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THE

BIRDS OF NEW GUINEA

AND THE

ADJACENT PAPUAN ISLANDS,

INCLUDING MANY

NEW SPECIES RECENTLY DISCOVERED

IN

AUSTRALIA.

BY

JOHN GOULD, F.R.S.

COMPLETED AFTER THE AUTHOR'S DEATH

BY

R. BOWDLER SHARPE, F.L.S. &c.,

ZOOLOGICAL DEPARTMENT, BRITISH MUSEUM.

VOLUME V.

LONDON:

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1875–1888.

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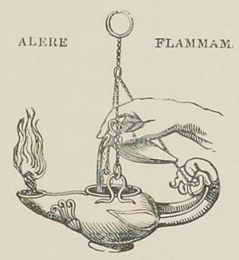

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CYCLOPSITTA OCCIDENTALIS.

J.Gould & W.Hart, del. et lith.

Walter, Imp.



CYCLOPSITTA OCCIDENTALIS, *Salvad.*

Western Perroquet.

Opopsitta desmarestii (part.), Sclater, Proc. Linn. Soc. ii. p. 166 (1858).—Gray, Cat. B. New Guinea, p. 42 (partim, 1859).—Rosenb. (nec Garn.), Journ. für Orn. 1862, p. 63.—Id. Nat. Tijdschr. Ned. Ind. xxv. pp. 143, 226 (partim, 1863).—Sclater, P. Z. S. 1873, p. 697.
Cyclopsitta blythi (part.), Wallace, Proc. Zool. Soc. 1864, p. 285.
Psittacula desmarestii (part.), Schlegel, Mus. Pays-Bas, *Psittaci*, p. 75 (1864).—Finsch, Die Papageien, ii. pp. 620, 957 (partim, 1868).—Schleg. Mus. Pays-Bas, *Psittaci*, Revue, p. 32 (partim, 1874).
Cyclopsittacus desmarestii (part.), Salvad. Ann. Mus. Civic. Genov. vii. p. 754 (1875).
Cyclopsittacus occidentalis, Salvad. Ann. Mus. Civic. Genov. vii. p. 910 (1875).—Id. op. cit. x. pp. 27, 119 (1876).—Id. Orn. Papuasia e delle Molucche, i. p. 152 (1880).

Although this species has been in European collections for some time, the differences between it and *C. desmaresti* were overlooked by naturalists until Count Salvadori separated the two birds specifically. It has been referred by Mr. Wallace to *Cyclopsitta blythi*, but lacks the blue spot under the eye which distinguishes the latter species.

Count Salvadori gives its habitat as Western New Guinea, near Sorong, Dorei-Hum, and also the islands of Salawati and Batanta. Two specimens, said to have been collected by the Dutch traveller Hoedt in Mysol, are in the Leyden Museum, but Count Salvadori thinks that these may have come from Salawati.

This species may be briefly described as similar to *C. desmaresti*, but distinguished by its golden-yellow cheeks and ear-coverts, and by the paler blue of the spot under the eye, which has more or less of a greenish shade, by the absence of the blue occipital spot, and by having the head more tinged with red.

The Plate represents an adult and an immature bird in two positions, drawn from specimens in the Gould collection.

[R. B. S.]



CYCLOPSITTA CERVICALIS, *Salvad. & D'Albert.*

J. Gould & W. Hart, del. et lith.

Walter imp.

CYCLOPSITTACUS CERVICALIS, *Salv. & D'Alb.*

Southern Ringed Perroquet.

Cyclopsittacus cervicalis, Salvad. & D'Albert. Ann. Mus. Civic. Genov. vii. p. 811 (1875).—Salvad. tom. cit. p. 911.—Id. op. cit. ix. p. 12 (1876); x. p. 28 (1877).—Sharpe, Proc. Linn. Soc. xiii. p. 310 (1878).—D'Albert. & Salvad. op. cit. xiv. p. 30 (1879).

This beautiful species was first discovered by Signor D'Albertis, in South-eastern New Guinea, on Mount Epa. It is, as Count Salvadori has rightly pointed out, a representative in the southern part of New Guinea of *C. desmaresti*, which comes from Doray. It is, perhaps, more strictly allied to *C. blythii* of Mysol, like which species it has no blue spot under the eye. The differences are pointed out by Count Salvadori; and the diagnosis which he assigns to the present species reads as follows:—"Cheeks reddish orange; on the breast a single band of blue only; hinder neck entirely blue." It would seem, however, that even at the time when he wrote this description he was not in possession of a perfectly adult bird, as the blue on the hind neck is now known to disappear with age. For a knowledge of the different stages of plumage through which the present species passes we are indebted to the recent labours of Signor D'Albertis, who procured a series of some thirty examples from the Fly River; and an exhaustive account has been written on the progress of this bird to maturity by Count Salvadori in his description of D'Albertis's Fly-River collections. The Count remarks that this species, which is more beautiful than any of its allies, is remarkable for the extreme variability of its plumage—a fact which is not observable in any of the others. From individuals having the hind neck blue with a pectoral band of dull blue and the hinder ear-coverts red above and blue below, a perfect passage is found to specimens which have the hind neck orange-red like the head, with a cervical collar of fine yellow, and with a pectoral band of clear sky-blue and the ear-coverts entirely yellow. The latter is the adult dress; and between the young ones and this stage D'Albertis's collection contained a number of examples in different stages of transition.

Beyond the specimens of this Perroquet which Signor D'Albertis possesses, I have seen but one other, which was obtained by the late Dr. James in the Eucalyptus-range on the mainland of South-eastern New Guinea to the east of Yule Island. This specimen was fully described by Mr. Bowdler Sharpe, and is now in my collection, but it is evidently not quite adult.

I translate herewith the descriptions which Count Salvadori has recently published of the adult and young plumages of this beautiful species:—

"*Adult*. Green; the head and neck reddish orange, a collar round the hind neck beautiful yellow, sides of the head yellow, more or less tinged with reddish orange; a band across the fore part of the breast, and the sides of the breast, pale blue; upper breast tinged with beautiful orange, a concealed red spot on the inner quill-feathers.

"*Young*. Green; the head reddish orange, clearer yellow behind; the hind neck beautiful blue; the fore part of the sides of the head reddish orange, the hinder part yellow; the posterior ear-coverts above reddish orange, below blue; a band across the fore part of the breast bright blue; the sides of the breast pale blue; a concealed yellow spot on the inner quills.

"Total length 7·1 inches, culmen 1, wing 4·6, tail 2·1, tarsus 0·5."

According to Signor D'Albertis the bill is black, the feet greenish, the iris has an inner circle of chestnut-brown and an outer one of red.

The food consists of fruits.

I have to offer my best thanks to Signor D'Albertis for having placed at my disposal for perfecting the present Plate six magnificent examples of this fine Parrot, for which liberality I feel, as will also, I am sure, the public who are interesting themselves in this New-Guinea work, greatly obliged—all such discoveries going to confirm the opinion frequently expressed by myself, and others that "New Guinea is the country left for the researches of ornithologists," the natural productions being so marvellous.



CYCLOPSITTA DIOPHTHALMA.

J. Gould & W. Hart, del. et lith.

Walter, Imp.



CYCLOPSITTA DIOPHTHALMA.

Double-eyed Perroquet.

Psittacula diophthalma, Hombr. et Jacq. Annales des Sciences Naturelles, 2nd series, xvi. p. 318 (1841).—Gray, Gen. B. ii. p. 423 (1846).—Schlegel, Mus. Pays-Bas, Psittaci, p. 75 (1864).—Id. Nederl. Tijdsch. Dierk. iii. p. 331 (1866, pt.).—Finsch, Die Papageien, ii. p. 628 (1868, pt.).

Cyclopsitta double œil, Hombr. et Jacquinot, Voyage Pôle Sud, Atlas, pl. 25 bis, figs. 4, 5 (1842–1853).

Cyclopsitta diophthalma, Jacq. et Pucheran, Voy. Pôle Sud, texte, iii. p. 107 (1853).—Bonap. Rev. et Mag. de Zool. 1854, p. 154.—Sclater, Proc. Linn. Soc. 1858, p. 106.—Wallace, P. Z. S. 1864, p. 284 (pt.).

Opopsitta diophthalma, Sclater, P. Z. S. 1860, p. 227.—Rosenb. J. f. O. 1864, p. 115.—Sclater, P. Z. S. 1873, p. 697.

Cyclopsittacus diophthalmus, Salvad. Ann. Mus. Civic. Genov. x. p. 28 (1877).—Id. tom. cit. p. 120 (1877).

Our knowledge of the present beautiful little species is unfortunately very limited; and at present we are unaware of any thing connected with its habits and economy, although these are doubtless precisely similar to those of the other *Cyclopsittæ*. Its chief habitat appears to be the north-western portion of New Guinea, where it has been collected by Signor D'Albertis and by Dr. Meyer near Andai, and in the Arfak Mountains by Mr. Bruijn and Dr. Beccari, while a good many specimens are contained in the Leiden collection from Kalwal in Salwati, where they were obtained by the late Dr. Bernstein. It appears likewise to be plentiful in the island of Mysol, where Mr. Hoedt obtained a considerable series from the neighbourhood of Kasim and Waaigama. Count Salvadori also mentions its occurrence in the island of Koffias, on the authority of specimens in Count Turati's museum. The original examples, procured by MM. Hombron and Jacquinot, are said to have come from Southern New Guinea.

The following is a description of an adult male bird from Mysol:—

General colour above bright grass-green; wing-coverts a little darker green than the back, the outermost of the lesser coverts blue, as well as the outer greater coverts, primary-coverts, and primaries, the latter black on the inner webs, the secondaries green, with a bright orange patch on the inner web of the dorsal secondaries; tail green, forehead and sinciput red, fading into yellow on the hinder crown, lores and sides of face also red, the ear-coverts with a blue streak across the middle, separating the red face from the hinder ear-coverts and sides of neck, which are green; in front of the eye a spot of cobalt-blue; under surface of body bright grass-green, lighter on the centre of the body, the flanks with dashes of bright yellow; under wing-coverts bluish green; quills blackish below, yellow on the inner webs, as also across the lower greater coverts. Total length 5·8 inches, wing 3·6, tail 2·0.

According to Professor Schlegel, there is no difference in the coloration of the sexes; but the young birds always have the forehead as far as the top of the head tinged with red, duller than in the adults, while the red colour of the cheeks is replaced by clear yellowish brown, changing to red more quickly in the males than in the females. A young male is also described by Count Salvadori as being similar to the old female, but much smaller, with the red colour on the upper part of the head tinged posteriorly with yellow, while the cheeks are greyish buff margined below and behind with azure blue, and from the forehead a thin red line extends underneath the eyes to the region of the ear-coverts. Signor D'Albertis gives the colour of the eyes as black.

My own specimens of this bird are in very fine condition, having been obtained from Mr. Wallace's expedition; so that I have been able to institute exact comparisons between the present species and *C. aruensis*, the result being that I am perfectly convinced of the specific distinctness of these two little Perroquets, and have given figures of the two in the present work.

The Plate represents an adult and a young male of the natural size, drawn from skins in my own collection.



CYCLOPSITTA ARUENSIS, *Schleg.*

J. Gould & W. Hart, del. et lith.

Walter, Imp.



CYCLOPSITTA ARUENSIS, *Schleg.*

Aru Perroquet.

Psittacula diophthalmus (partim), G. R. Gray, P. Z. S. 1858, p. 195.

Psittacula diophthalma, G. R. Gray, List Psittacidæ Brit. Mus. p. 90 (1859, nec Hombr. et Jacq.).—Id. Cat. Mam. & B. New Guinea, pp. 42, 60 (1859, pt.).—Id. P. Z. S. 1861, p. 437.—Schlegel, Mus. Pays-Bas, *Psittaci*, p. 75 (1864, pt.).—Id. Nederl. Tijdschr. Dierk. iii. p. 831 (1866, pt.).—Finsch, Papag. ii. p. 628 (1868, pt.).

Opopsitta diophthalma, Rosenb. Journ. für Ornith. 1862, p. 65.—Id. Natuurl. Tijdschr. voor Nederl Indië, 1863, p. 226 (partim).

Cyclopsitta diophthalma, Wall. P. Z. S. 1864, p. 284.

Psittacula diophthalma aruensis, Schlegel, Mus. Pays-Bas, *Psittaci*, Revue, p. 33 (1874).

Cyclopsitta aruensis, Salvad. Ann. Mus. Civic. Genov. vi. p. 73 (1874).

Cyclopsittacus aruensis, Salvad. Ann. Mus. Civic. Genov. x. p. 28 (1877).

This Perroquet was for a long time confounded with *Cyclopsitta diophthalma*, but is now admitted by ornithologists to constitute a separate species. Almost at the same time Professor Schlegel and Count Salvadori separated it under the name of *aruensis*; and the former gentleman remarks as follows:—"This bird, which represents the *Psittacula diophthalma* in the Aru group, presents us with a curious fact, viz. that the adult male is distinguished only by very subtle characters from the adults of both sexes of *P. diophthalma*, while the females and young are distinguished by very sensible differences. On comparing the adult male of *P. aruensis* with the adult of both sexes of *P. diophthalma*, one sees at once that the red on the head is a little clearer and does not pass into yellow on the top, while the blue spot above the eye is much more restricted and is of a green colour, differing little from the prevailing tint of the bird, and, lastly, the blue colour behind the region of the ears is prolonged underneath the chin. The young male has absolutely the same colours as the adult, with the exception that the red of the head is paler. In the females, both young and old, the parts of the head which are red in both sexes of *P. diophthalma* are, on the contrary, in *P. aruensis* rather clear blue without the least trace of red. The species would appear to occur in most of the islands of the Aru group, having been observed by Mr. Wallace at Dobbo in Wammer, and at Wonoumbai by Von Rosenberg and Hoedt, as well as by Dr. Beccari in Lutor. Mr. Wallace refers to his specimens as having been 'shot while feeding on the fruit of a *Ficus*, close to the trading-town of Dobbo.'"

Beyond this trifling note, I believe that nothing whatever has been written or said concerning this most elegant little bird.

The figures on the Plate are of the size of life, and represent adult birds.



CYCLOPSITTA SUAVISSIMA, *Sclater.*

J.Gould & W.Hart, del. et lith.

Walter, Imp.



CYCLOPSITTA SUAVISSIMA, *Sclater*.

D'Albertis's Perroquet.

Cyclopsitta suavissima, Sclater, P. Z. S. 1876, p. 520.—Sharpe, Journ. Linn. Soc, Zool. xiii. p. 491 (1878).
Cyclopsittacus suavissimus, Salvadori, Annali Mus. Civic. Genov. ix. p. 12 (1876–7).—Id. op. cit. x. p. 28 (1877).

Of the four Papuan species of *Cyclopsitta* two have blue foreheads, and two have the forehead brown; the blue-fronted birds are *C. gulielmi III.* and *C. suavissima*; the brown-fronted ones *C. melanogenys* and *C. fuscifrons*. The present bird was discovered by Signor D'Albertis in the neighbourhood of Naiabui, in South-eastern New Guinea; Mr. Octavius Stone also met with it in the neighbourhood of Port Moresby; and the former naturalist tells us that it feeds on fruits and on seeds. Although closely allied to *C. gulielmi III.*, it is, according to Count Salvadori, a much smaller bird, and is distinguished by the less-brilliant orange of the breast, by its white lores, by the black patch on the face much bigger and more constant; and he gives a very full account of the species in his paper on D'Albertis's collection.

I copy from the last-named essay the full diagnosis given by the Count.

Adult male. Green, darker on the upper surface; forehead and a spot behind the eye blue; lores white, the sides of the head and the throat whitish yellow; cheeks broadly black; lower throat and breast orange; abdomen and under tail-coverts pale green, slightly inclining to yellow; quills dusky, the primaries blue on the outer web; secondaries and upper wing-coverts green, uniform with the back; carpal edge of the wing bluish; lesser and median under wing-coverts greenish yellow, the greater ones dusky; quills yellowish towards the base of the inner web; tail green; bill, feet, and iris black.

Female. Similar to the male, but having the cheeks blue, the ear-coverts orange, the breast scarcely orange, but rather greenish yellow, the sides of the breast on each side with a longitudinal yellow mark.

Young male. Similar to the old female, but having the forehead only slightly tinged with blue, the lores whitish yellow, the cheeks greenish, tinged on the upper part with blue, the ear-coverts yellow, the lower throat and upper breast yellowish.

The figures in the Plate represent the typical pair of birds described by Dr. Sclater, and now in Italy. I am indebted to Count Salvadori for permission to figure them here.

Whatever time may bring in regard to the discovery of new Parrots, we can scarcely expect, even in the splendid genus *Cyclopsitta*, a more beautiful bird than the one here figured.



CYCLOPSITTA MELANOGENYS.

J.Gould & W.Hart del. et lith.

Walter, Imp.

CYCLOPSITTA MELANOGENYS.

Black-cheeked Perroquet.

Psittacula melanogenia, Rosenberg, Tijdschr. voor Nederl. Indië, xxix. p. 142 (1866).—Schlegel, Nederl. Tijdschr. voor de Dierk. iii. p. 330 (1866).—Rosenberg, Reis naar de Zuidoostereilanden, p. 49 (1867).—Gray, Hand-l. of Birds, ii. p. 168 (1870).—Schlegel, Mus. Pays-Bas, *Psittaci*, p. 35 (1874).
Psittacula melanogenys, Finsch, Papag. ii. p. 627 (1868).
Cyclopsittacus melanogenys, Salvadori, Annali Mus. Civic. Genov. ix. p. 14 (1876-7).—Id. *op. cit.* x. p. 29 (1877).

I HAVE figured in my different works several species of these little Perroquets, which appear to form a small group inhabiting only New Guinea and the adjacent Papuan islands, and extending into North-eastern Australia.

During the course of the present work several new species have been discovered; and the most of these belong to the orange-breasted section of the genus *Cyclopsitta*.

As Count Salvadori remarks, the distribution of these birds is truly remarkable, especially as regards the present bird and its two nearest allies: thus *C. melanogenys* is found in the Aru Islands, and is replaced in South-eastern New Guinea, where so many of the birds are identical with Aru species, by *C. suavissima*; while on the Fly river, which is an intermediate locality, occurs *C. fuscifrons*. Von Rosenberg procured examples of the present bird in the three islands of Wokam, Wonoumbai, and Mikor (all in the Aru group), where they are known to the natives by the name of Joa. Professor Schlegel gives a full description of the bird, and makes the following remarks, which I extract from his paper:—

"The Aru group produces a little *Psittacula* which has escaped the researches of Mr. Wallace, but of which M. von Rosenberg has furnished us with four individuals, viz. an adult male and female, and two specimens marked as males but wearing the livery of the females. This species is allied by its general form and its system of coloration to our *Psittacula gulielmi III.*, which inhabits Salawati and the neighbouring coast of New Guinea; and it appears to replace it in the Aru archipelago. It is, however, much smaller in size, all its colours are less vivid, the black bar on the ear-coverts is proper to both sexes, the yellow of the loral region is replaced by white, and the blue of the forehead and the superciliary streak are also blackish; the greater under wing-coverts, instead of being uniform blackish, are yellowish and only tipped with blackish; the quills have all of them, excepting the first two, a very large yellowish band on their inner web, whereas in *P. gulielmi III.*, this band is either in no way pronounced, or slightly indicated, passing insensibly to blackish, and confined to the secondary quills. The chest is always tinged or washed with yellow or orange-red."

The following is a translation of the description given by the learned Professor:—

Adult male. General colour grass-green, passing to yellowish green on the lower parts and to blackish on the inner webs of the quills. Forehead, region of the eye, and the whole of the posterior portion of the ear-coverts and the moustachial plumes of a slightly pronounced black; behind the region of the ear a very large patch extending onto the chin, of a white colour, washed with orange-yellow; the chest of a dark orange-rufous, not very bright; lower edge of wing, as also the outer edge of the primaries, blue; lesser and median under wing-coverts yellowish green, passing into blue towards the edge of the wing; greater under wing-coverts yellowish, but blackish at the tip; inner web of the quills, with the exception of the first two, having a very large yellow band.

The female and the male in imperfect plumage are distinguished from the adult male in the colour of the large patch behind the region of the ear, which is not white, but of a lively orange-yellow, the part of which occupying the chin passes into a greyish blue; lastly the chest is simply washed with orange-yellow. Von Rosenberg gives the colours of the soft parts as follows:—"Bill, feet, and iris dark greyish brown."

The figures in the accompanying Plate are of the size of life, and are a male and a young bird from the Aru Islands.



CYCLOPSITTA MACCOYI, *Gould.*

J.Gould. & W.Hart. del. et lith.

Walter imp.



CYCLOPSITTA MACCOYI, *Gould.*

M'Coy's Perroquet.

Cyclopsitta Maccoyi, Gould, P. Z. S. 1875, p. 314 (April).
——— *Leadbeateri*, M'Coy, Ann. N. H. (4) xvi. p. 54 (July 1875).

Australia now possesses two species of *Cyclopsitta*, a genus unknown to inhabit the continent until a few years ago, when the *C. Coxeni* was discovered. New Guinea has three species, the Aru Islands and the Philippines two each, while *C. Blythi* is confined to the island of Mysol. The distribution of this little genus is therefore very remarkable, and its absence from Celebes and the Halmahéra group of islands is not what we should have expected.

I am indebted to Mr. Waller, of Brisbane, for the loan of the specimens from which my original description was taken; and I felt great pleasure in adopting the suggestion of that gentleman that I should confer upon the species the name of Professor M'Coy, to whom so much of the progress of science in the Australian colonies is due. Unfortunately this little bird is already burdened with a synonym; for nearly at the same time that I described it, Professor M'Coy himself sent a description of the species, proposing for it the name of *C. Leadbeateri*. He gives the characters as follows:—"The general size, shape, and colouring is nearly like that of *C. Coxeni*; but it is somewhat smaller, and has in both sexes an oblong patch of red on the forehead, just over the cere. It differs also in habitat, frequenting the scrubs more than *C. Coxeni* does. It seems to be rather rare at Cardwell, where the specimens described were collected by Mr. Broadbent."

Male.—General colour green, the face having all the fantastic colours of the Harlequin; on the forehead a band of bright scarlet, surrounded by cobalt, a shade of the same colour encircling the latter, narrow above, broader below; on the cheeks, from the base of the bill to the tips of the ear-coverts, a band of scarlet like that on the forehead; and below this is an obscure band of purplish blue, gradually fading off into the green of the neck; flank-feathers tipped with bright lemon-yellow; quills externally blue, the inner secondaries green, with the usual tiny patch of scarlet adjoining the back; tail green; under wing-coverts green, the outer ones washed with blue; quills blackish below, diagonally crossed near the base with a yellow band. Total length $5\frac{1}{2}$ inches; wing $3\frac{3}{8}$, tail $1\frac{3}{4}$, tarsus $\frac{3}{8}$.

Female.—Differs from the male in wanting the scarlet cheeks; in other respects similar.

All the members of this little genus roam about in flocks, but, perched among the leaves and flowers of the Eucalypti, are excessively silent and seldom betray their presence until the whole company simultaneously burst forth into the open air and wing their way to other trees.

The figures in the Plate are of the size of life.



W. Hart del. et lith.

CYCLOPSITTA COCCINEIFRONS.

Mintern Bros. imp.



CYCLOPSITTA COCCINEIFRONS.

Astrolabe-Mountain Perroquet.

Cyclopsittacus coccineifrons, Sharpe, Journ. Linn. Soc., Zool. xvi. pp. 318, 426 (1882).—Salvad. Ann. Mus. Civic. Genov. xviii. p. 418 (1882).—Id. Orn. Papuasia e delle Molucche, iii. p. 516 (1882).

This species was discovered by Mr. Goldie in the Morocco district of the Astrolabe Mountains in South-eastern New Guinea. Mr. H. O. Forbes has recently met with it in the Sogeri district on the same range of mountains.

We separated the present species from *C. diophthalmus* on account of the darker colour of the red on the crown, but now that we have had an opportunity of examining a second specimen, and that a male bird, we do not find that this distinction is upheld, but the species is nevertheless different from *C. diophthalmus*. It may in fact be recognized by the greater breadth of the yellow band across the crown, which is little more than a narrow line in the last-named species.

Neither Mr. Goldie nor Mr. Forbes have given any information respecting the habits of this pretty little Perroquet, but the former gentleman states that it is called 'Ciguri' by the natives of the Astrolabe Mountains.

The following is a description of the sexes of this species :—

Adult female. General colour above grass-green; lesser wing-coverts like the back, becoming a little brighter on the median and greater coverts, the outermost of which are slightly washed with blue; bastard-wing and primary-coverts deep blue; quills black, the primaries externally deep blue; the secondaries green like the back; the innermost marked with scarlet on the inner web, as also the innermost greater coverts; tail-feathers darker green than the back, washed with blue near the base and on the inner web; a broad band across the forehead and sinciput, deep scarlet or dull crimson, succeeded by a well-defined band of yellow, the occiput and nape and hind neck a little more yellowish green than the back; lores crimson, as also a streak below the eye; above the fore part of the eye a broad streak or longitudinal spot of greenish turquoise; ear-coverts and cheeks pale drab-brown, washed with greenish blue below, and with a narrow line of purplish blue behind the ear-coverts; under surface of body light emerald-green, with a broad streak of golden yellow down the sides of the body; thighs and under tail-coverts light emerald-green, the long ones edged with yellow; under wing-coverts emerald-green, those near the edge of the wing deep bluish green; axillaries emerald-green with a darker green centre; lower coverts and quills below dusky blackish, crossed with a double bar of pale yellow. Total length 5·6 inches, culmen 0·55, wing 3·65, tail 1·55, tarsus 0·3.

The adult male differs from the type, which is evidently a female, in having the cheeks and sides of face scarlet: "bill bluish carneous, black on the tips of the mandibles; legs and feet pale blue; iris orange-red" (*H. O. Forbes*). Total length 5·5 inches, wing 3·25, tail 1·45, tarsus 0·35.

The Plate represents an adult male in two positions, the figures being drawn from a specimen procured by Mr. Forbes in the Astrolabe Mountains.

[R. B. S.]



APROSMICTUS CALLOPTERUS, *D'Albert & Salvad.*

J. Gould & W. Hart del. et lith.

Walter Imp.



Salvad

APROSMICTUS CALLOPTERUS, *D'Albert. & Salvad.*

Yellow-winged King Parrot.

Aprosmictus callopterus, D'Albert. & Salvad. Ann. Mus. Civic. Genov. xiv. p. 29 (1879).

In a former part of the present work I gave a figure of a very fine King Parrot from Queensland, which I called *Aprosmictus insignificus*. At the time of my describing this some of my friends believed the bird to be a hybrid, and not a true species. That such a supposition is somewhat untenable is proved by the bird which I now figure in the accompanying Plate having similar characteristics. Although scarcely as large as the *A. insignificus*, it is evidently of the same group, and is distinguished by the lengthened brilliant shoulder-patch which formed such a conspicuous feature in that species.

The *Aprosmictus callopterus* is one of the recent discoveries of Signor D'Albertis, during his exploration of the Fly River, in New Guinea; and more recently Mr. Kendal Broadbent has procured a similar Parrot in the mountains to the interior of Port Moresby. The latter bird has been separated by Mr. Sharpe, and called by him *Aprosmictus broadbenti*, for the following reasons:—It is, says that gentleman, a smaller bird, and has the blue patch of the mantle continued upwards onto the crown, whereas in *A. callopterus* the entire head and neck are red. The tail-feathers in *callopterus* are conspicuously tipped with rosy red, whereas, of the two specimens I have seen (one in the collection of the British Museum, the other in my own), the faintest spot only of this colour is observable in one feather of the bird I possess. Without wishing to disparage so great an authority as Mr. Sharpe as to the two birds being distinct, it may be possible that age may have something to do with the matter, and the *A. callopterus* is the younger bird; for, although it is not only in Parrots that I could point out where such is the case, I can hardly believe in the existence of two species of so limited a genus as *Aprosmictus* existing in such close proximity. At the same time it must be remembered that such is apparently the case in the Crowned Pigeons, where the *Goura albertisi* of Port Moresby is distinct from the *Goura sclateri* of the Fly River. This is a question which can only be solved by further explorations; and I am compelled to leave the matter as it stands for the present, and to allow *A. broadbenti* to stand or fall when more positive proofs have been obtained.

I have received the following note on the subject from Signor D'Albertis:—

"Dear Mr. Gould,

"I am very sorry I cannot give you the amount of information you want about the beautiful Parrot I discovered during my last expedition up the Fly. I found the bird on the 28th of June, 1877. I saw a pair. The male being the brighter-coloured, was first killed; and the female was never seen again. They were feeding on a small soft berry that grows on very high and thick trees. I was delighted with my capture, believing at the time I had got a new species, and, showing it to my men, offered a large reward for any other specimen they might bring me; but many days passed, and the bird could not be obtained by either of us. The country where I found it was hilly, and the forest magnificent, abounding in the most beautiful tropical plants. Perhaps our having anchored further up the river, where the country was flat, was the reason we did not find any more for a time; but when we again reached the hills another specimen, a female, was procured. The first two were adult birds. Late in October three more were secured; but they were all young; so that I should imagine the nesting-season to be from June to October or, perhaps, November. It is a shy bird, slow, and not noisy, as most Parrots are; and this may account for the difficulty of finding it in the thick forest. I think it also prefers the hilly districts, which would explain its scarcity in the prevailing flat country on the banks of the Fly. I am sorry not to be able to tell you any more about this bird; but its rarity did not allow me to study its habits."

Signor D'Albertis mentions that in the living bird the bill is black, excepting for the reddish spot on the upper margin of the base of the upper mandible; the feet are black; and the iris is yellow or orange-yellow.

For the opportunity of figuring this new and handsome species I have to thank Signor D'Albertis, who most kindly lent me a pair of specimens for the purpose. He informs me that the red tips to the tail-feathers are by no means a constant character; but he admits that he never saw a specimen of *A. callopterus* similarly coloured to the two males of *A. broadbenti* above referred to.

APROSMICTUS INSIGNISSIMUS, *Gould.*

J. Gould & W. Hart, del. et lith.

Walter imp.



Gould.

APROSMICTUS INSIGNISSMUS, *Gould.*

Beautiful King-Parrot.

Aprosmictus insignissimus, Gould, P. Z. S. 1875, p. 314.

I wish it were in my power to write a complete history of the splendid Parrot figured in the accompanying Plate. All that is at present known is that it was shot, in 1874, a few miles north of the village of Dalby, on the Darling Downs, in Queensland. My first knowledge of its existence was through a life-sized sketch from the hands of the son of Mr. Waller. Since then the actual specimen has been forwarded to me by Mr. Coxen, who has purchased it for the infant museum of Brisbane.

Those ornithologists who have paid attention to the Parrots of Australia, either in a state of nature or in the cabinet, will at once perceive the affinity of this bird with the ordinary King-Parrot of the brushes of New South Wales (*Aprosmictus scapulatus*). In structure it is very similar to that bird, while in colour it greatly partakes of *Ptistes*. In their habits and local habitations, however, *Ptistes* and *Aprosmictus* widely differ. *Aprosmictus* is almost solely an inhabitant of the thick brush, while *Ptistes* is as exclusively a frequenter of the thinly timbered open plains; the former is dull, quiet, and slow in its movements, while the latter passes over the tops of the highest trees of the plains with a strong vigorous flight. Each of them has a well-developed os furcatorium, a bone not found in *Platycercus* and allied genera.

The King-Parrot has a stout bill, the lower half of which is black, the upper red; while in *Ptistes* both mandibles are highly coloured; the former has also a shorter and less ample wing than the latter. I mention this particularly to show the improbability of this bird being a lusus, or hybrid, between the birds above mentioned; and it may be that it is an accidental visitor from New Guinea.

The following is a repetition of what is published in the 'Proceedings of the Zoological Society' for 1875:—

"Head emerald green, excepting the centre of the crown and a patch on the nape, these parts being scarlet, the green forming a narrow frontal line between the nostrils and the crown; round the hind neck a narrow collar of emerald green; back, including the mantle and scapulars, deep grass-green, each feather obscurely edged with darker colour; lower back and rump shining blue; upper tail-coverts bright grass-green; all the tail-feathers above deep grass-green, with indistinct narrow bars of darker colour on every one of them; the underside of the tail uniform purplish black; wings green, with a broad longitudinal patch of yellow, many of these feathers edged with scarlet, this mark being very indistinct and similar to that seen in the male of *Ptistes*; under wing-coverts greenish blue; inner lining of quills purplish black like the lower surface of the tail; under surface of body scarlet, with dashes of bright green on the flanks; under tail-coverts green, fringed with scarlet; both mandibles of the bill bright orange-red; legs blackish. Total length $15\frac{1}{2}$ inches, wing 9, tail $7\frac{3}{4}$, tarsus $\frac{7}{8}$.

It is pretty evident that this specimen had not quite completed its fully adult livery. If it had done so, the green feathers on the back of the head would have been red.

In conclusion I must thank the authorities of the Brisbane Museum for the extreme courtesy which induced them to send so valuable a bird to England for the purpose of this work. I have thus been enabled to give a life-size illustration of this remarkable and interesting species.



W. Hart del et lith.

CHARMOSYNA MARGARITÆ, ♀ *Tristr.*

Mintern Bros. imp.



CHARMOSYNA MARGARITÆ, *Tristr.*

Duchess of Connaught's Parrakeet.

Charmosyna margarethæ, Tristram, Ibis, 1879, p. 442, pl. xii.
Charmosynopsis margaritæ, Salvad. Orn. Papuasia, i. p. 319 (1880).—Id. Ann. Mus. Civic. Genov. xviii. p. 419 (1882).—Id. Orn. Papuasia, etc. iii. App. p. 520 (1882).
Trichoglossus (*Charmosyna*) *margarithæ*, Ramsay, Proc. Linn. Soc. N. S. W. vi. p. 720 (1881).

This beautiful little Parrakeet belongs to the subgenus *Charmosynopsis* of Salvadori, along with *C. pulchella*, to which it is allied. It differs from the latter bird, however, in many particulars, in the yellow collar round the hind neck, and in the broad yellow band on the chest, which takes the place of the yellow streaks in *C. pulchella*. In the latter species also there is no purplish-black band across the breast as there is in *C. margaritæ*.

The present bird, named by Canon Tristram in honour of H.R.H. the Duchess of Connaught, was discovered in the Solomon Islands by Lieut. Richards, R.N., and Mr. Ramsay has likewise received specimens from the same Archipelago. He has very kindly lent us a pair of birds from the island of Ugi, the one with the red on the sides of the rump being marked "male" and the yellow-sided bird "female."

The following is a description of the specimens lent to us by Mr. Ramsay :—

Adult male. General colour above bright grass-green, the rump and upper tail-coverts washed with golden; sides of the lower back crimson; wing-coverts green, like the back; primary-coverts and quills black, externally green like the back; tail-feathers crimson slightly tipped with yellow, which increases into a large terminal mark on all the other feathers, which have black shafts, and an inner broad margin of black and a narrower external one of grass-green; forehead and sinciput crimson, separated by a broad bar of deep purplish black on the vertex from the occiput and hinder neck, which are also crimson, and are succeeded by a narrow band of purplish black, followed by a somewhat broader one of orange-yellow, which divide the green back from the crimson neck; lores, sides of face, cheeks, ear-coverts, sides of neck, and entire throat crimson, followed by a narrow band of purplish black, which is succeeded by a broad band of orange-yellow, both these bands being continuous with the similarly coloured bands round the hind neck; remainder of under surface of body crimson, with a band of purplish black across the breast; thighs and basal under tail-coverts crimson, the longer under tail-coverts grass-green; axillaries and under wing-coverts crimson; edge of wing grass-green. Total length 7·5 inches, culmen 0·7, wing 4·25, tail 3·25, tarsus 0·4.

The female exactly resembles the male, but has less tinge of golden on the rump, and is further distinguished by the sides of the lower back being orange-yellow, with crimson tips to a few of the feathers. Total length 7·6 inches, culmen 0·65, wing 4·1, tail 3·5, tarsus 0·4.

The figures in the Plate are taken from the pair of birds mentioned above as lent to us by Mr. Ramsay: they represent the male and female of about the size of life.

[R. B. S.]



CHARMOSYNA JOSEPHINÆ.

J.Gould. & W.Hart del. et lith.

Walter imp.



CHARMOSYNA JOSEPHINÆ.

Josephina Parrakeet.

Trichoglossus josephinæ, Finsch, Atti R. Accad. Torino, 1872, p. 42, tav. 7.—Meyer, J. f. O. 1874, p. 56.

The Josephina Parrakeet was first described by Dr. Otto Finsch, from a specimen preserved in the collection of Count Turati at Milan. By the latter gentleman it was obtained from M. Laurent de Gréaux, a natural-history dealer in Marseilles, having been originally purchased by him in London, along with two specimens of the rare *Psittacula gulielmi III.* Dr. Finsch rightly concluded that the habitat of this beautiful species would prove to be the island of New Guinea; for he found in the Bremen Museum some native head-dresses of plumes composed of the tail-feathers of this Parrakeet and of *C. papuensis*, which Von Rosenberg assured him were worn by the inhabitants in the interior of the island. None of the Dutch collectors managed to obtain specimens for the Leiden Museum; and it is to Dr. Meyer that we are indebted for our authentic information respecting it. He obtained specimens during his last voyage, and he was thereby enabled to determine that the species had been founded by Dr. Finsch on a female bird; Dr. Meyer was therefore the first to discover the male. I am indebted to him not only for the loan of the specimens which I now figure, but also for the following note on the species:—"I found this bird on my voyage to New Guinea in June 1873, on the west coast of Geelvink Bay, where it was seen near the sea-shore in large flocks; but in no other spot, during my residence in the island, did I meet with it. The nearly allied *C. papuensis* has, up to the present, only been found far in the mountainous districts of New Guinea; and perhaps this smaller species represents it in the lowlands. Young birds have the breast undulated with blackish and green; and in some females the black of the belly is strongly mixed with olive green. In life the bill, feet, and irides are deep orange-red, the claws and the naked part round the eye greyish black. In the stomach I only found juice of plants."

Dr. Finsch thus describes the female:—

"Head, neck, and under surface of body fine crimson-red; an occipital spot obscure bluish lilac, posteriorly surrounded with a black band. Back and wings green. Belly and thighs black, with a violet lustre. Rump and flanks yellow. Two centre tail-feathers red; the rest green, with the inner webs red, the tips yellow, preceded by an obscure subterminal mark of bluish."

The male differs from the female in being red on the rump, where the latter is yellow.

I have figured a male and female on the accompanying Plate, of about the natural size. In general size this species is rather smaller than *C. papuensis*, and has a coarser and stronger bill, while the long tail-feathers are stiffer and less flexible.



CHARMOSYNA PULCHELLA, *Gray.*

J.Gould & W.Hart del. et lith.

Walter imp.



CHARMOSYNA PULCHELLA, *Gray.*

Pectoral Lorikeet.

Charmosyna pulchella, Gray, List Psittac. B. M. p. 877 (1859).—Wall. P. Z. S. 1864, p. 292.—Salvad. Ann. Mus. Civ. Genova, vii. p. 813 (1875).

——— *pectoralis*, Von Rosenb. J. f. O. 1862, p. 64.—Id. Nat. Tijdschr. Nederl. Ind. 1863, p. 144.—Id. J. f. O. 1864, p. 112.

Eos pulchella, Schl. Dirent. p. 69 (1864).

Trichoglossus pulchellus, Finsch, Papag. ii. p. 877 (1868).—Gray, Hand-l. B. ii. p. 157 (1870).—Meyer, Sitz. Akad. Wien, lxix. pp. 74, 76.

Dr. Otto Finsch, our greatest authority on the family Psittacidæ, places the present beautiful little species near the end of his comprehensive genus *Trichoglossus*, in the vicinity of *Charmosyna papuensis*, which he does not consider generically separable. Its near allies he admits also to be the elegant little birds which I have figured in the present work as *Psitteuteles placens*, &c.; but I contend that its general form and coloration make it rather a *Charmosyna*, in which genus it was placed by the late Mr. Gray, and also by its original discoverer Mr. A. R. Wallace. As Dr. Finsch remarks very truly, it does not show the extremely long tail-feathers which adorn *C. papuensis*; but I think that any one comparing the plates in this volume will see that in general system of coloration it agrees best with the last-named species.

I regret to say that nothing whatever has been recorded respecting its habits and economy; and it does not seem to be a common bird even in the country which it inhabits. This is the northern part of New Guinea, Mr. Wallace having discovered it at Dorey, and Signor d'Albertis having also met with it in Atam.

The following is Mr. Gray's original description:—

"Total length 7½ inches, wings 3½. Head and underpart of the body carmine; the breast-feathers green at base, with some small streaks of bright yellow; crown and spot on the lower part of back purplish black; nape, back, wings, and base of tail-feathers green; sides of rump bright yellow; thighs green, streaked with bright yellow; knees purplish black; middle tail-feathers mostly carmine, with the tips yellow; lateral feathers green, with the inner web carmine and the tips bright yellow."

Not only is great elegance of form conspicuous among the species of this genus, but how strikingly does the tint of red prevail not only in the pretty *Charmosyna*, but in most of the Lories and Lorikeets and other birds of the rich region of Papuana!—a feature which must have forcibly struck any person who has made a study of comparing the birds of Asia and India, on the one hand, with those of Australia and New Zealand on the other. With the exception of Mr. Wallace's specimen now in the British Museum, no examples, as far as I am aware, have been brought to this country.

The figures in the accompanying Plate represent a supposed male and female, of the size of life.

I am indebted to the courtesy of Dr. Meyer in sending these birds to England.



CHARMOSYNA PAPUENSIS,

J. Gould & W. Hart del. et lith.

Walter imp.



CHARMOSYNA PAPUENSIS.

Papuan Lorikeet.

Papuan Lory, Lath. Gen. Syn. i. p. 215 (1781).
Psittacus papuensis, Gmel. S. N. i. p. 327 (1788).—Lath. Ind. Orn. i. p. 88 (1790).—Kuhl, Consp. Psitt. p. 33.
Psittacus papou, Scop. Del. Flor. et Faun. Insubr. ii. p. 86 (1786).
La Perruche Lori papou, Levaill. Perroq. ii. p. 9, pl. 77 (1805).
Psittacus lichtensteini, Bechst. Kurze Uebers. p. 82 (1811).
Palæornis papuensis, Vieill. N. Dict. d'Hist. Nat. xxv. p. 336 (1819).—Vigors, Zool. Journ. ii. p. 56 (1826).
Lorius papuensis, Less. Tr. d'Orn. p. 195 (1831).—Schl. Mus. P.-B., *Psittaci*, p. 130 (1864).
Charmosyna papuensis, Less., Sclater, Proc. Zool. Soc. Nov. 1873.—Bp. Rev. et Mag. Z. 1854.—Gray, List Psitt. 1859.
Trichoglossus papuensis, Finsch, Papag. ii. p. 878 (1868).

When the collection of birds formed by Signor d'Albertis was submitted to me, I was highly pleased to find an exquisite specimen of the present bird from Atam. Skins denuded of the head, legs, and wings, as skins of the Birds of Paradise formerly were, had, it is true, been before my eyes for the last forty years ; but until now I had not seen it in a perfect state. It is, however, if we may depend upon the older authors, one hundred years since a knowledge of its existence was acquired by ornithologists. As a matter of course its synonymy is not only extensive, but in such a state of confusion that it would be out of place, in a folio work such as I am now penning the letterpress for, to attempt to unravel it. Those who desire further information on the subject would do well to consult the very excellent and learned work on the Parrots, 'Die Papageien,' by Dr. Otto Finsch, who says:—"This extraordinarily rare Parrot, distinguished for its splendid colours, was well known to the old author Seba, and was first figured by him. His single figure represents the bird as a skin in the way in which they are prepared by the Papuan natives. Seba, who calls every bird with decorative plumage a Bird of Paradise, takes this bird also for one, and gives its habitat quite correctly as New Guinea. This species is very perplexing as regards its synonymy; but it is in any case erroneous for Wagler and Gray to place as synonyms of *Trichoglossus papuensis* the very doubtful species *Psittacus japonicus* of Linnæus, and *parvus* of Bontius, of my Appendix of doubtful species.

"Concerning the native country of this bird there has been hitherto some indecision ; but we learn through Wallace and Von Rosenberg that the species really exists in the northerly and north-westerly parts of New Guinea. Near Doreh it is very rare; the long tail-feathers, however, are seen in the feather ornaments of the natives of this place. Schlegel gives the eastern part of New Guinea as its habitat."

That *Charmosyna papuensis* will be regarded as one of the finest of the New-Guinea birds is certain; the researches of Dr. Meyer, however, have brought under my notice two or three other exquisitely coloured species, which will hereafter be figured in sequence to this, the head of the genus.

The figure in the accompanying Plate is of the size of life.



CHARMOSYNA STELLÆ, *Meyer.*

W. Hart del et lith.

Mintern Bros. imp.



CHARMOSYNA STELLÆ, *Meyer*.

Stella Parrakeet.

Charmosyna josephinæ (nec Finsch), Sharpe, Journ. Linn. Soc., Zool. xvi. p. 428 (1882).
Trichoglossus papuana, Ramsay, Proc. Linn. Soc. N. S. Wales, x. p. 244 (1885).
Charmosyna stellæ, Meyer, in Madarász, Zeitschr. ges. Orn. iii. p. 9, pl. ii. (1886).

This splendid Parrakeet is the southern representative of *C. papuensis*, which inhabits North-western New Guinea. It was described by Dr. Meyer from specimens procured by Mr. Hunstein in the Owen Stanley Mountains; and Mr. Forbes has sent a fine series from the Astrolabe range, where it would seem to be abundant, if only sufficient altitude is reached. Mr. Goldie sent home some years ago a pair of mutilated skins, which we recognized as different from *C. papuana*, but erroneously referred them to *C. josephinæ*. Mr. Ramsay says that he has also received specimens of both species from the Astrolabe Mountains, the *C. papuana* mentioned by him being of course *C. stellæ*.

The present species is easily distinguished from both *C. papuana* and *C. josephinæ* by the absence of the yellow patches on the sides of the body, and also in the different arrangement of the nuchal patch, the greater part of the crown in *C. stellæ* being crimson, followed by a large lilac-blue patch on the occiput and nape, whereas in *C. papuana* the occiput is black, separated from the crimson forehead by a line of lilac-blue feathers.

Mr. Goldie, when he procured the first mutilated skins from the natives, wrote as follows :—"The feathers from the tail have been frequently obtained along the coast. The natives said that the bird was only to be obtained at a considerable distance from Morocco inland on the mountains." The native name is given by him as "Divu."

Adult male. General colour above dark grass-green, the back and upper tail-coverts rich crimson, with a patch of lilac-blue on the rump; a broad collar of deep crimson separating the head from the green mantle, the adjacent feathers being crimson with green tips; wing-coverts grass-green like the mantle; bastard-wing, primary-coverts, and quills dusky blackish, externally grass-green; tail-feathers green, the long centre feathers passing into red and thence into yellow at the ends; the remainder of the feathers yellow towards the ends, the base of the inner web rich crimson; crown of head crimson, the nape black, the occiput with a patch of long lilac-blue feathers; entire sides of face, throat, and breast deep crimson, with a small patch of green feathers at the sides of the upper breast; lower breast and abdomen blackish with a purplish-blue gloss, more distinct over the thighs; sides of body and flanks deep crimson; lower abdomen, vent, and under tail-coverts deep crimson; under wing-coverts and axillaries crimson; edge of wing green; lower coverts and quills below dull blackish. Total length 15 inches, culmen 0·8, wing 5·6, tail 4·6 (longest feathers 10·4), tarsus 0·55.

Adult female. Differs from the male in having the centre of the back golden yellow instead of crimson, and in having the blackish colour of the abdomen extending on to the flanks. Total length 14·5 inches, culmen 0·85, wing 5·2, tail 5·5 (longest feathers 10·2), tarsus 0·55.

The young male resembles the old male, and, like it, has a crimson back; but the crimson feathers of the hind neck and breast are margined with purplish blue, and the blackish abdomen is washed with green and has blue endings to the feathers.

The Plate represents an adult male and female of this Parrakeet, the figures being drawn from specimens collected by Mr. H. O. Forbes.

[R. B. S.]



PSITTEUTELES RUBRONOTATUS.

J.Gould & W.Hart del et lith.

Walter, Imp



PSITTEUTELES RUBRONOTATUS.

Red-backed Lorikeet.

Coriphilus rubronotatus, Wallace, P. Z. S. 1862, p. 165.
Charmosyna rubronotata, Wallace, P. Z. S. 1864, p. 293.
Trichoglossus rubronotatus, Finsch, Pap. ii. p. 876 (1868).
Nanodes rubronotatus, Schlegel, Mus. P.-B. Revue Psitt. p. 51 (1874).
Trichoglossus rubronotatus, Meyer, Sitzb. d. k.-k. Akad. d. W. zu Wien, lxix. p. 400 (1874).
Trichoglossus kordoanus, Meyer, Verh. d. k.-k. zool.-bot. Ges. zu Wien, 1874.
Charmosyna kordoana, Salvadori, Ann. Mus. Civ. di Genova, vii. 1875, p. 212.

Dr. Meyer, ever anxious to advance Papuan ornithology, has obligingly forwarded to me seven specimens of a little Lorikeet, which he considers to be two different birds; and he believes that his *Trichoglossus kordoanus* should stand as a species, and not as a synonym to Mr. Wallace's *Coriphilus rubronotatus*. But, after having given the subject my closest attention and, moreover, after consulting the opinions of others, I can come to no other conclusion than that the specimens sent to me are identical or have insufficient characters to separate them. Trifling differences, it is true, occur among the seven specimens; but they are not more, nay, not even so much as those that have occurred to me many times before—differences attributable, perhaps, to locality or to some cause equally unimportant. As Dr. Meyer, however, still clings to his opinion and has, moreover, taken the trouble to forward me a translation of his paper on the subject with additional remarks, it is right that I should give his views on the subject.

He remarks:—"*Trichoglossus rubronotatus* was discovered by Mr. Wallace on the island of Salwati at the north-west extremity of New Guinea, and has since been procured by Dr. Bernstein in the same district, but was never figured before, specimens even now being very rare. It was only in one place in New Guinea, in May 1873, that I obtained this lovely bird, viz. near Rubi, the southern point of the great Geelvinks Bay; and in 1874 I published some notes respecting it, which I beg to be allowed to reproduce here.

"Dr. Finsch says of *rubronotatus*:—'A beautiful bird, representing the *Trichoglossus placens* on Salwati and the north-west coast of New Guinea;' but, inasmuch as the two species occur together (mine were both obtained near Rubi), they must rather be considered parallel forms and not representations of each other, the adult male only being known till lately, and described by Dr. Finsch in detail, although he does not mention the sex of the bird.

"A short time before I published these notes I had described a similar form from the island of Mysore, in the north of the Geelvinks Bay, under the name of *Trichoglossus kordoanus*, a female, and the only one that had come under my notice. I then stated the differences between the females of the two forms to be as follows:—*T. kordoanus*. Cheeks and sides of the neck bright bluish green, whereas in *T. rubronotatus* the cheeks are of a darker tint, with yellow stripes, and the sides of the neck light grass-green, like the under surface of the whole body; besides which the red of the uropygium in *T. kordoanus* is much more vivid than the same colour in the males of *T. rubronotatus*. The irides are bright yellow; bill and cere bright red; feet of a somewhat lighter tint; claws grey. The tongue is a regular brush; the stomach contained only flower-sap.

"I imagined that the males would prove to be still more distinct, as the difference between the females was so marked; this, however, did not prove to be the case. The Dresden Museum possesses a male specimen of the Mysore bird; the chief points of difference between this and *T. rubronotatus* are as follows:—Under surface, especially on throat, bluish green instead of the yellowish tint in *T. rubronotatus*; the red of the uropygium brighter and more extensive than in the New-Guinea bird, where it only consists of a few feathers even in the male when in full plumage; besides which the red on the sides of the breast appears to extend more to the centre in *T. kordoanus* than in *T. rubronotatus*; and, finally, the green of the upper surface of the former is of a more brilliant hue than in the latter.

"These differences are not great, yet they are conspicuous and cannot be overlooked or underrated; their real significance, however, lies in the fact that they coincide with the geographical separation, and in their constancy. In our Darwinian days but few naturalists will dispute that insular forms are to be regarded as directly derived from continent ones, nor will the value of the small differences be disputed. When sufficient materials of similar deviations from a parent stock are collected, the reasons of these variations may, perhaps, be rendered more clear, and the laws by which they sometimes take place be more fully recognized."

The principal figures are of the size of life.



PSITTEUTELES SUBPLACENS.

J. Gould & W. Hart del. et lith.

Walter, Imp.



PSITTEUTELES SUBPLACENS.

Green-backed Lorikeet.

Trichoglossus subplacens, Sclater, Proc. Zool. Soc. 1876, p. 519.

The present lovely Lorikeet, lately discovered by Signor D'Albertis on the south coast of New Guinea, may dispute the palm of beauty with the well-known *Psitteuteles placens*, so generally considered one of the finest of the family. As regards colour, *P. subplacens* has even a more beautiful tail than its near ally; and the markings of this organ are still more vivid. The greatest difference, however, is in the colouring of the back, which is uniform green, while on the back of *P. placens* a conspicuous mark of blue breaks the uniformity of this part; lastly, although the crown in both is of a different colour from the hinder neck, it is much brighter and better-defined in the new bird. We have now five very distinct Lorikeets which are not second in beauty when compared with any other section of the family. These five species are *Psitteuteles placens*, *P. subplacens*, *P. arfaki*, *P. rubronotatus*, and the elegant *P. wilhelminæ*. A question now arises in my mind, Are there others of the genus yet to be discovered? or is five the normal number, as is the case with many other little groups to which generic appellations have been given? With regard to the sexual differences in colour, we find the usual distinctive marks in the male and female; that is, the ear-coverts are blue in the former, whilst they are yellow in the latter, which may be readily seen by reference to the Plates.

The following is taken from Mr. Sclater's paper in the 'Proceedings' of the Zoological Society as above quoted:—"Extracts were read from letters received from Signor L. M. D'Albertis, C.M.Z.S., dated Sydney, March 27th," 1876.

He "also exhibited a small collection of bird-skins collected at Yule Island and on the adjoining coast of New Guinea, which that gentleman had transmitted to him for examination.

"Mr. Sclater stated that, the collection having been only just received, he had not had time to examine it carefully, but took the opportunity of pointing out the characters of two apparently new species of Parrots," of one of which the description is as follows:—

"Trichoglossus subplacens, sp. nov.

"*Psittaceo-viridis, pileo summo flavicante; macula magna auriculari utrinque cærulea; subtus dilutior, lateribus et alarum tectricibus inferioribus coccineis; remigum pagina inferiore nigra fascia flava intersecta; rectribibus ad basin coccineis, inde nigris flavo terminatis, harum duabus mediis supra viridibus subtus nigris, linea media coccinea versus apicem occupatis; rostro rubro; pedibus rubro-flavidis: long. tota* 6·5, *alæ* 3·5, *caudæ* 2·8.

"*Hab.* Mountains of Naiabui, south of New Guinea (*D'Albertis* et *Tomasinelli*)."

The Plate represents a male and a female, of the natural size; and I am indebted to the kindness of Dr. Sclater for shewing me these birds and allowing me to figure them.



J.Gould & W.Hart del. et lith.

PSITTEUTELES ARFAKI.

Walter imp.



PSITTEUTELES ARFAKI.

Arfak Lorikeet.

Trichoglossus (*Charmosyna*) *arfaki*, Meyer, Verh. z.-b. Gesellsch. Wien, 1874, p. 37.
———— *arfaki*, Meyer, Sitz. k. Akad. Wien, lxix. p. 74 (1874).—Rowley, Orn. Misc. part 3 (1876).

The minute size and singular coloration of the outer tail-feathers, which make this tiny Parrot resemble at first sight one of the Indian Minivets (*Pericrocotus*), caused me no little astonishment when I first uncovered the specimen which Dr. Meyer was so kind as to send over to me from Dresden for the purpose of figuring; but I further found that, in addition to these characteristics, it differed from all its allies in having *fourteen* tail-feathers instead of twelve. This peculiarity would almost be sufficient to place it in a separate genus; but this I cannot bring myself to do, in the face of its evident affinity to *P. placens* and *P. wilhelminæ*: and when we consider that certain Snipes are still retained in the genus *Gallinago* which present similar variations in the number of the tail-feathers to that exhibited by these little Lorikeets, it is not unreasonable to keep the latter in one and the same genus.

Only three specimens were procured by Dr. Meyer during his trip to the Arfak Mountains, one old male in full livery and two young ones; one of the latter passed into the collection of Count Turati, of Milan, and the other into that of Mr. Dawson Rowley, of Brighton, by whom it was figured in his interesting work the 'Ornithological Miscellany.' I am much indebted to this gentleman for the loan of his specimen, which is depicted in the adjoining Plate along with the adult male retained by Dr. Meyer for the Dresden collection and sent over by him to England. The plate in the 'Ornithological Miscellany' represents the bird to be a female; but I am assured by Dr. Meyer that some error must have occurred by the displacement of the original label; for he himself dissected the three specimens shot, and proved them to be males, one being adult, as before noted, and the other two immature: these had the colouring incomplete except as regards their tails; but in size, as is often the case with young birds, they somewhat exceeded the adult. It is one of these young birds that has been figured by Mr. Dawson Rowley.

That this is a honey-eating Parrot I have no doubt, its general characteristics uniting it with this group of the Parrots; but its colours are strikingly anomalous. Fancy a little bird, scarcely bigger than a Bearded Reedling (*Calamophilus biarmicus*) with a tail like that of a Minivet (*Pericrocotus*), and exhibiting a silvery tear-mark running down a cheek of smutty blue, and we have some of the peculiarities of this curious form. The Plate, however, gives a better idea of the bird than can be gained from any remarks of mine. The following is a more detailed description of the old male:—

The half of the crown nearest the bill, the under part of the shoulders, flanks, centre of the abdomen, and apical half of the outer tail-feathers bright red, while the base of each of the feathers last mentioned is jet-black; the rest of the plumage both above and below fine grass-green; the margins of the primaries washed with blue; sides of face dull blue, with a silvery streak running down the centre; the under surface of all the primaries and secondaries jet-black, crossed by a V-shaped band of bright yellow; bill and feet black.

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

Hab. Arfak Mountains, N.W. Guinea.

The figures represent the old and young birds, of the size of life.



PSITTEUTELES WILHELMINÆ.

J. Gould & W. Hart del. et lith.

Walter imp.

PSITTEUTELES WILHELMINÆ.

Wilhelmina Lorikeet.

Trichoglossus wilhelminæ, Meyer, J. f. O. 1874, pp. 56, 57, 111.—Id. Sitz. k. Akad. Wissensch. lxix. p. 74 (1874).

If it were possible to use such a term in speaking of a bird, I should describe this exquisite little Lorikeet as being an example of the *multum in parvo* principle as regards colouring. Its diminutive size, together with the great variety of its tints, combine to render it one of the most striking of the birds obtained by Dr. Meyer during his recent travels to New Guinea and the adjacent islands. Although for the present I associate *P. arfaki*, *P. placens*, and this species under one genus, it must not be overlooked that they differ in one important character, namely in the possession of fourteen tail-feathers by *P. arfaki*, whereas *P. placens* and *P. wilhelminæ* have only twelve, like other Parrots. Its beautifully coloured graduated tail is, in fact, the only character which it possesses in common with *P. arfaki*, the fashion of the coloration being very similar.

In naming this species *P. wilhelminæ* Dr. Meyer has paid a graceful compliment to his wife, who has been a constant companion of his travels, not only in Europe, but also to the far distant Molucca Islands; and I must confess that it gives me great pleasure in figuring the species in an early number of my work, and thereby assisting to perpetuate the name of a lady so heroic.

That other species of this little genus remain to be discovered one can hardly doubt, seeing the vast accessions to our knowledge of ornithology which each successive collection from the northern part of New Guinea brings to us.

On the accompanying Plate two males and a female are depicted, as nearly of the natural size as possible; but it will perhaps be desirable to add a detailed description, since the female differs in some points from the male as regards the colour and disposition of the markings; but the most prominent is the entire absence of red on the under surface of the wing. Her other tints, though similar to the male, are not so fine.

The following is a description of a male sent:—"Bill yellow; face, throat, and under surface generally, lively pale green, with a large patch of lengthened narrow stripes of yellow on the breast, each stripe being margined with a dark colour; crown of the head and nape reddish brown, with narrow blue feathers interspersed down the latter; mantle and upper surface green; lower part of the back fiery red, succeeded by a patch of purple, blending into green on the upper tail-coverts; two central tail-feathers black at their bases, passing into greenish at their tips; the bases of all the external feathers fiery red, succeeded by black, and green tippings; on the flank a small patch of yellow joining the red of the back; the feet appear to have been grey.

"Total length of male $4\frac{3}{4}$ inches, wing $2\frac{5}{8}$, tail $2\frac{2}{8}$, tarsi $\frac{3}{8}$.

"*Hab.* New Guinea, passim."



J. Gould & W. Hart del. et lith.

PSITTEUTELES PLACENS.

Walter imp.



NS.

PSITTEUTELES PLACENS.

Beautiful Lorikeet.

Psittacus placentis, Temm. Pl. Col. iv. pl. 553 (1835).—Müll. & Schl. Naturl. Gesch. Land- en Volkenk. p. 23 (1839–44).
Conurus placens, Bourjot St.-Hilaire, Perroq. pl. 46 (1839).
Coryphilus placentis, Gray, Gen. B. ii. p. 417 (1845).—Id. List Psitt. B. M. p. 59 (1859).—Id. Cat. Mamm. &c. N. Guin. p. 41 (1859).—Von Rosenb. Reis. Zudoostereilanden, p. 87 (1867).
Psitteuteles placens, Bp. Rev. et Mag. de Zool. 1854, p. 157, et Tabl. Syst. in Naumannia, 1856.
Trichoglossus placens, Scl. Pr. Linn. Soc. 1858, p. 164.—Finsch, Papag. ii. p. 872 (1868).
Coryphilus placens, Schl. Dirent. p. 78 (1864).—Finsch, Neu Guin. p. 158 (1865).
Nanodes placens, Schl. Mus. P.-B. *Psittaci*, p. 113 (1864).—Id. Rev. Psitt. p. 50 (1874).
Charmosyna placentis, Wall. P. Z. S. 1864, p. 292.
Trichoglossus placentis, Gray, Handl. B. ii. p. 157 (1870).

In contrast to the very restricted range of *P. arfaki* and *P. wilhelminæ*, the bird now before us has rather a wide distribution, being found in nearly every one of the Papuan Islands, and Professor Schlegel gives the following localities in which the species has been known to occur :—" Halmahera, Ternate, Ambaou (an island to the south of Bouru), Ceram, Amboina, Poulo-Padjang (of the group of Ceram Laut), Great Key, Aru Group, Mysol, Salwatti, and Guebéh, as well as in the western part of New Guinea." The Leiden Museum possesses a series of no less than sixty-four examples, obtained by the well-known travellers Bernstein, Hoedt, and Von Rosenberg.

Our knowledge of this beautiful little bird is extremely limited; and I believe that there is nothing known on the subject of its manners and general economy. A single note is given by Mr. Wallace in his interesting work on the Malay Archipelago (i. p. 314), where he says :—

"In September 1858, after my return from New Guinea, I went to stay some time at the village of Djilolo, situated in a bay on the northern peninsula. Here I obtained a house through the kindness of the Resident of Ternate, who sent orders to prepare one for me. The first walk into the unexplored forests of a new locality is a moment of intense interest to the naturalist, as it is almost sure to furnish him with something curious or hitherto unknown. The first thing I saw here was a flock of small Parroquets, of which I shot a pair, and was pleased to find a most beautiful little long-tailed bird ornamented with green, red, and blue colours, and quite new to me. It was a variety of the *Charmosyna placentis*, one of the smallest and most elegant of the brush-tongued Lories. My hunters soon shot me several other fine birds; and I myself found a specimen of the rare and beautiful day-flying moth *Cocytia d'Urvillei*."

It would be difficult to imagine a bird more variously coloured than the present; and it is in consequence by no means easy to describe. The bill is red, the feet yellow, the entire face bright scarlet, the ears blue, surrounded by lively green. The upper surface of the body is also of the latter colour; a bright blue spot, however, vies with the mark of this tint on the ear-coverts, while the under surface of the body from the chest to the under tail-coverts is light yellowish green, relieved on the flanks by a brilliant patch of scarlet; on raising the wing a brilliant scarlet mass also occupies a part of the shoulders, while a triangular-shaped mark of yellow crosses the primaries and some of the secondaries. Its graduated and somewhat cuneate tail is much diversified, particularly on the under surface, the bases of the feathers being red, the middle black, and the tips yellow.

The female differs from the male in having no red on the cheeks or blue on the ear-coverts, the latter being striped with yellow and dark brown; neither has she the bright scarlet on the flanks and under the shoulders.

Total length of male $7\frac{1}{2}$ inches, wing $3\frac{3}{4}$, tail $4\frac{1}{4}$.

On the Plate are figured a male and female, of the natural size.



NASITERNA PYGMÆA.

J.Gould & W.Hart, del. et lith.

Walter, Imp.



NASITERNA PYGMÆA.

Pygmy Parrot.

Psittacus (Psittacula) pygmæus, Quoy & Gaim. Voy. de l'Astrol. Zool. i. (1830) p. 232, pl. 21. fig. 1 (♂ juv.), fig. 2 (♀).

Nasiterna pygmæa, Wagler, Monogr. Psitt. p. 631 (1832).—Gray, Gen. B. ii. p. 423 (1846).—Bp. Consp. i. p. 6 (1850).—Id. Rev. et Mag. de Zool. 1854, p. 156.—Id. in Naumannia, 1856, Extrah. iv.—Sclater, Proc. Linn. Soc. ii. p. 166 (1858).—Gray, P. Z. S. 1858, p. 195.—Id. List Psitt. Brit. Mus. p. 52 (1859).—Id. Cat. B. New Guinea, pp. 43, 60 (1859).—Id. P. Z. S. 1861, p. 437.—Schl. J. f. O. 1861, p. 377.—Rosenb. *op. cit.* 1862, pp. 63, 64, 68.—Wall. P. Z. S. 1862, p. 165, 1864, pp. 281, 293.—Rosenb. Tijdschr. Ned. Ind. xxv. p. 226 (1863).—Id. J. f. O. 1863, p. 226.—Bernst. Tijdschr. Ned. Ind. xxvii. p. 297 (1864).—Id. N. T. D. ii. p. 327 (1865).—Finsch, Neu-Guinea, p. 158 (1865).—Schl. N. T. D. iii. p. 331 (1866, pt.).—Finsch, Papag. i. p. 325 (1867).—Gray, Hand-l. B. ii. p. 168 (1870).—Schl. N. T. D. iv. pp. 5, 7 (1871, pt.).—Id. Mus. P.-B. Psittaci, Revue, p. 71 (1874).—Meyer, Sitz. Isis Dresd. 1875, p. 76.—Rosenb. Reist. naar Geelvinkb. p. 56 (1875).—Salvad. Ann. Mus. Civic. Genov. vii. p. 985 (1875).—Rowley, P. Z. S. 1875, p. 470.—Id. Orn. Miscell. 1876, p. 154, pl. xix. (♂), pl. xx. (♀).—Finsch, *t. c.* p. 161 (1876).—Salvad. Ann. Mus. Civic. Genov. x. p. 25 (1877).

Micropsitta pygmæa, Less. Compl. Buff. Ois. p. 607, pl., fig. 2 (1838).

Micropsites pygmæus, Bourj. Perroq. pl. c. (1837–38).

Psittacus pygmæus, S. Müll. Verh. Land- en Volkenk. pp. 22, 107 (1839–44).—Schl. Handl. Dierk. i. p. 480, pl. iii. no. 37 (1858).

Psittacus (Nasiterna) pygmæus, Schl. Handl. Dierk. i. p. 185 (1858).

Psittacula pygmæa, Schl. Dirent. p. 67, cum fig. (1864).—Id. Mus. P.-B. Psittaci, p. 74 (1864).

Of the very singular group of diminutive Parrots the *N. pygmæa* is the oldest known; and a considerable interval of time elapsed before an addition was made by the discovery of the *N. pusio*. The later explorations, however, that have been made in New Guinea and its surrounding satellites have rewarded travellers with at least four or five others, to which Professor Schlegel, Dr. Meyer, Count Salvadori, and others have applied specific appellations. That more still remain hidden in the forests of Papuana is probable. Up to this time (1878) I consider there are seven species only for me to deal with in the present work. These have many characteristics in common:—first, their very diminutive size and disproportionately large bills when contrasted with the body; the structure of their feet and greatly prolonged outer hind toe are peculiarities, as is also the spiny terminations of the four or six central tail-feathers. The group to which the *Nasiternæ* are most nearly allied appears to me to be *Cyclopsitta*, a section of little Parrots inhabiting the same country. Although all the species of *Nasiterna* are remarkable for their tiny size, and a somewhat general resemblance reigns throughout the whole group, yet differences are to be detected. These distinctions may be readily seen by turning to the various Plates representing the species, and be rendered more intelligible than by written explanations.

Count Salvadori, who has in the most liberal manner forwarded me all the information and synonymy of the present group of birds, extracted from his forthcoming work on the ornithology of New Guinea, has also kindly sent me notes on the several species. "This Parrot (*Nasiterna pygmæa*) inhabits New Guinea, Salwatty, Waigiou, Guebeh, Mysol, and Koffiao. In New Guinea it has been found near Dorey, where it was first discovered, as well as in the neighbourhood of Andai, Dorey-Hum, and Mtanata. I have seen specimens from all these localities. The late Mr. G. R. Gray mentions the Louisiade archipelago as one of the habitats; but if a *Nasiterna* really occurs there, it would doubtless be specifically distinct. The same may be said of the island of Jobi, where Von Rosenberg asserts the existence of *N. pygmæa*, though no specimen of a *Nasiterna* from that island is contained in the Leiden Museum.

"I lately examined the two specimens in the latter collection from the Aru Islands, mentioned by Schlegel as differing from those of New Guinea in the ochraceous yellow colour of the pileum. These specimens, which were in rather bad condition, seemed to me to be not different from my *N. keiensis*; and if this proves to be the case, the latter name is not a very appropriate one for the species.

"*Nasiterna pygmæa* seems to be not a very uncommon bird in the countries it inhabits; but, from its small size and green coloration, it is difficult to discover and to obtain. Beccari says that, if one can discover their bowers, it is not hard to catch them. According to him they have the habit of climbing up the trunks of the trees; he says also that the natives often catch them alive inside the hollow trees, where it seems that they nest. I have heard from D'Albertis that he once obtained from a native a living bird, which after some time succeeded in escaping.

"It was likewise reported to Mr. Wallace by his assistant, Mr. Allen, that this Pygmy Parrot nests in hollow trees, and lays eggs like those of the South-American *Psittaculæ*."

Dr. Meyer has written me a note as follows:—"I got this bird only near the foot of the Arfak Mountains in New Guinea, where, at Andai, I procured specimens in the middle of the day. There this lovely little Parrot was sleeping on the lower branches of the trees, and could be whipped off with a stick. This is also the case with other Parrots which are allied to the *Cacatua* group. I may mention *Cyclopsitta lunulata*, from the Philippine Islands, the individuals of which species sleep in the middle of the hot tropical day in rows, under the shade of the foliage, when one after another can be shot down without the survivors attempting to fly away. It may be imagined how soundly they sleep when the noise of the shot does not disturb them; and it is the same with *Nasiterna*. At other times of the day it is difficult to procure, as it lives in the high trees, where its small size and green plumage form a sufficient protection."

The following description of the species has also been given to me by Count Salvadori:—

"*Adult male*. Green, the underparts lighter; pileum yellowish, faintly tinged with reddish towards the forehead; cheeks brown; middle of the abdomen red; under tail-coverts yellow, the lateral ones tinged with green; two middle tail-feathers blue, the lateral ones black, edged externally with green, the three outer tail-feathers with a yellow spot at the tip of the inner web.

"*Female and young male*. Differs from the adult male in wanting the red colour on the middle of the underparts, which are yellowish green. Total length 3·1 inches, wing 2·3, tail 1·0, culmen 0·4."

The figures are of the size of life.

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NASITERNA MAFORENSIS.

J.Gould & W.Hart del et lith.

Walter, Imp.



NASITERNA MAFORENSIS.

Mafor Pygmy Parrot.

Nasiterna pygmæa geelvinkiana (pt.), Schl. N. T. D. iv. p. 7 (1871).—Rosenb. Reist. naar Geelvinkb. p. 137 (pt., 1875).
——— *geelvinkiana* (pt.), Schleg. Mus. P.-B. Psittaci, Revue, p. 71 (1874).—Meyer, Sitz. Isis zu Dresden, 1875, p. 76 (pt.).—Rowley, P. Z. S. 1875, p. 470.—Id. Orn. Misc. p. 153, pl. xviii. (1876).—Beccari, Ann. Mus. Civic. Genov. vii. p. 714 (1875, pt.).
——— *pygmæa*, Rosenb. Reist. naar Geelvinkb. p. 36 (1875, nec Q. & G.).
——— *maforensis*, Salvad. Ann. Mus. Civic. Genov. vii. p. 908 (1875).—Sclater, Ibis, 1876, p. 358.—Salvad. Ann. Mus. Civic. Genov. x. p. 26 (1877).

As Dr. Meyer during his visit to the Island of Mafor does not appear to have procured any *Nasiternæ*, I have been indebted to Count Salvadori and Mr. Dawson Rowley for the four examples which have been examined by me; and to the former gentleman I am under special obligations for an elaborate note on the species, as well as its complete synonymy.

The present species is very nearly allied to *N. misoriensis*; but under existing circumstances they must, in my opinion, be considered distinct species. In both of them the bills are disproportionately large, giving their faces an *outré* and unpleasant aspect; and the bill and feathers of the face are frequently covered with a dirty glutinous substance, which does not improve their appearance.

Count Salvadori writes to me as follows:—"This species is peculiar to the island of Mafor. Both male and female have the crown blue; and in this respect *N. maforensis* differs from *N. misoriensis*. When I discriminated the two species I would willingly have left Schlegel's name of *geelvinkiana* to the bird of Mafor; but as the latter name, which belongs equally to both species, would have been a constant source of confusion, I thought it better to give a new title to the Mafor bird also.

"This is the species figured by Mr. Dawson Rowley in his 'Ornithological Miscellany;' but the description given by Dr. Finsch in the same work, under the heading of *N. geelvinkiana*, probably applies to the female of the Misori bird.

"Von Rosenberg has the following remarks on the present species:—'The small *Nasiterna* is common; and the natives, who are very clever, brought me several specimens, alive and dead, of the adult and young. This pretty little bird is especially abundant in the neighbourhood of Roemsaro. It nests in the holes of trees; and the female lays two eggs, not larger than those of our Long-tailed Titmouse (*Parus caudatus*). They breed in January and February, which is the breeding-season also for other Parrots.'"

The following diagnosis of the species has been sent to me by Count Salvadori:—

"*Adult male*. Green; pileum brown, the feathers edged with bright blue; cheeks brown, with the edges of some of the feathers bluish; nape green like the back, with a yellowish-green spot in the middle, not very conspicuous; centre of the breast and of the abdomen ochraceous yellow; under tail-coverts and a spot at the tip of the three outer tail-feathers yellow, the lateral ones black, the outer ones edged with green.

"*Female*. Like that of *N. misoriensis*, but the feathers of the crown edged with brighter blue. Dimensions nearly the same as those of *N. misoriensis*."

The figures in the Plate are those of a male and a female, of the natural size, drawn from birds lent to me by Mr. Dawson Rowley and Count Salvadori.



J Gould & W Hart del et lith.

NASITERNA MISORENSIS.

Walter Imp.



NASITERNA MISORIENSIS.

Misori Pygmy Parrot.

Nasiterna pygmæa geelvinkiana (pt.), Schl. N. T. D. iv. p. 7 (1871).—Rosenb. Reist. naar Geelvinkb. p. 137 (1875, pt.).
——— *geelvinkiana* (pt.), Schl. Mus. P.-B. Psittaci, Revue, p. 71 (1874).—Meyer, Sitz. Isis zu Dresden, 1875, p. 76 (pt.).—Beccari, Ann. Mus. Civic. Genov. vii. p. 714 (1875, pt.).—Finsch, Orn. Misc. p. 160 (1876).
——— *misoriensis*, Salvad. Ann. Mus. Civic. Genov. vii. p. 909 (1875), x. p. 26 (1877).
——— *misorensis*, Sclater, Ibis, 1876, p. 358.

For a comparison of the present species with *N. maforensis*, I may refer my readers to the Plates of the two, where it will be seen that these Pygmy Parrots, although closely allied, appear to possess good specific characters. I owe to the courtesy of Dr. Meyer two mounted specimens of the Misori bird, the male having a widely spread mark of orange-yellow down the abdomen, a feature apparently wanting in the opposite sex; and Count Salvadori has also favoured me with a sight of the type specimen obtained by Beccari. All the males had brown heads, with a distinct lunate mark of yellow on the nape, while the females had the brown suffused with bluish.

Count Salvadori writes to me:—"This species is peculiar to the island of Misori, where Von Rosenberg was the first to collect specimens. He obtained a male and two females, which Prof. Schlegel referred to his *Nasiterna pygmæa geelvinkiana* along with the Mafor specimens. When Beccari sent home examples from both localities, I determined those from Misori as belonging to a different species from those of Mafor.

"The adult male is easy to distinguish by reason of his brown head with a very conspicuous yellow spot on the nape.

"Dr. Finsch has described (*l. c.*) two specimens of this bird collected by Dr. Meyer in Misori, which Dr. Finsch seems to think is the same as Mafor. I should say that his description of the supposed male has been taken from a female, and that the description of the supposed female was that of a young bird; one thing is quite certain, that neither the one nor the other of the specimens described by him were adult."

I have received the following note from Dr. Meyer:—"I noticed in my diary, under the heading of *N. pygmæa geelvinkiana* from Mysore (Kordo):—'Colour of the eyes orange-yellow; feet and claws bluish grey, the underparts of the feet somewhat yellowish. Bill bluish grey, the base of the lower mandible white. Cere black, the nostrils surrounded by an elevated thick fleshy ring. Head covered with many little white parasites (lice). In the stomach the remains of fruit.'"

I subjoin a description of the species, sent to me along with the synonymy by Count Salvadori.

"*Male.* Green; head brown, with a conspicuous yellow spot on the nape; round the neck there is a slight indication of a blue collar; middle of the breast and abdomen bright ochraceous yellow; under tail-coverts and a spot at the tip of the inner web of the three outer tail-feathers pure yellow; the two middle tail-feathers blue, with a small black spot, scarcely visible, near the tip; the outer tail-feathers edged externally with green, the spiny tip of the rectrices rather long; bill strong, of a greyish colour; iris orange-red. (*Beccari.*)

"*Female.* Green; pileum brown, with the feathers of the vertex edged with dull blue; cheeks brownish green; underparts yellowish green; under tail-coverts yellow; tail as in the male.

"Total length 3·6 inches, culmen 0·45, wing 2·1, tail 1·2."

I have figured on the Plate two males and a female, of the size of life; and for the opportunity of figuring these I have to thank Dr. Meyer, who, with his usual liberality, sent me over his fine specimens for the purpose.



J.Gould & W.Hart, del. et lith.

NASITERNA BRUIJNII, *Salvad.*

Walter, Imp.

NASITERNA BRUIJNII, *Salvad.*

Bruijn's Pygmy Parrot.

Nasiterna bruijnii, Salvad. Ann. Mus. Civic. Genov. vii. pp. 715 (note), 753. sp. 13, pl. xxi. p. 907 (1875).—Sclater, Ibis, 1876, p. 255.—Salvad. Ann. Mus. Civic. Genov. x. p. 25. sp. 8 (1877).

This is the most beautiful of the Pygmy Parrots, and is altogether a lovely little bird. It seems to have escaped the observations both of Dr. Meyer and Signor D'Albertis, but was discovered by the collectors of Heer Bruijn, whose name is now so famous for the wonderful novelties collected by his means in North-western New Guinea. But I must let Count Salvadori tell the story of his little favourite, though I here take the opportunity of returning him my most cordial thanks for an act of liberality not easily to be forgotten. During a recent visit to London he showed me a series of these Pygmy Parrots; and on my asking permission to figure them in the present work he not only acceded to my request, but furnished me with the full synonymy of the species, as it is about to be published by him in his work on the ornithology of the Moluccan and Papuan Islands.

Concerning *Nasiterna bruijnii* he writes to me:—"This species was discovered by the men employed by Mr. Bruijn in the Arfak Mountains, where they first obtained a male bird: afterwards Beccari and Bruijn's hunters got some more male specimens, and also succeeded in procuring the female. Both sexes have been described by me; and I have seen altogether nine specimens.

"The males, according as they are more or less adult, vary a little as regards the red colour of the pileum and of the cheeks, being more or less brilliant on these parts; some (among them the type) have these parts dull fulvous tinged with rosy red: a young bird, not sexed, is like the females, only smaller. The bill of this species is very small.

"Nothing is known about the habits of this the most beautiful species of the genus *Nasiterna*; but in all probability it is found in the mountainous districts only."

The following description is from Count Salvadori's MSS.:—

"*Male*. Green, the feathers narrowly edged with black; primaries and anterior secondaries blackish, edged with green; wing-coverts black, with rather wide green edges; pileum, cheeks, and middle of the under parts, with the under tail-coverts bright red, the red pileum changing into brown towards the occiput, and surrounded by a bright blue band, which, from the nape, encircling the red cheeks, extends down to the throat, whence it descends on the sides of the breast; the two middle tail-feathers blue, with a round black spot near the tip; the other rectrices are black, with a red-orange spot on the tip of the inner web; the outer tail-feathers have the outer web partly bluish; bill and feet horny grey.

"*Female*. The upper parts green; the underparts also green, but inclining to yellowish along the middle and on the under tail-coverts; pileum bright blue; forehead whitish; cheeks pale reddish, the throat slightly washed with blue; the wings and the tail as in the male; but the lateral tail-feathers have the spots at the tip orange-yellow. Total length 3·7 inches, wing 2·9–2·7, tail 1·2–1·1, bill from the forehead 0·4."

With regard to the Plate of this bird I have indulged my memory a little, having seen thousands of pairs of not distantly allied species in the space of as many yards in the interior of Australia, breeding in the spouts of the decayed branches of the gum-tree. The upper pair of birds in this case are supposed to be already mated, while the lower pair are represented in the act of courtship.



J. Gould. & W. Hart. del. et lith.

NASITERNA BECCARII, *Salvad.*

Walter Imp.

NASITERNA BECCARII, *Salvad.*

Beccari's Pygmy Parrot.

Nasiterna beccarii, Salvad. Ann. Mus. Civic. Genov. viii. p. 396 (1876), x. p. 26. sp. 13 (1877).

Of this bird, which is closely allied to *N. pusio*, Count Salvadori has lent me the single specimen at present known; and I have had the satisfaction of figuring it here for the first time. It differs from all the other *Nasiternæ* which I have seen. On the head is a well-defined cap of dull indigo-blue surrounded by brown, the remainder of the plumage being green, as in the other members of the genus, with black spots on the shoulder moderately strongly indicated. It is certainly one of the smallest species; and the spines on the tail are but little developed; the bill is small for a *Nasiterna*, and of a light horn-colour. There appears no indication of an orange-red patch in the centre of the body, as is the case with *N. pygmæa* and *N. bruijni*; but, as the only specimen at present in our hands is a female, it is impossible to speak very positively on this point.

I owe to the kindness of Count Salvadori the following note on the present species:—"I only know of a female of this Parrot, which was collected by Beccari near Wairoro, on the coast of Geelvink Bay, more than one degree to the south of Dorey. I have compared this specimen with *N. pusio*, to which it is nearly allied; and it differs from the latter species in the blue colour of the crown being more extended and brighter, in the brown colour of the cheeks being darker, and in the smaller dimensions. The bill is rather small, as in *N. pusio* and *N. pygmæa*."

For the accompanying description I am also indebted to the Count:—

"Green, the underparts being much lighter; middle of the crown dull blue, the edges of the feathers black; forehead and sides of the head brown, the sides of the nape greenish brown; the two centre tail-feathers blue with a black spot near the tip; lateral rectrices black, edged externally with green and with a yellowish orange spot at the tip of the inner web. Size of *N. pygmæa*."

The Plate contains a life-sized representation of the present species in two positions, taken from the typical specimen. I have also introduced into the picture a figure of *Eupholus bennetti*, a magnificent beetle recently described from South-eastern New Guinea; and I have figured this fine insect with the greatest pleasure, in compliment to the gentleman whose name it bears, Dr. Bennett of Sydney, who has for many years been known to naturalists as an active patron and promoter of science in his adopted country.



J.Gould & W.Hart, del. et lith.

NASITERNA PUSIO, *Sclater.*

Walter Imp.

NASITERNA PUSIO, *Sclater*.

Solomon-Islands Pygmy Parrot.

Nasiterna pusio, Sclater, P. Z. S. 1865, p. 620, pl. 35.—Finsch, Die Papag. i. p. 327 (1867).—Sclater, P. Z. S. 1869, pp. 124, 126.—Gray, Hand-l. B. ii. p. 168. no. 8382 (1870).—Schlegel, N. T. D. iv. p. 5 (1871), —Ramsay, Tr. Linn. Soc. N. S. W. i. p. 67 (1876).—Rowley, Orn. Misc. p. 155, pl. xxi. (1876).—Finsch, *tom. cit.* p. 163 (1876).—Sclater, P. Z. S. 1877, p. 108. no. 38.—Salvad. Ann. Mus. Civic. Genov. x. p. 26. no. 14 (1877).

Nasiterna pygmæa solomonensis, Schl. N. T. D. iv. p. 7 (1877).

For a great many years *Nasiterna pygmæa* remained the only representative of the genus known; and the present kind was the second discovered—the forerunner, as it has proved, of no less than five others with which we are now acquainted. The original specimens were sent over in spirits by Mr. Gerard Krefft to Dr. Sclater; and the typical example is now preserved in the British Museum, where I have myself examined it. It has lately been noticed by Dr. Sclater in his paper on the birds collected by Mr. George Brown in Duke-of-York Island and New Ireland; but no locality was given for the specimen, and so we do not know the exact origin of this individual, though there can be no doubt that it came from one or the other of the above-mentioned islands. The typical birds were said to be from the Solomon Islands; but we shall want confirmatory evidence on this point, as the recent collections from this locality have not contained any examples of a *Nasiterna*, and it is just possible that they may have come from New Ireland; on the other hand, the species may possibly be found in both groups of islands.

Count Salvadori writes:—"This species comes very near to *N. beccarii*, from which it differs in the blue colour of the crown being less extended and of a duller shade, in the somewhat ochraceous brown colour of the forehead and sides of the head, in the more yellowish colour of the middle of the belly, and in the longer wings. I have seen four specimens of this Pygmy Parrot, viz.:—the type in the British Museum; one in the Zoological Museum of Turin, received from Mr. Krefft during the voyage of the 'Magenta;' another in the Museum of Berlin, also received from Mr. Krefft; and, lastly, a specimen received from Mr. Brown without indication of the locality."

The description given below was also forwarded to me by Count Salvadori:—"Green, the underparts lighter and a little tinged with yellowish down the centre of the belly; crown dull blue, the forehead and sides of the head brown, with a slight ochraceous tinge; tail and wings as in *N. beccarii*. Size a little larger than the latter bird." Total length 3·4 inches, culmen 0·4, wing 2·5, tail 2·2.

To the above description of Count Salvadori I have only to add that the black spot on the centre tail-feathers is larger than in most of this species.

The lower figure in the Plate was drawn from the British-Museum specimen; and the upper figure is taken from Mr. Brown's bird above mentioned. They are of the natural size.



J.Gould & W.Hart, del et lith.

NASITERNA KEIENSIS, *Salvad.*

Walter Imp.

NASITERNA KEIENSIS, *Salvad.*

Ké-Island Pygmy Parrot.

Nasiterna keiensis, Salvad. Ann. Mus. Civic. Genov. vii. p. 984 (1875), x. p. 26. sp. 10 (1877).
?*Nasiterna pygmæa* (pt.), Schl. N. T. D. iii. p. 331 (1866, spec. from Aru Islands).—Rosenb. (nec Q. & G.), Reis naar zuidostereil. pp. 48, 49 (1867, Aru).—Schl. N. T. D. iv. pp. 5, 7 (pt., 1871).—Id. Mus. P.-B. Psittaci, Revue, p. 71 (pt., 1874).
?*Nasiterna aruensis*, Salvad. Ann. Mus. Civic. Genov. vii. p. 985 (1875, ex Schlegel), x. p. 25, note 2 (1877).

I have reproduced exactly the synonymy which my friend Count Salvadori has sent to me, as it explains so thoroughly the history of the species, and makes clear the following note with which he has favoured me:—"The Ké-Island Pygmy Parrot is very like the female of *N. pygmæa*; but it is larger, has the pileum more conspicuously ochraceous yellow, and the underparts more greenish, and without the yellow tint. Male and female scarcely differ. Total length 3·9–3·6 inches, culmen 4·5, wing 2·2–2·6, tail 1·2–1·1.

"Besides the three typical specimens, two males and a female, collected by Beccari on the Ké Islands and described by me, I have seen in the Leiden Museum two examples from the Aru Islands, collected by Von Rosenberg, which have been spoken of by Professor Schlegel. They are in rather bad condition; and although they seem to resemble the birds from the Ké Islands, with which I have compared them, I am not quite sure that they really belong to the same species."

Count Salvadori left with me for the purpose of this work a fine male and female; and as these appear to be fully adult, we may conclude that the species has none of the richer colour on the breast as in *N. pygmæa*, from which it also differs in the more conspicuous spotting of the shoulder. I have no doubt as to the specific value of *N. keiensis*.

The following description is drawn up from the typical specimens:—

Crown dirty yellow, forming a well-defined cap; face suffused with brown, which gradually blends into green on the cheeks; all the upper and under surface green, the back being of a deeper hue than the lower parts; on the chest of the male in certain lights is a very delicate wash of blue. Primaries blackish brown, each feather slightly margined with green; secondaries and, especially, the feathers of the shoulder conspicuously spotted with black; two centre tail-feathers blue on the upper surface, with the shaft black, the four or five outer feathers on each side with the usual spot of yellow on the tips of their inner webs; the spines of the centre feathers very fine, but little prolonged, and without the spot of black found in some of the species; under tail-coverts yellow, stained with green.

The figures in the Plate are taken from the type specimens, and are of the natural size. It will be seen that the sexes are alike in colour.



GEOFFROYIUS HETEROCLITUS, *(Hombr. & Jacq.)*

J.Gould & W.Hart, del. et lith.

Walter imp.

GEOFFROYIUS HETEROCLITUS, *Hombr. & Jacq.*

Yellow-headed Parrot.

Psittacus geoffroyi heteroclitus, Hombr. et Jacq. Ann. Sci. Nat. xvi. p. 319 (1841).
Psittacus heteroclitus, Gray, Gen. B. ii. p. 421, no. 8 (1846).—Id. List Psittacidæ, Brit. Mus. p. 73 (1859).—Id. List Birds Tropical Islands of the Pacific Ocean, p. 34 (1859).—Id. Hand-l. B. ii. p. 160, no. 8277 (1870).
Pione heteroclite, Hombr. et Jacq. Voy. Pôle Sud, pl. 25 bis, figs. 1, 2 (1842–53).
Pionus heteroclitus, Jacq. et Pucher. Voy. Pôle Sud, iii. p. 103 (1853).
Pionus cyaniceps, Jacq. et Pucher. Voy. Pôle Sud, texte, iii. p. 105 (1853).
Geoffroyius heteroclitus, Bonap. Rev. et Mag. de Zool. 1854, p. 155.—Souancé, op. cit. 1856, p. 218.—Sclater, P. Z. S. 1869, p. 122.—Salvad. Ann. Mus. Civ. Genov. x. p. 30 (1877).
Geoffroyius cyaniceps, Bonap. Rev. et Mag. de Zool. 1854, p. 155.—Sclater, P. Z. S. 1877, p. 107.
Pionias heteroclitus, Finsch, Papageien, ii. p. 390 (1868).

This beautiful Parrot is so rare in collections, that when Dr. Finsch wrote his celebrated work on the Psittacidæ he had not seen an example; and it is only within the last year that I have had the pleasure of examining it myself. The original specimens were three in number, and were brought from the islands of St. George and Ysabel in the Solomon group by the French Expedition to the South Pole. More recently it has been rediscovered by Mr. George Brown in New Britain, as recorded by Dr. Sclater *l. c.*; and I am indebted to this gentleman for the loan of the specimen from which my Plate has been drawn.

When discovered by MM. Hombron and Jacquinot, a second form with a blue head was also procured, which these naturalists considered to be the female of the yellow-headed bird. Dr. Pucheran, in his account of the birds procured by the expedition, thought otherwise—and believing that the blue-headed specimen was a distinct species, named it *Pionus cyaniceps*; but Dr. Finsch agreed with the first opinion, and made it the female of *G. heteroclitus*. I am unable to say for certain whether this is right or wrong, as I have not yet seen more than one example of the blue-headed form. Recently Dr. Sclater has considered it probable that there are two species inhabiting the New-Ireland group; as, however, Mr. Brown has lately sent over the yellow-headed and blue-headed specimens figured by me, I incline to the opinion that they are the same species.

The colouring of this species is so very distinct, that the figures in the Plate will serve to distinguish it from all its allies. Dr. Finsch places it in the genus *Pionias*, along with a great many American and African species, which, according to my views, belong to distinct genera (*Prioniturus*, *Pœocephalus*, &c.). But taking his comprehensive view of *Pionias*, the present species belongs to the first section, with green under tail-coverts, sky-blue under wing-coverts, and blackish wing-lining. Its yellow head and cheeks, coupled with the blue band round the neck, are sufficient to distinguish it at a glance.

As before mentioned, the specimens here figured were from Mr. George Brown's third collection. The principal figure is of the size of life; and a slightly reduced figure is placed in the back-ground, and is supposed to be that of a young female.



GEOFFROYIUS SIMPLEX, *Meyer.*

J.Gould & W.Hart del. et lith.

Waller Imp.

GEOFFROYIUS SIMPLEX.

Blue-collared Parrot.

Pionias simplex, Meyer, Mitth. zool.-botanischen Gesellsch. Wien, xxiv. p. 39 (1874).
Geoffroyius simplex, Salvad. Ann. Mus. Civic. Genov. vii. p. 759 (1875).

In a paper contributed by him to the Zoological and Botanical Society of Vienna, Dr. Meyer describes this new species of Parrot discovered by him in New Guinea; and I am now able to give correct figures, thanks to his kindness in sending me the type specimens for that purpose.

After giving a full description of the bird, the learned Doctor proceeds as follows:—"I obtained in the same locality a female of a *Pionias* (the one described being a male bird), which I think may be the female of this species, as it resembles the male in general aspect and in some particular characters. It differs from the male in wanting the blue collar; but at the same time it exhibits a slight but well-pronounced bluish green shade on the head and cheeks. The whole upper surface is uniform green; but, on the other hand, the yellowish brown spot on the wing-coverts is more strongly indicated than in the male. The underparts are uniform light green. The tail is not so pale-coloured below as in the male."

"As the female bird exhibits a bluish shade on its head, and the male has nothing of this on the same part, it might be imagined that the male now before me is not quite in full plumage; but this is not likely, as it has the blue collar so well developed; therefore, from the above-mentioned differences, it is by no means improbable that we have here two separate species, the male belonging to one and the female to another. As I only obtained two specimens, and as the occurrence of several very closely allied but specifically well distinguished species in the same locality is nothing uncommon among the birds, and especially the Parrots, of New Guinea, I am not able to affirm or deny the fact with certainty; but in my own mind I have good reason to believe that they are male and female of one species."

The following is a translation of Dr. Meyer's description of the male:—"Green; the back brownish; rump washed with blackish; under surface of body lighter green; round the neck a collar of light blue, somewhat shaded with lilac under certain lights, and being broader and less defined on the nape; wings green, the inner webs of the quills black; under wing-coverts sky-blue, this colour descending somewhat on the sides of the chest; under surface of the quills blackish, the secondaries with a pale yellow spot on the inner web; on the edge of the wings a yellowish white spot; wing-coverts above and below with a slight patch of yellowish brown; cheeks and chin paler green like the under surface; abdomen shaded with brown; under tail-coverts pale green shaded with yellowish; upper surface of the tail green, below greenish yellow. Bill and cere, feet and nails black."

"I obtained this new species in July 1873 on the Arfak Mountains in the north-west of New Guinea, about 3000 feet above the level of the sea, and I name it *simplex* on account of its plain coloration."

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



W. Hart del et lith. GEOFFROYIUS TIMORLAOENSIS, *Meyer.* Mintern Bros. imp.

GEOFFROYIUS TIMORLAOENSIS, *Meyer*.

Tenimber Parrot.

Geoffroyius keyensis, Salvad.; Sclater, Proc. Zool. Soc. 1883, pp. 51, 200.—Forbes, Naturalist's Wanderings, p. 356 (1885).
Geoffroyius timorlaoensis, Meyer, Vögel, Nester und Eier aus dem Ostind. Archipel, p. 15 (1884).

The first specimens sent from Timor Laut by Mr. H. O. Forbes were referred by Dr. Sclater to *Geoffroyius keyensis*, the species from the Ké Islands. Dr. A. B. Meyer, the well-known Director of the Dresden Museum, received no less than eleven specimens from Timor Laut, collected by Mr. Riedel's hunters, and he came to the conclusion that the species from the two groups of islands above named were not identical, and he named the bird from the Tenimber Islands *Geoffroyius timorlaoensis*.

The differences referred to by Dr. Meyer consist of the smaller size of *G. timorlaoensis* and the green instead of blue colour on the external aspect of the first primary. We have compared four specimens of the Timor-Laut birds with two specimens of *G. keyensis* from the Ké Islands, and we must confess that the characters for their separation are of the very slightest. We cannot see the smallest difference between the two species as regards the blue on the first primary, and the only character is the slightly smaller size of *G. timorlaoensis*. Mr. Forbes has also written a critique on the species in his entertaining narrative of his expedition to Timor Laut, and his conclusions are the same as our own.

In deference to Dr. Meyer's kindness in lending us the specimens, we have given figures of the species and add a description.

Adult male. General colour above grass-green, a little lighter towards the under tail-coverts; wing-coverts like the back, the innermost reddish, forming a shoulder-patch; bastard-wing, primary-coverts, and quills dusky blackish, externally dark grass-green, the secondaries entirely of the latter colour; the first primary edged with richer and deeper green than the others; upper tail-coverts lighter green than the back; tail-feathers glistening yellow, edged with emerald-green; crown of head plum-coloured or purplish lilac, with a frontal band of scarlet, which colour extends over the lores and entire sides of the face, being tinged with lilac on the ear-coverts and sides of the head; throat also scarlet, the lower throat, fore neck, and remainder of under surface bright grass-green, paler towards the vent and under tail-coverts; under wing-coverts and axillaries cobalt-blue, some of the long axillary plumes green with blue tips; the edge of the wing green; quills below blackish. Total length 9·5 inches, culmen 1·05, wing 7·0, tail 3·5, tarsus 0·6.

Adult female. Similar to the male, but lacks all the brilliant colouring of the head and face, the head being of an olive-yellowish tint all round, including the throat, the crown greener and more like the back. Total length 9·5 inches, culmen 1·05, wing 6·85, tail 3·55, tarsus 0·6.

The Plate represents an old male and female of about the natural size, the figures being drawn from the two birds lent to us by Dr. Meyer.

[R. B. S.]



ECLECTUS POLICHLORUS.

J.Gould & W.Hart, del et lith.

Walter Imp.

ECLECTUS POLYCHLORUS.

Green Lory.

Psittacus polychlorus, Scopoli, Del. Faun. et Flor. Insubr. ii. p. 87 (1786).
Psittacus sinensis, Gmelin, S. N. i. p. 337 (1788).
Psittacus magnus, Gmelin, S. N. i. p. 344 (1788).
Psittacus viridis, Latham, Index Orn. i. p. 125 (1790).
Psittacus lateralis, Shaw, Gen. Zool. viii. p. 490 (1811).
Mascarinus prasinus, Lesson, Traité, p. 188 (1831).
Eclectus linnæi, Wagler, Monogr. Psittac. p. 571, pl. xxii. (1832).
Eclectus polychlorus, Gray, Genera of Birds, ii. p. 418 (1845).—Id. List Psittacidæ Brit. Mus. p. 66 (1859).
Eclectus puniceus, Bonap. P. Z. S. 1849, p. 142.—Rosenb. J. f. O. 1864, p. 114.
Eclectus grandis, Bonap. Consp. Gen. Av. i. p. 4 (1850).—Id. Rev. et Mag. de Zool. 1854, p. 155.
Eclectus westermanni, Bp. Consp. i. p. 4 (1850).
Eos puniceus, Lichtenstein, Nomencl. Av. p. 71 (1854).
Polychlorus magnus, Sclater, P. Z. S. 1857, p. 226.
Mascarinus polychlorus, Finsch, Nederl. Tijdsch. Berigten, p. xvi. (1863).
Psittacodis magna, Rosenb. Tijdschr. Nederl. Indië, 1863, p. 226.—Id. J. f. O. 1864, p. 114.
Psittacus linnæi, Finsch, Neu-Guinea, p. 157 (1865).

Were any thing required to assure the student of ornithology that there is still plenty of work to do in the science, the history of the present bird would afford a text for a discourse on that subject. A cage-bird in every menagerie of any repute, described and figured over and over again during the last hundred years, and for the last twenty years by no means rare in collections, the present species might have been supposed to have been well understood. No one, therefore, was prepared for the astounding assertion made by Dr. Meyer in 1874, that the Lories of the Moluccas, considered by everybody to represent many distinct species, were nothing but the males and females of perhaps three. I candidly confess that I was for a long time extremely sceptical on the subject; but after examining specimens sent me by Dr. Meyer, I must admit that he is perfectly right, and that this curious fact must be accepted by ornithologists. The story comes better from Dr. Meyer himself than from me; and I therefore give the note which he has just forwarded:—

"'When crossing the sea from the Island of Mafoor to the Island of Mysore, in Geelvink Bay, in the year 1873, having spread out before me, on board of my small vessel, the ornithological harvest which I had reaped on Mafoor, it struck me that all the specimens of *Eclectus polychlorus*, Scop., were labelled as males, and all those of *E. linnæi*, Wagler, as females; and I had six green males (*polychlorus*) and nine red females (*linnæi*). The suspicion then arose in my mind that it could not have been by chance that I had only shot the males of *E. polychlorus* and the females of *E. linnæi*.'

"With these words of introduction I commenced the first paper which I published on the sexual differences in the genus *Eclectus*, in the year 1874 (Verh. d. zool.-bot. Ges. Wien, 1874, p. 179, and Zool. Garten, May 1874, p. 161). Since then I have been obliged to write three more notes on the same subject, because at first the opinion that the green parrots are indeed the males of the red ones was almost universally contested. Nevertheless I already said in my first paper (*l. c.*), 'The fact, discovered by myself, is thoroughly ascertained, and cannot be doubted.'

"In my second note (Mitth. d. k. zool. Mus. Dresden, i. p. 11, 1875) I chiefly disputed Prof. Schlegel's view, who had promulgated the following opinion, and supposed it to be well founded:—'Adopting this hypothesis, we should be obliged in the meantime to accuse of negligence four of our most experienced travellers; and to establish among the parrots the quite exceptional case of a singular sexual difference would be the more remarkable, as it would besides offer in the females variations constant according to the localities' (Mus. d'Hist. Nat. des Pays-Bas, Psitt. 1874, p. 17). By the four most experienced travellers of the Leiden Museum, Prof. Schlegel meant, as far as I am aware, Salomon Müller, Dr. Bernstein, Hoedt, and Von Rosenberg. But I proved that even the facts published in the Catalogues of the Leiden Museum show that I am right, as, for instance, among seven specimens of *E. intermedius* (green) six are marked as males and only one as a female; and, on the other hand, among fourteen specimens of *E. grandis* (red)

twelve are designated as females and only two as males. I further adduced in favour of my discovery that, taking my six green males and nine red females (from Mafoor) by themselves, it could be mathematically demonstrated that the probability of a really existing sexual difference is as 32700 : 1.

"In my third note (Proc. Zool. Soc. of London, 1877, p. 800, pl. 79) I figured the tail of a specimen in the Dresden Museum, which is half red, half green, and drew attention to some young individuals in several Museums, which are partly green, partly red, proving that the young male is coloured like the female, whereas the well-known savant, Dr. Beccari, wrote that the young ones offer the same differences as the adult birds (Ann. Mus. Civ. Gen. vii. p. 715).

"In my fourth note on the same subject (Orn. Centralblatt, 1878, p. 119) I chiefly showed that Dr. Brehm, who is of opinion (Illustrirtes Thierleben, 2nd ed. vol. iv. p. 68) that the existence of green females and of red males has been proved, was misled by inaccurate statements, and I further drew attention to other facts, which confirm the statement that the young ones of both sexes are red.

"Now, after the lapse of more than four years, I do not hesitate to state that almost every ornithologist admits the fact of the sexual differences in *Eclectus*, and that all objections and doubts which came from the most different quarters are silenced. The only thing at which I am surprised is, that this sexual difference could have been so long overlooked, red and green *Eclecti* having even been several times placed in two different genera. On my last visit to London (August of this year), I saw in the bird-galleries of the British Museum a specimen (which has already been a very long time there) labelled as *E. westermanni*, but which is nothing else than a young male of *E. polychlorus* changing from its red dress into its green one, and which has not yet acquired the red spots on the breast; but it is covered all over its back with red spots, the residue of the first dress; the bill, too, proves it to be a young bird. I only ask, How can the existence of such a specimen (green, with red spots) be understood, if not as the result of a sexual difference?

"Apropos of *E. westermanni*, I am still of the opinion which I expressed in 1874, that this is not a good species, but that the specimens known are only individuals which have not acquired their full plumage, in consequence of the unnatural conditions incident to a state of captivity. All the specimens hitherto known, of which I have seen those at Copenhagen, at Bremen, in the British Museum, and at Leiden, are those of birds that lived in captivity. The same remark *perhaps* applies to *E. corneliæ*, which is rarer than *E. westermanni*: up to the present time only a few specimens are known. I saw one in Amsterdam and one in London; the latter is labelled as a male—a proof that not only in the tropics can a mistake be made in the determination of a bird's sex. It is not rare that a bird does not acquire its full plumage in captivity; for instance, my friend Hr. von Pelzeln, of Vienna, in the year 1862, published the fact that an *Aquila imperialis* in the Schönbrunn Zoological Gardens retained its immature plumage during seven years.

"I do not share the opinion of Mr. Ramsay, of Sydney (Ibis, 1878, p. 379), 'that the young retain the red and blue state of plumage for a considerable time, after which the *males* assume the green plumage, but think that the change of plumage takes place in *Eclectus* as quickly as it does in other species of birds. All the red specimens which are young males prove this to be the case by their bills; a young red male never has such a pronounced bill as an adult female. Even the changing specimens which we know (partly red, partly green), still evidently prove themselves by their bills to be young ones.

"Recently Mr. Van Musschenbroek, the well-known Dutch resident at Ternate and Manado, told me that a red *Eclectus* can now be found in a very isolated locality of the Minahassa, in North Celebes; but he could not tell me which species it is; he meant that they are probably descendants of individuals escaped from captivity. If this is true, a green *Eclectus* also will be found there, besides *Eclectus mülleri*, which is a known inhabitant of those regions and is characteristic of Celebes. Another instance of a new immigrating *Eclectus* in Celebes (although from other reasons) I brought to light in the case of *Eclectus megalorhynchus* (see Rowley's Orn. Misc. iii., and elsewhere).

"These two last-named species and others not presenting the remarkable sexual differences presented by *Eclectus polychlorus* and its allies, I venture to question whether they should not be separated generically."

The Plate is intended to represent a fully adult male of *E. polychlorus*, of the natural size. The reduced figures flying in the background illustrate the difference between the two sexes.



W. Hart del. et lith.

ECLECTUS RIEDELI, *Meyer.*

Walter Imp.

ECLECTUS RIEDELI, *Meyer*.

Riedel's Parrot.

Eclectus riedeli, Meyer, Proc. Zool. Soc. 1881, p. 917.—Id. Verh. zool.-bot. Gesellsch. Wien, 1881, p. 772.—Salvad. Ann. Mus. Civic. Genov. xviii. p. 419 (1882).—Id. Orn. Papuasia, etc. iii. App. p. 517 (1882).—Sclater, Proc. Zool. Soc. 1883, pp. 53, 195, pl. xxvi.

This interesting bird was sent first from Timor Laut by Mr. Riedel, recently Dutch resident at Amboina, to Dr. Meyer at Dresden, by whom it was named after the discoverer. Like all the green and red Parrots, the usual differences of the sexes is observed, the male being green and the female red. Only the latter was obtained by Mr. Riedel; and for our knowledge of the male we are indebted to our energetic countryman Mr. H. O. Forbes, who brought back four specimens of this species from Timor Laut. We must confess, however, that we believe that the name of *E. riedeli* will be found to have been superseded by that of *E. westermanni* of Bonaparte. The specimen in the British Museum of the latter bird does not, it is true, show the red flank-spot of the adult *E. riedeli*; but there are traces of it, and we believe that the specimen in question has had the development of its full plumage arrested by having been kept in confinement.

The female of *E. riedeli* resembles *E. cornelia* in not having any blue on the under surface; but *E. cornelia* is a much larger bird, and has red under tail-coverts and no yellow tips to the tail.

Adult male. General colour above bright grass-green, inclining to emerald-green on the head and mantle; wing-coverts like the back, the least series emerald-green, with a patch of cobalt-blue near the bend of the wing and round the edge of it; bastard wing deep blue; primary-coverts green, washed with cobalt; quills deep blue, blackish on the inner web, lighter blue along the outer one; secondaries more or less green externally, the innermost entirely green; rump and upper tail-coverts washed with emerald-green; tail-feathers green, with a broad band of yellow at the end, before which is a slight shade of blue on the outer feathers; lores and entire sides of face, cheeks, ear-coverts, and feathered portion of throat emerald-green; remainder of under surface of body grass-green, washed with yellow on the under tail-coverts; a large patch of deep scarlet on the sides of the body, the axillaries and under wing-coverts being of this colour; edge of wing light cobalt or verditer blue; greater series of under wing-coverts and quills below black; "upper mandible scarlet, fading into orange; lower mandible black; legs and feet lavender; iris pale orange" (*H. O. Forbes*). Total length 13 inches, culmen 1·8, wing 8·8, tail 4·5, tarsus 0·6.

Adult female. General colour above red, the base of the feathers dull brown or greenish; wing-coverts a little darker than the back; edge of wing and bastard wing blue, with a slight shade of green near the base of the feathers; primary-coverts and quills deep blue, blackish on the inner web and shaded with lighter blue on the outer; secondaries externally red, the innermost entirely like the back; tail-feathers red, greenish towards the bases, and broadly banded with yellow across the tip; head all round, neck, and mantle brighter scarlet than the back; remainder of under surface of body from the fore neck, downwards deep red, the lower flanks and thighs washed with yellow; under tail-coverts yellow; axillaries and under wing-coverts deep red, the latter with dusky or purplish-blue bases; greater series of under wing-coverts and quills below black; "bill black; legs and feet greyish black; iris pale yellow" (*H. O. Forbes*). Total length 12 inches, culmen 1·55, wing 8·1, tail 4·5, tarsus 0·6.

The Plate represents a pair of birds of about the natural size, drawn from specimens procured by Mr. Forbes in Timor Laut.

[R. B. S.]



J. Gould & W. Hart del. et lith.

DASYPTILUS PESQUETI.

Walter Inv.



DASYPTILUS PESQUETI *(Less.)*.

Pesquet's Parrot.

Psittacus pecquetii, Less. Bull. des Sciences Nat. xxv. p. 241 (1831).—Bourj. Perroquets, pl. 67 (1837–38).—Less. Descr. de Mamm. et d'Ois. pl. 199 (1847).

Psittacus pesquetii, Less. Ill. de Zool. pl. 1 (1831).

Banksianus fulgidus, Less. Traité d'Orn. p. 1881 (1831).—Pucheran, Rev. et Mag de Zool. 1853, p. 156.—Hartl. Journ. für Orn. 1855, p. 422.—Salvad. Ann. Mus. Civ. Gen. xii. p. 317 (1878).

Dasyptilus pecquetii, Wagl. Mon. Psitt. pp. 502, 681, 735 (1882).—Gray, Gen. Birds, ii. p. 427 (1845).—Bp. Consp. Gen. Av. i. p. 8 (1850).—Le Maout, Hist. Nat. des Ois. 104, pl. 2 (1853).—Bp. Rev. et Mag. de Zool. 1854, p. 155.—Id. Naumannia, 1856, Consp. Psitt. sp. 360.—Gray, Cat. B. New Guinea, pp. 43, 60, 1859.—Id. List Psitt. Brit. Mus. p. 100 (1859).—Sclater, Proc. Zool. Soc. 1860, p. 227.—Rosenb. Journ. für Orn. 1862, p. 65.—Id. Nat. Tijdschr. Ned. Ind. xxv. pp. 146, 147 (1863).—Id. Journ. für Orn. 1864, p. 116.—Bernst. Nat. Tijdschr. Ned. Ind. xxvii. p. 297 (1864).—Id. Ned. Tijdschr. Dierk. ii. 327 (1865).—Gray, Handl. B. ii. p. 159, no. 8260 (1870).—Salvad. Atti. R. Ac. Sc. di Torino, ix. p. 630, (1874).—Meyer, Orn. Mittheil. i. p. 14 (1875).—Garrod, P. Z. S. 1876, p. 691.

Dasyptilus pequetii, Jardine, Nat. Libr. vi. p. 140, pl. xvii. (1836).—Wallace, P. Z. S. 1864, pp. 287, 294.

Psittrichas pesqueti, Less. Compl. de Buffon, Ois. p. 603, pl. f. 2 (1838).

Calyptorhynchus fulgidus, Gray, Gen. B. ii. p. 426 (1845).

Dasyptilus fulgidus, Bp. Rev. et Mag. de Zool. 1854, p. 157.—Id. Naumannia, 1856, Consp. Psitt. sp. 261.—Gray, List. Psitt. Brit. Mus. p. 100 (1859).—Finsch, Die Papageien, ii. p. 323 (1868).—Salvad. Ann. Mus. Civ. Genova, xii. p. 317 (1878).

Dasyptilus pesqueti, Gray, Proc. Zool. Soc. 1858, p. 195.— Id. P. Z. S. 1861, p. 437.—Finsch, Die Papageien, ii. pp. 320, 955 (1868).—Giebel, Thes. Orn. ii. p. 18 (1874).—Meyer, Sitzb. Isis zu Dresden, 1873, p. 76.—Beccari, Ann. Mus. Civ. Genova, vii. p. 714 (1875).—Id. Ibis, 1876, p. 252.—Salvad. Ann. Mus. Civ. Genova, x. pp. 31, 121 (1877); xii. p. 317 (1878).—D'Albertis, Ann. Mus. Civ. Genova, x. pp. 8, 19 (1877).—Id. Ibis, 1877, p. 365.—D'Albert. & Salvad. Ann. Mus. Civ. Genova, xiv. p. 36 (1879).—Salvad. Orn. Papuasia &c. i. p. 217 (1880).

Nestor pesquetii, Schlegel, Journ. für Orn. 1861, p. 377.—Id. Mus. Pays-Bas, *Psittaci*, p. 157 (1864).—Id. op. cit. Revue, p. 70 (1874).

Dasyptilus pesqueti, Finsch, Neu-Guinea, p. 157 (1865).

Microglossum pecqueti, Rosenb. Der zool. Gart. 1878, p. 347.

From the above very ample list of synonyms, which we have copied from Count Salvadori's 'Ornitologia della Papuasia,' it will be seen that this species has been known to ornithologists for many years; but it is only recently that we have received perfect specimens in Europe. All the examples collected by the early voyagers seem to have been skins of native preparation; and so rare was the bird that even Mr. Wallace did not succeed in obtaining a specimen during his travels in the Malay archipelago. Bernstein forwarded a specimen to the Leyden Museum in 1863, which he had received alive in Ternate from the west coast of New Guinea, opposite to Salawati. Another individual was received alive by the Zoological Society of London, but did not live long; this specimen was beautifully mounted by Mr. Bartlett, and is now in the gallery of the British Museum.

Von Rosenberg met with a single individual in the Arfak Mountains, where also D'Albertis shot the species, as well as Dr. Meyer. The researches of Dr. Beccari and Mr. Bruijn's collectors have shown that it occurs on Mount Morait near Dorei Hum, near Napan in the Bay of Geelvink, and also on the Fly river, in South-eastern New Guinea, where D'Albertis met with it. We have also seen some splendid examples from the Astrolabe range of mountains, obtained by Mr. A. Goldie. It will therefore be noticed from the above slight sketch of the history of the present species, which is derived from Count Salvadori's work above quoted, that examples are now much more common in collections than they were twenty years ago.

From the accounts of the habits of this species given by D'Albertis and Beccari, it seems that its favourite food consists of figs, into which it plunges its head in the same way as *Gymnocorvus senex*; and Salvadori suggests that the bare face of the bird has something to do with this peculiar habit. It cry is harsh and loud, and is heard at a great distance; and the skin is of extraordinary toughness, so that it is most difficult to shoot specimens, which generally fall to a shot in the head or a broken wing.

The coloration of this species is so peculiar that a detailed description is not necessary.

The figures in the Plate represent two birds, of about the size of life, drawn from specimens in our own collection.

[R. B. S.]



W. Hart del et lith.

EOS FUSCATA, *Blyth.*

Mintern Bros. imp.

EOS FUSCATA, *Blyth.*

Banded Lory.

Eos fuscatus, Blyth, Journ. As. Soc. Beng. xxvii. p. 279 (1858).—Sclater, Proc. Zool. Soc. 1873, p. 697.

Eos (*Chalcopsitta*) *torrida*, Gray, List Psittacidæ Brit. Mus. p. 102 (1859).

Eos fuscata, Gray, Proc. Zool. Soc. 1859, p. 158.—Sclater, Proc. Zool. Soc. 1860, p. 227.—Gray, Proc. Zool. Soc. 1861, p. 436.—Wallace, Proc. Zool. Soc. 1864, p. 291.—Schl. Dirent. pp. 68, 69, cum fig. (1864).—Salvad. Ann. Mus. Civic. Genov. vii. p. 760 (1875), x. pp. 34, 122 (1877).—D'Albert. op. cit. x. p. 19 (1877).—Ramsay, Proc. Linn. Soc. N. S. Wales, iii. p. 258 (1878), iv. p. 96 (1879).—D'Albert. and Salvad. Ann. Mus. Civic. Genov. xiv. p. 37 (1879).—Sharpe, Journ. Linn. Soc., Zool. xiv. pp. 628, 686 (1879).—Salvad. Orn. Papuasia e delle Molucche, i. p. 263 (1880).—Guillemard, Proc. Zool. Soc. 1885, p. 622.

Eos leucopygialis, Rosenb. J. f. O. 1862, p. 64.

Chalcopsitta leucopygialis, Rosenb. Nat. Tijdschr. Nederl. Indie, xxv. pp. 144, 224 (1863).—Id. Journ. für Orn. 1864, p. 113.

Lorius fuscatus, Schl. Mus. Pays-Bas, Psittaci, p. 122 (1864).—Finsch, Neu-Guinea, p. 157 (1865).—Gray, Hand-list B. ii. p. 153, sp. 8194 (1870).—Schl. Mus. Pays-Bas, Psittaci, Revue, p. 55 (1874).—Rosenb. Reis. naar Geelvinkb. p. 113 (1875).

Domicella fuscata, Finsch, Die Papag. ii. p. 807, pl. 6 (1868) —Meyer, Sitz. k. Akad. Wiss. Wien, lxx. p. 236 (1874).—Id. Sitz. Isis Dresden, 1875, p. 78.

Chalcopsittacus fuscatus, Salvad. Ann. Mus. Civic. Genov. viii. p. 397 (1876).

This Lory is easily recognized by its dusky coloration and greyish-white rump, and by the red or yellow bands on the body. It is an inhabitant of New Guinea, where it has been met with in several places in the north-western portion of the island—at Dorei by Mr. Wallace, Baron von Rosenberg, and Dr. Meyer, at Andai by Von Rosenberg and Dr. Guillemard, at Mansinam by Dr. Beccari, Passim by Dr. Meyer, Mon by Dr. Beccari, and in the Arfak Mountains by Dr. Meyer and Signor D'Albertis, as well as near Sorong by the last-named traveller. It has also been obtained in Salawati by Dr. Beccari, and in the Island of Jobi by Dr. Meyer, Mr. Bruijn, and Dr. Beccari. In Southern New Guinea Signor D'Albertis procured the present species on the Fly River, Mr. Ramsay has received it from Port Moresby, and the Rev. W. G. Lawes has found it at Walter Bay, a few miles eastward of the latter place.

The very curious variation in the colour of the red bands, which are sometimes replaced by yellow, has been well treated of by Dr. Meyer, whose remarks we reproduce :—

"The Jobi specimens appear to be somewhat larger in all their dimensions and to have more intense colours than those from New Guinea; but my series is not large enough to judge with certainty. Among the ten specimens which I procured are two red-banded ones, of which I could not determine the sex with certainty; of the rest three were females and five were males. The latter are all red-banded; and of the females, two had yellow bands and one red. This proves that the yellow coloration is not exclusively the dress of the full-grown female; but whether it be the plumage of the young bird, or whether this species does not preserve constancy in this respect, as the two finely coloured yellow birds do not show any special traces of youth, remains to be seen. It is possible, however, that the yellow plumage may be that of the immature bird; and this can only be proved when the changes of colour are observed in captivity, or when it is demonstrated that in a large series no young birds ever occur with red in their plumage. Mr. Wallace appears not to have regarded the yellow dress as being that of the young, for he states that both sexes of red and yellow varieties were obtained from the same flock.

"The bill is not 'horn-yellow' or 'light red,' but red like the red feathers of the neck; and it must be particularly noted that the skin at the base of the under mandible and on the chin is naked for a certain extent, and is of the same colour as the bill, so that the latter appears at first sight much larger than it really is. This peculiarity is not shown in Finsch's plate or mentioned in his description.

"The colour of the skin at the base of the lower mandible and on the chin is different in different species, but it appears to agree with the colour of the bill—as, for instance, in *Domicella atra* with a black bill and naked parts as distinct as in *D. fuscata*; the same in *D. scintillata*, but the naked parts not so extended. *D. lori*, *D. cyanogenys*, and *D. garrula* have the naked parts red like the bill, but with more feathering than in the foregoing species.

"*D. fuscata* has black feet and claws, but the soles of the feet are greyish yellow; the iris is yellowish red, and the skin at the base of the upper mandible is black."

The Plate represents three specimens of the natural size, showing both red and yellow variations. The figures are drawn from examples kindly lent by Dr. Meyer.

[R. B. S.]



W. Hart del. et lith.

EOS RETICULATA.

Walter, Imp.

EOS RETICULATA.

Blue-streaked Lory.

Blue-necked Lory, Lath. Gen. Hist. B. ii. p. 136 (1822).
Lorius borneus, Less. (nec. Steph.) Traité d'Orn. p. 192 (1831).—Salvad. Ucc. di Borneo, p. 27, note (1874).
Psittacus reticulatus, Müll. Verh. Natuurl. Gesch. Land- en Volkenk. pp. 107, 108 (1839–44).—Gray, Gen. B. ii. p. 42 (1846).
Eos cyanostriata, Gray & Mitch. Gen. B. ii. p. 417, pl. 103 (1845).—Blyth, Cat. B. Mus. As. Soc. p. 11 (1849).—Bp. P. Z. S. 1850, p. 29.—Id. Rev. et Mag. de Zool. 1854, p. 156.—Id. Naum. 1856, Consp. Psitt. no. 303.—Sclater, Proc. Zool. Soc. 1860, p. 226.—Wall. Ibis, 1861, p. 311.—Id. P. Z. S. 1864, p. 290.
Eos bornea, Souancé, Rev. et Mag. de Zool. 1856, p. 226.—Gray, List Psittac. Brit. Mus. p. 52 (1859).
Eos reticulata, Sclater, Proc. Zool. Soc. 1860, p. 226.—Wall. Ibis, 1861, p. 311.—Rosenb. J. f. O. 1862, p. 61.—Salvad. Ann. Mus. Civic. Genov. x. p. 33 (1877).—Id. Orn. Papuasia e delle Molucche, i. p. 245 (1880).—Sclater, Proc. Zool. Soc. 1883, p. 51.
Psittacus cyanostictus, Schlegel, Handl. Dierk. i. p. 184 (1857).
Eos, sp., Rosenb. J. f. O. 1862, p. 65.
Psittacus (Eos) guttatus, Rosenb. Nat. Tijdschr. Nederl. Ind. xxv. p. 145 (1863).
Lorius reticulatus, Schlegel, Mus. Pays-Bas, Psittaci, p. 128 (1864).—Finsch, Neu-Guinea, p. 157 (1865).—Schlegel, Mus. Pays-Bas, Psittaci, *Revue*, p. 58 (1874).
Domicella reticulata, Finsch, Papag. ii. p. 797 (1868).
Eos reticulatus, Gray, Hand-list of Birds, ii. p. 154, no. 8203 (1870).

The above synonymy, culled from Count Salvadori's well-known 'Ornitologia della Papuasia,' would seem to indicate that this beautiful Parrot had been known for a long time; and this is, indeed, the case; but the only European who has shot the species in its native haunts has been Mr. H. O. Forbes, who procured several examples during his recent expedition to the Tenimber Islands.

Various islands have been given as the home of this species, such as Borneo by Lesson, Celebes by Blyth; and in the Leiden Museum the habitat was set down as Amboina. Captain Chambers was the first to indicate its true home when he presented two specimens to the British Museum as from Timor Laut, and Mr. Wallace afterwards confirmed this habitat by finding that the native traders often brought living examples from Timor Laut to Celebes.

Mr. Forbes informs us that the species is common in all the islands of the Tenimber group which he visited, and that it is everywhere a favourite cage-bird with the natives.

The following description is taken from one of Mr. Forbes's specimens in the British Museum :—

Adult male. General colour above blood-red, the head and hind neck uniform, the mantle striped with beautiful blue in the centre of the feathers; lower back, rump, and upper tail-coverts obscurely marked with dusky blackish at the tips; scapulars black with red on the outer web and at the tips, varying in extent and in some feathers occupying the whole of the outer web; lesser and median wing-coverts blood-red, the inner ones with black on the inner web, which is more distinct on the bastard wing and greater wing-coverts, and gives a varied appearance; primary-coverts and primaries black, narrowly edged with blood-red, increasing in extent so as to occupy the base of the inner primaries; the secondaries blood-red, with black shafts and a broad bar of black at the end, decreasing in extent towards the inner secondaries, the innermost being entirely black; centre tail-feathers black, the rest blood-red on the inner web, black on the outer, the external webs diagonally red at the tips, with the shaft black; ear-coverts blackish, streaked with dull blue; cheeks and throat bright red; the rest of the under surface from the lower throat downwards deep blood-red with dusky ends to the feathers, the plumes of the thighs and lower flanks with black bases, the latter with blue ends; under wing-coverts, axillaries, and inner lining of quills beautiful blood-red, remainder of quills black below; "upper mandible scarlet, the tip orange-red; lower mandible the same; legs and feet black; iris rich brown" (*H. O. Forbes*). Total length 12 inches, culmen 0·85, wing 9·0, tail 8·5, tarsus 0·65.

Adult female. Similar in colour to the male. Total length 12 inches, wing 6·6, tail 5·4, tarsus 0·7. The specimen of this sex in the British Museum, sent by Mr. Forbes, is a very brilliant bird, and is streaked with blue on the sides of the rump and upper tail-coverts; at the end of the black centre tail-feathers is a subterminal oval spot of red.

The figures in the Plate represent a pair of birds, of the natural size; they have been drawn from two of Mr. Forbes's specimens.

[R. B. S.]



LORIUS FLAVO-PALLIATUS, *Salvad.*

W. Hart del. et lith.

Mintern Bros. imp.

LORIUS FLAVO-PALLIATUS, *Salvad.*

Yellow-mantled Lory.

Lorius garrulus (nec L.), Sclater, Proc. Zool. Soc. 1860, p. 226 (nec p. 227).—Rosenb. Journ. f. Orn. 1860, p. 62 (pt.).—Id. Tijdschr. Nederl. Ind. xxiii. p. 141 (1862, nec p. 142).—Wallace, Proc. Zool. Soc. 1864, p. 289 (pt.).—Schl. Mus. Pays-Bas, Psittaci, p. 121 (1864, pt.).—Finsch, Neu-Guinea, p. 157 (1885, pt.).—Gray, Hand-l. B. ii. p. 153, no. 8189 (1870).—Schl. Mus. Pays-Bas, Psittaci, Revue, p. 55 (1874, pt.).

Lorius garrulus, var., Gray, Proc. Zool. Soc. 1860, p. 356 (pt.).

Domicella garrula, Finsch, Die Papag. ii. p. 776 (1868, pt.).

Lorius flavo-palliatus, Salvad. Ann. Mus. Civic. Genov. x. p. 33 (1877).—Id. Orn. Papuasia e delle Molucche, i. p. 243 (1880).—Guillem. Proc. Zool. Soc. 1885, p. 564.

Count Salvadori, from whose work on the Birds of Papuasia the above synonymy has been derived, was the first naturalist who definitely recognized the distinctness of this Lory, as it was considered by Dr. Finsch and other well-known students of the Parrots to be identical with *Lorius garrulus* of Halmahera, although most of these writers recognized a certain variation in colour in the birds from Batchian. After examining a large series of specimens, Count Salvadori has pointed out that the species from the island of Batchian differed from its relative in Halmahera in having the entire interscapulary region yellow. Similar peculiarities mark the red Lories from the islands of Obi, Morotai, and Raou, so that *Lorius garrulus* would seem to be entirely confined to the island of Halmahera, or Gilolo, as it is wrongly called by most English naturalists.

This species is said to be a good talker, and large numbers of them are caught by the natives.

Adult. General colour above deep crimson, darkest on the scapulars, the mantle bright yellow; wing-coverts grass-green, with a patch of yellow near the bend of the wing; the inner, median, and greater coverts more olive-green, the latter with a tinge of golden; bastard-wing and primary-coverts blackish, externally glossed with purplish blue; quills blackish, externally grass-green; upper tail-coverts duller crimson than the rump; tail-feathers green, dull crimson at the base, the outer ones purplish black, green at the ends; crown of head, entire hind neck, sides of face, and entire under surface of body bright crimson; thighs green; under wing-coverts and axillaries yellow, the lower greater coverts blackish; quills below black, crimson for the greater part of the inner web. Total length 11 inches, culmen 1·05, wing 6·0, tail 4·0, tarsus 0·75.

The figure in the Plate represents an adult bird of the size of life. The specimen from which it has been drawn was lent to us by our friend Dr. Sclater.

[R. B. S.]



W. Hart del. et lith.

LORIUS TIBIALIS, *Sclater.*

Mintern Bros. imp.

LORIUS TIBIALIS, *Sclater.*

Blue-thighed Lory.

Lorius tibialis, Sclater, Proc. Zool. Soc. 1871, p. 499, pl. xl.—Garrod, Proc. Zool. Soc. 1872, p. 788.—Giebel, Thes. Orn. ii. p. 503 (1873).—Salvad. Ann. Mus Civic. Genova, x. p. 33 (1877).—W. A. Forbes, Ibis, 1877, p. 278.—Salvad. Orn. della Papuasia e delle Molucche, p. 240 (1880).

This is a very distinct species of Lory, and it is very much to be regretted that at present we are entirely ignorant of the country which it inhabits. It is, no doubt, as has been suggested by Dr. Sclater, a denizen of one of the Molucca Islands.

The species was originally described by Dr. Sclater from a specimen which was living at the time in the Zoological Gardens, and of this bird a very good figure was given in the 'Proceedings' of the Society. It belongs to that section of the genus *Lorius* wherein the colour of the head resembles that of the back, instead of being black.

The only other species which shares the character of the crimson head is *Lorius garrulus*; but this is easily distinguished by its yellow under wing-coverts. The original specimen was purchased by Mr. Jamrach in the Calcutta market; it lived for nearly four years in the Zoological Gardens.

The following is a description of the type, which proved, on dissection, to be a female:—

Adult female. General colour above bright crimson, the scapulars like the back; wing-coverts grass-green, the lesser series mixed with crimson and with lilac along the bend of the wing; the inner, greater, and median coverts with a subterminal mark of dark crimson; bastard-wing grass-green, bluish at the end of the feathers, the outer feathers black at the base; primary-coverts grass-green, blackish internally; quills grass-green, the primaries blackish internally, yellow for more than the basal half, the basal part being tinged with red; innermost secondaries marked with dark crimson near the ends like the greater coverts; upper tail-coverts and tail-feathers bright crimson, with a purplish-brown band across the end of the tail; crown of head, sides of face, and entire under surface of body bright crimson, mottled with yellow bases to the feathers on the lower throat and fore neck; thighs lilac-blue; under tail-coverts bright crimson; under wing-coverts and axillaries duller lilac-blue, slightly washed with green and on the edge of the wing with red; quills below black, with a large yellow basal patch; bill bright orange; feet pale flesh-colour, claws bright horn-colour. Total length 11·5 inches, culmen 1·1, wing 6·4, tail 3·7, tarsus 0 7.

The figure in the Plate represents an adult bird of the natural size, and is taken from the specimen described above.

[R. B. S.]

CHALCOPSITTACUS SCINTILLATUS.

J. Gould & W. Hart del. et lith.

Walter Imp.

CHALCOPSITTACUS SCINTILLATUS (*Temm.*).

Red-Fronted Lory.

Amber Parrot, Lath. Syn. i. Suppl. p. 65.—Id. Gen. Hist. ii. p. 252 (1822).

Psittacus batavensis, Lath. (nec Wagl.), Ind. Orn. i. p. 126 (1790).—Bechst. Kurze Uebers. p. 101 (1811).—Vieill. Nouv. Dict. xxv. p. 375 (1817).—Kuhl, Consp. Psitt. p. 99 (1820).—Vieill. Encycl. Méthod. p. 1406 (1823).

Psittacus scintillatus, Temm. Pl. Col. 569 (1835).

Lorius scintillatus, Bourj. Perroquets, pl. 51 (1837–38).—Hombr. & Jacq. Annales des Sciences Naturelles, xvi. p. 317 (1841).—Schleg. Mus. Pays-Bas, *Psittaci*, p. 122 (1864).—Finsch, Neu-Guinea, p. 158 (1865).—Schlegel, Mus. P.-B., *Psittaci*, Revue, p. 56 (1874).—Giebel, Thes. Orn. ii. p. 502 (1875).—Rosenberg, Malay Archip. p. 371 (1879).

Psittacus scintillans, Müller, Verh. Land- en Volkenk. pp. 22, 127 (1839–44).

Eos scintillatus, Gray, Gen. Birds, ii. p. 417 (1845).—Id. Cat. B. New Guinea, pp. 39, 59 (1859).—Id. List Psitt. Brit. Mus. p. 53 (1859).—D'Albertis, Sydney Mail, 1877, p. 248.—Id. Ann. Mus. Civ. Genova, x. p. 8 (1877).

Chalcopsitta scintillata, Bp. Consp. Avium, i. p. 3 (1850).—Id. Revue et Mag. de Zool. 1854, p. 156.—Id. Naumannia, 1856, Consp. Psittaci, sp. 305.—Gray, Proc. Zool. Soc. 1858, p. 194; 1861, p. 436.—Rosenb. Journ. für Orn. 1862, pp. 64, 65.—Id. Nat. Tijdschr. Ned. Ind. xxv. pp. 144, 145, 225 (1863).—Id. Journ. für Orn. 1864, p. 113.—Wallace, Proc. Zool. Soc. 1864, p. 289.—Gray, Hand-l. B. ii. p. 153, no. 8192 (1870).—Sclater, P. Z. S. 1872, p. 862.

Chalcopsitta scintillans, Bp. Proc. Zool. Soc. 1850, p. 26.—Sclater, Proc. Linn. Soc. ii. p. 165 (1858).—Id. Proc. Zool. Soc. 1860, p. 227.

Chalcopsitta rubrifrons, Gray, Proc. Zool. Soc. 1858, pp. 182, 194, pl. 135.—Id. P. Z. S. 1861, p. 436.

Eos rubrifrons, Gray, List Psitt. Brit. Mus. p. 53 (1859).—Id. Cat. B. New Guinea, pp. 39, 59 (1859).—Rosenb. Journ. für Orn. 1864, p. 114.—Id. Reis. naar Zuidoostereil., p. 48 (1867).

Domicella scintillata, Finsch, Die Papag. ii. p. 752 (1868).—Meyer, Sitz. k.-k. Akad. der Wissensch. zu Wien, lxx. p. 238 (1874).—Sharpe, Proc. Linn. Soc., Zool. xiii. p. 80 (1878).

Chalcopsittacus chloropterus, Salvad. Ann. Mus. Civ. Genova, ix. p. 15 (1876); x. p. 34 (1877).—D'Albertis, Sydney Mail, 1877, p. 248.—Id. Ann. Mus. Civ. Genov. x. p. 8 (1877).—Id. Ibis, 1877, p. 366.

Chalcopsittacus scintillatus, D'Albertis, Ann. Mus. Civ. Genova, x. p. 19 (1877).—Salvad. tom. cit. p. 34 (1877).—Id. Proc. Zool. Soc. 1878, p. 93.—D'Albertis & Salvad. Ann. Mus. Civ. Genova, xiv. p. 37 (1879).—Sharpe, Proc. Linn. Soc. xiv. p. 686 (1879).—Ramsay, Proc. Linn. Soc. N. S. W. iv. p. 96 (1879).—Salvad. Orn. Papuasia &c., i. p. 274 (1880).

Chalcopsitta chloropterus, Ramsay, Proc. Linn. Soc. N. S. W. iii. p. 254 (1878–9).

The above intricate synonymy has been copied from Count Salvadori's grand work on the Ornithology of Papuasia. Indeed it would be difficult to write the synonymy of any New-Guinea bird without reproducing what has been written by the learned Italian ornithologist, so completely does he seem to have exhausted the literature of his subject.

The Red-fronted Lory appears to be found in New Guinea and the Aru Islands; in the latter locality it cannot be very rare, and many specimens were collected by Dr. Beccari during his expedition to these islands in the spring of 1873. According to Baron von Rosenberg the inhabitants call the bird *Jaran-kra*.

In New Guinea it was met with by Salomon Müller at Lobo Bay, and in the north-west part of the island it has been procured by Dr. A. B. Meyer at Rubi, by Baron von Rosenberg at Jour, a place situated at the very lowest part of the Bay of Geelvink, and at Mesan by Dr. Beccari. In south-eastern New Guinea it has been met with by Signor D'Albertis on the Fly River, and also in the neighbourhood of Hall Bay, while Mr. Octavius Stone got specimens in the vicinity of Port Moresby. The greater amount of green on the under wing-coverts in some of the more southern specimens induced Count Salvadori at one time to consider them a distinct species, which he called *C. chloropterus*; and at one time we were ourselves inclined to believe in the validity of this species. But, after an examination of more extensive material, Count Salvadori finds great variation to exist in the colouring of these parts, and he has decided to suppress the supposed southern species.

The following description is taken from Count Salvadori's work :—

"Green; the middle of the back and rump brighter and more blue, with very narrow shaft-streaks of yellow; sinciput and lores red; the sides of the head and chin dark brown, almost blackish; occiput dark

brown, the feathers streaked in the middle with green; the neck, the interscapulary region, the breast, and abdomen green, ornamented with yellow shaft-streaks; the streaks on the breast broader and more orange in tint; throat dull green varied with red; thighs red; under tail-coverts green, very narrowly streaked with yellow towards the tip; wings externally green, the median and lesser coverts very narrowly streaked with bright green, the lesser coverts somewhat bluish; under wing-coverts and axillaries red; quills green on the outer web, dusky on the inner one, with a very broad yellow patch towards the base of the inner web, tail-feathers green above, red for the basal half of the inner web; the apical part of the tail-feathers underneath yellowish olive; bill, cere, and feet black; iris orange yellow." The sexes are alike; but the young bird has the whole of the head dark brown, with the streaks on the neck and breast fiery orange, more or less broad in their extent.

The figures in the Plate represent, of about the natural size, two adult birds, drawn from specimens in my own collection.

[R. B. S.]



PSITTACELLA BREHMII, *Rosenberg.*

J. Gould & W. Hart del. et lith.

Walter imp.

PSITTACELLA BREHMII, *Rosenberg*.

Brehm's Parrot.

Psittacus brehmii, Ros. *in lit.*, Schlegel, Obs. Zool. v., Ned. Tijdschr. voor de Dierk. iv. p. 35, 1873, ♀ (nec ♂).
Psittacella brehmii (Ros.), A. B. Meyer, Cab. Journ. f. Orn. Jan. 1874, and Sitzungsber. der k.-k. Akad. de Wiss. zu Wien. lxix. p. 74, Febr. 1874.—T. Salvadori, Ann. del Mus. Civ. di St. Nat. di Genova, vii. p. 755, 1875.

When one has to deal with a species of Parrot so different from all others that have yet been discovered, there can be no difficulty with regard to synonymy, or need for many remarks on the differences between it and others.

The native country of this Parrot is the northern part of New Guinea, where it was first collected by Baron Rosenberg; but, if I rightly understand the sense of a letter to me from Dr. Meyer, Rosenberg only discovered the female, while he himself was fortunate enough to obtain both sexes:—"I procured within a few days five specimens, all in the same locality, two of which were males, and three females. The back of the male is similar to the same part in the female; but the plumage of the breast and flanks, instead of being crossed with crescentic bars, is uniform green; it is also the male alone that possesses the beautiful semicollar of bright yellow, an ornament which adds greatly to the beauty of this sex."

The male has the head, cheeks, and throat dark olive-brown; on the sides of the neck below the dark colouring of the cheek and throat brilliant jonquil-yellow; back, including the tail-coverts, green, crossed by narrow bands of black; upper part of the wing and tail bright grass-green; the same bright green also pervades the whole under surface; under tail-coverts bright scarlet; on the shoulders both above and below a patch of blue; bill bluish horn-colour; feet dark bluish-grey. In the female the yellow neck-bands and uniform green breast are wanting; in other respects she is similarly coloured.

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

The figures are of the natural size.

Hab. Northern portions of New Guinea.



W. Hart del et lith.

PSITTACELLA MADARASZI, *Meyer.*

Mintern Bros. imp.

PSITTACELLA MADARASZI, *Meyer*.

Madarász's Parrakeet.

Psittacella madaraszi, Meyer, Zeitschr. ges. Orn. iii. p. 4, tab. i. fig. 1 (1886).

Dr. Meyer describes this species as being similar to *Psittacella modesta* from North-western New Guinea, but smaller, and with the head and under surface of the body distinctly more yellow. It was found by Mr. Hunstein in the Horseshoe range of the Owen Stanley Mountains, at a height of 7000 feet, and Mr. Forbes has also met with it in the Sogeri district of the Astrolabe Mountains in South-eastern New Guinea. Not having an example of *P. modesta* in the British Museum, we have not been able to institute a comparison between the two species, and in figuring *P. madaraszi* we must leave to future research the task of more strictly defining the species, the characters of which do not appear very strongly marked. Perhaps the green colour of the breast, to which Dr. Meyer draws attention, instead of the dull olive-coloured breast of *P. modesta*, may prove to be a good specific character.

Dr. Meyer also received a female bird from Mr. Hunstein, which he thinks may not be in full plumage, but which differs from the hen of *P. modesta* in having the head green, the forehead blue, and the nape more or less barred across with black and red. He is not sure that the bird so described is the female of *P. madaraszi*, and thinks that it may belong to an undescribed species.

The following is a description of one of Mr. Hunstein's specimens in the British Museum :—

Adult male. General colour above green, the lower back and rump barred with yellow and black, the yellow bars broader than the black ones; wing-coverts like the back, the edge of the wing cobalt-blue; bastard-wing, primary-coverts, and quills green externally, the inner webs blackish, the primaries darker and more bluish green on the outer webs, which are narrowly bordered with yellow near the ends; upper tail-coverts more yellowish green than the back; tail-feathers dark green with black shafts; crown of head, nape, and hind neck ochreous brown, mottled with dark brown edges and yellow shaft-lines to the feathers; forehead, lores, and feathers in front of the eye sooty brown; sides of face and ear-coverts like the head, the latter similarly streaked with yellow; cheeks and throat ochreous-brown washed with green; fore neck and breast green; abdomen and sides of body lighter and more yellowish green, washed on the flanks with darker green; thighs dark green; under tail-coverts scarlet; under wing-coverts and axillaries yellowish green, blue near the edge of the wing; quills below dusky, olive-yellow along the inner edge. Total length 5·5 inches, culmen 0·6, wing 3·95, tail 1·9, tarsus 0·5.

The Plate gives an illustration of a male, but in two positions, the figures being drawn from the same specimen we have described above.

[R. B. S.]



W. Hart del. et lith.

TRICHOGLOSSUS GOLDIEI, *Sharpe.*

Walter imp.

TRICHOGLOSSUS GOLDIEI, *Sharpe.*

Goldie's Perroquet.

Trichoglossus goldiei, Sharpe, Journ. Linn. Soc. (Zool.) vol. xvi. p. 317 (1882).

The present species was one of the handsomest birds discovered by Mr. Goldie during his expedition to the Astrolabe Mountains. It appears to me to be quite distinct from any known species of the genus *Trichoglossus*; and the name attached to it by Mr. Bowdler Sharpe will perpetuate the name of one of the pioneers of research in the untrodden regions of South-eastern New Guinea. It was procured by Mr. Goldie in the Morocco district at the back of the Astrolabe Mountains, where it is known to the natives, according to that gentleman, by the name of "*I—I—hawa.*"

The following is a copy of the description given by Mr. Sharpe in his paper on Mr. Goldie's collection read before the Linnean Society at their meeting of the 6th of April, 1882.

"*Adult male.* General colour above green, the hind neck mottled with yellow edges to the feathers, extending a little on the mantle; wing-coverts like the back; primary-coverts and quills dusky blackish, externally brighter green, the secondaries like the back; tail-feathers greenish brown, edged with bright green like the back, the tips fringed with yellow; forehead and sinciput scarlet, tending towards a point in the middle of the crown; from behind the eye a broad purplish-blue band extends round the occiput to behind the opposite eye: the nape-feathers brown washed with lilac, and faintly streaked with dull scarlet; lores, sides of face and ear-coverts lilac red, with a bluish shade along the upper margin of the latter; below the eye the feathers rather lighter in colour, and having indistinct tiny streaks of dull blue; under surface of body yellowish green, streaked with darker green down the centre of the feathers, more narrowly on the under tail-coverts; under wing-coverts like the breast and streaked with dark green in the same manner; quills dusky below, all but the outer primaries oily yellow for two thirds of the inner web, forming a conspicuous diagonal patch across the wing when uplifted. Total length 6·5 inches, culmen 0·6, wing 4·2, tail 3·1, tarsus 0·5."

The figures in the Plate are drawn from specimens in the British Museum, the one first described by Mr. Sharpe being the duller-coloured of the two; it is probably a female or young male. Both birds are represented of the natural size.

[R. B. S.]



TRICHOGLOSSUS MUSSCHENBROEKII.

J.Gould & W.Hart del et lith.

Walter. Imp

TRICHOGLOSSUS MUSSCHENBROEKII.

Van Musschenbroek's Lorikeet.

Nanodes musschenbroekii, Schlegel, Nederlandsch Tijdschrift voor de Dierkunde, iv. p. 34 (1873).—Id. Mus. d. P.-B., Revue Psittaci, p. 52 (1874).

Trichoglossus musschenbroekii, Sclater, P. Z. S. 1873, p. 697.—Finsch, in Rowley's Orn. Misc. part v. p. 61, pl. xliv. (1876).

Neopsittacus musschenbroekii, Salvad. Ann. Mus. Civic. Genov. vii. p. 761 (1875).

Professor Schlegel describes this species in the following manner:—"M. von Rosenberg has just forwarded us, under the title of *Nanodes musschenbroekii*, three adult individuals of a species of *Nanodes* new to science. These comprise two females and a male, all exactly resembling each other, and collected in April 1870 in the interior of the north-western peninsula of New Guinea. The species is naturally allied to *N. placens* and *N. rubrinotatus*; but it is distinguished at the first glance by its larger size and by the very sensible modifications in the distribution of its colours."

Nothing more was recorded concerning the species until D'Albertis brought back examples from Atam; and since then Count Salvadori has received it from Mount Arfak. In recording the last-named occurrence Count Salvadori makes it the type of a new genus, on account, as he says, of its differently shaped bill, the upper mandible being very much more strongly incurved, and the lower one showing a flat superficies on the gonys, which is very broad. These characters the describer considers sufficient to separate the bird generically from the other members of the Trichoglossinæ.

I have to thank Dr. Meyer for the loan of the fine specimen from which the figures in the Plate have been drawn; and the following is a description of this bird:—

Face green, each feather having a yellow centre; back part of the crown and nape brown, streaked with pale yellow; all the upper surface, including the two centre tail-feathers and flanks, green; chest and centre of the abdomen red; all the primaries and secondaries as seen from above, when the wing is expanded, brilliantly marked with red on the inner webs; the same brilliant red also occurs on the under wing, except the tips of the primaries, which are brownish black; tail cuneate, the four centre feathers nearly uniform green with slightly rosy tips, the external ones green on the outer webs, with brilliant red on the inner webs, the whole broadly tipped with yellowish rose-colour. Total length $8\frac{1}{2}$ inches; wing $4\frac{1}{4}$, tail $3\frac{3}{9}$, tarsus $\frac{5}{8}$.

Professor Schlegel states that the soft parts were found by Von Rosenberg to be as follows—"bill orange-red, iris citron-yellow, feet yellowish flesh-colour."

In concluding this brief memoir of a very interesting bird, I must beg to offer a dissenting voice as to its belonging to the genus *Nanodes* or being allied to *Psitteuteles*; neither can I agree with the learned Count Salvadori in instituting a new genus for its reception. From the first moment I examined the skin kindly forwarded to me by Dr. Meyer I considered it a true *Trichoglossus*—an opinion in which Dr. Sclater evidently coincides; see the 'Proceedings' of the Zoological Society, as quoted in the above synonymy. More recently too, Dr. O. Finsch has declared in favour of the bird being a true *Trichoglossus*.

The principal figure in the Plate is of about the size of life.



LORICULUS AURANTIIFRONS, *Schlegel.*

J. Gould & W. Hart del et lith

Walter Imp.

LORICULUS AURANTIIFRONS, *Schlegel.*

Orange-crowned Loriculus.

Loriculus aurantiifrons, Schlegel, Nederlandsch Tijdschrift voor de Dierkunde, iv. p. 19.—Salvad. Ann. Mus. Civic. Genov. ix. p. 912.—Meyer, in Rowley's Orn. Misc. ii. p. 245.

The present species, of which a fine male was kindly sent to me by Dr. Meyer, is one of the smallest Parrots known, and forms one of a group of tiny *Loriculi* found in New Guinea and the adjacent islands. It was first discovered by the Dutch traveller M. Hoedt in the island of Mysol; and since that time it has been collected in North-western New Guinea by M. Bruijn. The latter gentleman procured specimens at Andai; and Count Salvadori, when recording this fact, believed that this was the first instance of the occurrence of the species in New Guinea. That it was the first instance published, there can be no question, as Dr. Meyer, although he was the first to procure actual specimens, had not stated it in print. He informs me in a letter that he has no notes on the present bird, of which he only procured two male examples.

The following is a translation of Professor Schlegel's original description:—

"The first three quills are of equal length and much longer than the fourth; tail rounded; bill not strong, black. General colour of the plumage lively green, verging slightly upon yellow, and lighter on the under than on the upper surface; upper aspect of the inner web of the quills black, with the exception of their extremities; lower aspect of the primaries black, but with very broad edgings of bluish verdigris occupying the inner web; this colour extends over nearly the whole of both quills in the secondaries; greater wing-coverts of the same bluish verdigris, lesser and median coverts coloured like the abdomen. Tail-feathers black in the centre, for the remainder green on their upper surface, verdigris below; rump and upper tail-coverts fiery red, slightly shaded with orange on the sides of the rump; fore part of the throat with a spot of red colour a little darker than that of the rump.

"The sexes present the following differences in colour: the male has a large patch of lively orange, occupying nearly the entire forehead; not a trace of this is seen in our female specimen, which is distinguished on the contrary by the prevailing green colour, passing into verdigris on the forehead and sides of the head."

For the opportunity of figuring the male of this pretty little Parrot I am indebted to the kindness of Dr A. B. Meyer.

The portrait of the female bird is drawn from a specimen collected by M. Bruijn at Andai; and I have to acknowledge the kindness of Dr. Sclater for permitting me to see this bird, which had been sent to him for examination by Count Salvadori, to whom I also beg leave to return my due acknowledgments.

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

The figures in the Plate are of the size of life.



CACATUA TRITON, *Temm.*

W. Hart del. et lith.

Mintern Bros. imp.

CACATUA TRITON.

Triton Cockatoo.

Psittacus galeritus (pt.), Less. Voy. Coquille, Zool. i. p. 624 (1828).—Id. Traité d'Orn. p. 182 (1831).—Id. Compl. Buff., Ois. p. 602 (1838).—S. Müll. Verh. Land- en Volkenk. pp. 21, 107 (1839–1844).

Psittacus sulphureus, Less. (nec Gm.), Voy. Coquille, i. p. 625 (1828).

Psittacus triton, Temm. Coup d'œil gén. sur les Possess. Néerl. dans l'Inde Archip. iii. p. 405, note (1849).

Plyctolophus sulphureus, Bp. (nec Gm.), Compt. Rend. xxx. p. 138 (1850).

Plyctolophus luteocristatus, Bp. loc. cit.

Plyctolophus triton, Bp. t. c. p. 139.—Id. Rev. et Mag. de Zool. 1854, p. 156.—Id. Naumannia, 1856, Consp. Psitt. sp. 278.—Id. Compt. Rend. xliv. p. 537 (1857).

Cacatua cyanopsis, Blyth, Journ. As. Soc. Beng. xxv. p. 447 (1856).

Cacatua triton, Sclater, Journ. Linn. Soc. ii. p. 166 (1858).—Gray, Proc. Zool. Soc. 1858, pp. 184, 195.—Id. Cat. Birds New Guinea, pp. 43, 60 (1859).—Id. Proc. Zool. Soc. 1859, p. 159.—Id. List of Psittacidæ in Brit. Mus. p. 94 (1859).—Sclater, Proc. Zool. Soc. 1860, p. 227.—Gray, Proc. Zool. Soc. 1861, p. 437.—Sclater, Proc. Zool. Soc. 1864, p. 188.—Wallace, t. c. p. 280.—Schl. Mus. Pays-Bas, Psittaci, p. 133 (1864).—Sclater, Ann. & Mag. N. H. (3) xv. p. 74 (1865).—Finsch, Neu-Guinea, p. 159 (1865).—Schl. Ned. Tijdschr. iii. p. 320 (1866).—Rosenb. Reis. naar Zuidoostereil. pp. 13, 19, 48 (1867).—Gray, Hand-list B. ii. p. 169, no. 8387 (1870).—Rosenb. Reis. naar Geelvinkb. pp. 36, 56, 83, 113 (1875).—Salvad. Ann. Mus. Civic. Genov. vii. p. 753 (1875), ix. p. 11 (1876), x. p. 24 (1877).—D'Albert. Ann. Mus. Civic. Genov. x. p. 19 (1877).—Id. & Salvad. op. cit. xiv. p. 28 (1879).—Ramsay, Proc. Linn. Soc. N. S. W. iii. p. 250 (1879).—Rosenb. Malay. Arch. pp. 371, 396 (1879).—Salvad. Orn. Papuasia e delle Molucche, i. p. 94 (1880).

Plyctolophus macrolophus, Rosenb. Nat. Tijdschr. Nederl. Ind. xxiii. p. 45 (1861).—Id. J. f. O. 1861, p. 45.

Plyctolophus æquatorialis, Rosenb. J. f. O. 1862, p. 63.—Id. Nat. Tijdschr. Nederl. Ind. xxv. pp. 142, 143 (1863).—Id. J. f. O. 1864, p. 116.

Plyctolophus triton, Rosenb. J. f. O. 1862, pp. 63, 65.—Bernst. Nat. Tijdschr. Nederl. Ind. xxvii. p. 297 (1864).

Cacatua eleonora, Finsch, Nederl. Tijdschr. Dierk. Berigten, p. xxi (1863).

Cacatua macrolopha, Wall. P. Z. S. 1864, p. 280.—Schl. Dierent. p. 82 (1864).—Finsch, Neu-Guinea, p. 159 (1865).—Gray, Hand-list B. ii. p. 169, no. 8393 (1870).

Cacatua galericulata, Rosenb. Reis. naar Zuidoostereil. pp. 99, 100 (1867).

Plictolophus triton, Finsch, Die Papag. i. p. 291 (1867), ii. p. 941 (1868).—Meyer, Sitz. Isis Dresd. 1875, p. 75.—Sharpe, Journ. Linn. Soc., Zool. xiii. p. 490 (1878).

When dried skins only are examined it is not easy to distinguish this Cockatoo from its Australian representative *Cacatua galerita*; but when living individuals of the two species are compared together, the colour of the naked blue skin that surrounds the eye renders the present bird at once remarkable. It is besides slightly smaller in size than *Cacatua galerita*, and has usually rather a stronger bill. In other respects the Triton Cockatoo exactly resembles the well-known Sulphur-breasted Cockatoo of the Australian continent.

Although confounded with *C. galerita* by some of the older authors, the Triton Cockatoo was recognized as distinct by Temminck in 1849, and named after one of the Dutch surveying-vessels which first visited the coasts of New Guinea. It appears to be found all over that large island, and to be, in some places, very abundant. The numerous flocks of white Cockatoos which Dr. Solomon Müller observed on the south-western coasts of New Guinea, near Triton Bay, were doubtless of this species, although that celebrated explorer did not distinguish them from *C. galerita*. There are fine series of specimens of this Cockatoo from the islands of Waigiou and Guebé in the Leyden Museum, and in the same collection is now also the type of *Cacatua eleonora* of Dr. Finsch, originally described from the living bird in the Zoological Gardens of Amsterdam. It likewise occurs in the islands of Geelvink Bay, Salwati, Mysol, the Aru Islands, Goram, and Manuwolka, and is met with in the Louisiade Islands.

Our figure of this species is taken from a fine example now living in the Parrot-house of the Zoological Society of London. This individual was brought home from New Guinea by Mr. C. T. Kettlewell, F.Z.S., in his yacht 'Marquesa,' and presented to the Society in April 1884.

[R. B. S.]



CACATUA OPHTHALMICA, *Sclater.*

W. Hart del et lith.

Mintern Bros. imp.

CACATUA OPHTHALMICA, *Sclater.*

Blue-eyed Cockatoo.

Cacatua ducorpsii (nec Hombr. & Jacq.), Sclater, Proc. Zool. Soc. 1862, p. 141, pl. xiv.

Cacatua ophthalmica, Sclater, Proc. Zool. Soc. 1864, p. 188.—Wallace, tom. cit. p. 280.—Sclater, Ann. & Mag. Nat. Hist. (3) xv. p. 74 (1865).—Id. Proc. Zool. Soc. 1867, p. 184.—Gray, Hand-l. Birds, ii. p. 169, no. 8392 (1870).—Id. Ann. & Mag. Nat. Hist. (4) v. p. 329 (1870).—Sclater, Proc. Zool. Soc. 1877, p. 107.—Salvad. Ann. Mus. Civic. Genov. x. p. 25 (1877).—Id. Orn. Papuasia e delle Molucche, i. p. 103 (1880).—Sclater, Proc. Zool. Soc. 1880, p. 67.—Id. List of Animals in Zool. Gard.p. 308 (1883).

Cacatua triton (pt.), Schleg. Nederl. Tijdschr. v. Dierk. iii. p. 320 (1866).

Plyctolophus ophthalmicus, Finsch, Papag. i. p. 282 (1867).—Id. Proc. Zool. Soc. 1879, p. 17.

The White Cockatoos, as Mr. Sclater has shown, may be divided into two very easily distinguished sections. The first embraces those species which have a narrow median head-crest with the slender point recurved at the extremity, and appearing above the surface of the adjoining feathers when the crest is in a state of repose. The second contains those species which have the crest broadened, comprising the greater part of the head-feathers, and rising, when erect, into a sphere more or less pyramidal in shape, but showing when in a state of repose no recurved point. The present bird belongs to the second of these sections, and is most nearly allied to two well-known species—the White-crested Cockatoo, *Cacatua cristata* of Ternate and Halmahera, and the Rose-crested Cockatoo, *C. moluccensis* of Ceram, having a similar broad pendent crest. But it may be easily distinguished from these two species, with which it nearly agrees in size, by the delicate lemon-colour of its crest, and by the broad blue naked space round the eye, from which latter feature it has received the appropriate name of *ophthalmica*.

In 1862 an example of this fine Cockatoo was first received by the Zoological Society of London. It was at once recognized as a species unknown to him by Mr. Sclater, and described and figured in the 'Proceedings.' But misled, apparently, by the wrong locality attributed to this bird, which was stated to have been received from the Solomon Islands, Mr. Sclater unfortunately referred it to *Cacatua ducorpsi*, with which he was not at that period acquainted. In 1864, however, the receipt of authentic specimens of the true *Cacatua ducorpsi* direct from the Solomon group enabled Mr. Sclater to correct his error, and to establish this bird in its proper position as a distinct species. Moreover its true locality is now well known to us.

Specimens of this Cockatoo were in the collections made in Duke-of-York Island and the adjacent parts of New Ireland and New Britain by Mr. George Brown, C.M.Z.S., in 1877 (see P. Z. S. 1877, p. 107), and in the collection made by Mr. Hübner in the same district in 1878, which was described by Dr. Finsch in the Zoological Society's 'Proceedings' for 1879 (see P. Z. S. 1879, p. 17). Mr. Hübner notes that the native name of this bird in New Britain is "*Moal*." Again, in 1880, Mr. George Brown, then resident at Duke-of-York Island, forwarded a living pair of this Cockatoo to the Zoological Society's Gardens, with the information that the bird is found in New Britain, but not in New Ireland.

Our illustration of this Cockatoo has been prepared from a female specimen formerly living in the Zoological Society's Gardens. The colours of the naked parts have been added from an example now living in the same collection.

[R. B. S.]



CACATUA GYMNOPIS, *Sclater.*

W. Hart del et lith.

Mintern Bros. imp.



CACATUA GYMNOPIS, *Sclater.*

Naked-eyed Cockatoo.

Cacatua sanguinea, Sturt, Travels in Austr. App. p. 36 (1849, nec Gould).
Cacatua gymnopis, Sclater, Proc. Zool. Soc. 1871, p. 490, 1875, p. 61.—Id. List of Animals in Zool. Gard. p. 313 (1883).

In the 'Birds of Australia' will be found a figure of the Blood-stained Cockatoo (*Cacatua sanguinea*) of Northern Australia, which was originally described in 1842 from specimens obtained at Port Essington.

The present bird resembles *C. sanguinea* in having the lores more or less stained with rosy red. But it is at once distinguishable from that species by the broad plaque of blue naked skin below the eye, which is also continued in a ring round the eye. In *Cacatua sanguinea* the naked skin round the eye is white; besides, that bird is considerably smaller in dimensions and has much shorter claws.

As in the case of the Blue-eyed Cockatoo, this species was first discriminated by Mr. Sclater, the Secretary of the Zoological Society of London, from a specimen living in the Society's collection in 1871. The bird in question had been purchased from the well-known dealer, Mr. Jamrach, in 1868, and its locality was not known. But Mr. Sclater ascertained that two White Cockatoos in the gallery of the British Museum, obtained by Sturt at Depôt Creek during his expedition into Southern Australia, belonged to the same species. The correct *patria* of this Cockatoo is therefore no doubt Southern Australia.

Our figure of this bird is taken from a skin of an individual that was also formerly living in the Zoological Society's collection, having been purchased in February 1872, and having died in January 1883.

In the Appendix to the narrative of Captain Sturt's expedition into Southern Australia is given the following account of this species:—

"This bird succeeded *Cacatua galerita*, and was first seen in an immense flock on the grassy plains at the bottom of the Depôt Creek, feeding on the grassy plains or under the trees, where it greedily sought the seeds of the kidney bean. These Cockatoos were very wild, and when they rose from the ground or the trees, made a most discordant noise, their note being, if anything, still more disagreeable than that of either of the others. They left us in April, and must have migrated to the N.E., as they did not pass us to the N.W., nor were they anywhere seen so numerously as at this place."

[R. B. S.]



CACATUA DUCORPSI, *Hombr et Jacq.*

W. Hart del. et lith.

Mintern Bros. imp.

CACATUA DUCORPSI, *Jacq. et Pucher.*

Ducorps's Cockatoo.

Cacatoès de Ducorps, Hombr. & Jacq. Voy. Pôle Sud, Atlas, pl. 26. fig. 1 (1845).
Plyctolophus Du Crops, Bp. Compt. Rend. xxx. p. 138 (1850).—Id. Rev. et Mag. de Zool. 1854, p. 156.
Cacatua ducorpsii, Jacq. et Pucher. Voy. Pôle Sud, Zool. i. p. 108 (1853).—Hartl. J. f. O. 1854, p. 165.—Sclater, Proc. Zool. Soc. 1860, p. 228.—Id. Proc. Zool. Soc. 1864, pp. 188, 189, pl. xvii. (nec Proc. Zool. Soc. 1862, pl. xiv.).—Wall. Proc. Zool. Soc. 1864, p. 280.—Sclater, Ann. & Mag. Nat. Hist. (3) xv. p. 74 (1865).—Id. Proc. Zool. Soc. 1867, p. 184.—Id. Proc. Zool. Soc. 1869, pp. 118, 124.—Gray, Hand-l. Birds, ii. p. 170 (1870).—Sclater, Proc. Zool. Soc. 1875, pp. 59, 60.—Salvad. Ann. Mus. Civ. Genov. x. p. 25 (1877).—Ramsay, Proc. Linn. Soc. N. S. W. iv. p. 68 (1879).—Salvad. Orn. Papuasia e delle Molucche, i. p. 104 (1880).—Sclater, List of Animals in Zool. Gard. p. 312 (1883).
Cacatua ducrops, Bp. Naumannia, 1856, Consp. Psitt. sp. 269.
Ducorpsius typus, Bp. Compt. Rend. xliv. p. 537 (1857).
Cacatua ducorpsii, Gray, List Psitt. Brit. Mus. p. 94 (1859).
Cacatua (Ducorpsius) ducorpsii, Gray, Cat. B. Trop. Isl. p. 34 (1859).
? *Lophocroa learii*, Finsch, Nederl. Tijdschr. v. Dierk. i. Berigten, p. xxiii (1863).
Cacatua sanguinea (pt.), Schleg. Mus. Pays-Bas, Psittaci, p. 144 (1864).
Cacatua triton (pt.), Schleg. Nederl. Tijdschr. v. Dierk. iii. p. 320 (1866).
Plictolophus ducorpsii, Finsch, Papag. i. p. 311 (1867).—Id. Proc. Zool. Soc. 1869, p. 127.
Cacatua goffini, Sclater, Proc. Zool. Soc. 1869, p. 122, 1875, p. 61, pl. x.—Id. List of Animals in Zool. Gard. p. 312 (1883).

It is to the French discovery-ships 'L'Astrolabe' and 'La Zélée,' which made an expedition towards the South Pole in the years 1837–40, that we owe the discovery of this Cockatoo. It was found in the Solomon Islands by the naturalists of the expedition, and dedicated by Messrs. Hombron and Jacquinot, the authors of the zoological portion of the narrative of the 'Voyage au Pôle Sud,' to M. Ducorps, one of the officers on board the 'Astrolabe.'

Little further was known of Ducorps's Cockatoo until 1864, when a fine pair of the species was received alive by the Zoological Society of London, direct from Guadalcanar Island, one of the Solomon group. One of these birds was figured by Mr. Sclater in the Zoological Society's 'Proceedings' for that year (pl. xvii.), in order to show its distinctness from the larger *Cacatua ophthalmica*, which Mr. Sclater had previously confounded with *C. ducorpsi*.

In his well-known work on the Parrots, Dr. Finsch, besides admitting *C. ducorpsi* as a distinct species, also recognized *C. goffini*, which he had previously described from specimens living in the Zoological Gardens of Amsterdam and Rotterdam. In some of his remarks in the Zoological Society's 'Proceedings,' Mr. Sclater has likewise treated these two species as distinct, and has even figured a white Cockatoo as *Cacatua goffini* (see P. Z. S. 1875, p. 61, pl. x.). But we believe that he is now convinced that the specimens which he has formerly referred in some cases to *C. ducorpsi*, and in others to *C. goffini*, were not really distinct, but all belonged to the same species, to which the former title is properly applicable.

Ducorps's Cockatoo is a small white species, much resembling the Blood-stained Cockatoo (*C. sanguinea*) figured in the 'Birds of Australia,' vol. v. pl. 3; but it is immediately distinguishable by the entire absence of any red markings on the face. The naked skin round the eye is nearly circular in form and, in the living bird, of a pale blue colour. The basal part of the crest-feathers is reddish orange, with a slight tinge of lemon-yellow, sometimes mixed with rosy red towards their summit, which colour, however, is hardly seen unless the crest is elevated. The wing- and tail-feathers are likewise stained on the inner webs with pale lemon-colour. From the Cockatoo of the Philippine Islands (*Cacatua philippinarum*), which is likewise closely allied, the present species is at once distinguishable by the absence of the red colour on the vent.

As regards the supposed occurrence of this species in Queensland, which was stated by Mr. Sclater (P. Z. S. 1875, p. 60) on the information of Mr. J. T. Cockerell, Mr. Sclater now believes that there has been some error on this point, and that Ducorps's Cockatoo is absolutely confined to the islands of the Solomon group, having so far been met with in Guadalcanar and Savo.

[R. B. S.]



CHALCOPHAPS JOBIENSIS, *Meyer.*

J.Gould & W.Hart. del et lith.

Walter Imp.

PHLOGŒNAS JOBIENSIS, *Meyer*.

White-chested Pigeon.

Phlogœnas jobiensis, Meyer, Mitth. Zool. Mus. Dresden, i. p. 10 (1875).—Sharpe, Journ. Linn. Soc., Zool. xiii. p. 318
Chalcophaps margarithæ, D'Alb. et Salvad. Ann. Mus. Civic. Gen. vii. p. 836 (1875).
——— *margaritæ*, Salvadori, op. cit. ix. pp. 44, 207 (1876).
Phlogœnas margaritæ, Salvad. Ann. Mus. Civ. Gen. viii. p. 405 (1876).—Sclater, P. Z. S. 1877, p. 111.
Chalcophaps jobiensis, D'Alb. et Salvad. Ann. Mus. Civ. Gen. ix. p. 207 (1876).

This truly beautiful species of Ground-Dove was described almost simultaneously by Dr. Meyer in Dresden and by Signor D'Albertis and Count Salvadori in Turin. That the adult bird described by the two latter gentlemen from South-eastern New Guinea should not have been recognized as the same as Dr. Meyer's species from Jobi is not surprising, as the latter was described from an immature bird. Thanks to Dr. Meyer's kindness, however, I have been enabled to give a figure of the typical bird; and there can be no doubt, on comparing it with the adult specimen also figured by me, that *P. margaritæ* and *P. jobiensis* belong to one and the same species, in which case I believe that the latter title possesses a slight priority of publication over the former. Even if this conclusion had been formed in this country alone, the specimens alluded to are almost sufficient to have settled the question; but a similar conclusion has been arrived at quite independently by Count Salvadori, who has examined an adult specimen from the island of Jobi, which was identical with others from South-eastern New Guinea. The range of this species therefore extends from the island of Jobi to New Guinea, and to Duke-of-York Island or New Ireland to the eastward. Unfortunately Mr. Brown has not given the exact locality of the specimens which he sent to Dr. Sclater. It would appear to be found over the greater part of New Guinea, as Beccari procured an adult bird at Wandammen, in the Bay of Geelvink; and several specimens were contained in D'Albertis's collection from Yule Island and the opposite coast of New Guinea. Here he met with it at Naiabui; and it was also obtained at Port Moresby by Mr. Stone.

The present species is closely allied to *P. erythroptera*, of the Society Islands, which, however, is a smaller bird, and is distinguished by its white forehead. I take the accompanying description from the original paper of Signor D'Albertis and Count Salvadori.

Head, neck, rump, and upper tail-coverts blackish grey; lores, a streak over the eye, fore neck, and upper part of breast pure white; a streak under the eye, drawn from the base of the lower mandible as far as the neck, blackish grey; dorsal plumes, scapulars, and upper wing-coverts dusky black, margined with shining violet; sides of the breast black, the edges of the feathers violet; lower breast, abdomen, and under tail-coverts dusky black, the middle of the lower breast and of the abdomen somewhat ashy; quills dusky; tail blackish grey, slightly paler at the tip; bill black; feet dull dusky red.

In the Plate an old and young bird are represented, of about the natural size, the latter being Dr. Meyer's type specimen, the adult being drawn from a fine specimen collected by Mr. Octavius Stone and kindly lent to me by that gentleman.



PHLOGÆNAS JOHANNÆ, *Sclater.*

J. Gould & W. Hart del. et lith.

Walter, Imp.

PHLOGŒNAS JOHANNÆ, *Sclater.*

Mrs. Sclater's Ground-Dove.

Phlogœnas johannæ, Sclater, P. Z. S. 1877, p. 112, pl. 16.

Dr. Sclater, in describing the present bird (named in compliment to his wife), remarks :—"The nearest species known seem to be *P. stairi*, of the Samoans, from which, however, *P. johannæ* may be known by its lovely pure white breast, and *P. canifrons*, Hartl. & Finsch, of the Pelew group (Journ. Mus. Godeffr. viii. p. 27, pl. v. fig. 1), in which the hind part of the neck is rusty red."

Unfortunately we do not know the exact habitat of this pretty Ground-Dove. It was sent by Mr. George Brown, in a collection of birds from the Duke-of-York Island, New Britain, and New Ireland; but from which of these three localities *P. johannæ* was procured was not indicated when the specimens were sent home.

The following is a translation of Dr. Sclater's description of the species :—

Adult. Dusky chestnut, washed on the back with bronze; lesser wing-coverts externally shining purple; head and neck all round, as well as the breast, pale grey, this colour darker on the crown, clearer on the breast, and passing off into pure white; occiput, like the back, washed with bronze; the white colour of the breast arranged in a semicircle, and girt by a purple margin, as on the wing-coverts; primaries uniform dusky black, the secondaries and the scapulars externally uniform with the back; tail above uniform with the back, underneath blackish; round the eye a bare space; feet red. Total length 7·8 inches, wing 4·4, tail 2·7, tarsus 1·1.

The figures in the Plate are drawn from the typical birds, kindly lent me by Dr. Sclater; they are now in the collection of the Marquis of Tweeddale.



ÆDIRHINUS INSOLITUS.

J.Gould & W.Hart del et lith.

Walter Imp.

ŒDIRHINUS INSOLITUS.

Knob-billed Fruit-Pigeon.

Ptilopus insolitus, Schlegel, Nederl. Tijdschr. Dierk. i. p. 61, pl. iii. fig. 3.—Meyer, Rowley's Orn. Miscell. ii. p. 340.—Salvad. P. Z. S. 1877, p. 196.—Elliot, P. Z. S. 1878, p. 549.
Ptilopus humeralis jobiensis (monstrosity), Schlegel, Mus. Pays-Bas, Columbæ, p. 16.
Œdirhinus globifer, Cabanis & Reichenow, Sitz. Gesellsch. naturf. Fr. Berlin, 1876, p. 73.—Iid. J.f. O. 1876, p. 326.
Œdirhinus insolitus, Sclater, P. Z. S. 1877, p. 110.—Rowley, Orn. Miscellany, ii. p. 338, pl. lxvi.—Sclater, P. Z. S. 1878, p. 290.

This remarkable bird, which Mr. Dawson Rowley names the "Strange Pigeon," a title it well deserves, was first made known to science in 1861 by Professor Schlegel, who possessed a single example at Leiden in somewhat damaged condition. The locality was stated to be New Caledonia; but this was probably an error, as our next acquaintance with the species was due to Dr. Huesker, who accompanied the German Transit-of-Venus Expedition on board the 'Gazelle,' and procured the bird in New Ireland; and his specimen was named *Œdirhinus globifer* by Drs. Cabanis and Reichenow. Shortly afterwards Dr. Sclater received it from Duke-of-York Island, from Mr. George Brown, and identified the species with one previously described, *Ptilopus insolitus* of Professor Schlegel, who meanwhile had looked upon the species as a monstrosity of his *Ptilopus jobiensis*. Dr. Sclater gave a woodcut of the head to show the extraordinary knob at the base of the bill; and this illustration was followed by a beautiful figure in Mr. Rowley's 'Ornithological Miscellany,' with an excellent history of the species contributed by Dr. Meyer. During the present year Dr. Sclater has received a second consignment from Mr. Brown, in which there was a large series of this Fruit-Pigeon; and although there were no labels on the birds, the receipt of nearly twenty specimens seems to show that there is no difference in the colour of the sexes, although a good deal of variation in the size and colour of the knob was observable, the individuals which had this character more largely developed being probably the older males.

I have followed the above-named authors in keeping this bird distinct under the genus *Œdirhinus*, though Mr. Elliot, in his recent Monograph of the genus *Ptilopus*, has replaced the species in the latter genus, considering that the knob on the bill is paralleled by the protuberance found in some of the species of *Carpophaga*, which are not recognized as generically distinct. According to the last-named ornithologist the present bird belongs to the section of the genus *Ptilopus* in which the breast-feathers are not bifurcate, and the middle of the abdomen is orange. It is nearly allied to *P. iozonus*, *P. humeralis* and *P. jobiensis*, but differs not only in the yellow knob on the forehead, but also by having the shoulders and patch on the back light grey, and the tail bright green, with the apical third ashy grey.

Nothing is known of the habits of this fine species; so I must content myself with adding the description of the bird given by Mr. Elliot in the paper above alluded to.

"Head, neck, back, breast, and flanks bright bronzy green; throat green slightly tinged with grey; abdomen deep orange; shoulders and a patch on each side of the back, at the edge of the mantle, light grey; wings green; secondaries margined with bright yellow on their outer webs; inner secondaries light grey, margined with green; tail bright green, with the apical third ashy grey; crissum and under tail-coverts bright yellow; bill greenish at base, yellowish at tip; forehead and base of culmen covered by a bony protuberance large and rounded in form, very conspicuous, and of a red colour; tarsi and feet red. Total length 9¼ inches, wing 5, tail 3, bill at gape ¾."

The figures in the Plate are drawn from specimens collected by Mr. Brown and lent me by Dr Sclater.

The birds are represented of the size of life.



PTILONOPUS NANUS, *Temm.*

J. Gould & W. Hart del. et lith.

Walter imp.

PTILONOPUS NANUS.

Tiny Fruit-Pigeon.

Columba naina, Temm. Pl. Col. iv. pl. 252.—Knip and Temm. Iconogr. Pigeons, pl. 59.
Ptilonopus naina, Gray, Gen. B. ii. p. 467.
Ionotreron nana, Reich. Handb. Columbæ, p. 100, taf. ccxxxix. fig. 1330.
Iotreron nana, Bp. Consp. Gen. Av. ii. p. 25.
Ptilonopus nanus, Wall. Ibis, 1865, p. 381.—Gray, Hand-l. B. ii. p. 226.
Ptilopus nanus, Schl. Mus. P.-B. Columbæ, p. 21.

This is one of the rarest, as it is one of the most recognizable, of the small *Ptilonopi* or Many-coloured Fruit-Pigeons, a group of birds which finds its greatest development in the Malay archipelago and Oceania. The small size and peculiar coloration readily distinguish this species from all the other members of the genus *Ptilonopus*.

Nothing has been recorded respecting the habits of this elegant little Pigeon. It was first discovered by Salomon Müller in Triton Bay, or Lobo, in New Guinea; and for many years his specimen remained unique. More recently, however, the Dutch traveller M. Hoedt has discovered it in Mysol; and as one or two of his specimens reached England, I have been enabled to figure it in the present work. The Leiden Museum also possesses two examples of M. Hoedt's collecting, the localities being Kasim and Waigaama, both in the island of Mysol. They were obtained in the months of June and July respectively.

Adult male.—Bright grass-green above and below, all the greater wing-coverts and inner secondaries plainly edged with bright lemon-yellow, before which is a broad subterminal band of bright, rather metallic, bluish green; primaries greyish black on their inner web, dark green on the outer, with a narrow edging of yellow to the secondaries; tail deep green; on each side of the neck a broad crescentic mark of pale grey; across the top of the abdomen a broad band of purple feathers, with some metallic bluish-green subterminal bars to most of them, the abdominal plumes tipped with yellow; under tail-coverts bright yellow; thighs whitish; under wing-coverts dark grey like the inner lining of the wing, the outermost of the coverts greenish with a narrow yellow edging.

The female has no abdominal spot.

As above stated, the Plate has been drawn from examples in my own cabinet, the figures representing both sexes of the natural size.



PTILOPUS SOLOMONENSIS, *Gray*.

W. Hart del et lith.

Mintern Bros. imp.

PTILOPUS SOLOMONENSIS, *Gray*.

Solomon-Island Fruit-Pigeon.

Ptilonopus solomonensis, Gray, Ann. & Mag. Nat. Hist. (4) v. p. 328 (1870).
Ptilopus solomonensis, Salvad. Ann. Mus. Civic. Genov. ix. p. 196 (1876).—Giebel, Thes. Orn. iii. p. 368.—Ramsay, Proc. Linn. Soc. N. S. Wales, iv. p. 74, note (1879).—Salvad. Orn. Papuasia e delle Molucche, iii. p. 50 (1882).
Ptilopus rivolii (pt.), Elliot, Proc. Zool. Soc. 1878, p. 561.—Salvad. Proc. Zool. Soc. 1879, p. 65.
Ptilopus ceraseipectus, Tristr. Ibis, 1879, p. 442.—Salvad. Ibis, 1880, p. 131.—Tristr. Ibis, 1880, p. 247.
Ptilopus salomonis, Salvad. Ibis, 1880, p. 131.

This species was at first described by the late Mr. George Robert Gray, from a specimen collected by Mr. Brenchley in the Solomon Islands. Unfortunately the typical specimen was a female, and it was considered by Count Salvadori and Mr. Elliot to be in all probability the hen bird of *Ptilopus rivolii*. Canon Tristram having described a new Fruit-Pigeon from the Solomon Islands as *P. ceraseipectus*, discovered in Makira Harbour by Captain Richards, Count Salvadori suggested that this might be the bird described by Gray as *P. solomonensis*, and on comparison of specimens Canon Tristram found that this was the case.

The only difference that we can perceive between the present species and *P. johannis* from the Admiralty Islands is the colour of the fore part of the head, which in the present species is rich purplish red, instead of being lilac-colour as in *P. johannis*. Count Salvadori also mentions that the breast-patches of the two birds also vary in an equal degree; but in the specimens examined by us this has not been so strongly pronounced as the variation in the colour of the heads of the two species.

The following is a description of an adult bird lent to us by Mr. E. P. Ramsay:—

Adult male. General colour above grass-green, the scapulars having subterminal spots of purplish black; wing-coverts like the back; bastard-wing, primary-coverts, and quills blackish, externally dark grass-green, the primaries washed with dull greenish grey, the inner primaries greenish at their ends, with a conspicuous subterminal shade of ashy grey; secondaries like the back, the outer ones with a narrow fringe of yellow; two centre tail-feathers green, the remainder green externally, grey at the base and near the end of the inner web, with a broad subterminal band of blackish; forehead rich purplish lilac, extending above each eye and on to the lores; ear-coverts, cheeks, throat, and fore neck green, paler on the chin and upper throat; on the chest a broad crescentic band of bright yellow; centre of the breast and abdomen purplish lilac; sides of the body and flanks green; thighs green externally, edged with yellow internally; lower abdomen, vent, and under tail-coverts rich yellow; axillaries and under wing-coverts slaty grey, washed with green; quills slaty grey below. Total length 8·5 inches, culmen 0·65, wing 4·75, tail 2·75, tarsus 0·85.

Two figures are given in the Plate, representing the adult male in two positions. They are drawn from the specimen lent to us by Mr. E. P. Ramsay.

[R. B. S.]



PTILOPUS RICHARDSI, *Ramsay*.

W. Hart del et lith.

Mintern Bros. imp.

PTILOPUS RICHARDSI, *Ramsay*.

Richards's Fruit-Pigeon.

Ptilopus richardsii, Ramsay, Proc. Linn. Soc. N. S. W. vi. p. 722 (1881).—Salvad. Ann. Mus. Civic. Genov. xviii. p. 427 (1882).—Id. Orn. Papuasia, iii. App. p. 554 (1882).
Ptilopus rhodostictus, Tristr. Ibis, 1882, pp. 139, 144, pl. v.—Ramsay, tom. cit. p. 473.

This beautiful Fruit-Pigeon, which was discovered almost simultaneously by Mr. Morton and by Captain Richards in the island of Ugi in the Solomon group, is easily recognized by the rose-coloured spots on the scapulars, whence Canon Tristram's name of *P. rhodostictus*. Mr. Ramsay's title of *P. richardsi* has, however, undoubted priority; and no one is likely to regret that Captain Richards's name should have been attached to such a fine species, as it is only a just tribute to the energy with which he used his opportunities for increasing our knowledge of the avifauna of the Solomon Islands, an example, unfortunately, not too often followed by commanders of Her Majesty's ships.

The following account is taken from the original description given by Mr. E. P. Ramsay:—

"Morton found this species tolerably abundant on Ugi, but on no other island visited: he was also fortunate enough to find the nest and eggs; like that of all the genus, the nest is a frail scanty structure of a few twigs placed over a fork of a branch about twenty feet from the ground; the egg is oval, rather pointed at the thin end, pure white; length 1·22, in breadth 0·83. A second nest and egg, taken by Dr. J. H. Lewis, R.N., H.M.S. 'Cormorant,' are similar, but the thicker end of the egg is more rounded; both eggs were nearly hatched, and a bird shot from one of the nests proved to be a male; in some of the females eggs were found ready for laying. From a nestling obtained in June, I take the following description:—

"All the upper surface green, slightly tinged with bronze on the wings and tail, the wing-coverts, secondaries, and scapulars margined with yellow, the three or four smaller innermost secondaries (or tertiaries) having the tips and the whole of the inner web yellow; except at the base the primaries narrowly margined with yellow; tail above bronzy green, the tips of all the feathers ash washed with green and distinctly margined with yellow; the under surface is ashy grey, the tips lighter and margined with yellow; the under tail-coverts and abdomen yellow, the throat pale yellowish; all the rest of the under surface ashy, the tips of all the feathers margined with light yellow; forehead ashy; the first primary attenuated at the tip. Length 6·5, wing 4·8, tail 2·8, tarsus 0·8. Bill olive, feet reddish."

The following is a description of the type specimen, lent to us by Mr. Ramsay:—

Adult male (type of species). General colour above dark bronzy green, relieved by some beautiful oval spots of pale pink or rose-colour, which are subterminal on the scapulars; lesser and median wing-coverts dark emerald-green, edged with bronzy green like the back; greater coverts dark emerald-green, the inner ones margined with bronzy green; bastard wing, primary-coverts, and quills dark emerald-green externally, ashy black on the inner webs, the primaries obsoletely fringed with yellow near the ends, a little more distinct on the secondaries, the innermost of which are edged with yellow on the inner web and have a broad longitudinal mark of pale rose-colour; upper tail-coverts rather more golden green than the back; tail-feathers dark emerald-green, dusky blackish on the inner web and broadly tipped with yellow, forming a broad band; crown of head, lores, and base of cheeks pale pearly grey, separated from the eye and surrounded posteriorly by a somewhat indistinct line of pale yellow; feathers round the eye, nape, hind neck, and upper mantle, as well as the ear-coverts, pale yellowish mixed with light pearly grey, the sides of the neck similarly marked; throat clear pale yellow as well as the cheeks; breast light pearly ash-colour, with greenish-yellow bases to the feathers, which are bifid; breast a little duller yellowish, like the sides of the body and flanks, the long feathers covering the thighs tipped with orange; thighs grey marked with green; centre of lower breast, abdomen, and under tail-coverts bright orange; axillaries and under wing-coverts light grey, marked with greenish yellow; quills light grey below. Total length 9·5 inches, culmen 0·6, wing 5·25, tail 3·0, tarsus 0·8.

The figures in the Plate represent the bird in two positions of the natural size; they are drawn from the bird described by us above, which belongs to the Australian Museum, Sydney.

[R. B. S.]



PTILOPUS LEWISII, *Ramsay.*

W. Hart del. et lith.

Mintern Bro's. Imp.

PTILOPUS LEWISI, *Ramsay*.

Lewis's Fruit-Pigeon.

Ptilopus viridis, var., Ramsay, Proc. Linn. Soc. N. S. W. iv. p. 73 (1879).—Salvad. Ibis, 1880, p. 128.—Ramsay, Nature, 1881, p. 239.—Tristr. Ibis, 1882, p. 144.—Ramsay, Ibis, 1882, p. 473.
Ptilopus geelvinkianus, Layard, Ibis, 1880, p. 307 (nec Schl.).
Ptilopus eugeniæ, female, Ramsay, Journ. Linn. Soc., Zool. xvi. p. 131 (1881).
Ptilopus lewisii, Ramsay, Proc. Linn. Soc. N. S. W. vi. p. 724 (1881).—Salvad. Ann. Mus. Civic. Genov. xviii. p. 427 (1882).—Id. Orn. Papuasia, etc. iii. App. p. 556 (1882).

Although closely allied to *P. viridis* of Ceram, the present species is easily distinguished by the purplish shade which surrounds the red shield-patch on the throat and chest; it is further to be recognized by the verditer-green shade on the grey forehead and throat, these parts being pure grey in *P. viridis*.

The home of this beautiful Fruit-Pigeon is in the Solomon Archipelago, where it has been found in the islands of Lango and Guadalcanar by Mr. Cockerell, and in Florida and Malayta by Mr. Morton. Nothing has as yet been recorded concerning its habits.

For the opportunity of figuring the species we are indebted to Mr. E. P. Ramsay, who lent us the typical example of *P. lewisi* during his visit to England.

The following is a description of the type specimen:—

Adult. General colour above dark golden green, the nape and hind neck deep grass-green, contrasting with the fore part of the crown, which is verditer-grey on the forehead, verging into greyish green on the sinciput; wing-coverts like the back, the lesser series pearly grey, forming a conspicuous shoulder-patch; bastard wing, primary-coverts, and quills blackish, externally deep emerald-green, the outer secondaries narrowly fringed with yellow towards the ends, the inner secondaries like the back, with a conspicuous subterminal spot of pearly grey; tail-feathers golden green, dusky on the inner webs, with a subterminal band of grey near the end of the inner web, forming a distinct bar on the under surface of the tail; lores, feathers round the eye, ear-coverts, cheeks, sides of face, and upper throat verditer-grey, greener and resembling the sides of the neck on the hinder part of the ear-coverts; centre of the throat, fore neck, and chest deep crimson or blood-colour, separated from the surrounding green parts by a narrow line of dull purple; remainder of underparts grass-green, the feathers of the lower abdomen and lateral tail-coverts tipped with yellow; vent-feathers white, tipped with yellow; thighs green, edged with yellow; under tail-coverts white, longitudinally green along the inner web, and tipped with yellow; under wing-coverts and axillaries dark grey washed with green; quills ashy grey below. Total length 7·8 inches, culmen 0·65, wing 4·6, tail 2·3, tarsus 0·65.

The Plate represents an adult bird in two positions, of about the natural size; the figures are drawn from the type specimen lent to us by Mr. Ramsay.

[R. B. S.]



PTILOPUS WALLACII.

W. Hart del. et lith.

Walter, Imp

PTILOPUS WALLACEI.

Wallace's Fruit-Pigeon.

Ptilonopus wallacei, Gray, Proc. Zool. Soc. 1858, pp. 185, 195, pl. 136.—Id. Cat. B. New Guinea, pp. 45, 60 (1859).—Id. Proc. Zool. Soc. 1861, p. 437.—Reichenb. Columbariæ, ii. p. 178 (1862).—Rosenb. N. T. Nederl. Ind. xxv. p. 248 (1863).—Wallace, Ibis, 1865, p. 380.—Finsch, Neu-Guinea, p. 177 (1865).—Pelz. Verh. zool.-bot. Gesellsch. Wien, xxii. p. 430 (1872).

Philopus wallacei, Rosenb. Reis. naar Zuidostereil, p. 50 (1867).

Ptilinopus wallacei, Gray, Hand-l. B. ii. p. 227, no. 9154 (1870).

Ptilopus wallacei, Rosenb. Reis. naar Zuidostereil, p. 81 (1867).—Schlegel, Mus. Pays-Bas, Columbæ, p. 18 (1873).—Salvad. Ann. Mus. Civic. Genov. ix. p. 197 (1876).—Elliot, Proc. Zool. Soc. 1878, p. 555.—Salvad. Ann. Mus. Civic. Genov. xiv. p. 658 (1879).—Id. Orn. Papuasia, etc. iii. p. 30 (1881).

This beautiful Pigeon was discovered by Mr. A. R. Wallace in the Aru Islands, where it has also been met with by Dr. Beccari and Baron Von Rosenberg. The last-named naturalist has also observed it on the Ké Islands, and more recently a fine series has been brought from the Tenimber Islands by Mr. H. O. Forbes.

We have carefully compared Mr. Forbes's specimens with the typical Aru-Islands bird and cannot find the slightest difference between them.

This beautiful Pigeon, Mr. Forbes informs us, is very common in the northern portions of the Tenimber group which he visited, frequenting the fig-trees (*Urostigma*). Its nature is very tame, and numbers of specimens could be easily procured. The native name is "Wofoen Ratoe."

We have described a fine pair of birds collected in the above-named locality by Mr. Forbes.

Adult male. Crown of head, tapering somewhat to a point on the nape, deep crimson, as well as the lores; feathers behind the eye and ear-coverts, sides of neck, hind neck, and mantle delicate French grey; upper back and scapulars mottled, the feathers being delicate French grey, with orange margins; lesser wing-coverts dull orange, forming a shoulder-patch; median coverts French grey, with broad edgings of yellowish olive; greater series green, inclining to olive-yellow towards the ends and narrowly margined with yellow; bastard wing, primary-coverts, and quills deep grass-green with a bronzy gloss, the inner webs being blue-black; secondaries more olive than the primaries and edged with yellow, the innermost secondaries olive yellowish with grey centres like the greater wing-coverts; remainder of back yellowish green, with more or less of an orange tinge, especially on the upper back, where there is a patch of dull orange; upper tail-coverts and tail yellowish green, dark green towards the base, the terminal half pale greenish ashy, edged externally with yellow and becoming whitish on the inner web; the ends of the feathers dusky greenish, broader on the centre ones; cheeks, throat, and ear-coverts white, with a faint grey shade on the throat, the upper part of the ear-coverts rather dusky; fore neck and chest pale French grey like the sides of the neck, and forming a band; breast deep rich orange, separated from the grey chest by a rather broad band of white slightly sullied with grey; abdomen bright yellow; sides of breast, axillaries, and under wing-coverts French grey; lower flanks olive-green; thighs grey; under tail-coverts yellow, edged broadly with green; quills grey, becoming dusky towards their ends; "bill yellow, but paler on the lower mandible; legs and feet purple; iris with golden inner ring and outer one of light red" (*H. O. Forbes*). Total length 9 inches, culmen 0·8, wing 5·9, tail 3·2, tarsus 0·95.

The female is like the male, but a trifle duller in colour.

The figures in the Plate represent a pair of birds, of the size of life; they have been drawn from Mr. Forbes's specimens above described.

[R. B. S.]



PTILOPUS FISCHERI, *Brüggem.*

J. Gould & W. Hart del. et lith.

Walter Imp.

PTILOPUS FISCHERI, *Brüggem.*

Fischer's Fruit-Pigeon.

Ptilinopus fischeri, Brüggem. Abhandl. nat. Ver. Bremen, v. p. 82, Taf. iv.
Ptilopus fischeri, Elliot, Proc. Zool. Soc. 1878, p. 571; Meyer, Ibis, 1879, p. 135.

Dr. Fischer is principally known to science as the discoverer of the beautiful new *Polyplectron schleiermacheri* from Borneo; but previously to his visiting that country he forwarded to the Darmstadt Museum a series of birds from the island of Celebes, amongst which were some new and interesting species. This collection was described by the late Dr. Brüggemann; and although many of the novelties made known by the latter gentleman were forestalled by Count Salvadori in a previously published paper, there were yet a few which remained and will remain to the credit of Dr. Brüggemann, and will serve to perpetuate the memory of this young and talented naturalist, whose early death was a veritable loss to science.

The *Ptilopus fischeri* is, as Mr. Elliot well remarks, so distinct a species that it cannot well be mistaken for any other member of the genus *Ptilopus*. In its pale-coloured head it approaches the white-headed group which embraces *Pt. cinctus* of Timor, as pointed out by Dr. Meyer; but its reddish side-face at once distinguishes it, to say nothing of many other points of difference.

It is a native of Celebes; and Dr. Meyer states that the Leiden Museum has recently obtained a series from the southern part of the island, so that it is in this locality that the species must be looked for. The birds of Celebes, are many of them so local in their distribution that it is quite possible that it is confined to Southern Celebes alone.

Dr. Meyer has been so good as to lend me a specimen for the purposes of the present work; and I append a description of the bird, as follows:—

Above dark slaty grey, including the lesser and median wing-coverts, the greater series brownish towards their tips; quills slaty blackish, the primaries narrowly margined with white towards the end of the outer webs, the secondaries margined externally with yellow; tail-feathers green, shot with bronzy green, black on the inner webs of all but the two centre feathers; at the end of the tail a grey band, except on the two centre feathers; crown whitish grey; round the hind neck a ring of slaty black; feathers in front of and round the eye, as well as the ear-coverts, dark crimson; cheeks and throat white; rest of under surface of body cream-colour washed with grey, the thighs and flanks more decidedly ashy; under tail-coverts creamy buff, mottled with broad slaty grey stripes, bordering the shaft on the inner webs of the feathers.

The figures in the Plate are about the size of life, and are drawn from a specimen lent to me by my kind friend Dr. A. B. Meyer, of Dresden.



PTILOPUS SPECIOSUS, *Schlegel.*

J. Gould & W. Hart, del. et lith.

Walter Imp.

PTILOPUS SPECIOSUS, *Schlegel.*

Lilac-bellied Fruit-Pigeon.

Ptilopus speciosus, Schleg. Nederl. Tijdsch. iv. p. 23 (1871).—Id. Mus. P. B. *Columbæ*, 1873, p. 27.—Salvad. Ann. Mus. Civ. Genov. ix. p. 197 (1876).—Elliot, P. Z. S. 1878, p. 564.

This species was described by Professor Schlegel from specimens forwarded by Baron von Rosenberg under the MS. name of *Ptilopus speciosus*, a title adopted by the learned Professor. He writes:—"This undescribed species belongs to the most beautiful of the genus. It has been discovered, as we have already mentioned in our note on *P. miquelii*, in the island of Mefoor (Mafoor), where it lives side by side with *P. rivolii*, as well as in the island of Soek (Misori), where it represents *P. rivolii* and *P. miquelii*, which come from Meosnoum and Jobi." I may mention that the birds here mentioned as *P. miquelii* and *P. rivolii* are identified by Mr. Elliot as *P. prasinorrhous* and *P. strophium* respectively. The island of Soek is another name for Misori—the latter name being better known through the discoveries of Dr. Meyer and Dr. Beccari. A large series has also been recently received at the Paris Museum from the islands of Mafoor and Misori, collected by M. Raffray; and Mr. Elliot states that individuals from these localities do not differ.

The sexes are thus described by Mr. Elliot:—

Male. General plumage yellowish green, darkest on the head and neck. A broad bright yellow band, bordered on the lower side with white, crosses the breast. Abdomen beautiful lilac; lower part of abdomen and under tail-coverts bright lemon-yellow. A purple spot in front of the eyes. Primaries grey on their outer webs and tips; first not narrowed especially towards tip. Tail yellowish green. Bill black, tip yellow. Feet dark red. Total length 7 inches, wing $4\frac{5}{8}$, tail $2\frac{5}{8}$, culmen $\frac{5}{8}$.

Female. Green, with the feathers of the abdomen margined yellow, and under tail-coverts yellow. Primaries have outer webs and tips grey.

The two figures on the Plate are of the natural size, and represent the adult male and female, being drawn from specimens in my own collection, the female having been presented to me by Dr. Meyer.



PTILOPUS BELLUS, *Sclater.*

J.Gould & W.Hart del et lith.

Walter Imp.

PTILOPUS BELLUS, *Sclater.*

Purple-bellied Fruit-Pigeon.

Ptilonopus bellus, Sclater, P. Z. S. 1873, p. 696, pl. 57.—Salvad. Ann. Mus. Civ. Genov. vii. p. 786 (1875).
Ptilopus bellus, Salvad. Ann. Mus. Civ. Genov. ix. p. 197 (1876), x. p. 157 (1877).—Elliot, P. Z. S. 1878, p. 563.

The elaborate monograph recently compiled by Mr. D. G. Elliot on the Fruit-Pigeons of the genus *Ptilopus* renders a study of this numerous group a much easier task than it has been for many years past; and I must acknowledge the help which I have derived from that treatise of the above-named author, whose industry and devotion to ornithological science have been proved by the many valuable papers and works which have issued from his pen during the last few years.

The subject of the accompanying Plate is one of the most beautiful of all the *Ptilopi*, which contain such a number of strikingly marked Fruit-Pigeons, many of them endeared to me by old Australian recollections and by the pleasure with which I look forward to illustrating all the varied forms of Fruit-Pigeons inhabiting the Malay archipelago. The *Ptilopus bellus* was first discovered by Signor D'Albertis during his celebrated expedition to North-western New Guinea, in Atam; and it has since been procured in the Arfak Mountains by M. Laglaize, and at Amberbaki by M. Raffray; so that the habitat of the present species would appear to be the north-western corner of New Guinea, particularly the vicinity of the Arfak Mountains. It belongs to the section of the genus *Ptilopus* which contains species having a broad white or yellow breast-band: in the case of the present bird and its near ally *P. speciosus*, the breast-band is lemon-yellow above, white beneath; and it is distinguished from the latter species by the forehead and crown being rosy red instead of green, and by the abdominal spot being purplish red instead of lilac. It is also a larger bird than the nearly allied species.

Mr. Elliot, from whose synoptic table the above characters have been derived, gives the following description of the species:—

"*Male*. Front and crown deep rosy red; occiput dark bluish green; breast covered by a broad half-moon-shaped band, pure white on the lower parts and sides, lemon-yellow on the upper part; the abdomen has the middle portion covered by a purplish red patch; entire rest of plumage yellowish green, with small, round, bluish-black spots on the scapulars, and the feathers of the crissum and under tail-coverts edged with yellow; primaries greenish black, the first not narrowed; tail yellowish green, with a pale apical band of the same colour; bill yellow; feet dark red; iris yellow. Total length $9\frac{1}{4}$ inches, wings $3\frac{3}{4}$, tail $3\frac{3}{4}$, culmen $\frac{5}{8}$."

Signor D'Albertis describes the bill as yellow, the feet as dull crimson, and the eyes as yellow.

The Plate represents the type specimen, kindly lent to me by Dr. Sclater during its stay in this country. It is now in the Genoa Museum.



PTILOPUS RIVOLII.

J.Gould & W.Hart, del. et lith.

Walter, Imp.

PTILOPUS RIVOLII.

Massena Fruit-Pigeon.

Columba rivoli, Knip & Prév. *Pigeons*, ii. pl. 57 ; Des Murs, Iconogr. Ornith. pl. 4 (1845).
Iotreron rivollii, Bp. Consp. Gen. Av. ii. p. 25 (1857).
Ionotreron rivollii, Reichenb. Taub. p. 100, Taf. 235. fig. 1306.
Ptilonopus rivoli, Wall. Ibis, 1865, p. 381.
Ptilonopus solomonensis, Gray, Ann. & Mag. Nat. Hist. v. p. 328 (1870).
Ptilopus rivolii, Sclater, P. Z. S. 1877, p. 109.—Elliot, P. Z. S. 1878, p. 561.—Salvad. Ann. Mus. Civ. Genov. ix. p. 196 (1877) ; id. xii. p. 345 (1878).

Considerable uncertainty has existed with regard to the exact locality where this Fruit-Pigeon was to be found ; but one may now accept as a fact that it inhabits Duke-of-York Island, whence specimens have been forwarded by Mr. Brown to Dr. Sclater ; and future research will doubtless extend its range to New Ireland. Mr. Elliot also believes that it inhabits the Solomon Islands, as he considers that the *P. solomonensis* described by the late Mr. G. R. Gray is only the young of *P. rivolii*.

The present bird belongs to the white-banded section of the genus *Ptilopus*, which includes also *P. prasinorrhous* of New Guinea and the neighbouring groups of islands, and *P. strophium* of the Louisiade archipelago. The latter bird, however, has no rose-coloured spot on the abdomen, and is therefore easily distinguished. *P. prasinorrhous* has the vent and under tail-coverts green, edged with yellow, whereas in *P. rivolii* these parts are bright yellow.

I transcribe the following detailed description given by Mr. Elliot in his paper on the genus :—

"*Male*. Forehead purplish red ; breast crossed by a broad white band ; a large rose-red spot on the abdomen ; lower part of abdomen, crisssum, and under tail-coverts bright yellow ; rest of plumage bright green, with some small, round, bluish-black spots on the scapulars. In its dimensions this species agrees with *P. prasinorrhous*.

"*Female*. General plumage bright green."

I am indebted to Dr. Sclater for the loan of the beautiful pair of birds of which I have drawn life-sized figures in the accompanying Plate. They were collected in Duke-of-York Island by Mr. G. Brown ; and I have other specimens from the same source in my own collection.



GYMNOPHAPS PŒCILORRHOA.

J.Gould & W.Hart, del. et lith.

Walter, Imp.

GYMNOPHAPS PŒCILORRHOA.

Rusty-banded Fruit-Pigeon.

Carpophaga pœcilorrhoa, Brüggem. Abhandl. nat. Vereine zu Bremen, v. p. 84.

The genus *Gymnophaps* was instituted in 1874 by Count Salvadori; and the type is *Gymnophaps albertisi*, a fine Fruit-Pigeon discovered at Andei in North-western New Guinea by Signor D'Albertis. Up to the time of writing I have not seen that species; and I am unable to say whether the bird which I figure on the accompanying Plate is really congeneric with the Papuan *Gymnophaps*. My friend Dr. Meyer, who lends me the specimen which I figure, has attached to it the name of *Gymnophaps pœcilorrhoa* (Brüggem.); and on comparing Count Salvadori's description of the genus, which is remarkable for its bare loral patch extending round the eye, I should say that Dr. Meyer is quite right in placing the species in the genus *Gymnophaps*.

The present bird is remarkable for its very plain coloration, differing in this respect from the majority of the subfamily Carpophaginæ, many of which are of beautifully varied plumage. But though *Gymnophaps pœcilorrhoa* is a somewhat dull-coloured bird, the monotony of its plumage is slightly relieved by the bands on the abdomen and the dark-centred under tail-coverts.

Nothing has yet been recorded of the habits or economy of this strange Pigeon; nor do we know the exact part of the island of Celebes from which it comes. It is probably from the south-eastern portion of the island, where Dr. Fischer collected, as neither Mr. Wallace nor Dr. Meyer nor any of the old Dutch travellers appear to have come across the species in any of the places visited by them.

I append a full description of the species:—

General colour above dusky brown shot with olive-green; quills brown, with narrow reddish margins to the outer web, as well as the greater wing-coverts; tail blackish, tipped with a narrow band of buffy white; head dusky grey, somewhat more vinous on the hind neck, the forehead lighter grey; cheeks, ear-coverts, and throat dull vinous; lower throat darker ashy, as also the adjacent sides of the neck; the chest light ashy, extending onto the sides of the neck, and forming a conspicuous patch on the sides of the mantle; remainder of under surface brown, mottled with reddish-ochre margins to the feathers; under tail-coverts dark brown, with broad edgings of reddish ochre; under wing-coverts dusky brown, the axillaries rufous brown; undersurface of quills dark ashy brown.

The specimen figured in the accompanying Plate is in the Dresden Museum, and was lent to me by Dr. Meyer for the purposes of the present work. The species is represented about the size of life.



J.Gould & W.Hart, del. et lith.

OTIDIPHAPS CERVICALIS. *Ramsay.*

OTIDIPHAS CERVICALIS, *Ramsay*.

OTIDIPHAPS CERVICALIS, *Ramsay.*

Grey-naped Otidiphaps.

Otidiphaps nobilis, var. *cervicalis*, Ramsay, Proc. Linn. Soc. New S. Wales, iv. p. 420.—Sclater & Salvin, Ibis, 1881, p. 179.
Otidiphaps cervicalis, Ramsay, loc. cit. *errata.*
Otidiphaps regalis, Salvin & Godman, Ibis, 1880, p. 364, pl. xi.

This beautiful species of Ground-pigeon represents in South-eastern New Guinea the *Otidiphaps nobilis* of the north-western part of the island. It differs in the green colour of the rump and upper tail-coverts, in the absence of an occipital crest, and more especially in having the conspicuous grey neck-band from which the species derives its specific name. Mr. Ramsay described the species from specimens obtained by Mr. A. Goldie on the Goldie river in the interior of South-eastern New Guinea. From the same collector Messrs. Salvin and Godman received the specimens from which they drew up their description of *O. regalis*; and it seems a great pity that some notice was not given before the despatch of the specimens to England to the effect that they had already been deposited with Mr. Ramsay for the purpose of description. In this way science would have been saved the unnecessary synonymy consequent upon the simultaneous description of these novelties from South-eastern New Guinea by naturalists in England and Australia. Great difficulty is caused, moreover, in deciding as to which name should take precedence; for in the present instance the name of *Otidiphaps regalis* was published in July 1880, and yet in January 1881 the editors of 'The Ibis' had been unable to find in this country a single copy of Part iv. of the 'Proceedings of the Linnean Society of New South Wales,' although Mr. Ramsay's paper containing the description of his *O. cervicalis* was read before that Society on the 31st of December, 1879. It is therefore extremely probable that Messrs. Salvin and Godman actually published their description first.

Mr. Goldie informed Mr. Ramsay that these Pigeons were obtained by him only with great difficulty, in the dense scrubs far inland; they were always on the ground, and in habits resembled the *Gouræ*. In the notes which have accompanied a recent collection of Mr. Goldie's from the Astrolabe range in South-eastern New Guinea, in which he sends several fine specimens of both sexes, we find the following observations on the *Otidiphaps*. "Native name *Keo*. Eyes red. This ground-bird is found only inland, and in high country. It has a long plaintive note when calling, which, when imitated, brings it toward one; and it then stalks to and fro with tail erect and spread, challenging the intruder. When disturbed he will fly into low trees and bushes, but is quickly away again. The nest is composed of a few twigs scraped together at the foot of a low tree in a sequestered place." The egg, which is also forwarded by Mr. Goldie, is, as might be expected, pure white.

The figure in the Plate represents the bird about the natural size, and is drawn from a specimen in my own collection.

[R. B. S.]



EUTRYGON TERRESTRIS.

J.Gould & W.Hart, del. et lith.

Walter Imp.

EUTRYGON TERRESTRIS.

Papuan Ground-Pigeon.

Trugon terrestre, Hombr. & Jacq. Voy. Pôle Sud, Atlas, Oiseaux, pl. 28. fig. 1 (1846).

Trugon terrestris, Gray, Gen. B., App. p. 24 (1849).—Pucheran & Jacq. Voy. Pôle Sud, Zool. iii. p. 123 (1853).—Bp. Consp. ii. p. 86 (1854).—Id. Comptes Rend. xl. pp. 206, 221.—Gray, Proc. Z. S. 1858, p. 196.—Id. Cat. B. New Guinea, p. 48 (1859).—Id. Proc. Zool. Soc. 1861, p. 437.—Rosenb. Journ. für Orn.1861, p. 133.—Reichenb. Columbariæ, p. 45, sp. 97 (1862).—Finsch, Neu-Guinea, p. 179 (1865).—Wallace, Ibis, 1865, pp. 369, 392.—Id. Malay Archip. ii. p. 430 (1869).—Gray, Hand-l. B. ii. p. 245 (1870).

Trygon terrestris, Reichenb. Av. Syst. Nat. p. xxvi (1852).—Hartl. Journ. für Orn. 1854, p. 166.—Sundev. Meth. Nat. Av. Tent. p. 100 (1872).—Beccari, Ann. Mus. Civ. Genova, vii. p. 715 (1875).

Starnænas terrestris, Bp. Consp. ii. p. 86 (1854).

Eutrygon terrestris, Sclater, Proc. Linn. Soc. ii. p. 168 (1858).—Id. P. Z. S. 1873, p. 697.—Salvad. Ann. Mus. Civ. Gen. vii. p. 791 (1875) ; ix. p. 207 (1876) ; x. p. 161 (1877) ; D'Alb. & Salvad. Ann. Mus. Civ. Gen. xiv. p. 124 (1879).—D'Alb. Nuova Guin. pp. 459, 528, 582, 588 (1880).—Salvad. Orn. Papuasia &c. iii. p. 182.

Starnænas terrestris, Schleg. Mus. P.-B., Columbæ, p. 166 (1873).—Rosenb. Malay Archip. p. 396 (1879).

Phaps terrestris, Gieb. Thes. Orn. ii. p. 151 (1875).

The above synonymy is taken from some sheets of the 'Ornitologia della Papuasia,' which my friend Count Salvadori was good enough to send me, on hearing that I was at work on the Pigeons of New Guinea; and I am much indebted to him for the assistance he has always given me in the production of the present work. His book contains a summary of all that is known of this Ground-Pigeon, which is really very little. It was discovered by the French voyagers Hombron and Jacquinot in Western New Guinea; Mr. Wallace also procured it on the western side of the island. In the Arfak Mountains the species was met with by Dr. Beccari and Signor D'Albertis, at Andai and Warbusi; while Mr. Bruijn's hunters procured it at Dorey and also on the island of Salwatti. In the southern part of the island it was obtained by Signor D'Albertis on the Fly river; and we have seen several specimens from the interior of South-eastern New Guinea obtained by Mr. Goldie, in whose last collection from the back of the Astrolabe range were a good many individuals.

The original discoverers state that it is a Ground-Pigeon; but they do not give any further particulars as to its habits.

The figures in the accompanying Plate have been drawn from specimens in my own collection, and will give some idea of this fine bird. I add a translation of the description given by Count Salvadori in the work above referred to.

Head, neck, upper part of back, and breast ashy grey, the sinciput and throat paler; forehead and chin dusky; cheeks greyish; sides of neck with an obsolete dusky spot on each; middle of back, rump, upper tail-coverts, wing, and tail shining greyish olive; middle of the abdomen pale isabelline, the sides and under tail-coverts rufescent; primary quills dusky, their outer margin, as well as that of the secondaries, rufescent towards the tip; under wing-coverts dusky, partly isabelline; bill whitish, feet pale flesh-coloured; iris whitish (*D'Albertis*) or red (*Wallace*). Signor D'Albertis also procured a bird on the Fly river which had the eye bright red.

The figures in the Plate are about the size of life. [R. B. S.]



CARPOPHAGA RUBRICERA, *Gray*.

W. Hart del et lith.

Mintern Bros. imp.

CARPOPHAGA RUBRICERA, *Bonap.*

New-Ireland Fruit-Pigeon.

Columba pinon, Less. Voy. Coquille, Zool. i. p. 342 (1826, nec Quoy et Gaim.).

Carpophaga rubricera, Bp. Consp. ii. p. 31 (1864, ex Gray, MSS.).—Gray, List Columb. in Brit. Mus. p. 18 (1856).—Wallace, Ibis, 1865, p. 383.—Gray, Hand-l. B. ii. p. 229, no. 9177 (1870).—Schl. Mus. Pays-Bas, Columbæ, p. 81 (1873).—Salvad. Ann. Mus. Civic. Genov. ix. p. 200 (1876, pt.).—Sclater, Proc. Zool. Soc. 1877, p. 109 (pt.), 1878, pp. 289, 671.—Elliot, op. cit. 1878, p. 549.—Salvad. Monog. *Globicera*, p. 13 (1878).—Finsch, Proc. Zool. Soc. 1879, p. 13.—Salvad. Ibis, 1879, p. 364.—Brown, Proc. Zool. Soc. 1879, p. 451.—Salvad. Orn. Papuasia e delle Molucche, iii. p. 79 (1882).—Finsch, Vög. der Südsee, p. 18 (1884).

Globicera rubricera, Bp. Consp. ii. p. 31 (1854).—Id. Compt. Rend. xxxix. p. 1073 (1854), xl. p. 217 (1855), xli. p. 1111 (1855), xliii. p. 835 (1856).—Id. Rev. et Mag. de Zool. 1856, p. 403.—Reichenb. Handb. Columb. p. 121.—Bonap. Iconogr. Pigeons, pl. 39 (1857).

Carpophaga lepida, Cassin, Journ. Philad. Acad. 1854, p. 330.—Bonap. Rev. et Mag. de Zool. 1856, p. 403.—Id. Compt. Rend. xli. p. 1111 (1855), xliii. p. 835 (1856).

Carpophaga (*Globicera*) *rubricera*, Gray, Cat. Birds Tropical Isl. p. 41 (1859).

Carpophaga (*Zonœnas*) *pinon*, Gray, tom. cit. p. 42 (1859, nec Quoy et Gaim.).

Muscadivora rubricera, Schleg. Dierentuin, fig. 1, p. 209.

Carpophaga (*Globicera*) *rubricera*, Cab. & Reichen. J. f. O. 1876, p. 325.

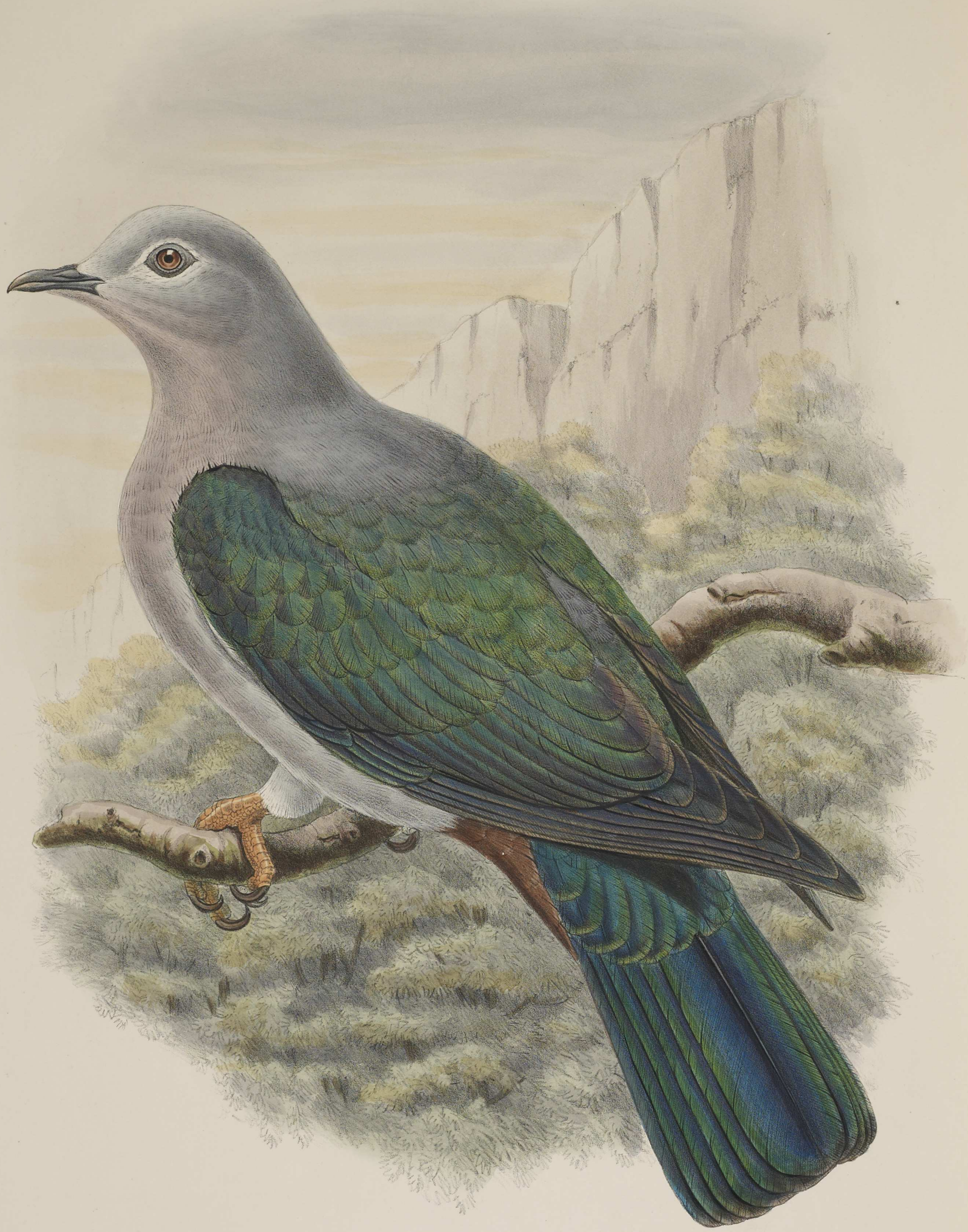
A succinct history of this species has been given by Count Salvadori in his great work on the birds of New Guinea and the Moluccas, from which we have taken the major part of the above synonymy. It appears to be entirely confined to New Ireland, New Hanover, and New Britain, having been found in the two first-mentioned islands by Dr. Huesker during the German Transit-of-Venus Expedition, while Dr. Finsch states that it was the commonest of the large Pigeons in New Britain. All the references to the occurrence of this bird in the Solomon group are probably erroneous, as it is represented in the latter locality by *Carpophaga rufigula* of Salvadori, which has the head and neck ashy, with the cheeks and throat vinaceous. In *C. rubricera* the head and neck are vinaceous, the lower part of the hind neck being ashy.

The following is a translation of Count Salvadori's description, taken from the type in the British Museum :—

"Head, neck, and breast vinaceous ; a ring round the eye and the margin of the forehead whitish ; lower part of the hind neck and upper part of the back pale ashy grey ; remainder of the back and wings shining coppery green ; abdomen, anal region, and thighs rusty ; under tail-coverts chestnut ; primaries and tail-feathers blue-black with a green reflection ; the cere, which is swollen, and the feet red."

The figure in the Plate is drawn from an adult specimen collected by Mr. Cockerell in New Ireland, and now in the British Museum. It is of the size of life.

[R. B. S.]



CARPOPHAGA VAN-WYCKII, *Cass.*

W. Hart del. et lith.

Mintern Bros. imp.

CARPOPHAGA VAN-WYCKII, *Cass.*

Van Wyck's Fruit-Pigeon.

Carpophaga van-wyckii, Cass. Proc. Acad. Philad. 1862, p. 320.—Pelz. Novara Reis., Vög. p. 107 (1865).—Salvad. Ann. Mus. Civ. Genov. ix. p. 200, no. 41 (1876).—Sclater, Proc. Zool. Soc. 1877, p. 109; 1878, pp. 289, 671.—Salvad. Monogr. Sottogen. *Globicera*, p. 5 (1878).—Ramsay, Proc. Linn. Soc. N. S. W. iii. p. 292 (1878), iv. pp. 73, 101 (1879).—Salvad. Ibis, 1879, p. 326.—Sclater, Proc. Zool. Soc. 1879, pp. 218, 447, 451.—Layard, Ibis, 1880, pp. 297, 301.—Salvad. Orn. Papuasia e delle Molucche, iii. p. 87 (1882).

Globicera vanwyckii, Gray, Hand-list of Birds, ii. p. 229, sp. 9184 (1870).

Carpophaga wickei, Giebel, Thes. Orn. i. p. 588 (1872).

Carpophaga microcera, Ramsay, Proc. Linn. Soc. N. S. W. i. p. 372 (1876).

Carpophaga rhodinolæma, Finsch (nec Sclater), Proc. Zool. Soc. 1879, p. 13.

The greatest uncertainty has long prevailed regarding the distinctness of this species from *C. pistrinaria* of the Solomon Islands. *C. van-wyckii* was discovered by Lieut. Van Wyck, of the United States Navy, in New Ireland, and specimens have more recently been obtained in Duke of York Island by the Rev. G. Brown and Dr. Kleinschmidt, as well as in Pigeon Island, New Britain, and Palakura, by Mr. L. C. Layard. Mr. E. P. Ramsay also records it from Deboyne Island and Bramble Haven in the Louisiade Group and even from South Cape in South-eastern New Guinea. It will be seen, therefore, that its range is somewhat extensive, and there would be nothing surprising in the fact that the Solomon Island *Carpophaga* was precisely identical; and that this is the case has been suggested by Count Salvadori. We have ourselves compared a specimen from New Britain with one from San Christoval, and we find that, although the resemblance is close, there are sufficient characters to recognize *C. van-wyckii* from *C. pistrinaria*. The difference consists in the dusky grey character of the upper plumage in *C. pistrinaria*, which has little or no green gloss, while the hind neck and mantle are scarcely distinguishable from the rest of the back. In *C. van-wyckii* the vinous grey hind neck and mantle contrast strongly with the rest of the back, which has a very distinct gloss of bronzy green.

The following is a description of an adult female, taken from a New Britain specimen in the British Museum :—

Adult female. General colour above pale bronzy green, with a slight shade of purplish blue on the rump and upper tail-coverts; lesser wing-coverts pale bronzy green; primary-coverts and quills blackish, the primaries ashy grey externally, glossy green at the ends; secondaries also externally grey, but also glossed with green, the innermost like the back; tail-feathers black, with a purple gloss, green on the outer edges; crown of head delicate pearly grey; hind neck and mantle pearly grey with a strong vinaceous tinge, especially on the sides of the neck, the grey of the mantle merging into the green of the back; base of forehead dull white; lores pearly grey, fading into pale vinous; feathers round eye white; sides of face, ear-coverts, cheeks, throat, sides of neck, fore neck, and chest pale delicate vinaceous; breast and remainder of under surface pale pearly grey, with a vinaceous tinge; under tail-coverts vinous chestnut; under wing-coverts and axillaries delicate pearly grey like the sides of the body; quills below ashy brown, paler along the inner edge. Total length 14·5 inches, culmen 1·15, wing 8·9, tail 5·3, tarsus 1·0.

The figure in the Plate is life-sized, and is drawn from the specimen described above.

[R. B. S.]



CARPOPHAGA FINSCHI, *Ramsay.*

W.Hart del. et lith. *Mintern Bros. Imp.*

CARPOPHAGA FINSCHI, *Ramsay*.

Finsch's Fruit-Pigeon.

Carpophaga finschii, Ramsay, Journ. Linn. Soc. xvi. p. 129 (1881).—Tristram, Ibis, 1882, p. 144.—Ramsay, t. c. p. 478.—Salvad. Ann. Mus. Civic. Genov. xviii. p. 428 (1882).—Id. Orn. Papuasia, etc. iii. App. p. 558 (1882).

As Count Salvadori has surmised, the nearest ally of the present species is *Carpophaga rufiventris* (*C. rufigaster*, auctt.), but the differences are numerous and striking; they are as follows:—

1. The grey band on the tail is subterminal, not terminal, the tips of the feathers being green.
2. The basal portion of the tail is deep blue.
3. The lower back, rump, and upper tail-coverts are green with golden reflexions, not purplish red as in *C. rufiventris*.
4. The head is grey, as well as the hind neck and upper mantle.
5. The ashy pink of the throat occupies also the fore neck and chest, whereas in *C. rufiventris* the brick-red colour of the underparts commences at the fore neck.
6. The rufous colour of the breast is continued equally over the abdomen, and is deepest on the under tail-coverts in *C. rufiventris*; the lower abdomen, vent, and under tail-coverts are quite pale.

It will at once be seen that a Pigeon differing in so many characters from its nearest ally must be an easily recognizable species, and we have not met with any bird with which it could be confounded.

The type specimen is a male, procured by the Rev. G. Brown in Irish Cove, New Ireland; it has been lent to us by our friend Mr. Ramsay for the purposes of the present work.

The following is a detailed description:—

Adult male. General colour above dark grass-green from the middle of the back to the upper tail-coverts, many of the feathers coppery or golden green, the lower mantle and upper back reddish or coppery; wing-coverts green with an emerald appearance, the lesser series washed with coppery like the middle of the back; bastard wing, primary-coverts, and quills blackish, externally marked with deep indigo, which is glossed with bronzy green, especially on the secondaries; tail-feathers deep blue for their basal half, succeeded by a broad band of ashy grey, which is again succeeded by a narrow bar of black, leaving a broad terminal band of green; entire head, hind neck, and upper mantle clear blue-grey, the base of the forehead and lores washed with pale rosy; feathers above and below the eye creamy white, purer white underneath the latter; ear-coverts pale rosy extending on to the sides of the hinder crown; cheeks and throat also pale rosy; lower throat, fore neck, and chest a little deeper rosy pink, with a slight bloom of blue-grey pervading the lower throat and also the sides of the neck, scarcely developed at all on the fore neck and chest; remainder of under surface from the breast downwards deep orange or brick-red, rather more intense on the under tail-coverts; under wing-coverts dark slaty grey, the feathers being dusky, edged with the latter colour; axillaries like the breast; edge of wing washed with green and blue; greater under-coverts and quills below dusky slate-colour. Total length 13·5 inches, culmen 0·95, wing 8·3, tail 4·5, tarsus 1·1.

The Plate represents this Pigeon of the full size. The figures are drawn from the type specimen, which Mr. Ramsay has kindly lent to us.

[R. B. S.]

CARPOPHAGA SUBFLAVESCENS, *Finsch.*

W. Hart del et lith.

Mintern Bros. imp.

CARPOPHAGA SUBFLAVESCENS, *Finsch.*

Yellow-tinted White Fruit-Pigeon.

Carpophaga subflavescens, Finsch, Ibis, 1886, p. 2.

In the great group of Fruit-Pigeons the lovely white species, of which one is now figured, are some of the most prominent, and they have been separated into a distinct genus *Myristicivora*, which is recognized by some of the best authorities. For our own part, we consider them to be true *Carpophagæ* in form, though of a distinct type of coloration, which may at least be deemed worthy of subgeneric separation.

The late Professor Schlegel used to rank all the white Fruit-Pigeons as belonging to one single species, instead of recognizing three; and in 1875 we ourselves came to a similar conclusion, as, although we could clearly perceive the characters on which *C. spilorrhoa* and *C. melanura* had been separated from *C. bicolor*, yet there seemed to be no definite geographical habitat for any of them, and, as species, they appeared to range into one another. Count Salvadori, however, has solved the problem. In the Moluccas he restricts the range of *C. melanura* (as far as at present known) to Halmahēra, Bourou, and Little Ké, while *C. spilorrhoa* is found all over New Guinea, the islands of the Bay of Geelvink, and the Aru group. These are resident in the above-named localities; and although *C. bicolor*, the common Indo-Malayan species, is also found in Halmahēra, New Guinea, and the Ké and Aru Islands, it is doubtless as a migrant. The present species was discovered by Dr. Otto Finsch during his explorations in the Western Pacific. He states that he procured a pair in the north-west corner of New Ireland, where, however, it was not common.

The following is a description of the typical specimen, which is now in the British Museum :—

Adult female. General colour above and below white, everywhere strongly tinted with yellow; region of the eye white; all the wing-coverts and the innermost secondaries white, strongly washed with yellow; bastard-wing, primary-coverts, and quills black, slightly shaded externally with grey; upper tail-coverts and basal half of tail white tinged with yellow, the terminal half of the tail black, which decreases in extent towards the outermost feathers; under tail-coverts white, very strongly tinged with yellow, and having a broad black band at the end of each feather; under wing-coverts and axillaries white washed with yellow: "iris dark brown; bill greenish, with the tips yellow; feet plumbeous" (*O. Finsch*). Total length 14 inches, culmen 1·2, wing 9·0, tail 4·7, tarsus 1·35.

The figure in the Plate represents an adult bird of the size of life.

[R. B. S.]



IANTHŒNAS ALBIGULARIS, *Bp.*

W. Hart del. et lith.

Mintern Bros. imp.

IANTHŒNAS ALBIGULARIS, *Bp.*

White-throated Pigeon.

Ianthœnas albigularis, Bp. Compt. Rend. xxxix. p. 1105 (1854), xl. p. 218, sp. 125 (1855).
Carpophaga albigularis, Bp. Consp. ii. p. 44 (1854).
Ianthœnas halmaheira, Bp. Consp. ii. p. 44 (1854).
? *Carpophaga albogularis*, G. R. Gray, List Spec. B. Brit. Mus. Columbæ, p. 24 (1856).
Ianthœnas halmacheira, Bp. Compt. Rend. xliii. p. 837 (1856).
Ianthœnas leucolæma, Bp. Compt. Rend. xliii. p. 837 (1856).
Ianthœnas albigularis, Reichenb. Handb. Columbariæ, p. 118, sp. 295.—Id. op. cit., App. p. 183, t. vi. f. 66, 67 (1862).—Schl. Mus. Bays-Bas, Columbæ, p. 75 (1873).—Salvad. Ann. Mus. Civ. Gen. ix. p. 203 (1876). —Sharpe, Journ. Proc. Linn. Soc. xiii. p. 503 (1877).—Ramsay, Proc. Linn. Soc. N. S. W. iii. p. 293 (1878), iv. p. 101 (1879).—Salvad. Ann. Mus. Civ. Gen. xiv. p. 662 (1879).—Id. Orn. Papuasia e delle Molucche, iii. pp. 120, 560 (1862).—Sharpe, Journ. Linn. Soc. xvi. p. 446 (1882).
Carpophaga albogularis, Gray, Proc. Zool. Soc. 1858, p. 196.—Id. Cat. B. New Guinea, p. 61 (1859).—Id. Proc. Zool. Soc. 1860, p. 361, 1861, p. 437.—Finsch, Neu-Guinea, p. 178 (1865).
Carpophaga halmaheræ, Finsch, Neu-Guinea, p. 178 (1865).
Ianthœnas halmaheira, Wallace, Ibis, 1865, pp. 388, 398.
Carpophaga albigularis, Schleg. Ned. Tijdschr. Dierk. iii. p. 206 (1866).—Rosenb. Malay. Archip. p. 323 (1879).
Columba albigularis, Temm. Mus. Lugd. (Schleg. *l. c.*).
Ianthœnas leucosoma, Schleg. *l. c.*
Carpophaga leucolæma, Gray, Hand-l. B. ii. p. 230, no. 9212 (1870).
Carpophaga halmaheira, Gray, Hand-l. B. ii. p. 231, no. 9213 (1870).
Carpophaga albigularis, Giebel, Thes. Orn. i. p. 588 (1872).
Carpophaga leucolæma, Giebel, Thes. Orn. i. p. 586 (1872).
Carpophaga halmaheræ, Rosenb. Reist. naar Geelvinkbaai, p. 8 (1875).
Ianthœnas rawlinsonii, Sharpe, Nature, 17 Aug. 1876, p. 339.—Ramsay, Proc. Linn. Soc. N. S. W. iii. p. 76 (1878).

The complicated synonymy of this Pigeon, as given above, has been unravelled with much care by Count Salvadori, from whose book on the ornithology of Papuasia we have copied the greater part of our references, as the work has been so excellently done by our esteemed colleague in Turin. The history of the species resolves itself into a long account of the tangle of names through which it passes, and we do not propose to tire our readers with these details, which can be fully studied in Count Salvadori's volume above quoted.

Not only is the present species found all over New Guinea from the north-west to the south-east, but it also occurs in the Molucca Islands of Halmahéra or Gilolo, Raou, Morotai or Morty Island, Ternate, Bourou, and Ceram. In New Guinea it has been met with in the Arfak Mountains and at Dorey, while in the south-eastern portion of that great island it has occurred near Port Moresby, as well as in the Sogeri district of the Astrolabe Range. It is also known from Salwati, Mysol, and Waigiou, as well as the Ké Islands. Nothing has been recorded concerning its habits.

The following description is taken from a specimen procured by Mr. H. O. Forbes in the Sogeri district of the Astrolabe Range :—

Adult male. General colour above black, the feathers glossed at the ends with green or coppery green, changing into pink under certain lights; lesser and median coverts black, with edgings similar to the feathers of the back, but much narrower; greater coverts, bastard-wing, primary-coverts, and quills black, only the innermost secondaries with green edgings; upper tail-coverts and tail-feathers black, the former slightly fringed with green at the ends; crown of head reddish purple, appearing grey under certain lights; hind neck, sides of neck and mantle entirely reddish or pink, with slight greenish reflexions; hind neck, lores, and sides of crown like the head; ear-coverts, cheeks, and throat white; remainder of under surface of body light coppery pink, the breast and abdomen varied with ashy bases to the feathers; sides of body and flanks leaden grey, with greenish or coppery edges to the feathers; thighs and under tail-coverts dark slate-colour, the latter with coppery pink margins to the feathers; under wing-coverts, axillaries, and under surface of quills dark slate-colour. Total length 14 inches, culmen 0·95, wing 9·1, tail 5·0, tarsus 0·9.

The Plate represents an adult bird of the natural size, and the figure is drawn from Mr. Forbes's specimen described above.

[R. B. S.]



MEGAPODIUS BRENCHLEYI, *Gray.*

W. Hart del. et lith. *Mintern Bros. imp.*

MEGAPODIUS BRENCHLEYI, *Gray*.

Brenchley's Megapode.

Megapodius brenchleyi, Gray, Ann. & Mag. Nat. Hist. (4) v. p. 328 (1870).—Id. Hand-list of Birds, ii. p. 255, no. 9553 (1870).—Id. Cruise of the 'Curaçoa,' p. 392, pl. 20 (1873).—Ramsay, Proc. Linn. Soc. N. S. Wales, iv. p. 75 (1879).—Schlegel, Mus. Pays-Bas, Megapodii, p. 65 (1880).—Oustalet, Ann. Sc. Nat. (6) xi. art. 2, p. 105 (1881).—Tristr. Ibis, 1882, p. 144.—Salvad. Ann. Mus. Civic. Genov. xviii. p. 7 (1882).—Id. Orn. Papuasia e delle Molucche, iii. p. 241 (1882).

Megapodius sp., Brazier, P. Z. S. 1874, p. 606 (pt.).—Ramsay, Proc. Linn. Soc. N. S. Wales, ii. p. 112 (1878).

Brenchley's Megapode was discovered by the gentleman whose name it bears, in Gulf Island, one of the Solomon group, a young bird having been brought by the natives on board the 'Curaçoa' and acquired by Mr. Brenchley. The late Mr. Gray described the species as new from the young bird only, a practice only a trifle less reprehensible than naming a species from an egg.

This Megapode probably occurs on all the islands of the Solomon group, as Mr. Cockerell procured it on Savo and Kera, and its existence was affirmed on San Christoval. Its occurrence in that island has now been placed beyond doubt by our friend Lieut. Reginald Tupper, R.N., who has presented a specimen to the British Museum.

The adult bird was first described by Mr. E. P. Ramsay from specimens brought by Mr. Cockerell from Savo. Previously the young bird had been figured in Mr. Brenchley's 'Cruise of the Curaçoa,' but until the British Museum received the specimen above mentioned from Mr. Tupper, there was no example of the adult bird in this country. On comparing Mr. Tupper's specimen with the series of *Megapodius* in the British Museum, it is evident that *M. brenchleyi* and *M. eremita* are very closely allied, and, indeed, scarcely separable, notwithstanding that, according to the arrangement of Count Salvadori, they ought to go into distinct sections of the genus, as *M. eremita* is supposed to have black legs. Beyond this, we can only see that *M. brenchleyi* is a little larger and a trifle browner.

The specimen of *M. brenchleyi* had much lighter legs when first brought to England by Mr. Tupper, and we believe that skins gradually darken as regards the legs; great care must therefore be taken in deducing specific characters from them in the genus *Megapodius*. The Plate was drawn directly the bird was placed in our hands, and the legs were coloured according to the skin; but in a few months the light colour of the upper part of the tarsus has considerably darkened. Further observations in the field, therefore, will be necessary before the value of the colour of the tarsus can be relied on as a specific character.

The following is a description of the bird given by Mr. Tupper:—

Adult. General colour above olive, the upper mantle washed with slaty grey like hind neck; lower back dull blackish slate-colour, browner on the upper tail-coverts; wing-coverts dusky slate-colour, the inner ones ruddy olive-brown like the secondaries; bastard-wing, primary-coverts, and quills dusky, the latter externally ruddy brown or chocolate; upper tail-coverts and tail-feathers chocolate-brown; crown of head scantily clothed with feathers, dusky slate-colour washed with brown; hind neck and sides of neck slaty grey; lores and forehead, ear-coverts, cheeks and throat red, scantily feathered; remainder of under surface of body from the fore neck downwards dark slate-colour, washed with brown, the under tail-coverts darker brown; under wing-coverts and axillaries like the breast; quills below ashy, bronzy brown on the outer webs. Total length 15·5 inches, culmen 1·0, wing 8·8, tail 3·1, tarsus 2·55.

The figure in the Plate is of the natural size, and is taken from the specimen procured by Lieut. Tupper in San Christoval.

[R. B. S.]



MEGACREX INEPTA *D'Albert & Salvad.*

MEGACREX INEPTA. D'Albert & Salzedo

MEGACREX INEPTA, *D'Albert. & Salvad.*

New-Guinea Flightless Rail.

Megacrex inepta, D'Albert. & Salvad. Ann. Mus. Civic. Genov. xiv. p. 130.—D'Albert. Proc. Zool. Soc. 1879, p. 218.

Considerable interest attaches to the discovery of the present species, as adding another flightless bird to the number already known in the world. Irrespective of the large Struthious birds such as the Ostrich, the Rheas, the Cassowary, and the Apteryges, there are several Rails, from New Zealand, New Caledonia, and the islands to the east of Australia, which only possess the power of flight to a very limited extent; and now Signor D'Albertis has discovered a species belonging to the last-named family in South-eastern New Guinea, thus extending the habitat of the flightless Rallidæ, and adding a new genus to the family. Five specimens were obtained by him on the Fly River—four males and a female, the latter being described as exactly similar to the males collected, but a little smaller. Count Salvadori remarks with truth that *Megacrex inepta* bears considerable resemblance in its coloration to the South-American genus *Aramides*, forming therefore, with the large Harpy Buzzard (*Harpyopsis novæ-guineæ*) and the Papuan Tiger Bittern (*Tigrisoma heliosylos*), which are also closely allied to South-American forms, another remarkable link between the neotropical region and the far distant islands of the Papuan subregion. It is quite possible, as it has always seemed to me, that a comparison of South-American genera with some of the Old-World forms would prove that the former are not so far distant from the genera of Africa and Australia as most ornithologists seem to believe.

Unfortunately we have at present no account of the habits of this new Rail, as is often the case on the discovery of a new species, when explorers, carrying their lives in their hands in a new country, cannot do more than preserve specimens of the species which come under their notice. Signor D'Albertis merely remarks that the *Megacrex* frequented ditches in the neighbourhood of the Fly River which had water in them during the dry season, that it ran swiftly, and appeared incapable of flight.

The following is a translation of the original description given by the two naturalists in the work above quoted:—

"Head and neck dusky brown; the forehead more ashy; the sides of the head ashy grey, the lores dusky, the throat whitish; the sides of the neck pale vinaceous in the middle, below brownish olive; back olive-greyish; rump and upper tail-coverts brown, as also the tail, which is very short and concealed; fore neck, upper part of breast, and sides of the latter rufescent; middle of breast and abdomen white, slightly tinged with rufous; the sides olivaceous; lower abdomen and thighs greyish vinous, the sides of the abdomen and under tail-coverts brown; wing-coverts greyish olive, uniform with the back; quills brownish olive; bill yellowish green; feet black; iris dark blood-red.

My figure represents the species nearly the size of life, and is drawn from one of the typical specimens kindly lent to me by Signor D'Albertis.



RALLICULA FORBESI, *Sharpe.*

W. Hart del. et lith.

Mintern Bros. imp.

RALLICULA FORBESI, *Sharpe.*

Forbes's Rail.

We have figured in the accompanying Plate a Rail which appears to us to be undoubtedly new to science. It is a third species of a most interesting genus, which, so far as we know at present, is entirely confined to New Guinea, the two species hitherto described, viz. *Rallicula rubra* and *R. leucospila*, being from the Arfak Mountains in North-western New Guinea. The former of these has been recently figured by Dr. Guillemard in the 'Proceedings' of the Zoological Society for 1885; but of *R. leucospila* no figure at present exists, nor have we ever seen a specimen.

Forbes's Rail seems to differ from both the above-mentioned species in having the back and wings entirely black, the female, or young bird, having ochreous spots on the back. *R. rubra* is, as its name implies, a reddish bird, while *R. leucospila* has the black feathers of the upper parts edged with white. Like its congeners, *R. forbesi* has the curious tufted tail which allies the genus *Rallicula* to the African genus *Corethrura*.

The colours of the species are so simple that only a short description is necessary. The adult bird is everywhere deep chestnut, excepting the back and wings, which are black. The rump is dusky blackish, barred with dull rufous; the upper tail-coverts chestnut, barred with black, the tail-feathers chestnut, with the black bars less perfectly indicated, and reduced to spots on the ends of some of the longer coverts; the flanks and lower abdomen are dusky blackish, with dull reddish bars; the under tail-coverts very long, chestnut, broadly barred with black. Under wing-coverts and axillaries black, barred with white; the quills black below, with broad spots or bars of white or ochreous buff on the inner web. Total length 8·5 inches, culmen 1·15, wing 4·25, tail 2·45, tarsus 1·35.

A second bird sent by Mr. Forbes is probably the adult female, and only differs in having the back and wings spotted with ochreous buff. Total length 8 inches, culmen 1·15, wing 4·2, tail 2·2, tarsus 1·35.

Mr. Forbes obtained these specimens somewhere on the Owen Stanley range in South-eastern New Guinea, but the exact locality is not marked on the label.

The figures in the Plate are of the natural size, and are drawn from the typical examples described above.

[R. B. S.]

W. Hart. del et lith.

GYMNOCREX PLUMBEIVENTRIS.

Mintern Bros. imp.



GYMNOCREX PLUMBEIVENTRIS.

Grey-bellied Rail.

Rallus plumbeiventris, Gray, Proc. Zool. Soc. 1861, pp. 432, 438.—Finsch, Neu-Guinea, p. 180 (1865).
Rallina plumbeiventris, Schlegel, Mus. Pays-Bas, *Ralli*, pp. 17, 78 (1865).—Id. Ned. Tijdschr. Dierk. iii. p. 349 (1866).—Gray, Hand-l. B. iii. p. 58, no. 10402 (1871).—Sharpe, Journ. Linn. Soc. xiii. p. 505 (1877).
Rallus hoeveni, Rosenb. Nat. Tijdschr. Nederl. xxix. p. 144 (1867).—Schlegel, Nederl. Tijdschr. Dierk. iii. p. 349 (1866).—Rosenb. Reis naar Zuidoostereil. p. 53 (1867).
Rallus intactus, Sclater, Proc. Zool. Soc. 1869, p. 120, pl. x.—Tristram, Ibis, 1882, p. 144.
Rallina intacta, Gray, Hand-l. B. iii. p. 58, no. 10404 (1871).
Gymnocrex plumbeiventris, Salvad. Ann. Mus. Civic. Genov. vii. p. 793 (1875).—D'Albert. & Salvad. op. cit. xiv. p. 129 (1879).—Salvad. op. cit. xviii. p. 320 (1882).—Id. Orn. della Papuasia e delle Molucche, iii. p. 268 (1882).

Mr. Wallace first discovered the present species of Rail in the island of Mysol, and the Dutch travellers Dr. Bernstein and Mr. Bruijn afterwards procured it in the Moluccan Islands of Morty or Morotai and Halmahéra. Von Rosenberg has also met with it in the Aru Islands, and Signor D'Albertis found it on the Fly River in Southern New Guinea. It had previously been brought by Mr. Stone from Momile, a locality in South-western New Guinea, to the interior of Port Moresby. As Count Salvadori has pointed out, we erroneously spoke of the original specimen as coming from Morty Island instead of Mysol, when we were describing Mr. Stone's collection. A bird procured in the Solomon Islands and forwarded by Mr. Gerrard Krefft, of Sydney, to Dr. Sclater, was named by him *Rallus intactus*. Count Salvadori has carefully examined the latter specimen and compared it with the type, and has come to the conclusion that the two are identical.

Nothing is known of the habits of this fine Rail, which, on account of its bare face, is included by Count Salvadori in his genus *Gymnocrex*, along with *G. rosenbergi* of Schlegel, from Celebes.

The following is a description of the type specimen :—

Adult. General colour above ochraceous brown ; wing-coverts like the back, the greater coverts with a reddish tinge externally ; bastard-wing, primary-coverts, and quills chestnut, with a little ochreous brown at the tips and on the outer web, the inner secondaries ochraceous brown like the back ; lower back, rump, upper-tail coverts, and tail-feathers black ; crown of head and hind neck deep chestnut, as also the lores, sides of face, ear-coverts, cheeks, throat, sides of neck, and fore neck, with the throat paler and more ashy whitish ; chest and remainder of under surface leaden grey, blacker on the abdomen, sides of body, and flanks ; thighs leaden grey ; under tail-coverts black ; under wing-coverts and axillaries black, mottled with broad white tips at the end of the feathers ; quills below chestnut, a little more dusky at the ends. Total length 13 inches, culmen 2·1, wing 7·1, tail 2·7, tarsus 2·2.

The figure in the Plate represents an adult bird of the size of life, and has been drawn from the type specimen of *Rallus intactus*, recently presented by Dr. Sclater to the British Museum.

[R. B. S.]



STERNULA PLACENS, *Gould.*

J.Gould & W.Hart del et lith. *Walter imp.*

STERNULA PLACENS, *Gould.*

Torres-Straits Tern.

Sternula placens, Gould, Ann. Nat. Hist. [4] viii. p. 192 (1871).

A single example of this species has been in my collection for many years; but I hesitated to describe it until 1871, when I received from Mr. Waterhouse, the Curator of the Adelaide Museum, a second individual. I carefully compared these materials with the Australian *Sternula nereis* and the European *Sternula minuta*, as well as with its allies inhabiting North and South America; and with none of these did it agree. Its nearest ally seemed to be the European species; but from this it differs in having considerably longer wings, in the snow-white hue of the shafts of the primaries, and in the larger and well-defined mark of black on the tips of the mandibles. From *S. nereis* it is distinguished by having black instead of white lores.

It is now nearly five years since I placed the description of this little Tern before the scientific world, and as yet I have seen no attempt to reconcile the species with any one previously described. But it would be unfair to my friend Mr. Howard Saunders, who is making the family of *Laridæ* his especial study, if I did not admit that he has privately given me his opinion that my supposed new species may ultimately prove to be the *Sterna sinensis* of Gmelin. At present, however, he is not quite prepared to assert this positively; and therefore, in view of the different opinions at present prevailing in the mind of one amongst our best authorities, I have deemed it not unadvisable to give a careful figure of the bird, to aid in the further disentanglement of the question. At the same time there would be nothing extraordinary in the fact of a Chinese Tern wandering into Australian waters, as the range of the species, even then, would be small compared with that of some of the allied species—to wit, *Sternula minuta* &c.

The following is the description published (*l. c.*):—

Adult male.—Bill yellow, with the apical third of both mandibles black, as sharply defined as if they had been dipped in ink; forehead white, advancing over each eye to near its posterior angle; lores, a narrow line above the eyes, crown, and nape black; upper surface of the body and wing-coverts grey; the first primary slaty black on the outer web, and along the inner web next the shaft; the shaft itself and the outer half of the inner web white; the second primary similarly but a little less strongly marked; the remainder of the primaries silvery grey, with lighter shafts; throat and all the under surface of the body silky white; tail white; feet yellow.

Total length 10 inches, bill from gape $1\frac{5}{8}$, wing $7\frac{1}{2}$, tail $4\frac{3}{8}$, tarsi $\frac{3}{4}$.

Hab. Torres Straits.

The figure given in the Plate is taken from a male, and is of the natural size.

CASUARIUS BICARUNCULATUS, *Sclater.*

J. Gould & W. Hart del. et lith.

Walter imp.

CASUARIUS BICARUNCULATUS, *Sclater*.

Two-wattled Cassowary.

Casuarius bicarunculatus, Sclater, Proc. Zool. Soc. 1860, pp. 211, 248.—Id. Trans. Zool. Soc. iv. p. 359, pl. lxxiii. (1860).—Schlegel, Nederl. Tijdschr. Dierk. 8vo, iii. p. 347 (1866).—Gray, Hand-l. B. iii. p. 2, no. 9849 (1871).—Sclater, Proc. Zool. Soc. 1872, p. 495, pl. xxvi.; 1875, p. 87.—Harting, in Mosenthal & Harting, Ostriches & Ostrich-farming, p. 111 (1877).

——— *aruensis*, Schlegel, Nederl. Tijdschr. Dierk. 8vo, iii. p. 347 (1866).

In the year 1860 the Zoological Society of London obtained from the sister Society in Rotterdam a young Cassowary, which, although in immature plumage and with the casque only slightly developed, was recognized by Dr. Sclater as a new species on account of the position of the neck wattles far apart, which rendered the bird, even in its young stage, easily recognizable from the common Cassowary (*C. galeatus*). Before this specimen became fully adult it unfortunately died, but not before an excellent coloured picture had been made from the living bird, and had been published by Dr. Sclater in the 'Transactions' of the Zoological Society. A second example was received in 1869, but also died before reaching maturity. In the 'Proceedings' for 1872, however, a fully adult bird was figured by Dr. Sclater from a specimen purchased by the Society from Mr. Jamrach, who obtained it in Calcutta, and the distinctness of the species was placed beyond all question. Besides the different arrangement of the neck-wattles, it differs from *C. galeatus*, to which the form of the casque somewhat allies it, in having the latter very much smaller and rising from a much smaller base on the vertex; the colouring of the head and neck is also different.

The habitat of this species is now known to be the Aru Islands, where specimens have been procured for the Leyden Museum by Baron von Rosenberg; and of these a description was given in 1866 by Professor Schlegel, who states that in a young specimen there was found no trace of any caruncles at all.

The figures in the Plate have been drawn by me from the living specimen in the Zoological Gardens. It is not necessary to do more than to show the head and neck in these Cassowaries, as the bodies in all the species are always black. I have therefore delineated the head and neck of the bird, in such a way as to show the distinctive casque and the bright colouring which adorns the neck in the present species.



CASUARIUS PICTICOLLIS, *Sclater.*

J. Gould & W. Hart del. et lith. *Walter imp.*

CASUARIUS PICTICOLLIS, *Sclater*.

Painted-throated Cassowary.

Casuarius picticollis, Sclat. P. Z. S. 1875, p. 85, pl. xviii., et List Vert. Anim. Z. S. L. ed. vi. p. 423.

Unless the heads of freshly killed birds are preserved in spirits or living specimens can be resorted to, it is almost impossible for the ornithologist to determine the various species of Cassowary, particularly of that section known by the trivial name of Mooruk. In their youth all are of a uniform brown in their plumage, while the partly denuded neck is varied with different tints of yellow and green, which in afterlife give place to blue, verditer green, orange, and chestnut red, whilst the brown feathers of the body are succeeded by black ones, which ever after remain permanent. The period of this succession of changes from youth to maturity is several years. It was on the 27th of May 1874 that an immature specimen of this very distinct Cassowary was received at the Gardens of the Zoological Society, in which it lived until the 16th of October 1876. Within three hours of the death of this fine bird, through the kindness of the Secretary, I received its body at my house, and was able, through the assistance of Mr. Hart, to take the accompanying illustration, which could not have been prepared in the way it is had not immediate attention been given to it. Mr. Sclater has also had drawings taken in an intermediate state, one of which was published, along with descriptions, in the 'Proceedings' as above quoted. "On the 27th of May last year," says Mr. Sclater, "we purchased of Mr. Broughton of the 'Paramatta,' who seldom returns from Sydney without bringing some welcome addition to our collection, a not quite adult Cassowary, which, as I am informed, had been brought to Sydney in the month of April, 1873, by Mr. Godfrey Goodman, Medical Officer of H.M.S. 'Basilisk,' and had lived some eight or nine months in the Botanic Gardens there. This Cassowary was entered in the register as a Mooruk; and not being at the time aware of its history, I did not pay special attention to it. Later in the summer, having become aware of its origin, I made a careful examination of the specimen in company with the Superintendent, and at once decided that it was not a Mooruk (*Casuarius bennetti*), although closely allied to that species in form and structure. It, in fact, more nearly resembles Westerman's Cassowary (*C. westermanni*), but is very differently coloured in the naked parts of the throat."

It may be said that the Cassowaries all differ in the form of the helmet, while those which have wattles differ in the length and situation of these appendages, and that not only the primitive but the complementary colours are found in the various species. But though these characters alter during adolescence, they remain permanent when the birds have attained the age of maturity; and I may state that both sexes are similarly adorned—if there be any difference, the females, according to my experience, being the largest in size and richest in colour. Such, then, is all the information I am at present able to render respecting the history of this interesting addition to the family of the Cassowaries.

C. picticollis may at once be distinguished by attending to the colouring of the neck—the naked skin of the hinder portion being blue, whilst in *C. westermanni* it is orange.

This bird, as regards size, is a trifle smaller than *C. westermanni*; the legs are light brown or a sickly bluish green, and very slender when compared with the other allied species. Length of tarsi 11 inches, middle toe 6½, inner nail very long. Whole plumage of the adult jet-black; feathers of the shoulders and upper part of the back very stiff, round and shiny.

The sex of the individual from which my drawings were taken was marked male in Prof. Garrod's (our prosector's) journal.

Habitat. Discovery Bay, S.E. coast of New Guinea.



CASUARIUS WESTERMANNI.

J. Gould & W. Hart del. et lith.

Walter imp.

CASUARIUS WESTERMANNI.

Westerman's Cassowary.

Casuarius westermanni, Scl. Proc. Zool. Soc. 1874, p. 247, et 1875, p. 85, pl. xix.—Scl. Ibis, 1874, p. 417.—List Vert. Z. S. L. p. 423.
Casuarius kaupi, Scl. P. Z. S 1871, p. 627.—Scl. P. Z. S. 1872, p. 147, pl. ix.—Scl. P. Z. S. 1873, p. 474.

The following note appears in the 'Proceedings' of the Zoological Society, 1874, p. 247:—"Mr. Sclater called the attention of the Meeting to the Cassowary in the Society's Gardens, received from the Zoological Society of Amsterdam in 1871, and described and figured in the 'Proceedings' for 1872 (p. 147, pl. ix.) under the name *Casuarius kaupi*, which was now a fine adult bird. It now appeared, from Professor Schlegel's remarks in the recently published part of the 'Musée des Pays-Bas,' and from Hr. v. Rosenberg's article in the 'Journal für Ornithologie' for 1874 (p. 390), that there could be no longer any doubt that the name *Casuarius kaupi* of Rosenberg had been founded on a young example of *C. uniappendiculatus*. It remained, therefore, to find another name for the present bird. Mr. Sclater had at first supposed it might be referred to *C. papuanus*; but, judging from the description of this species given by Schlegel (*l. c.*), such could not be the case. He had therefore designated it *Casuarius westermanni*, after the distinguished Director of the Zoological Gardens at Amsterdam, through whom the Society had received their unique specimen."

If the reader will scan over the account accompanying the plate of *C. picticollis*, he may read what has been said on the changes which occur in the Cassowaries, both as regards plumage and the evanescent colouring of the neck. In the young of the same age all the species offer a great degree of similarity; whilst for the adult, both in the form of the helmet and colouring of the naked skin, well-defined characters are always to be found. Of the lesser or Mooruk type the present is the most singular, both as regards colour and form of the helmet, which is extremely curious and interesting; in fact it was of the front face of this bird that, by urgent solicitations, I succeeded in getting our very talented artist, Mr. Wolf, to make a carefully coloured drawing from the living bird; when it died the body was immediately forwarded to me, and the foremost figure in my illustration was taken.

Mr. Sclater tells me that last year (1876) there were two examples of this Cassowary living in the Zoological Gardens at Rotterdam, and that on the occasion of his recent visit this year (May 1877) he found one of them still alive and in fine adult plumage.

Very little has as yet been ascertained respecting the habits and economy of the various species of Cassowary. What has been recorded tends to show that they are forest-loving birds, frequenting the woods of the low countries as well as the mountainous districts, roaming over the open gullies and sunny glades either singly or in small companies. Their food is of a mixed or multifarious character,—fruits, berries, bulbous roots, and the leafy buds of trees forming part of their vegetable diet, the wild fig (which at certain seasons is constantly dropping from the lofty trees) being always searched for and eaten with avidity; while the animal food which serves to maintain their huge bodies is even more varied—reptiles, feeble birds, little mammals, crustaceans, insects, and eggs being among its constituent elements. In their disposition these birds are shy and recluse, and when disturbed seek shelter in the depths of the thicket. Deprived of the power of flight, they run with great swiftness, their long legs enabling them to pass over great distances in a comparatively short space of time, and by this means to avoid pursuit. The chicks are longitudinally striped with yellowish white; and their large corrugated eggs are of a beautiful green.

Hab. New Guinea, vicinity of Havre Dorey.

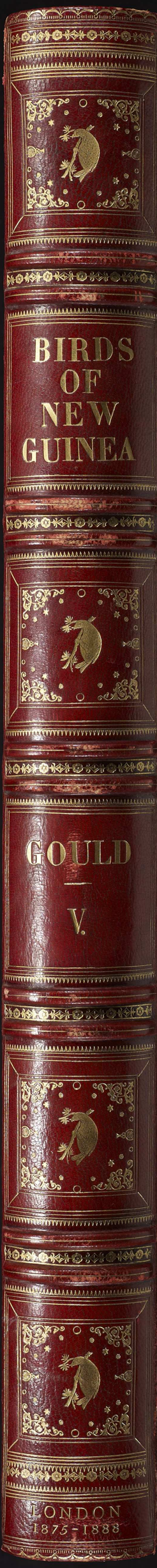
US 61K



THE MAHARAJAH

JAM SAHIB OF NAWANAGAR

JAMNAGAR


BIRDS
OF
NEW
GUINEA
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V.
LONDON
1875-1888