 1866, p. 331, where he says: "Since 1862, I have several times, throughout various parts of the year, received specimens of a second Cuckoo from Port Denison; and as I am unable to find any description at all fitting it in Gould's 'Birds of Australia,' or any other publication, I believe it to be in all probability a new species, the decision of which, however, I shall leave to those better acquainted with the group. All the specimens that have been received from Port Denison are exactly alike in plumage, and were procured from February to December. In size they are slightly smaller than *Cacomantis flabelliformis*."

I may remark that I have compared my specimen with the Cuckoos in the collection at the British Museum without finding a corresponding example. Its nearest ally is a Philippine bird which may be the *Cacomantis sepulchralis* of Bonaparte. The *Cacomantis bronzina* of Mr. G. R. Gray is also very similarly coloured, but is a much larger bird.

Chin, ear-coverts, crown, and upper surface deep purplish grey; all the under surface, including the under tail-coverts, bright chestnut-red; wings brown, glossed with olive; upper tail-coverts and tail deep greyish purple, all the feathers tipped and the lateral ones toothed on their inner web with white, which assumes on the two outer ones the appearance of interrupted bars; bill purplish black; legs and feet orange; nails black.

Total length 9$\frac{1}{2}$ inches, bill $\frac{7}{8}$, wing 4$\frac{1}{4}$, tail 5, tarsi $\frac{1}{4}$.

The Plate represents the bird of the size of life.

CHRYSOCOCCYX MINUTILLUS, *Gould.*

J. Gould and H.C. Richter, del. et lith.

Hullmandel & Walton Imp.

CHRYSOCOCCYX MINUTILLUS, *Gould.*

Little Cuckoo.

Chrysococcyx minutillus, Gould in Proc. of Zool. Soc., part xxvii. p. 128.

Nothing further is known respecting this little bronze Cuckoo than that it is a native of Port Essington, whence the only specimen I have yet seen was sent. The example alluded to is fully adult, and differs very considerably from the *Chrysococcyx lucidus* and every other species with which I am acquainted. It is perhaps more nearly allied to the Java species, *C. basalis* of Horsfield, than to the *C. lucidus*, but it is as much smaller than the *C. basalis* as that bird is less than *C. lucidus*. The type of *C. basalis*, which is the only one I have seen, and is probably the only one known, is not a fully adult bird; and yet its admeasurement exceeds by half an inch that of the *C. minutillus*.

Head, all the upper surface, and wings shining bronzy green; all the under surface white, barred with bronzy green, the bars being most distinct on the flanks; primaries and secondaries white on the basal portion of their inner webs; two centre tail-feathers bronzy green, the next on each side bronzy green on the outer web, rufous on the inner web, crossed by a broad band of black near the tip, and with an oval spot of white across the tip of the inner web; the two next on each side bronzy green on their outer webs, their inner webs rufous with large spots of black near the shaft, most conspicuous on the outermost of the two feathers; their inner webs are also crossed near the tip with a very broad band of black, and have an oval spot of white at the tip; the outer feather on each side is barred alternately on the outer web with dull bronzy green and dull white, and on the inner one with broad decided bars of black and white and tipped with white; bill black; feet olive.

The figures are of the natural size.

STRIGOPS HABROPTILUS, *G. R. Gray.*

J. Gould H.C. Richter, del. et lith.

Hullmandel & Walton, Imp.

STRIGOPS HABROPTILUS, *G. R. Gray.*

Kakapo.

Strigops habroptilus, G. R. Gray, in Gray and Mitchell's Genera of Birds, vol. ii. p. 427. pl. cv.—Strange in Proc. of Zool. Soc., part xv. p. 50.—G. R. Gray in Ibid. p. 61.—Lyall in Proc. of Zool. Soc., part xx. p. 31, Aves, pl. xlvi. fig. 3, egg.

I HAVE no hesitation in giving a figure of this extraordinary Night Parrot in the Supplement to my work on the "Birds of Australia," since the two species of *Apteryx*, the *Notornis* and other remarkable birds from New Zealand, the native country of the *Kakapo*, have already appeared in its pages.

Long before 1845, when a skin of this bird was for the first time sent to Europe, we had conclusive evidence of the existence of the species, from the circumstance of plumes made of its feathers being worn by the Maories. It is somewhat strange, however, that such a lengthened period should have elapsed after the discovery and possession of New Zealand before so singular a bird should have found its way to Europe. At no very distant date it doubtless inhabited alike all the islands of the New Zealand group; but it probably no longer exists in the northern island, its extirpation from whence being doubtless attributable to a variety of causes: it is that portion of the country in which the natives have always chiefly resided, and the introduction since the visit of the celebrated navigator Cook, of the Pig, the Dog, the Cat, and that universal pest the brown or Norway Rat, has doubtless tended greatly to produce such a result; for the three latter having now become wild, we may reasonably infer that they have played no inconsiderable part in the destruction, not only of this comparatively helpless bird, but of many others; the time is probably not far distant when these marauders will obtain a footing in the middle and southern islands, the result of which may be anticipated by what has already occurred.

I have always entertained the opinion that the present bird, the *Notornis*, the *Apteryx*, the *Neomorpha* and the *Nestor* are only remnants of a bird fauna of a very distant period now all but extinct; a fauna in my opinion peculiar to New Zealand, Norfolk Island and other adjoining islets, which themselves are probably the remains of a submerged continent, for it can scarcely be imagined that the huge *Dinornis*, *Palapteryx* and other allied genera were formed to dwell on islands so small as those in which their remains are now found.

The first published account of this singular bird is that given by Dr. Lyall, R.N. in the Part of the "Proceedings of the Zoological Society of London" above referred to, and which I beg leave to transcribe.

"Although the *Kakapo* is said to be still found occasionally on some parts of the high mountains in the interior of the north island of New Zealand, the only place where we met with it, during our circumnavigation and exploration of the coasts of the islands in H.M.S. Acheron, was at the S.W. end of the middle island. There, in the deep sounds which intersect that part of the island, it is still found in considerable numbers, inhabiting the dry spurs of hills or flats near the banks of rivers, where the trees are high, and the forest comparatively free from fern or underwood.

"The first place where it was obtained was on a hill nearly 4000 feet above the level of the sea. It was also found living in communities on flats near the mouths of rivers close to the sea. In these places its tracts were to be seen resembling footpaths made by man, and leaving us at first to imagine that there must be natives in the neighbourhood. The tracks are about a foot wide, regularly pressed down to the edges, which are two or three inches deep amongst the moss, and cross each other usually at right angles.

"The *Kakapo* lives in holes under the roots of trees, and is also occasionally found under shelving rocks.

The roots of many New Zealand trees growing partly above ground, holes are common under them; but where the *Kakapo* is found many of the holes appeared to have been enlarged, although no earth was ever found thrown out near them. There were frequently two openings to these holes, and occasionally, though rarely, the trees over them were hollow for some distance up.

"The only occasion on which the *Kakapo* was seen to fly was when it got up one of these hollow trees and was driven to an exit higher up. The flight was very short, the wings being scarcely moved; and the bird alighted on a tree at a lower level than the place from whence it had come, but soon got higher up by climbing, using its tail to assist it.

"Except when driven from its holes, the *Kakapo* is never seen during the day, and it was only by the assistance of dogs that we were enabled to find it.

"Before dogs became common, and when the bird was plentiful in inhabited parts of the islands, the natives were in the habit of catching it at night, using torches to confuse it. It offers a formidable resistance to a dog, and sometimes inflicts severe wounds with its powerful claws and beak. At a very recent period it was common all over the west coast of the middle island, but there is now a race of wild dogs said to have overrun all the northern part of this shore, and to have almost extirpated the *Kakapos* wherever they have reached. Their range is said to be at present confined by a river or some such physical obstruction, and it is to be feared that if they once succeed in gaining the stronghold of the *Kakapo* (the S.W. end of the island) the bird may soon become extinct.

"During the latter half of February and the first half of March, whilst we were amongst the haunts of these birds, we found young ones in many of the holes, frequently only one, never more than two, in the same hole. In one case where there were two young ones I found also an addled egg. There was usually, but not always, an old bird in the same hole with the young ones.

"They build no nest, but simply scrape a slight hollow amongst the dry dust formed of decayed wood. The young were of different ages, some being nearly fully fledged, and others covered only with down. The egg is white and about the size of a pigeon's, two inches and an eighth long by one inch and nine-sixteenths broad.

"The cry of the *Kakapo* is a hoarse croak, varied occasionally by a discordant shriek when irritated or hungry. The Maories say that during winter they assemble together in large numbers in caves, and at the times of meeting, and, again before dispersing to their summer haunts, that the noise they make is perfectly deafening.

"A good many young ones were brought on board the ship alive. Most of them died a few days afterwards, probably from want of sufficient care; some died after being kept a month or two, and the legs of others became deformed after they had been a few weeks in captivity. The cause of the deformity was supposed to be the want of proper food, and too close confinement. They were fed chiefly on soaked bread, oatmeal and water, and boiled potatoes. When let loose in a garden they would eat lettuces, cabbages and grass, and would taste almost every green leaf that they came across. One, which I brought within six hundred miles of England (when it was accidentally killed), whilst at Sydney, ate eagerly of the leaves of a *Banksia* and several species of *Eucalyptus*, as well as grass, appearing to prefer them all to its usual diet of bread and water. It was also very fond of nuts and almonds, and during the latter part of the homeward voyage lived almost entirely on Brazilian ground-nuts.

"On several occasions the bird took sullen fits, during which it would eat nothing for two or three days at a time, screaming and defending itself with its beak when any one attempted to touch it. It was at all times of an uncertain temper, sometimes biting severely when such a thing was least expected. It appeared to be always in the best humour when first taken out of its box in the morning, hooking on eagerly with its upper mandible to the finger held down to lift it out. As soon as it was placed on the deck it would attack the first object which attracted its attention—sometimes the leg of my trowsers, sometimes a slipper or a boot. Of the latter it was particularly fond; it would nestle down upon it, flapping its wings and showing

every symptom of pleasure. It would then get up, rub against it with its sides, and roll upon it on its back, striking out with its feet whilst in this position.

"One of these birds, sent on shore by Capt. Stokes to the care of Major Murray of the 65th Regiment at Wellington, was allowed to run about his garden, where it was fond of the society of the children, following them like a dog wherever they went.

"Nearly all the adult *Kakapos* which I skinned were exceedingly fat, having a thick layer of oily fat or blubber on the breast which it was very difficult to separate from the skin. Their stomachs contained a pale green, sometimes almost white, homogeneous mass, without any trace of fibre in it.

"There can be little doubt but that their food consists partly of roots (their beaks are usually more or less covered with indurated mud), and parly of the leaves and tender shoots of various plants. At one place where the birds were numerous we observed that the young shoots of a leguminous shrub growing by the banks of a river were all nipped off, and this was said by our pilot, who had frequented these places for many years in a whaling vessel, to be the work of the *Kakapo*.

"Their flesh is white, and is generally esteemed good eating."

I have also been kindly favoured with the following notes on this bird by His Excellency Sir George Grey, late Governor of New Zealand and now Governor of the Cape of Good Hope:—

"The *Strigops* is called *Kaka-po* or Night Kaka by the aborigines of New Zealand, from the nocturnal habits of the bird. During the day it remains hid in holes under the roots of trees or rocks; or, very rarely, perched on the boughs of trees with a very dense thick foliage: at these times it appears stupid from its profound sleep, and if disturbed or taken from its hole immediately runs and tries to hide itself again, delighting, if practicable, to cover itself in a heap of soft dry grass; about sunset it becomes lively, animated and playful, issues forth from its retreat and feeds on grass, weeds, vegetables, fruits, seeds and roots: when eating grass it rather grazes than feeds, nibbling the grass in the manner of a rabbit or wombat. It sometimes climbs trees, but generally remains upon the ground, and only uses its short wings for the purpose of aiding its progress when running, balancing itself when on a tree or in making a short descent, half-jump, half-flight from a higher to a lower bough. When feeding, if pleased with its food, it makes a continued grunting noise: it is a greedy bird and choice in its food, showing an evident relish for anything of which it is fond. It cries repeatedly during the night with a noise not very unlike that of the Kaka, but not so loud.

"The *Kakapo* is a very clever and intelligent bird, in fact singularly so; contracts a strong affection for those who are kind to it, shows its attachment by climbing about and rubbing itself against its friend, and is eminently a social and playful bird; indeed, were it not for its dirty habits, it makes a far better pet than any other bird with which I am acquainted; for its manner of showing its attachment, by playfulness and fondling, is more like that of a dog than a bird.

"It builds in holes under trees and rocks, and lays two or three white eggs, about the size of a pullet's, in the month of February; and the young birds are found in March.

"At present, 1854, the bird is known to exist only in the middle island of New Zealand, on the west coast, between Chalky Harbour and Jackson's Bay, and in the northern island about the sources of the Whangarie, and in part of the Taufa countries. It was, within the recollection of the old people, abundant in every part of New Zealand, and they say that it has been exterminated by the cats introduced by Europeans, which are now found wild and in great numbers in every part of the country; they say also that the large rat, introduced from Europe, has done its part in the work of destruction.

"The natives assert, that when the breeding season is over the *Kakapo* lives in societies of five or six in the same hole; and they also state that it is a provident bird, and lays up in the fine season a store of fern root for the bad weather. I have had five or six of these birds in captivity, but never succeeded in keeping them alive for more than eighteen months or two years. The last I had I sent home as a present to the Zoological Society, but I am informed it died off Cape Horn."

The following is Mr. G. R. Gray's description of this remarkable species :—

"Upper surface sap-green, with a verdigris tinge on the wings; each feather marked in the middle with yellow, which is margined on the sides with black, from which spring irregular transverse bands of the same colour; the outer webs of the greater wing-coverts, quills, secondaries and entire tail brownish-buff, irregularly banded transversely with black; between every alternate set lemon-yellow; the inner webs of quills and secondaries black, more or less transversely banded with lemon-yellow; under surface pale greenish-yellow, tinged with lemon-yellow, more or less marked along the shaft with pale yellow, which is narrowly margined with brownish-black; some of the feathers have transverse bands of the same colour; the top of the head brownish-black, margined outerly with sap-green, tinged in some places with verdigris, and marked in the middle with pale yellow; the front cheeks, ear-coverts and the projecting feathers of the face pale umbre, marked in the middle with yellowish-white; bill white; feet plumbeous-black.

Total length 2 feet 4 inches; bill 1 inch 8 lines; wings $11\frac{1}{2}$ inches; tail $9\frac{1}{4}$ inches; tarsi $1\frac{3}{4}$ inch."

The figure represents the bird about three-fourths of the size of life.

NESTOR HYPOPOLIUS.

J.Gould and H.C.Richter, del. et lith.

Hullmandel & Walton, Imp.

NESTOR HYPOPOLIUS.

Ka-ka Parrot.

Psittacus hypopolius, Forst. Icon., 50.
——— *Meridionalis*, Gmel. Edit. Linn. Syst. Nat., tom. i. p. 333.—Dieff. Trav. in New Zeal., vol. ii. p. 193.
——— *Nestor*, Lath. Ind. Orn., vol. i. p. 110.
——— *Australis*, Shaw, Mus. Lever., pl. at p. 87.—Bonap. Consp. Gen. Av., p. 8, *Nestor*, sp. 1.
——— (*Kakadoe*) *Nestor*, Kuhl, Consp. Psitt. in Nov. Act. &c., pp. 12, 86.
Nestor hypopolius, Wagl. Mon. Psitt. in Abhand. &c., pp. 505 and 696.—Selby in Jard. Nat. Lib. Parrots, p. 121, pl. 12.—Gould, Syn. Birds of Aust., pl. . fig. 2.—Bonap. Rev. et Mag. de Zool., 1854, p. 155.—De Souancé, Rev. et. Mag. de Zool., 1856, p. 222.—G. R. Gray, List of Spec. of Birds in Coll. Brit. Mus., part iii. sec. ii., *Psittacidæ*, p. 99.
Southern Brown Parrot, Lath. Gen. Syn., vol. i. p. 264.—Shaw, Gen. Zool., vol. viii. p. 522.—Lath. Gen. Hist., vol. ii. p. 211.
Nestor Novæ-Zelandiæ, Less. Traité d'Orn., p. 191.
Centrourus Australis, Swains. Class. of Birds., vol. ii. p. 303.
Ka-ka, Natives of New Zealand.

Although New Zealand has been known to us since the days of our celebrated voyager Captain Cook, and been a British possession for so many years, no one of its many intelligent settlers has written a line respecting this species of Parrot; neither has the English ornithologist Swainson, who resided there for some years, nor the German historian of its birds, Dieffenbach, nor the enlightened Governor Grey, said one word on the subject. Had an opportunity offered for my visiting New Zealand, this void in the history of one of the most interesting of the great group of Parrots should certainly have been filled up; what more, then, can I do than give an accurate figure of the bird, and call the attention of the residents of New Zealand to the subject, in the hope that one or more of them will study and record the habits and economy of the bird before it is extirpated, and its name and a few stuffed skins alone left as an evidence of its once having existed. Although urging this so strongly, I am aware that of all the members of the genus the present species is the commonest, and that at this moment numbers are yet to be found in the New Zealand group; still I feel assured that it is one of the species which before many years have elapsed will become extinct. A very great dissimilarity both in size and colouring occurs in different examples of this species, so much so as to induce a belief, both in my own mind and in that of others, that they may constitute two species, a great and a little *Ka-ka*. Some of the specimens have the whole of the crown and back of the neck and the outer portion of the wings bluish grey; others appear to be real Nestors, having very hoary heads; some have very distinct collars of beautiful-fringed feathers at the back of the neck, while in others this feature is more feebly developed. It will be a question for the colonists to determine if there be more than a single species, or if the differences seen in the skins sent to Europe are indications only of local varieties, and to what cause they may be due.

This bird is the type of Dr. Wagler's genus *Nestor*, the species of which are rendered remarkable by the depth and richness of their colouring; the only outward difference in the sexes would appear to be the somewhat smaller size and less brilliant colouring of the female. It is said to be one of the most noisy and impudent of its race, to have a voice harsh and disagreeable in the extreme, and to possess considerable powers of imitation.

Crown of the head and nape hoary, slightly tinged with green, and with a narrow edging of brown to each feather; ear-coverts striated with dull orange and brown; feathers at the cheeks and front of the throat hoary bordered with brown, and washed with red at the base of the bill; all the upper surface olive-brown, each feather margined with dark brown, and the feathers of the neck tipped with three semicircles of orange-brown and orange; wings and tail olive, becoming paler on the margins and tip; under wing-coverts scarlet, crossed by narrow bands of black; primaries and secondaries deeply toothed on their internal webs with light salmon-colour, those of the tail with deep-reddish salmon-colour; feathers of the breast olive, with a narrow crescent of brown near the tip, beyond which is a second of dark-reddish orange; lower part of the back, upper tail-coverts, abdomen, and under tail-coverts olive, largely tipped with deep rich red, within which, near the end, is a narrow crescent of brown; bill horny; feet mealy brown.

The large figure on the accompanying Plate was taken from a tolerably old bird, and is of the size of life; the reduced figure is given to show the colouring of the under surface of the wings and tail.

NESTOR ESSLINGII, *Souancé*

J. Gould and H.C. Richter, del. et lith.

Hullmandel & Walton, Imp.

NESTOR ESSLINGII, *Souancé*.

Prince of Essling's Parrot.

Nestor Esslingii, De Souancé, Rev. et Mag. de Zool. 1856, p. 223.—Gray, List of Spec. of Birds in Coll. Brit. Mus., part iii. sec. 2, *Psittacidæ*, p. 100.

——— *Novæ-zelandiæ*, Bonap. Rev. et Mag. de Zool. 1854, p. 155.

A single specimen only of this magnificent Parrot has come under my notice; and this example is perhaps the only one that has yet been sent to Europe. It formerly formed part of the collection of the Prince D'Essling of Paris, but now graces the National Museum of Great Britain. It is in a most perfect state of preservation, and is without exception one of the finest species, not only of its genus, but of the great family of Parrots. The native country of this bird is supposed to be New Zealand; but I, as well as M. de Souancé, have failed to learn anything definite on this point. In size it even exceeds the great Ka-ka (*Nestor hypopolius*), which it resembles in the form of its beak, while in its general colouring it closely assimilates to the *N. productus*; in some features of its plumage, however, it differs from both. In both those species the tail-feathers are strongly toothed on the under surface with red; in the *N. Esslingii* no such marks occur, the toothing on the inner webs of the primaries is not so clear and well defined, and the light-coloured interspaces are more freckled with brown.

As I have treated the subject of the near extinction of this species and its allies rather freely in the description of *N. notabilis*, it will not be necessary to say anything on the subject here.

I need scarcely remark how interesting additional examples of any of these rare Parrots would be to our collections, especially of the present species; second only to which would be a knowledge of the country it inhabits.

I observe M. de Souancé states that he believes the Essling Collection also contained a young specimen of this bird; but having examined the individual to which he refers, and which is now in the British Museum, I am somewhat doubtful as to its belonging to this species.

The following is M. de Souancé's account of this bird, which, as he is the original describer of the species, is given in his own words :—

"Nestor Esslingii, nob. Le Nestor dont nous allons donner la description est, sans contredit, l'oiseau le plus remarquable de la collection Masséna. Intermédiaire entre le *N. hypopolius* et le *N. productus*, ce magnifique Perroquet réunit, dans son plumage, des détails caractéristiques de ces deux espèces.

"Coloration générale semblable à celle du *N. hypopolius*: tout le dessus de la tête gris blanchâtre, les plumes auriculaires jaune orangé très-vif, les joues rouge orangé; les plumes de la poitrine gris cendré, mais largement bordées de brun; une large ceinture d'un blanc jaunâtre règne sur le milieu du ventre; le bas-ventre, les cuisses et les couvertures de la queue rouge brun; bec et pieds de couleur sombre. L. T. 50 cent.; aile 30 cent. Nouvelle-Zélande? Un autre individu, jeune, ressemble tout-à-fait au jeune de l'espèce ordinaire, mais il offre quelques plumes blanches sur l'abdomen, ce qui indique clairement qu'il appartient à cette espèce.

"En comparant cette espèce avec ses deux congénères plus anciennement connus, nous voyons qu'il diffère du *N. hypopolius*, dont, au reste, il est fort voisin, par la coloration plus vive de ses joues et par sa ceinture blanche. Nous signalerons dans le *N. productus*, un fait analogue à celui que nous avons déjà remarqué dans les *Loriculus philippensis*, *L. Regulus*, *L. Bonapartei*; c'est-à-dire, le prolongement excessif de la mandibule supérieure, qui rappelle ce que l'on voit parmi les espèces américaines, chez l'*Enicognathus leptorhynchus*, et pour les Cacatoes, dans le genre *Licmetis*. Ici rien de pareil n'a lieu: le bec entièrement semblable à celui du *N. hypopolius*. M. Gould, dans ses 'Oiseaux de l'Australie,' figure un jeune *N. productus*, qui par sa poitrine grise semblerait avoir quelques rapports avec cette espèce et qui s'en éloigne beaucoup cependant par sa tête brune et la forme de son bec. Nous caractérisons donc les trois espèces de *Nestor* de la manière suivante :—1° *N. hypopolius*. Bec grand et fort; dessus de la tête blanc grisâtre; plumes auriculaires et joues faiblement nuancées de jaune et de rouge. 2° *N. Esslingii*. Bec grand et fort; sommet de la tête blanc grisâtre; plumes auriculaires et joues très-vivement colorées de jaune et de rouge orangé; poitrine gris brun, une large ceinture blanc jaunâtre sur l'abdomen. 3° *N. productus*. Bec très-allongé et grêle; sommet de la tête brun; les joues d'un jaune nuancé de rouge; la gorge, la poitrine et les couvertures inférieures des ailes jaune pâle. Ile Philips. Le jeune a la poitrine brune."

To this list M. Souancé would doubtless have added my *Nestor notabilis*, had he been aware of its existence.

The large figure is of the size of life; the other much reduced.

NESTOR NOTABILIS, *Gould.*

J.Gould and H.C.Richter, del. et lith.

Hullmandel & Walton, Imp.

NESTOR NOTABILIS, *Gould.*

Kea Parrot.

Nestor notabilis, Gould in Proc. of Zool. Soc., part xxiv. p. 94.—G. R. Gray, List of Spec. of Birds in Coll. Brit. Mus., pt. iii. sec. ii., *Psittacidæ*, p. 100.

It must be remembered that we are indebted to Mr. Walter Mantell for the acquisition of a recent specimen of the *Notornis*: and second only in importance to this extraordinary and almost extinct bird, is the present remarkable species of Parrot, a bird equally as rare as the *Notornis*, and apparently equally as near its extinction. When writing on any of the birds of the New Zealand and adjacent group of islands, it soon becomes evident that we are dealing with the few remaining members of an extremely ancient fauna, the remnants, in fact, of genera and species which in the lapse of a few years will be entirely effaced from the surface of our globe. The Philip Island Parrot (*Nestor productus*) is already gone; and the Kaka (*Nestor hypopolius*) must soon follow, but not so soon, probably, as the present bird. With what care, then, should such relics be preserved in our museums; to none but hermetically sealed cases should they be consigned. Let it be remembered how great are our regrets that the evidence of the former existence of the Dodo comprises only a single foot and head and a few dried bones. Imbued with the importance of recording the history, and giving a portraiture of these nearly extinct birds, I have endeavoured to be most accurate in their delineation, especially with regard to the four species of *Nestor*. I have nothing to add to the few remarks respecting the history of the present bird accompanying my original description in the "Proceedings of the Zoological Society;" and therefore I cannot do better than transcribe them here:—

"The *Nestor notabilis*, which is called "*Keá*" by the natives, is the largest of the four species of the form now known, and is certainly one of the most interesting of the ornithological novelties lately discovered. It not only differs from its near allies *N. hypopolius* and *N. productus* in its greater size, but in the greater uniformity of its colouring, in the yellow toothed markings of the inner webs of the primaries and secondaries, and in the orange toothed markings of the inner webs of the tail-feathers; the yellow colouring of the under mandible is another of the peculiarities by which it may be distinguished.

"Mr. Mantell informed me that he first heard of the existence of the *Keá* about eight years ago, from some old natives whom he was questioning as to the birds of the Middle Island. They said the *Keá* somewhat resembled the *Káka* (*Nestor hypopolius*), but that, unlike that bird, it was green; and added that it used formerly to come to the coast in severe winters, but that they had not seen it lately. Mr. Mantell has only obtained the two specimens exhibited of this fine bird: they were shot in the Murihiku country; and for one of them he was indebted to Mr. John Lemon of Murihiku.

"General hue olive-green; each feather tipped in a crescentic form with brown, and having a fine line of the same colour down the shaft; feathers of the lower part of the back and the upper tail-coverts washed near the tip with fiery orange-red; primaries brown, margined at the base with greenish blue; tail dull green; inner webs of the lateral feathers brown, toothed on their basal two-thirds with orange-yellow; all the tail-feathers crossed near the extremity with an indistinct band of brown, and tipped with olive-brown; feathers of the axillæ fine scarlet; under wing-coverts scarlet tipped with brown, the greater ones banded with brown and with yellow stained with scarlet; basal portion of the primaries and secondaries largely toothed with fine yellow, which is not perceptible on the upper surface unless the wings are very widely spread; upper mandible dark horn-colour; under mandible yellow, becoming richer towards the point; feet nearly yellowish olive.

"Total length, 18 inches; bill, $2\frac{1}{2}$; wing, $12\frac{1}{2}$; tail, $7\frac{1}{2}$; tarsi, $1\frac{5}{8}$.

"*Habitat*. The Middle Island, New Zealand."

The figure on the accompanying Plate is of the natural size.

MICROGLOSSUS ATERRIMUS.

J. Gould and H.C. Richter del. & lith.

Bullmandel & Walton Imp.

MICROGLOSSUS ATERRIMUS.

Great Palm Cockatoo.

Psittacus Gigas, Lath. Ind. Orn., vol. i. p. 107.
Black Cockatoo, Shaw, Gen. Zool., vol. viii. p. 474. pl. 71.—Lath. Gen. Syn., vol. i. p. 260.—Ib. Gen. Hist., vol. ii. p. 198.
Great Black Cockatoo, Edw. Glean., pl. 316.
Grey Cockatoo, Lath. Gen. Hist., vol. ii. p. 199.
Le Kakatoës noir, Buff. Hist. Nat. des Ois., tom. vi. p. 97.
L'Ara noir à trompe, } Le Vaill. Hist. des Perr., pls. 11, 12, 13.
L'Ara gris à trompe, }
Psittacus aterrimus, Gmel. Edit. Linn. Syst. Nat., vol. i. p. 330.—Kuhl, Consp. Psitt. in Nov. Acta, vol. x. p. 91.
——— *griseus*, Bechst.
——— *Goliath*, Kuhl, Consp. Psitt. in Nov. Acta, vol. x. p. 92.—Less. Man. d'Orn., tom. ii. p. 145.
Cacatua aterrima, Vieill. Nouv. Dict. d'Hist. Nat.—Ib. Ency. Méth. Orn. Part iii. p. 1415.
Microglossus aterrimus, Vieill. Gal. des Ois., tom. i. pl. 50.—Wagl. Mon. Psitt. in Abhand., vol. i. p. 682.—Bonap. Consp. Genera Av., p. 7.
Microglossum aterrimum, Gray and Mitch. Gen. of Birds, vol. ii. p. 424.—Less. Man. d'Orn., tom. ii. p. 145.—G. R. Gray, List of Gen. of Birds, 2nd edit. p. 69.
Perroquet à trompe, Cuv. Règne Anim., tom. i. p. 465.
Microglossus ater, Less. Traité d'Orn., p. 184, Atlas, pl. 19. fig 1 et A.
Payŭntoo, Goodang Tribe of the Aborigines at Cape York.

As might have been expected, the fauna of the extreme northern portion of Australia is found to comprise many species common to the island of Papua or New Guinea; and hence we find this noble species of Cockatoo, hitherto only known to us as a native of that country, to be also a denizen of the palm forests of Cape York. Although not new to science, there is no one of the accessions obtained during the late expedition of H.M.S. Rattlesnake of greater interest to myself than the present bird, adding as it does another to the already rich series of the *Psittacidæ* gracing the ornithology of Australia. At present the Cape York district is the only part of the country it is known to inhabit; but it is probable, that when colonization has advanced into its tropical regions, it will be found that the bird enjoys an extensive range.

Although the bird appears to have been known as long back as 1707, in which year, according to Edwards, S. Van der Meulen published a figure of it at Amsterdam, under the name of *Corvus Indicus*, nothing has been recorded of its habits and economy; I have therefore much pleasure in communicating the following interesting notes by Mr. MacGillivray, in which the reader will not fail to notice the perfect adaptation of the bill to the express purpose for which it was designed:—

"This very fine bird, which is not uncommon in the vicinity of Cape York, was usually found in the densest scrub among the tops of the tallest trees, but was occasionally seen in the open forest land perched on the largest of the *Eucalypti*, apparently resting on its passage from one belt of trees or patch of scrub to another: like the *Calyptorhynchi*, it is a slow flier, and usually flies but a short distance. In November 1849, the period of our last visit to Cape York, it was always found in pairs, very shy and difficult of approach. Its cry is merely a low short whistle of a single note which may be represented by the letters '*Hweet-hweet*.' The stomach of the first one killed contained a few small pieces of quartz and triturated fragments of palm cabbage, with which the crop of another specimen was completely filled; and the idea immediately suggests itself, that the powerful bill of this bird is a most fitting instrument for stripping off the leaves near the summits of the *Seaforthia elegans* and other palms to enable it to arrive at the central tender shoot."

Lores deep velvety black; lengthened crest-feathers greyish black; the remainder of the plumage black, with purple reflexions; irides purplish brown; cheeks pale dull crimson bordered with pale yellow, the two colours gradually blending into each other; bill and feet purplish black.

In the young male the tip of the upper and the whole of the lower mandible is horn-colour, and the under surface is brownish black, with narrow obscure crescentic marks of yellowish white at the tips of the abdominal feathers.

The figure of the head is of the natural size.

POLYTELIS ALEXANDRÆ. *Gould.*

J.Gould and H.C.Richter, del. et lith. *Walter, Imp.*

POLYTELIS ALEXANDRÆ, *Gould.*

The Princess of Wales's Parrakeet.

Polyteles alexandræ, Gould in Proc. of Zool. Soc. 1863, p. 232.
Polytelis alexandræ, Gould, Handb. Birds of Aust., vol. ii. p. 32.

I FEEL assured that the discovery of an additional species of the lovely genus *Polytelis* will be hailed with pleasure by all ornithologists, and that they will readily assent to its bearing the specific name of *Alexandræ*, in honour of the princess destined, we trust, at some future time to be the queen of these realms and their dependencies, of which Australia is by no means the least important.

The *Polytelis Alexandræ* is in every respect a typical example of its genus, having the delicate bill and lengthened tail characteristic of the other species of that form. About the same size as *P. Barrabandi*, it differs from that species in having the crown blue and the lower part of the cheeks rose-pink, instead of yellow.

For my knowledge of this new species I am indebted to the Board of Governors of the South Australian Institute, who liberally forwarded to me a series of the birds procured by Mr. Frederick G. Waterhouse during the late Mr. Stuart's exploratory expedition into Central Australia. The locality on the label attached to the specimens was, "Howell's Ponds, lat. 16° 54′ 7″ S."

The extremely delicate tints which pervade the plumage of this new bird render it conspicuously different from all other Australian Parrakeets that have yet become known to us; and I cannot believe that one will be discovered more fitting to bear the name of an illustrious lady as a specific designation. Its acquisition tends to prove that many fine species, of which we previously had no conception, inhabit the unexplored parts of the great continent of Australia, and that other novelties will from time to time be discovered as the interior of the country becomes accessible to the settler and the naturalist; hence it is that so much interest attaches to the journeys made by the pioneers of civilization, particularly when they have associated with them such a naturalist as Mr. Waterhouse. Surely, then, it is not too much to hope that, in all future explorations undertaken by the authorities of the colonies, zoological science will receive that degree of attention which its importance demands. At present all we know respecting this interesting bird is, that, like the other species of its genus, it is numerous in its own area; but the extent of that area is yet to be ascertained, as is also a knowledge of its habits and economy; these latter, however, are doubtless very similar to those of its near allies, *Polytelis Barrabandi* and *P. melanura*.

Forehead delicate light blue; lower part of the cheeks, chin, and throat rose-pink; head, nape, mantle, back, and scapularies olive-green; lower part of the back and rump blue; shoulders and wing-coverts pale yellowish green; external webs of the principal primaries dull blue; breast and abdomen olive-grey; thighs rosy-red; upper tail-coverts olive, tinged with blue; two centre tail-feathers bluish olive-green, the two next on each side olive-green on their outer webs and dark brown on their inner ones; the remaining tail-feathers tricoloured, the central portion being black, the outer olive-grey, and the inner deep rosy-red; bill coral-red; feet mealy-brown.

The figures, which are of the natural size, were taken from the individuals mentioned above, and which, having been duly returned, doubtless now form part of the collection of the South Australian Institute at Adelaide.

PLATYCERCUS CYANOGENYS, *Gould.*

J.Gould and H.C.Richter, del. et lith. *Hullmandel & Walton, Imp.*

PLATYCERCUS CYANOGENYS, *Gould.*

Blue-cheeked Parrakeet.

Platycercus cyanogenys, Gould in Proc. of Zool. Soc., July 24, 1855.

It cannot be denied, I think, that the principal feature in the ornithology of Australia consists in the numerous species of Parrots which abound in that country. The presence of so many of these beautiful birds communicates a peculiar charm to this distant land, and gives to it a tropical character at once striking and novel to the multitudes of newly arrived emigrants from the British Islands, where they are only seen in cages and regarded as beautiful rarities. The numerous species of the *Platycerci* and their allied genera, feeding, as they do, exclusively on seeds and vegetables, have all delicate flesh, and are consequently very generally eaten, from the elegant little *Melopsittacus undulatus* to the largest member of the genus to which the present bird belongs. Fancy killing and plucking a dozen of such beautiful birds as the one figured in the accompanying Plate, for the purposes of the table! yet such was commonly done at the period of my visit to the colony, and the practice will doubtless be continued as long as the supply is equal to the demand; the emigrant must, however, greatly extend his roaming, and many fearful scenes will probably occur between him and the aborigines before the present bird can be subjected to such an ignoble sacrifice, for it is only at the distant peninsula of Cape York, on the extreme north of Australia, that the bird is to be found. It was there that the single specimen now in the British Museum was shot by Mr. MacGillivray, on the 7th of October 1848.

The *Platycercus cyanogenys* is very nearly allied to *P. palliceps*, but differs in the general tone of the colouring of the body, and in the rich blue cheeks, which has suggested the specific name.

Crown of the head pale sulphur-yellow; cheeks cœrulean-blue; feathers of the nape, back and scapularies black, broadly margined with sulphur-yellow, and stained with green on the lower part of the back; rump and upper tail-coverts greenish-yellow, with an extremely narrow fringe of black at the tip of the feathers; shoulder and greater wing-coverts deep blue; lesser coverts black, bordered with deep blue; primaries and secondaries blackish-brown, the basal half of their external webs deep blue, the apical half pale blue; tertiaries black, broadly margined with greenish-yellow; breast pale greenish-yellow; abdomen light greenish-blue; all the feathers of the under surface slightly fringed with black; under tail-coverts scarlet, narrowly margined with yellow; two middle tail-feathers greenish-blue; the next on each side blue, slightly tipped with pale blue; the remainder blackish-brown at the base of their internal webs, and deep blue externally, their apical portions being beautiful pale blue.

The front figure represents the bird of the natural size.

PSEPHOTUS CHRYSOPTERYGIUS, *Gould*

J. Gould and H.C. Richter, del. et lith.

Hullmandel & Walton, Imp.

PSEPHOTUS CHRYSOPTERYGIUS, *Gould.*

Golden-backed Parrakeet.

Psephotus chrysopterygius, Gould in Proc. of Zool. Soc., part xxv. p. 220.

One of the greatest pleasures enjoyed by the late celebrated botanist Robert Brown, during the last thirty years of his life, was to now and then exhibit the drawing of a parrot made by one of the brothers Bauer, from a specimen procured somewhere on the north coast of Australia, but of which no specimen was preserved at the time, and none had since been brought to England. It afforded him at times much amusement to exultingly show me this drawing as a bird I could not find, and which I had not included in my great work on the birds of that country. Now the only way in which I could meet this kind of half taunt from my friend, was to remark that I should get it some day or other; and I certainly did exult when I received an example from the hands of Mr. Elsey, a year or two prior to Mr. Brown's death. On comparing the bird with the drawing made at least forty years before, they proved to be so much alike that no doubt remained on my mind as to its having been made from an example of this species. This, then, is one of the novelties for which we are indebted to the explorations of A. C. Gregory, Esq.; and I trust it may not be the last I shall have to characterize through the researches of this intrepid traveller. Mr. Elsey, who, as is well known, accompanied the expedition, obtained three examples—a male, a female, and a young bird—all of which are now in our national collection. The bird is in every way a true *Psephotus*, and moreover is a very lovely species. It is allied both to the *P. pulcherrimus* and *P. multicolor*, but differs from them, among other characters, in the rich-yellow mark on the shoulder.

In the notes accompanying the specimens, Mr. Elsey states that they were procured on the 14th of September, 1856, in lat 18° S. and long. 141° 33′ E., and that their crops contained some monocotyledonous seeds.

The male has a band across the forehead, extending above the eye to its posterior angle, of very pale yellow; on the centre of the crown a patch of black; sides of the head, cheeks, neck, throat, upper portion of the abdomen, lower part of the back, rump, and upper tail-coverts verditer blue, somewhat green on the cheeks and upper-tail coverts; immediately below the eye a tinge of yellow; back of the neck, back, and scapularies light greyish brown, slightly tinged with green; shoulder and lesser wing-coverts fine yellow; primaries and secondaries black, margined externally with blue; feathers of the lower part of the abdomen, vent, and under tail-coverts light scarlet, margined with greyish green; two centre tail-feathers dark green at the base, passing into deep blue towards the extremity, and tipped with dull black; the remaining tail-feathers light green crossed by an irregular oblique band of dull bluish black, beyond which they become of a paler glaucous green, until they end in white; but each has a dark stain of bluish green on the outer margin near the tip; irides brown; bill and nostrils bluish horn-colour; feet mealy grey.

The female is similar to the male in colour, but all the hues much paler, and the markings much less strongly defined.

In the young state the whole of the head, all the upper surface, wing-coverts, throat, and breast are of a pale glaucous green; the rump and upper tail-coverts and the tail similar to the same parts in the male, but not so bright; and the lower part of the abdomen is greyish white, with faint stains of scarlet.

The figures represent the male and the female of the size of life, and a reduced figure of the young in the distance.

CYCLOPSITTA COXENI, *Gould.*

J. Gould & H.C. Richter, del. et lith.

Walter, Imp.

CYCLOPSITTA COXENI, *Gould.*

Coxen's Parrakeet.

Cyclopsitta Coxeni, Gould in Proc. of Zool. Soc. 1867, p. 182.

My thanks are due to Mr. Waller, of Brisbane, for his kindness in sending me a fine specimen of this little Parrakeet, which, at his request, I have named after C. Coxen, Esq., a Member of the Legislative Assembly of Queensland, who has for many years taken a lively interest in ornithology. At present it is the only member of the genus *Cyclopsitta* that has been found in Australia; but other species of the same form are somewhat numerous in the islands to the northward of that country. Mr. Wallace enumerates the following in his paper "On the Parrots of the Malayan Region," published in the Proceedings of the Zoological Society for 1864, viz. :—*Cyclopsitta diophthalma* of the Aru Islands; *C. Desmaresti* of New Guinea; *C. Blythii* of Mysol; and *C. loxia*, *C. lunulata*, and *C. leucophthalma* of the Philippines.

The history of the bird, so far as I can learn, is, that during the month of June, 1866, several specimens were procured about thirty miles from Brisbane, by a sawyer, who had seen a flock in the neighbourhood for some weeks, and had shot several for a pudding. Being somewhat interested in ornithology, and observing a difference between these and the ordinary green Parrakeet, he skinned three or four, two of which he brought to Mr. Waller, who subsequently visited the locality and succeeded in obtaining additional examples, and who, in a letter recently received from him, informs me that "the large scrubs of the mountainous district about forty or fifty miles north-west of Brisbane, which has been but little visited by Europeans, appears to be the natural home of the bird. There it sits on the large and lofty fig-trees, silent as death; and its presence can only be detected by attentively listening to the falling of the refuse of the wild figs, upon which it seems solely to subsist, and the hard tops of which are easily cut off with its strong bill. All the specimens I examined had their crops filled with the soft interior portion; but it appears to reject the fully ripe fruit. Its colouring so closely resembles that of the large leaves with which it is surrounded that it almost defies detection; and the only chance of obtaining examples is by watching the falling of the refuse of its food, and never moving your eyes until your have marked your bird; or it is ten to one you will be unsuccessful. When it has finished with one bunch of figs, it silently removes to another. It emits no call while on the trees, but when it leaves them utters a very low sound resembling *cheep*, *cheep*. The sexes are alike in plumage; but the female is rather larger than the male."

In size and in some other respects the *Cyclopsitta Coxeni* is nearly allied to the *C. diophthalma*, but differs in the absence of scarlet on the crown and in the smaller extent of that colour on the cheeks.

General plumage green; across the forehead a narrow band of red, which unites through the lores with a large patch of the same hue on the ear-coverts, beneath which is a patch of blue; primaries margined with blue; a streak of red on the tertiaries near the body; tail short and wholly green; bill very stout, the upper mandible of a bluish horn-colour, blending with a whitish line at the base; under mandible whitish, tips of both black; feet pale greenish white; nails light horn-colour, darker at the point; irides hazel.

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

The figures are of the size of life.

J. Gould & H.C. Richter, del. et lith.

GEOPSITTACUS OCCIDENTALIS, *Gould*.

Walter Irrip.

GEOPSITTACUS OCCIDENTALIS, *Gould.*

Nocturnal Ground-Parrakeet.

Geopsittacus occidentalis, Gould in Proc. of Zool. Soc. 1861, p. 100.—Id., Handb. Birds of Aust., vol. ii. p. 88.

I TRUST that Ornithologists will not for a moment consider the present species identical with the *Pezoporus formosus* in any state of plumage, as a first glance at its colour and markings might lead them to suppose; for I am sure it is not only specifically, but generically distinct; and I believe that the differences in its structure, pointed out below, will be found to be accompanied by a corresponding difference in its habits, actions, and economy, whenever they become known. Both sexes of *Pezoporus* have a red frontal band, a moderately short bill, rounded wings, a lengthened tail, long, thin tarsi, and long curved nails; while *Geopsittacus* is a stout, short-tailed, dumpy bird, with a bluff head, a full, round, jet-black eye, no frontal band, a very stout bill, large wings, fleshy legs, and extremely small nails—a structure which leads me to the conclusion that it affects holes in rocks or the hollow boles and branches of large prostrate trees. Besides the differences already mentioned, I observe that its nostrils are larger and more fleshy, reminding us in this respect of *Strigops*, to which it also assimilates in colour and markings. The precise locality inhabited by this remarkable Parrakeet is unknown to me. The specimen from which my original description was taken I received direct from Perth, in Western Australia; and all the information that accompanied it was that it came from the interior. Every part of the plumage (on the body, wings, and tail) indicates that it was fully adult; and I trust that the time is not far distant when other examples will be collected and sent to Europe, with an account of the habits and economy of the bird.

Thus much had been written and sent to press respecting this new species, when I was informed that a living example of a strange and remarkable Parrakeet had been transmitted by Dr. Ferdinand Mueller, Director of the Botanic Garden at Melbourne, to Mr. P. L. Sclater, the Secretary of the Zoological Society of London. On visiting the Society's gardens for the purpose of inspecting it, I found, to my great delight, that it was an example of the bird under consideration, in good health, and in the finest state of plumage. This unexpected event enables me to give a more perfect representation of the bird than I could have given from a dried skin. However much I was pleased with the sight of the living bird, I was still more so when I found my views as to some of its habits confirmed by Dr. Mueller's letter to Mr. Sclater, in which he states that the bird is a nocturnal one, living during the day in the rocky caves of the ranges, and coming out at night for food, like the Owls and crepuscular Nightjars. Dr. Mueller adds that the living individual sent by him was caught in the Gawler Ranges, situated in that part of South Australia which lies westward of the head of Spencer's Gulf, the fauna of which, we have abundant evidence to show, is very nearly the same as that of Western Australia; I have therefore very little doubt that the bird inhabits all the intervening districts. In its actions and disposition in a cage, the *Geopsittacus* justifies its generic appellation; for it has never been seen to perch, but moves over the floor of its domicile in a series of jumps, much like those of a Sparrow; at times, however, it dashes about from corner to corner with a more rapid motion. Mr. Bartlett informs me that, like all other nocturnes, it becomes much more wakeful and active at night, nibbling its tuft of grass, water-cress, millet, and canary-seed like a Rabbit. As yet it has not been heard to utter any sound, except a faint whistle.

In closing this necessarily brief account of this *Strigops*-looking Parrakeet, I must not omit recording our obligations to the Zoological Society's valued Corresponding Member, Dr. Mueller, for his kindness in transmitting this singular bird to England.

All the upper surface grass-green, each feather crossed by irregular bands of black and greenish yellow; feathers of the crown and nape with a streak of black down the centre; throat and breast yellowish green, passing into sulphur-yellow on the abdomen; spurious wings brown; primaries and secondaries brown, narrowly fringed with a greenish hue on their external webs, with the exception of the first three; those feathers have also an oblique mark of yellow near their bases, which increases in breadth and in depth of colour as the feathers approach the body; two central tail-feathers dark brown, toothed on the edge of both webs with greenish yellow; the next on each side dark brown, toothed on the outer web only with brighter and longer marks of yellow; the remainder dark brown, crossed by bands of yellow, which, in some cases, are continuous across both webs, and in others alternate; under tail-coverts sulphur-yellow, crossed on their outer webs with narrow, oblique and irregular bands of blackish brown; bill horn-colour.

Total length 10 inches, bill $\frac{1}{2}$, wing $5\frac{1}{2}$, tail 5, tarsi $\frac{7}{8}$.

The above is the description and admeasurements of the original specimen; an inspection of the living bird enables me to add that the nostrils are large and bluish grey, the eyes round, full, and jet-black, and the feet flesh-coloured.

The figures are of the natural size.

Walter Imp. GEOPSITTACUS OCCIDENTALIS. Gould.
J. Gould & H.C. Richter, del. et lith.

CARPOPHAGA ASSIMILIS, *Gould.*

J. Gould and H.C. Richter, del. & lith.

Hullmandel & Walton, Imp.

CARPOPHAGA ASSIMILIS, *Gould.*

Allied Fruit Pigeon.

Carpophaga assimilis, Gould in Proc. of Zool. Soc. 1850, p. 201.

I AM not surprised that an additional Fruit Pigeon should have been discovered in the northern part of Australia, since in every degree nearer the tropics palm-trees, among which these birds are principally found, become more abundant. In the more southern country of New South Wales certain districts only are favoured with the presence of these trees, such as Illawarra and the brushes, which extend along the east coast, from the Hunter to Moreton Bay; it is in these districts only that the near ally of the present species, the *Carpophaga magnifica*, is to be found; and as I have never seen the latter bird from the north coast, it may be presumed that the two birds are representatives of each other in their respective parts of the country.

There exists in New Guinea another nearly allied species, to which the name of *puella* has been given by M. Lesson. This bird is still smaller than the present one, and has the yellow markings at the tips of the wing-coverts in the form of round spots instead of oval blotches; its face and neck are more grey, and its back less golden or sulphur-green, than in *C. assimilis*, which latter must be regarded as a diminutive representative of *C. magnifica* rather than an enlarged *C. puella*.

Numerous specimens of this bird were collected on the Cape York Peninsula by Mr. MacGillivray and the officers of Her Majesty's Ship Rattlesnake.

The only outward differences between the sexes consists in the somewhat smaller size and less brilliant colouring of the female.

Head, throat and ear-coverts grey; all the upper surface, wings and tail sulphur-green; each of the wing-coverts with an oblong mark of rich yellow at the tip, forming an oblique band across the shoulder; line down the centre of the throat, chest and abdomen rich purple; under wing-coverts, vent, thighs and under tail-coverts rich orange-yellow; basal portion of the inner webs of the primaries and secondaries cinnamon.

The figures are of the natural size.

LOPHOPHAPS FERRUGINEA, *Gould*.

J.Gould & H.C.Richter, del. et lith. *Walter Imp.*

LOPHOPHAPS FERRUGINEA, *Gould.*

Rust-coloured Bronzewing.

Lophophaps ferruginea, Gould, Handb. Birds of Aust., vol. ii. p. 137.

For a knowledge of this species I am indebted to the researches of T. F. Gregory, Esq., a gentleman whose name, like that of his brother, A. T. Gregory, will ever be associated with Australia as one of its most successful explorers, and who informs me that "its habitat is the extreme western part of that great country, opposite Sharks' Bay and Dirk Hartog's Island," and that he "found it in large numbers on the Gascoigne River, almost invariably frequenting rocky ground near water; and in such situations more than five hundred occasionally came down to drink in less than half-an-hour. On the wing it exactly resembles the common Partridge, but it is not quite so plump in the body, and does not appear ever to fly in coveys. Its eggs, which are two in number, are generally laid on the ground during the months of July and August."

Besides the specimen presented to me by Mr. Gregory, I have since seen a second example, sent home by A. H. DuBoulay, Esq., of Champion Bay, Western Australia, which coincided in every respect with the individual from which my original description was taken; it is now in the British Museum.

The *Lophophaps ferruginea* differs from *L. plumifera* and *L. leucogaster* in the nearly uniform rust-red colouring of its body and in the absence of the broad white pectoral band so conspicuous in those birds.

As the present bird is abundant in the country a little to the northward of Swan River, the collections of Europe will doubtless ere long be supplied with this highly curious species.

Bill olive black; irides yellow; lores and bare skin round the eye either crimson or orange red, bounded above and below by a narrow line of black; forehead and a line above the black one over the eye grey; centre of the crown and the lengthened crest-plumes cinnamon; chin and lower part of the neck black; centre of the throat and upper part of the ear-coverts white, lower part of the ear-coverts grey, all the under surface deep rust-red; on each side of the chest two or three narrow crescentic bars of black, the longest of which nearly meet in the centre; under tail-coverts brown, edged externally with white; under surface of the wing deep cinnamon; basal portion of the primaries rust-red, their apices brown; a beautiful oblong bronzy-purple metal-like mark on three of the secondaries; back of the neck and mantle alternately rayed with rust-red and dark brown; the feathers of the upper portion of the wings rayed with rusty red, blackish-brown and grey, the tips being rust-red, the centre black and the base grey; rump and upper tail-coverts rusty brown; basal half of the tail-feathers rusty brown, the apical half black; legs greenish grey inclining to purple.

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

The figures are of the natural size.

LOPHOPHAPS LEUCOGASTER, *Gould.*

J.Gould & H.C.Richter, del. et lith. *Walter, imp.*

LOPHOPHAPS LEUCOGASTER, *Gould.*

White-bellied Bronzewing.

I ADMIT that the propriety of describing and figuring this very lovely Pigeon as distinct from *Lophophaps plumifera* is somewhat questionable; but when I reflect upon the difference which I find to exist between the two birds, and how distant are their respective homes, I cannot regard them otherwise. The *L. plumifera* inhabits the neighbourhood of the Victoria River, where six or eight were shot by the late Mr. Elsey; Mr. Bynoe also found it in the country between Cape Hotham and Depuch Island; and Gilbert met with it in lat. 17°, while journeying with Dr. Leichardt from Brisbane to Port Essington. Now all these localities are far away from South Australia, whence the specimens here represented came; moreover the two individuals from which the opposite figures were taken are far more beautiful than those represented in vol. v. pl. 69 under the name of *Geophaps plumifera*; but even should it ultimately prove that the two birds are identical, and that I have encumbered science with a name which, in that case, must descend into the rank of a synonym, I feel that I shall be excused for giving additional figures of such lovely objects. The specimens from which they were taken were sent to this country by Mr. Galbraith, of Machribanish Station, South Australia, and are now in the possession of his sister, Mrs. Craufuird, of Budleigh Salterton, Devon. The question is, Are there two or three species of these charming little crested Pigeons?—the *L. ferruginea*, of the extreme western part of the country, the *L. plumifera*, of its northern portions, and the *L. leucogaster*, of South Australia? If so, the latter is probably the bird seen by Captain Sturt, during his arduous travels in that country, who states:—

"It was on the return of my party from the eastern extremity of Cooper's Creek, that we first saw and procured specimens of this beautiful little bird. Its locality was entirely confined to about thirty miles along the banks of the creek in question; it was generally perched on some rock fully exposed to the sun's rays, and evidently taking a pleasure in basking in the tremendous heat. It was very wild, and took wing on hearing the least noise. In the afternoon it was seen running in the grass on the creek-side, and could hardly be distinguished from a Quail. It never perched on the trees; when it dropped after rising from the ground, it could seldom be flushed again, but ran with such speed through the grass as to elude our search."

One of the principal differences between the present bird and the *L. plumifera* is the whiteness of it breast, and another the brightness of the rayed markings of its upper surface; it is also a somewhat larger bird. My figures, which accurately represent it of the size of life, render a detailed description unnecessary.

CASUARIUS AUSTRALIS, *Wall.*

J.Gould & H.C.Richter, del. et lith. *Walter, Imp.*

CASUARIUS AUSTRALIS, *Wall.*

Australian Cassowary.

Casuarius australis, Wall, Illustrated Sydney Herald, June 3, 1854.—Gould, in Proc. of Zool. Soc., part xxv. 1857, p. 270.—Sclat. in Proc. Zool. Soc., part xxviii. 1860, p. 210, and 1866, pp. 168, 557.—Benn. ibid., 1867, p. 473.—Sclat. ibid., 1868, p 376.—Gould, Handb. Birds of Australia, vol. ii. p. 206.

——— *Johnsonii*, Muell. in the Australasian, Dec. 15, 1866; Melbourne Herald, Dec. 17, 1867; and Proc. of Zool. Soc., 1867, p. 242.—Krefft, ibid., 1867, p. 483.—Digg. Orn. of Aust., part xiii. pl. 5.

The discovery of a species of Cassowary in Australia may be looked upon as one of the most interesting results of the later explorations of that vast portion of the globe; interesting indeed is the acquisition of the truly noble bird represented in the accompanying Plate, since it is one of the few remaining species of a great group of wingless birds which formerly tenanted the austral regions of our planet. For our first knowledge of its existence we are indebted to the late Mr. Thomas Wall, who, like Gilbert, Strange, Leichardt, Johnson, Drummond, Burke, and Wills, and many other explorers, left his bones in the inhospitable wilds of Australia. It was communicated to the world in nearly the following words:—"A specimen of this bird was shot near Cape York, in one of the almost inaccessible gullies which abound in that part of the Australian continent, and where, as well as in other deep and stony valleys of that neighbourhood, it was running in companies of seven or eight. On that part of the north-eastern coast, therefore, it is probably plentiful, and will be met with in all the deep gullies at the base of high hills. The bird possesses great strength in its legs, and makes use of it in the same manner as the Emu. Its whole build is more strong and heavy than the latter bird. It is very wary; but its presence may be detected by its utterance of a peculiarly loud note, which is taken up and echoed along the gullies; and it could be easily killed with a rifle." These particulars were published in the 'Illustrated Sydney Herald,' of the 3rd of June, 1854, by Mr. Thomas Wall's brother, Mr. William Sheridan Wall, Curator of the Australian Museum, who at the same time suggested for the bird the specific name of *australis*, a term which has been adopted by every European ornithologist. In a note from Dr. Bennett, that gentleman says:—"Carron, the survivor of Kennedy's Expedition, informed me that the Cassowary shot by Wall had a helmet or crest on the head of a black colour, and not red as first stated, and that two specimens were shot and eaten by his party in the dense scrubs in Weymouth Bay, near Cape York, and close to the coast."

The next notice of the bird is contained in a communication to the Zoological Society of London, on the 13th of December, 1866, by Mr. Sclater, who stated that he had been informed by Mr. Walter J. Scott, who had an extensive sheep-run in the Valley of Lagoons, on the Upper Burdekin River, about 100 miles westward of Rockingham Bay, that in the neighbourhood of the latter locality the bird was well known under the name of the Black Emu, but was shy and very difficult to obtain.

"I fear I can tell you but little respecting these birds," says Mr. Scott; "I have never had the fortune to meet with one myself, but have received information of their being seen on three or four occasions, in spots thirty or forty miles apart. Some black troopers of the native police, returning from an unsuccessful pursuit of one they had seen about three miles from our Vale of Herbert Station (in lat. 18° S.), who were perfectly familiar with the Common Emu, informed me that the bird they had seen was quite distinct from it. The Superintendent of the same station told me, on a former occasion, he had seen two Black Emus, but thought they were a mere variety. Another person in our employment saw one on the 'Separation Creek' of Leichardt, which is really a tributary of the Herbert River."

Two days later, December 15th, 1866, the following communication from Dr. Mueller appeared in the Melbourne newspaper, 'The Australasian':—

"For the intelligence of the existence of an Australian true casoar, and for the means of defining preliminarily its specific characters, I am indebted to G. Randall Johnson, Esq., who in September last, while on a visit to Rockingham Bay, shot in the Gowrie Creek scrub the only specimen of this remarkable bird as yet obtained, and whose name I wish it should bear; and I cannot do better than to give in the first instance publicity to the lucid remarks transmitted to me by that gentlemen":—

"'The bird seems to confine itself almost entirely to the more open parts of the scrubs, and seldom ventures far out on the plains. During the months of July, August, and September its food consists chiefly of an egg-shaped blue-skinned berry, the fruit of a large tree. This, together with herbage, probably forms its diet, at least for that portion of the year; but at present its habits have been so little observed that hardly anything is known concerning them.'"

At the meeting of the Zoological Society of London, on the 28th of February, 1867, Mr. Sclater, referring

to the above communication, remarked that the bird described by Dr. Mueller was no doubt the *Casuarius australis* of Gould; and with reference to the specimen in the Sydney Museum, Mr. W. Carron addressed a letter to the Editor of the 'Sydney Herald' on the 8th of February, 1867, in which he says:—"I have just seen the bird sent to the Museum by Mr. Johnson, and think it identical with that shot by Mr. Wall in the vicinity of Weymouth Bay in November 1848. I am aware that in the few remarks on Mr. Wall's bird, which appear in my narrative of Kennedy's expedition, there is an error as to the colour of the helmet or comb, which was black, not red. . . . As I was present when Wall's bird was shot, and helped to eat it, I had a good opportunity of knowing something respecting it. Instead of going in flocks of five or six together, it is certainly a solitary bird, and would appear to be very scarce, as only two others were seen by our party during the whole journey from Rockingham Bay to my furthest camp at Weymouth Bay, in latitude 12° 25′ S. This bird had shorter but larger legs, a heavier body, and shorter neck than the Emu. It appears to confine itself to the gullies in the thick jungles with the Brush-Turkeys and Jungle-fowl, feeding on the various fruits found there, even swallowing the large seeds of *Castanospermum* and *Pandanus*. Mr. Wall took every care of the skin he was able to do; but it was completely destroyed before he died, together with my own specimens at Weymouth Bay. This bird was certainly very large, and furnished our whole party with a better supper and breakfast than we had enjoyed for some months, or than poor Wall was destined to enjoy again (as he and all his companions, with the exception of myself and one other, had died in six weeks after from want of food); but there was not one in the party who would not have eaten more if he could have got it, every meal having been divided with the greatest nicety for a long time."

On the 11th of June, 1868, Mr. Sclater exhibited to the Zoological Society a very fine and perfect skin of the *Casuarius australis*, which had been transmitted to him by Mr. Charles J. Scott, of Queensland, and was believed to be the first example that had reached Europe. Along with the specimen Mr. Scott forwarded a careful description and sketch of the head and naked parts of the neck, which Mr. Sclater very kindly placed in my hands, and thus enabled me to give the annexed correct illustration, of the size of life. Mr. Sclater remarked that some naturalists had been inclined to doubt whether the *Casuarius australis* would prove to be really distinct from the well-known *Casuarius galeatus* of Ceram, but he believed that no one who examined the present specimen could any longer doubt upon the matter. The following appeared to him to be noticeable points of distinction between the two species:—

The crest of the Australian bird is of a different shape from that of *C. galeatus*, rising much more erect from the head, and attaining a much greater development than in even the largest examples of the latter species. In *C. australis* also the crest is extremely compressed towards the edges, terminating in two thin laminæ of horn united in a medial line. The tarsi are thicker and stouter, and the elongated claw on the inner toe of *C. australis* is straighter and much more developed. The following stated dimensions of the present specimen appear to indicate that the species attains a much greater size than *C. galeatus*:—Total length, from the summit of the helmet to the end of the caudal feathers, about 72 inches; total height of the crest, from its base to the summit, 5·8; distance from the gape to the end of the bill, in a straight line, 6·1; length of tarsus 13·3; length of the inner toe with the nail 6·3, nail of ditto 3·5; length of the middle toe with the nail 7·0, outer ditto with the nail 4·5. The wing in *C. australis* is composed of four or five strong barbless quills, and terminated, as in other species of the genus, by a well-developed claw. The gular caruncle appears rather to resemble that of *C. galeatus*, being divided nearly down to its base, and terminating in two flaps.

It may, perhaps, be thought that my representation of the head and neck is too highly coloured; but I must remind my readers that, as is the case with the salacious Turkey and the equally hot *Talegalla*, those parts of the Cassowary are very different in appearance at opposite seasons; and thus the bare skin of the neck may be smooth at one period and corrugated at another. I have had abundant evidence that such is the case with the examples of *Casuarius galeatus* which have lived and bred in the Gardens of the Zoological Society for many years past, and I feel assured that what takes place in one species also occurs in the other.

I have so many gentlemen to thank for the assistance they have rendered me respecting this important bird, that I am fearful lest I may omit to name some one or more of them; if this should be the case, I hope the seeming negligence may be regarded as mere inadvertence. To Mr. Arthur J. Scott and his brothers I am especially indebted, and not less so to Dr. Bennett of Sydney (who sent me a photograph of the specimen in the Sydney Museum), to Professor M'Coy and Dr. Mueller of Melbourne, Victoria, C. Coxen, Esq., of Brisbane, and Mr. Sclater.

I do not append a description of the bird, because my plates will convey far more readily its appearance and colouring than any words, however characteristic and expressive.

One of the annexed illustrations represents the head and legs, of the size of life; the other an entire figure of the bird, necessarily much reduced.

CASUARIUS AUSTRALIS. *Wall*

CASUARIUS BENNETTI, *Gould.*

J. Gould and H.C. Richter, del. et lith.

Hullmandel & Walton, Imp.

CASUARIUS BENNETTI, *Gould.*

Bennett's Cassowary.

Casuarius Bennetti, Gould in Proc. of Zool. Soc., part xxv. p. 269, pl. 129.—Gray in Proc. of Zool. Soc., part. xxvi. p. 271, pl. 144.—Dr. Bennett in Proc. of Zool. Soc., part xxvii. p. 32.
Mooruk, Aborigines of New Britain.

Who would have supposed the former existence of an extensive group of Struthious birds of great magnitude and comprising many species? and what naturalist would have imagined that so much of the bony structures of these birds would have been brought to light—that not only their generic but their specific characters may be accurately described, and even their entire skeletons mounted in our museums? Yet these things have been realized within the last few years, the indefatigable zeal and careful study of an Owen having enabled him to determine and arrange the semi-fossilized remains of numerous species of a great family of birds which formerly existed on our globe, and of which some few remain to testify as to the character of their plumage and their economy of life. It is a living representative of this almost extinct group that forms the subject of the present paper, and the discovery of which must be hailed with interest, tending as it does to throw a light on the history of those huge birds of remote antiquity—the *Dinornis* and its allies. Professor Owen considers this new bird and the Cassowary (*Casuarius galeatus*) to be the most nearly allied living types of his genus *Palapteryx*; and if this opinion be correct, we may infer that the habits and economy, as well as the kind of plumage and the character of country inhabited by the extinct birds, were very similar. I have always considered the Cassowary to belong to a totally different group to the Ostriches, which are adapted for roaming over vast plains and open country during the day-time, and to feed upon berries, fruits, mollusks and small animals generally; while the Cassowary, the Mooruk, and the Apteryx are partially or wholly nocturnal, living reclusely in the gullies and humid parts of dense forests, feeding upon the roots of ferns and other plants peculiar to such situations. The hair-like character of their feathers bespeak these habits and mode of life, as much as the plumes of the Ostriches do their adaptation for open plains and savannahs. Having premised thus much, I now proceed to state that it has been a source of much gratification to myself, that I have been enabled, through the kindness of Dr. Bennett of Sydney, further to add to our knowledge of this group by making known the existence of an entirely new species of *Casuarius*; I mention my gratification, because I consider this to be one of the most important additions to ornithology I have ever had the good fortune to bring before the notice of the scientific world. It is true that the same remark might be made with regard to *Balæniceps*, the *Menura Alberti*, and many other extraordinary birds I have had the pleasure of naming; but the present species and the *Apteryx Oweni* are members of a nearly extinct family of birds, the remnants of a group which played an important part in the economy of nature in periods long gone by. How much, then, does science owe to Dr. Bennett for having secured and sent this bird to London! and how much does the Society in whose possession this valuable donation is deposited, owe to him for his liberality! Three examples of this fine bird, a splendid adult male and two younger specimens, grace the Gardens of the Zoological Society of London, where they live side by side with the Ostrich, the Rhea, the Emeu, the Apteryx, and its allied congener, the Cassowary. All are in good health; and such a display of great Struthious birds was never before seen, and probably never will be again, and ought alone to be a sufficient attraction for visitors to this justly popular establishment.

On the arrival of the first Mooruk, I was somewhat sceptical as to its being specifically distinct from the common Cassowary; but as the bird increased in size, and the helmet became more developed, this suspicion was dispelled from my mind; and now that the bird is fully adult, it is apparent that no two species can be more distinct. Compared with the Cassowary, the Mooruk is a smaller and shorter bird, and has much thicker legs; and the helmet, instead of being in the form of an elevated casque with a short rounded ridge, rises high at the base, and then branches out into two overhanging lobes, the horny part which unites them being lowest in the centre—the back part of this elevated double crest being flat and rising rather obliquely from the head near the occiput. This feature has been carefully depicted in the accompanying Plate, which represents the head of the size of life; its form will therefore be more clearly perceived by a reference to the Plate than by any description, however accurate and minute. The colouring of the Mooruk, when it first arrived in England, was rufous mixed with black on the back and under part of the body, and raven-black about the neck and breast; the loose wavy skin of the neck was beautifully coloured with iridescent tints of bluish purple, pink, and an occasional shade of green; and the feet and legs were of a pale ash-colour. The body has now become generally darker, the bare skin of the fore part of the neck of a more uniform smalt blue, and the legs of a somewhat darker tint. I am much indebted to my friend, G. F. Angas, Esq., of Sydney, for a very accurate drawing of the young state of this bird; and I cannot too strongly express my thanks to him for the great trouble he has taken in making these correct delineations, as well as for several others that have reached me: it is pleasing to find a gentleman who has the power, willing to aid science in this way.

Dr. Bennett, after whom I have named the bird as a just compliment to one who has ever manifested the greatest love for Natural History, besides presenting the living birds to the Zoological Society, has enriched the volumes of their "Proceedings" with some interesting details as to the habits of the bird while living in

his possession at Sydney—some in the form of letters to myself, others as direct communications; and these I have great pleasure in reproducing here.

"I send you an account of a new species of Cassowary, recently brought to Sydney by Captain Devlin in the cutter 'Oberon.' It was procured from the natives of New Britain, an island in the South Pacific Ocean, near to New Guinea, where it is known by the name of '*Mooruk*.' The precise locality in which the bird was obtained was a native village under two hills named by navigators the Mother and Daughter, on that part of the coast of New Britain lying between Cape Palliser and Cape Stephen.

"The feet and legs, which are very large and strong, are of a pale ash-colour, and exhibit a remarkable peculiarity in the extreme length of the claw of the inner toe on each foot, it being nearly three times the length which obtains in the claws of the other toes. This bird, which is immature, also differs from the *Casuarius galeatus* in having a horny plate instead of a helmet-like protuberance on the top of the head, which callous plate has the character of, and resembles, mother-of-pearl darkened with black lead: the form of the bill differs considerably from that of the Emu (*Dromaius Novæ-Hollandiæ*), being narrower, longer, and more curved, and having a black and leathery cere at the base; behind the plate of the head is a small tuft of black hair-like feathers, which are continued in greater or lesser abundance over most parts of the neck."

In Dr. Bennett's next communication, direct to the Society, he says:—

"On the 26th of October, 1858, the 'Oberon' cutter of forty-eight tons arrived in Sydney, having two fine young specimens of the 'Mooruk' on board, stated to be male and female. The captain informed me he had had them eight months, that he procured them soon after his arrival at New Britain, and since that time had been trading about the islands. They were about half the size of the specimen sent to England last year. Captain Devlin informs me that the natives capture them when very young, and rear them by hand. The old birds are very swift of foot, and possess great strength in the legs; on the least alarm they elevate the head, and, seeing danger, dart among the thick bush, thread about in localities where no human being could follow them, and disappear like magic. Their powers of leaping are very extraordinary. It was from this circumstance the first bird brought from New Britain was lost: from its habit of leaping, it one day made a spring on the deck and went overboard; it was blowing a strong breeze at the time, and the bird perished. In warm weather, the Captain informs me, they are fond of having a bucket of salt water thrown over them, and seem to enjoy it very much. I succeeded in purchasing these birds; and Captain Slater (the present commander of the 'Oberon') brought them to my house in a cab; and when placed in the yard, they walked about as tame as turkeys. They approached any one that came into the yard, pecking the hand as if desirous of being fed, and were very docile. They began by pecking at a bone in the yard, probably not having tasted any meat for some time, and would not, while engaged upon it, touch some boiled potatoes which were thrown to them; indeed we found afterwards they fed better out of a dish than from the ground—no doubt, having been accustomed early to be fed in that manner. They were as familiar as if born and bred among us for years, and did not require time to reconcile them to their new situation, but became sociable and quite at home at once. We found them next day rather too tame, or, like spoilt pets, too often in the way. One or both of them would walk into the kitchen; while one was dodging under the tables and chairs, the other would leap upon the table, keeping the cook in a state of excitement; or they would be heard chirping in the hall, or walk into the library in search of food or information, or walk up stairs, and then be quickly seen descending again, making their peculiar chirping, whistling noise: not a door could be left open, but in they walked, familiar with all. They kept the servants constantly on the alert: if one of them went to open the door, on turning round she found a 'Mooruk' behind her; for they seldom went together, generally wandering apart from each other. If any attempt was made to turn them out by force, they would dart rapidly round the room, dodging about under the tables, chairs, and sofas, and then end by squatting down under a sofa or in a corner; and it was impossible to remove the bird, except by carrying it away: on attempting this, the long, powerful, muscular legs would begin kicking and struggling, and soon get released, when it would politely walk out of its own accord. I found the best method was to entice them out, as if you had something eatable in the hand, when they would follow the direction in which you wished to lead them. The housemaid attempting to turn the bird out of one of the rooms, it gave her a kick and tore her dress. They walked into the stable among the horses, poking their bills into the manger. When writing in my study, a chirping, whistling noise is heard; the door, which is ajar, is pushed open, and in walk the 'Mooruks,' who quietly pace round the room, inspecting everything, and then as peaceably go out again. If any attempt is made to turn them out, they leap and dodge about, and exhibit a wonderful rapidity of movement, which no one would suppose possible from their quiet gait and manner at other times. Even in the very tame state of these birds, I have seen sufficient of them to know that, if they were loose in a wood, it would be impossible to catch them, and almost as difficult to shoot them. One day, when apparently frightened at something that occurred, I saw one of them scour round the yard at a swift pace, and speedily disappear under the archway so rapidly that the eye could hardly follow it, upsetting all the poultry in its progress that could not get out of the way. The lower half of the stable-door, about 4 feet high, was kept shut, to prevent them going in; but this proved no obstacle, as it was easily leaped over by these birds. They never appeared to take any notice of, or be frightened at, the Jabiru or Gigantic Crane, which was in the same yard, although that sedate, stately bird was not pleased at their intrusion. One day I remarked the Jabiru spreading his long wings, and clattering his beak, opposite one of the 'Mooruks,' as if in ridicule of their wingless condition. 'Mooruk,' on the other hand, was pruning its feathers, and spreading out its funny little apology for wings, as if proud of displaying the stiff horny shafts with which they were adorned. Captain Devlin says the natives consider them to a certain degree sacred, rear them as pets, and have great affection for them; he is not aware that they are used as food, but if so, not generally; indeed, their shy disposition and power of rapid running, darting through the brake and bush, would almost preclude their capture.

"The height of the largest or male of these young birds, to the top of the back, was 2 feet 2 inches, and of the female 2 feet. The height of the largest or male bird, when erect, to the top of the head, was 3 feet 2 inches, and of the female 3 feet."

An egg presented to me by Dr. Bennett, which I believe to be truly that of the Mooruk, is $5\frac{1}{2}$ inches long by $3\frac{1}{2}$ inches broad; the ground-colour very pale buff, with the entire surface covered with pale-green corrugations.

One of the accompanying Plates represents the head and neck of the Mooruk of the natural size; the other an adult reduced, with a young bird in the distance. I am happy to acknowledge the assistance rendered me in the preparation of these drawings by Mr. Wolf, Mr. Richter, and Mr. Wood.

CASUARIUS BENNETTI, *Gould*

J.Gould and H.C.Richter, del. et lith.

Hullmandel & Walton, Imp.

CASUARIUS UNIAPPENDICULATUS, *Blyth.*

J.Gould & H.C.Richter, del. et lith.

Walter, Imp.

CASUARIUS UNIAPPENDICULATUS, *Blyth.*

One-carunculated Cassowary.

Casuarius, new sp., Blyth, Ibis, 1860, p. 193.—Sclat. in Proc. of Zool. Soc., 1860, p. 210.—Ann. and Mag. Nat. Hist., 3rd ser., vol. vi. p. 145.

——— *unappendiculatus*, Blyth, Journ. of Asiat. Soc. Beng., vol. xxix. pp. 112, 113.

——— *uniappendiculatus*, Benn. Ibis, 1860, p. 403, pl. xiv.—Ibis, 1862, p. 78.—Sclat. Trans. Zool. Soc., vol. iv. p. 359, pl. 74.—Sclat. Proc. of Zool. Soc., 1863, p. 225; 1866, pp. 34, 168.

——— *uno-appendiculatus*, Blyth, Ibis, 1860, p. 307.—Benn. Ibis, 1860, p. 403.—Blyth, Ann. and Mag. Nat. Hist., 3rd ser., vol. vi. p. 113.

——— *Kaupi*, Rosenb. Journ. für Orn., 1861, p. 44, Taf. i. figs. 12, 13; Ibis, 1861, p. 312.—G. R. Gray, Proc. of Zool. Soc., 1861, p. 438.

On the preceding Plate I have illustrated that remarkable bird, the Mooruk (*Casuarius Bennetti*); on the present one I give a representation of another no less fine species in its fully adult state, of the same family, the native country of which is said to be New Guinea and the adjacent islands, particularly that of Salawatty; hence, if not a native of Australia, its habitat is almost as near to that country as Ireland is to England.

Like the *Casuarius Bennetti* and the *C. australis*, the *C. uniappendiculatus* is a fine addition to the group of existing *Struthiones*. When the first living example came under my notice in the Gardens of the Zoological Society of Amsterdam, I did not rest until I had obtained a drawing of the bird from life, being well aware it would eventually die, and that, without such a record, the knowledge of the colouring of its soft parts would in all probability be lost to science. Fortunately Mr. Robert Kretschmar, of Leipzig, offered to make me such a drawing; and a copy of it, with but little alteration, is here given. The *Casuarius uniappendiculatus* appeared to be a bold and spirited bird, and to be taller than any other species of the genus I had seen alive. Unfortunately it is now dead; but its skin graces, I believe, the fine Museum at Leyden. To these brief remarks I append all that is known respecting the species.

For our first knowledge of its existence we are indebted to Mr. Blyth, who, in a letter to the Editor of 'The Ibis' (1860, p. 193), speaks of a Cassowary living in the aviary of the Bábu Rajendra Mullick, with "a yellow throat, a single yellow throat-wattle, and a long stripe of naked yellow skin down each side of the neck." Soon afterwards Mr. Blyth characterized it, in the 'Journal of the Asiatic Society of Bengal,' and in another letter to the Editor of 'The Ibis,' for the same year, p. 307, says, "I have described it as *Casuarius uno-appendiculatus*—rather a long name, but descriptive of its most strongly marked peculiarity."

The next notice of it is contained in a communication to 'The Ibis' for the same year from my friend Dr. George Bennett, of Sydney, then residing for a short time in Europe; his remarks have reference to the Amsterdam specimen, which, he says, "differs in many characters from any of the hitherto known species. It appears to be about half-grown, and the casque is not yet developed. The cheeks are of a bluish green; the throat carunculated, and of a bright ochreous colour, terminating in a single wattle; on each side of the neck a bare space, also of a bright ochreous colour, with a slight crimson tinge. In general appearance the bird otherwise resembles the Common Cassowary of about the same age. These characters accord so nearly with the bird mentioned by Mr. Blyth as living in the menagerie of the Bábu Rajendra Mullick, at Calcutta, as to induce me to regard it as probably of the same species. On the label is written, '*Casuarius uni-appendiculatus*, Blyth. Ship "Agatha and Maria," from Molucca Islands,' without designating any island in particular."

In January 1861 the bird was announced, in the 'Journal für Ornithologie,' p. 44, by G. von Rosenberg, of Amboyna, as a new discovery in the island of Salawatty, and called *Casuarius Kaupi*. This announcement was accompanied by the following remarks:—"Hitherto there have been only three Cassowaries known—one from Ceram, another from Australia, and a third from New Britain; that which occurs in New Guinea has usually been considered identical with the Ceram bird. The New-Guinea species, which I have called *C. Kaupi*, is not very rare, but it is so uncommonly shy that it easily escapes from the hunters in the thick forests; this is, I suppose, the reason why it has hitherto escaped the notice of ornithologists. By a particularly lucky chance, however, it happened last August that one of my hunters obtained an old male on the west coast of Salawatty; and as soon as it came on board I found I had to do with an entirely new species."

At the meeting of the Zoological Society of London, on the 27th of March, 1866, Mr. Sclater read an extract from a letter addressed to him by Dr. Schlegel of Leyden, stating that the Musée des Pays-Bas had recently received seven specimens of a Cassowary, collected by the late traveller Bernstein, in Salawatty,

Walter, Imp.

and on the coast of New Guinea opposite to Salawatty, in the same locality where Rosenberg obtained his *Casuarius Kaupi*. The species proved to be *C. uniappendiculatus*, Blyth, the same as that of the fine specimen alive in the Amsterdam Gardens, the single caruncle not being developed in the younger bird; it appeared, therefore, that *C. Kaupi* of Rosenberg must be regarded as identical with *C. uniappendiculatus*, Blyth.

In Mr. Blyth's remarks on the Bábu Rajendra Mullick's specimen, which unfortunately died when probably about half-grown, he says:—"It entirely resembles *Casuarius galeatus* of the same age in general structure; but in the colouring of the plumage there is a considerably less admixture of black than is seen in an ordinary Cassowary of the same size, the only marked distinction consisting in the very different arrangement and predominating yellow of the bright colours of the neck, and in the single small yellow caruncle in front of the neck, in place of the two larger and bright-red caruncles of the common species. Again, the nude skin of the lower part of the neck is smooth or comparatively tense, and not tumous or wrinkled as in the other. I remark, also, in the stuffed specimen, along the medial third of the back, a nude line, about three-eighths of an inch broad, parting the feathers, which flow on each side. Unfortunately the body was thrown away, not even the sex having been ascertained; but the sexes in this genus hardly differ in appearance."

At the meeting of the Zoological Society of London, held on the 23rd of January, 1866, Mr. Sclater exhibited an egg which had been laid by the female bird in the Zoological Gardens of Amsterdam, and remarked that it "was of the usual form and colour of the eggs of the genus *Casuarius*, being of a pale green, thickly covered with raised spots of dark green, and measuring 5·4 by 3·6 inches."

One Plate represents the entire bird, the figure being necessarily greatly reduced; the other, two heads and necks, the front one of which is the size of life, the other somewhat smaller.

CASUARIUS UNIAPPENDICULATUS. *Blyth.*

J.Gould & H.C.Richter, del. et lith.

Walter Imp.

J. Gould and H.C. Richter del. et lith.

NOTORNIS MANTELLI; *Owen*

DTORNIS MANTELLI: *Owen.*

Hullmandel & Walton Imp

cm 1 2 3 4 5

NOTORNIS MANTELLI, *Owen*.

Notornis.

Notornis Mantelli, Owen in Trans. of Zool. Soc., vol. iii. p. 377.—Mantell in Proc. of Zool. Soc., 1850.—Gould in Ib., 1850.

The acquisition of a new species is always a matter of great interest; but when, as in the present instance, it is of one so nearly extinct as to be only known to us previously by its fossil or semi-fossilized remains, the interest becomes enhanced in the highest degree; it is well known that the existence of the celebrated Dodo is all but traditionary, a fate which, but for Mr. Walter Mantell's fortunate acquisition of a living example, would probably have been shared by the present bird, the characters of which were first made known to us by Professor Owen from the semi-fossilized remains previously obtained and sent home by the same talented explorer after whom it is named.

That few living examples remain, is evident from the fact that the mounted specimen in Dr. Mantell's possession is the only one that has yet been seen; all the information respecting it that has been obtained is comprised in the following interesting account communicated by him to the Zoological Society of London, and published in their "Proceedings" for 1850:—

"This bird was taken by some sealers who were pursuing their avocations in Dusky Bay. Perceiving the trail of a large and unknown bird on the snow with which the ground was then covered, they followed the foot-prints till they obtained a sight of the *Notornis*, which their dogs instantly pursued, and after a long chase caught alive in the gully of a sound behind Resolution Island. It ran with great speed, and upon being captured uttered loud screams, and fought and struggled violently; it was kept alive three or four days on board the schooner and then killed, and the body roasted and ate by the crew, each partaking of the dainty, which was declared to be delicious. My son fortunately secured the skin.

"Mr. Walter Mantell states, that, according to the native traditions, a large Rail was contemporary with the Moa, and formed a principal article of food among their ancestors. It was known to the North Islanders by the name of '*Moho*,' and to the South Islanders by that of '*Takahé*'; but the bird was considered by both natives and Europeans to have been long since exterminated by the wild cats and dogs, not an individual having been seen or heard of since the arrival of the English colonists. That intelligent observer, the Rev. Richard Taylor, who has so long resided in the islands, had never heard of a bird of this kind having been seen. In his 'Leaf from the Natural History of New Zealand,' under the head of '*Moho*,' is the following note: 'Rail, colour black, said to be a wingless bird as large as a fowl, with red beak and legs; it is nearly exterminated by the cat: its cry was 'keo, keo.'' The inaccuracy and vagueness of this description prove it to be from native report and not from actual observation. To the natives of the pahs or villages on the homeward route, and at Wellington, the bird was a perfect novelty and excited much interest. I may add, that upon comparing the head of the bird with the fossil cranium and mandibles, and the figures and descriptions in the 'Zoological Transactions,' my son was at once convinced of their identity; and so delighted was he by the discovery of a living example of one of the supposed extinct contemporaries of the Moa, that he immediately wrote to me, and mentioned that the skull and beaks were alike in the recent and fossil specimens, and that the abbreviated and feeble development of the wings, both in their bones and plumage, were in perfect accordance with the indications afforded by the fossil humerus and sternum found by him at Waingongoro, and now in the British Museum, as pointed out by Professor Owen in the memoir above referred to.

"In concluding this brief narrative of the discovery of a living example of a genus of birds once contemporary with the colossal Moa, and hitherto only known by its fossil remains, I beg to remark, that this highly interesting fact tends to confirm the conclusions expressed in my communications to the Geological Society, namely, that the *Dinornis*, *Palapteryx*, and related forms, were coeval with some of the existing species of birds peculiar to New Zealand, and that their final extinction took place at no very distant period, and long after the advent of the aboriginal Maoris."

Upon a cursory view of this bird it might be mistaken for a gigantic kind of *Porphyrio*, but on an examination of its structure it will be found to be generically distinct. It is allied to *Porphyrio* in the form of its bill and in its general colouring, and to *Tribonyx* in the structure of its feet, while in the feebleness of its wings and the structure of its tail it differs from both.

From personal observation of the habits of *Tribonyx* and *Porphyrio*, I may venture to affirm that the habits and economy of the present bird more closely resemble those of the former than those of the latter; that it is doubtless of a recluse and extremely shy disposition; that being deprived, by the feeble

structure of its wing, of the power of flight, it is compelled to depend upon its swiftness of foot for the means of evading its natural enemies; and that, as is the case with *Tribonyx*, a person may be in its vicinity for weeks without ever catching a glimpse of it.

From the thickness of its plumage and the great length of its back-feathers, we may infer that it affects low and humid situations, marshes, the banks of rivers, and the coverts of dripping ferns, so abundant in its native country: like *Porphyrio*, it doubtless enjoys the power of swimming, but would seem, from the structure of its legs, to be more terrestrial in its habits than the members of that genus.

I have carefully compared the bill of this example with that figured by Professor Owen under the name of *Notornis Mantelli*, and have little doubt that they are referable to one and the same species.

I cannot conclude these remarks without bearing testimony to the very great importance of the results which have attended the researches of Mr. Walter Mantell in the various departments of science to which he has turned the attention of his inquiring mind, nor without expressing a hope that he may yet be enabled to obtain some particulars as to the history of this and the other remarkable birds of the country in which he is resident.

Head, neck, breast, upper part of the abdomen and flanks purplish blue; back, rump, upper tail-coverts, lesser wing-coverts and tertiaries dark olive-green, tipped with verditer-green; at the nape of the neck a band of rich blue separating the purplish blue of the neck from the green of the body; wings rich deep blue, the greater coverts tipped with verditer green, forming crescentic bands when the wing is expanded; tail dark green; lower part of the abdomen, vent and thighs dull bluish black; under tail-coverts white; bill and feet bright red.

Total length of the body, 26 inches; bill, from the gape to the tip, $2\frac{1}{8}$; from the tip to the posterior edge of the plate on the forehead, 3; wing, $8\frac{1}{2}$; tail, $3\frac{1}{2}$; tarsi, $3\frac{1}{2}$; middle toe, 3; nail, $\frac{7}{8}$; hind-toe, $\frac{7}{8}$; nail, $\frac{3}{4}$.

The Plate represents the bird in two positions of the natural size.

J. Gould & H.C. Richter, del. et lith.

ACTITURUS BARTRAMIUS.

Walter, Imp.

ACTITURUS BARTRAMIUS.

Bartram's Sandpiper.

Tringa Bartramia, Wils. Amer. Orn., vol. vii. p. 63, pl. 59. fig. 2.
Totanus Bartramius, Bonap. Syn. Birds of Unit. States, p. 262.—Gould, Birds of Europe, vol. iv. pl. 313.—Swains and Rich. Faun. Bor.-Am., pt. ii. p. 391.
—— *Bartramia*, Temm. Man. d'Orn., tom. ii. p. 650, and tom. iv. p. 415.
Tringa longicauda, Bechst. Vög., Nacht. p. 453.
Actitis Bartramia, Naum. Naturg. Deuts., pl. 196.
Actiturus Bartramius, Bonap. Sagg. Distr. Met. An. Vert.—Gould, Handb. Birds of Aust. vol. ii. p. 242.
Bartramia laticauda, Less. Traité d'Orn., p. 553.
Euliga Bartramia, Nutt. Man., vol. ii. p. 169.
Totanus variegatus, Vieill. Gal. des Ois., tom. ii. p. 107, pl. cccxxxix.
—— *campestris* et *melanopygius*, Vieill. Nouv. Dict. d'Hist. Nat., 2e édit. tom. vi. pp. 400, 401.
Tringoides Bartramius, G. R. Gray, Gen. of Birds, vol. iii. p. 574.

That the Directors of the Museum of Sydney are imbued with feelings of liberality and courtesy, I have had abundant proofs; for whenever Zoological science could be advanced through their instrumentality, they have ever readily responded to the requests proffered by myself and other naturalists of their father-land; and it is to them that I am indebted for the opportunity of figuring the present species in this supplementary volume to the 'Birds of Australia,' from the only example that has yet been taken in that country, and which they kindly transmitted to me some years since on loan for that purpose. The note accompanying it stated that it had been killed by an old sportsman, while snipe-shooting near the reservoir between the town of Sydney and Botany Bay in 1848, and that on dissection it proved to be a male and had the stomach filled with aquatic insects. The accompanying figure having been taken, the specimen referred to was returned to the Museum in 1861; and there it doubtless still exists, affording undeniable evidence of the wandering disposition of a bird whose natural home is the New World, where it ranges over the temperate portions of the United States, Mexico, Guatemala, and some of the West-Indian Islands; it is also occasionally found in Europe, and even in England. That it should extend its range to the antipodes is most remarkable.

It will be seen, by the list of synonyms, that this bird has been removed from the true *Tringæ* and *Totani*, with which it was originally associated, and that various generic appellations have been applied to it: of these *Bartramia* appears to have the priority; but this term not being generally adopted, I have preferred that of *Actiturus*, proposed by Bonaparte.

The best accounts of this species are contained in the works of Wilson and Audubon, the latter of whom states that it is the most truly terrestrial of all its tribe with which he was acquainted; for although not unfrequently met with in the vicinity of shallow pools, the muddy margins of the shores of the sea, and fresh-water lakes and streams, it never ventures to wade into them. The dry upland plains of Opellousas and Attacapas in Louisiana are amply tenanted with these birds in early spring and in autumn. They arrive there in the beginning of March from the vast prairies of Texas and Mexico, where they spend the winter, and return about the first of August. They are equally abundant on all the western prairies on both sides of the Missouri, where, however, they arrive about a month later than in Louisiana, whence they disperse over the United States, reaching the middle districts early in May, and the State of Maine by the middle of that month, at about which period they are also seen in Indiana, Kentucky, and Ohio. That some proceed as far north as the plains adjoining the Saskatchewan River is certain; for Dr. Richardson there met with examples in the month of May. In the neighbourhood of New Orleans, where the bird is known by the name of "Papabote," it usually arrives in great bands in spring, and is met with on the open plains and large grassy savannas, and usually remains about a fortnight. On their return southward in the beginning of August, when they tarry in Louisana until the 1st of October, they are fat and juicy. In spring, when they are poor and thin, they are usually much less shy than in autumn, at which period they are exceedingly wary and difficult of approach. Like all experienced travellers, Bartram's Sandpiper appears to accommodate itself to circumstances as regards food; for in Louisiana it feeds on Cantharides and other Coleopterous insects; in Massachusetts on grasshoppers, on which it soon grows very fat; in the Carolinas on crickets and other insects, as well as the seeds of the crabgrass (*Digitaria sanguinaria*); and in the barrens of Kentucky it often picks the strawberries. Those which feed on Cantharides require to be very carefully cleaned, otherwise persons who eat them are liable to suffer severely; but when their flesh is imbued with the flavour of ripe strawberries, it is truly delicious.

The Australian specimen is much lighter in its general colouring than those killed in Europe and America, but is not in my opinion sufficiently different to warrant its being regarded as a distinct species.

The accurate representation of the bird on the opposite Plate, of the natural size, renders a detailed description of its colouring unnecessary.

J. Gould & H.C. Richter del. et lith. Walter & Cohn Imp.

RALLINA TRICOLOR, *G.R.Gray.*

J.Gould & H.C.Richter, del. et lith.

Walter Imp.

Walter Hart

RALLINA TRICOLOR, G. R. Gray.

J. Gould & H. C. Richter, del. et lith.

RALLINA TRICOLOR, *G. R. Gray.*

Red-necked Rail.

Rallina tricolor, G. R. Gray in Proc. of Zool. Soc., 1858, p. 188; 1859, p. 159; 1861, p. 438.—Gould ibid., 1866, p. 218.

Rallus tricolor, G. R. Gray in Proc. of Zool. Soc., 1858, p. 197.

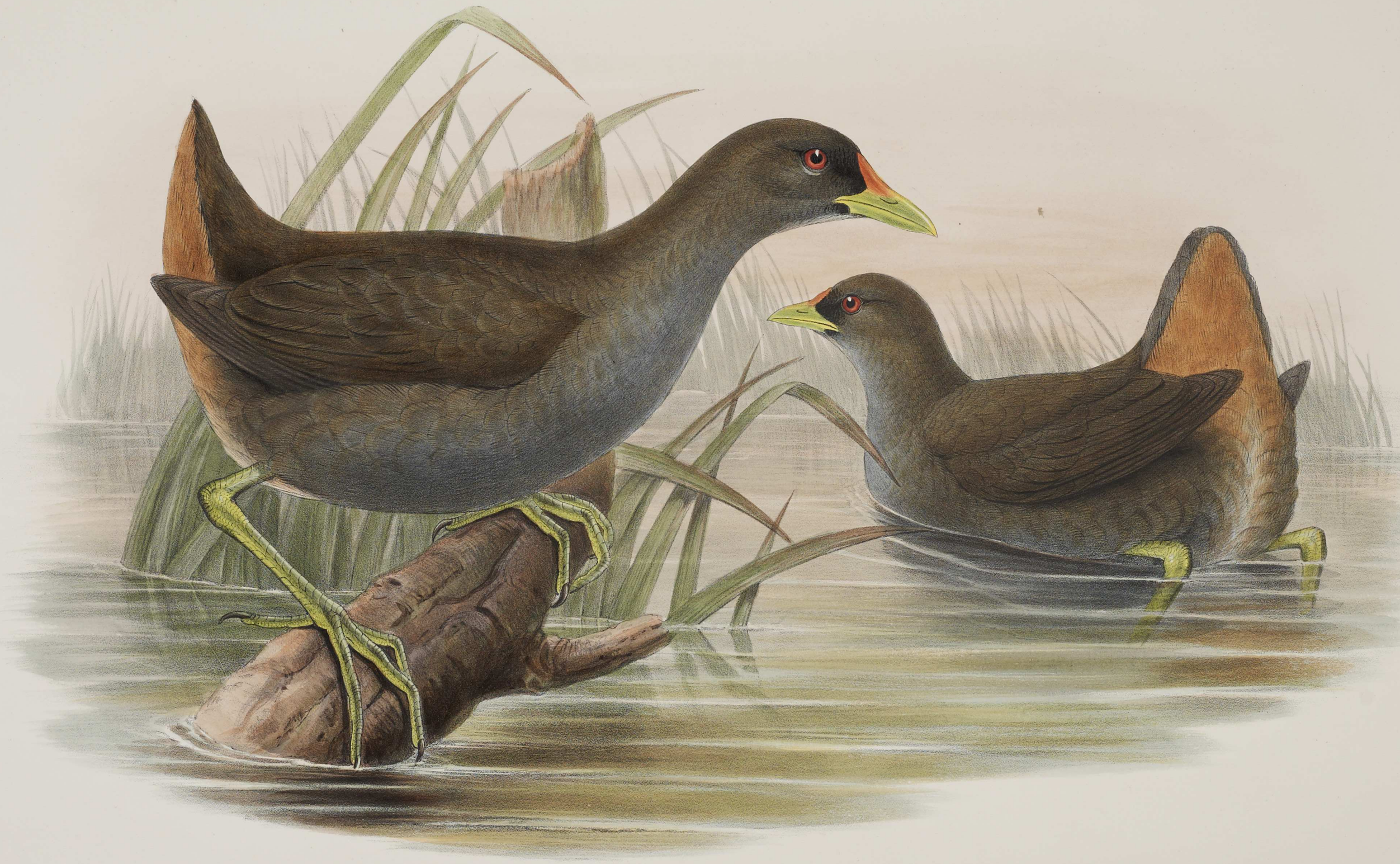
The avifauna of Australia may be regarded as greatly enriched by the discovery in the Cape-York peninsula of this elegant species of Rail, an example of which was sent to me by C. Coxen, Esq., as undescribed; but on comparing it with skins of a Rail brought from New Guinea and the Aru Islands by Mr. Wallace, to which Mr. G. R. Gray has given the name of *Rallina tricolor*, I found it to be identical therewith; and thus we have another bird uniting the fauna of New Guinea to that of Australia.

Mr. Cockerell states that, in the neighbourhood of Somerset, this bird inhabits the dry scrubs which fringe a small stream, and that he once found the nest and eggs, which he says were white; if this be the case, it is the only instance known to me of the eggs of a Rail being destitute of colour. Its native name is *Tangata*, from the peculiar sound the bird utters at night.

There appears to be little or no difference in the external appearance of the sexes, except in size, in which respect my specimens differ rather considerably—not more so, however, than is found to occur in our Common Water-Rail, of which the female is by far the smallest bird; and this is doubtless the case in the present species.

Head, neck, nape, and breast rusty red, becoming very pale on the throat; back, wings, and tail dark olive-brown; under surface light olive-brown, with a transverse band of deep or reddish buff near the tip of each feather; thighs lighter brown, spotted with dull buff; along the inner webs of each of the wing-feathers three transverse oval spots, forming as many bands when the wing is uplifted; the spots nearest the shoulder tawny, those in the centre of the wing nearly white; bill dark green, fading into bright yellow at the tip; legs and feet olive or greenish-black; irides red.

The figures are of the natural size.



J.Gould & H.C.Richter, del. et lith.

GALLINULA RUFICRISSA, *Gould.*

Walter, Imp.

GALLINULA RUFICRISSA, *Gould.*

Rufous-vented Gallinule.

Gallinula ruficrissa, Gould in Ann. and Mag. Nat. Hist., 4th ser., vol. iv. p. 110.

For a knowledge of the existence of this new species of Gallinule I am indebted to Mr. F. G. Waterhouse, Curator of the Museum of the South Australian Institute at Adelaide, South Australia, who, in a note accompanying the specimen from which my figure was taken, states that it was obtained from Mr. Rainbird, a collector, who shot it on the Cape River, in Queensland. Mr. Waterhouse was under the impression that it was a new species of *Tribonyx*, but it appears to me to be more nearly allied to the genus *Gallinula*. With the assistance of Mr. G. R. Gray I have carefully compared it with all the members of the last-mentioned genus in the British Museum, also with the descriptions of all the known species; and we cannot find one with which it can be considered identical. I have therefore characterized it as new. Its nearest ally appears to be the *Gallinula olivacea* of Meyen, from Manilla (*vide* Nova Acta, 1834, p. 109, t. 20); but that bird is of larger size, and is of still greater disproportion in the length of its legs.

It gives me great pleasure to figure this species so soon after its discovery, since it may incite collectors to obtain additional specimens and some information respecting its habits and economy, of which at present nothing is known.

The features which distinguish the *Gallinula ruficrissa* from the typical members of the genus are the absence of white spots on the flanks, and the uniform pale rufous colouring of the vent and under tail-coverts; it is this latter character that allies it to the *G. olivacea*, in which the same parts are similarly coloured, while in the other Gallinules they are black and white; in my opinion the *Gallinula phœnicura* perhaps the *Gallinula Akool*, of India, are also nearly allied to it.

Professor Reichenbach has instituted the genus *Amaurornis* for the reception of the *G. olivacea*, with which the late Prince Bonaparte associates the *G. femoralis* of Tschudi; it is for ornithologists to decide upon the propriety of such a separation.

Head, all the upper surface, wings, and tail brownish olive; sides of the face, neck, breast, and under surface deep olive-grey; vent and under tail-coverts pale rusty red; bill greenish yellow, with a mark of red on the base of the culmen; legs and feet greenish yellow.

The figures in the accompanying Plate, both drawn from the same specimen, are of the natural size.

GALLINULA RUFICRISSA, *Gould.*
Walter, Imp.
J. Gould & H.C. Richter, del. et lith.

SPATULA VARIEGATA, *Gould.*

SPATULA VARIEGATA, *Gould.*

Variegated Shoveller.

Spatula variegata, Gould in Proc. of Zool. Soc., part xxiv. p. 95.

Among the novelties brought by Mr. Walter Mantell from New Zealand was a species of Shoveller Duck, which is certainly new to science, for with no one of the members of this well-defined genus of typical ducks can it be confounded. Its nearest ally is the Australian species, *Spatula rhynchotis*; but it differs from it in its more variegated plumage, and in other particulars, as will be readily seen on an examination of the accompanying Plate. Supposing it to have been collected at the same time as the fine Parrot *Nestor notabilis*, the Middle Island of New Zealand will be the part where at least it is occasionally found. It is somewhat strange that so large a bird as this duck should not have fallen to the gun of the collector before; yet, on the other hand, how seldom does the common Shoveller of Europe (*Spatula clypeata*) fall before the gun of the sportsman; even in the parts of England where it is most common, he may pass years without an opportunity occurring for shooting one.

The *Spatula variegata*, which forms the fifth and is by far the handsomest species of the genus *Spatula*, is distinguished from the other members by the dark crescentic markings which decorate the feathers of the breast, sides of the neck, and scapularies. The species of this well-defined form previously described are *Spatula clypeata*, which inhabits Europe, North America, India and China; *S. rhynchotis*, which is found throughout Australia; *S. maculata*, the habitat of which is Chili and probably the neighbouring countries of Peru and Bolivia; and *S. capensis* of South Africa.

Crown of the head and space surrounding the base of the bill brownish black; on either side of the face between the bill and the eye a lunar-shaped streak of white, bounded posteriorly with speckles of black; cheeks, sides and back of the neck dark grey with greenish reflexions; front of the neck dark brown, each feather narrowly fringed with white; back brownish black, the feathers of the upper part margined with greyish brown; feathers of the breast, sides of lower part of the neck, the mantle and scapularies white, with a crescent of blackish brown near the tip; under surface dark chestnut blotched with black; flanks lighter chestnut barred with black; lesser wing-coverts dull greenish blue; greater wing-coverts dark brown, fringed at the tip with white; first elongated scapularies blue-grey, with a conspicuous line of white on the outer web next the shaft, bounded posteriorly with black; the next blue-grey, margined on the inner web with white; the remainder greenish black, with a lengthened lanceolate mark of dull or brownish white down the centre of the apical half; speculum deep green; primaries dark brown with lighter shafts; under surface of the shoulder white; on each side of the vent a patch of white freckled with black; under tail-coverts black, tinged with shining green; tail dark brown; irides bright yellow; bill dark purplish black, the under mandible clouded with yellow; legs and feet yellow.

Total length, $16\frac{1}{2}$ inches; bill, 3; wing, $9\frac{1}{4}$; tail, $4\frac{1}{2}$; tarsi, $1\frac{5}{8}$.

The figure is of the natural size.

Hellmuth & Walton, imp.

SPATULA VARIEGATA, *Gould*

Hewitt and H.C. Richter, del. et lith.

GELOCHELIDON MACROTARSA, *Gould*

J. Gould and H.C. Richter, del et lith.

Hullmandel & Walton, Imp.

GELOCHELIDON MACROTARSA, *Gould.*

Great-footed Tern.

Sterna macrotarsa, Gould in Proc. of Zool. Soc., part v. p. 26; and in Syn. Birds of Aust., pl. . fig. 2.

It is now about twenty-five years ago since a small collection of Australian birds was sent to the Council of King's College, London, as a donation to their museum. In this collection was a fine species of Tern, which proved to be new to science, and of which I published, in 1837, a full description, together with its admeasurements and a sketch of the head, under the name of *Sterna macrotarsa*. In the interval between 1837 and 1859, I have only seen two other examples; it is evident, therefore, that the bird is extremely rare, or that we have not yet visited its true habitat. One of the two specimens referred to was procured by the late Mr. Elsey on the Victoria River in North-western Australia, and is now in the British Museum; the other, which is in my own possession, was obtained at Moreton Bay. The specimen in my own collection (and, I believe, the one procured by Mr. Elsey) is considerably larger in all its admeasurements than that in the King's College Museum; and the latter, which is probably a female, very much exceeds in size the Gull-billed Tern (*Gelochelidon Anglica*) of Europe, to which species the present bird is nearly allied, and of which it is evidently the representative on the Australian continent. One of the principal features which distinguishes the Australian bird from its northern representative, is its light and silvery-coloured back and wings; it has also a much stouter and longer bill, as well as longer and larger legs.

I have at this moment before me, for the purpose of comparison, beautiful skins of the *G. Anglica*, collected by Mr. Osbert Salvin in North Africa; one from the continent of India, and another from Java: all these are as nearly alike as possible in colour and admeasurements; it is evident therefore that the European and Indian birds are of the same species.

The following are the admeasurements of the bird I have figured from:—

Total length 17 inches; bill, $2\frac{1}{4}$; wing, $13\frac{3}{4}$; tail, 6; tarsi, $1\frac{5}{8}$.

In summer the crown of the head and back of the neck are black; all the upper surface and primaries are light silvery grey; the remainder of the plumage is white; and the bill and feet are black.

In winter the black colouring of the head probably disappears and is replaced by white.

The figure is somewhat less than the natural size.

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