OF THE

PITTIDÆ.



BY

JOHN GOULD, F.R.S. &c.

PART II.

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———— sordida. Erythropitta rubrinucha. Iridipitta baudii.

Gigantipitta cærulea.

Phœnicocichla ussheri.

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1881.

MELANOPITTA CUCULLATA.

Hooded Pitta.

Pitta cucullata, Hartl. Rev. et Mag. de Zool. 1833, p. 65.—Gray, Gen. B. i. p. 213 (1846).—Blyth, Cat. B. Mus. As. Soc. p. 157 (1849).—Moore, Proc. Zool. Soc. 1854, p. 274.—Horsf. & Moore, Cat. B. E.I. Co. Mus. ii. p. 399 (1856).—Cass. U.S. Expl. Exp. Birds, p. 437 (1858).—Jerd. B. Ind. i. p. 504 (1862).—Gray, Hand-l. B. i. p. 295 (1869).—Gould, B. Asia, part xxx. (1877).—Hume & Davison, Str. F. 1878, p. 245.—Hume, Str. F. 1879, pp. 59, 94.

Pitta nigricollis, Blyth, J. A. S. Beng. xii. p. 960 (1843). Pitta rhodogaster, Hodgs. J. A. S. Beng. xii. p. 961 (1843).

Pitta malaccensis, Müll. & Schleg. Verh. natuurl. Gesch., fol., Zool. Pitta, p. 19 (1844).

Pitta coronata, Peale, U.S. Expl. Exped. Birds, p. 891 (1848).

Brachyurus cucullatus, Bp. Consp. i. p. 255 (1850).—Elliot, Monogr. Pittidæ, pl. xxvii. (1863).—Hume, Str. Feathers, 1875, p. 109.—Blyth & Walden, Birds of Burma, p. 98 (1875).

Melanopitta cucullata, Bp. Consp. Volucr. Anis. p. 7 (1854).—Hume, Str. Feathers, 1874, p. 475.—Id. Nests and Eggs Ind. B. p. 225 (1875).

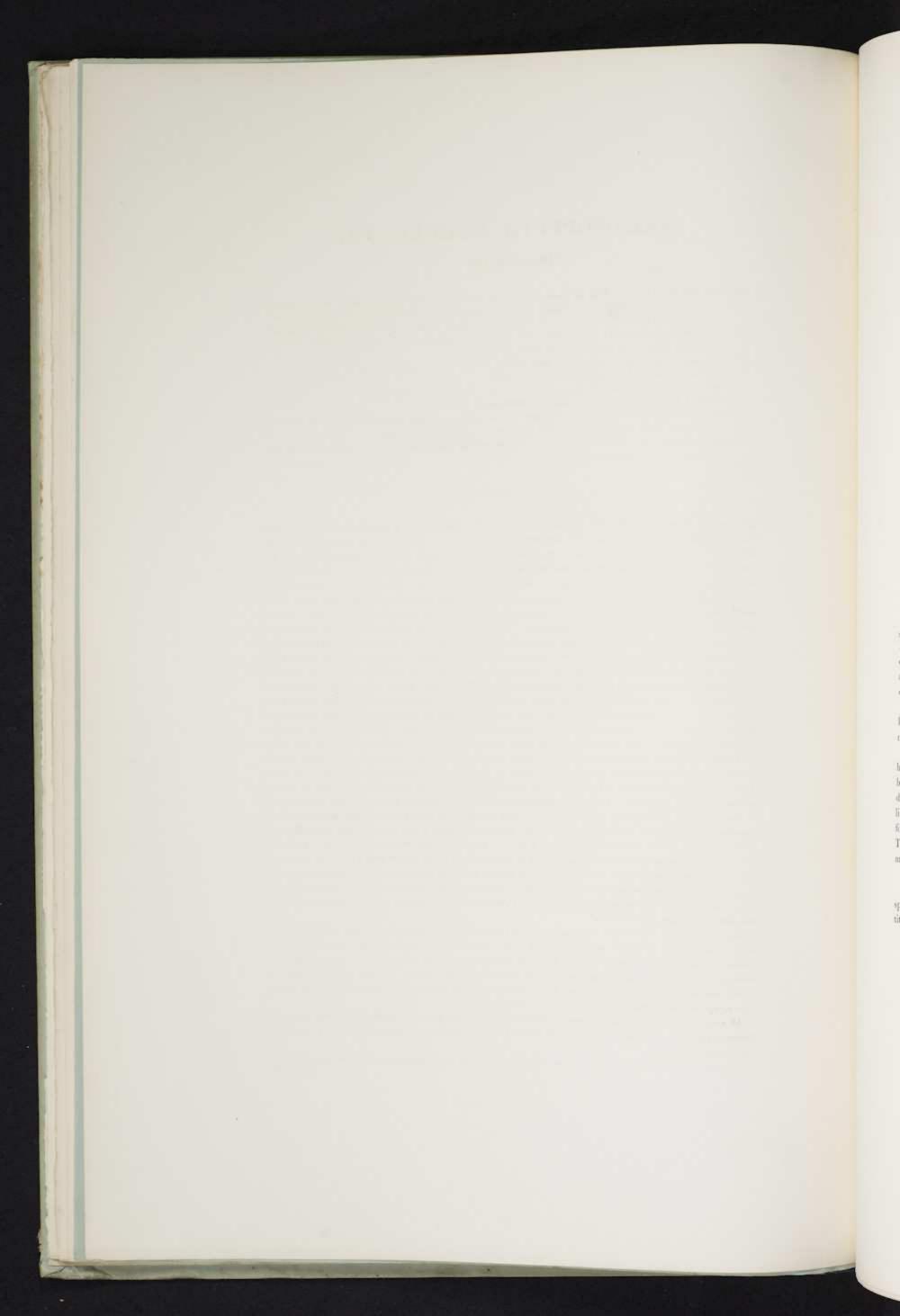
This species is rather an aberrant member of the subgenus Melanopitta, inasmuch as it has the head chestnut instead of black as is usual with the members of this section; but the rest of its coloration shows that it is a close ally of the typical members of the black-headed group. Like the other members of the family, it is evidently a migratory bird, and breeds in Nepal and the Eastern Himalayas. Mr. Hume, who has translated many of the original notes from Mr. Hodgson's MS., states that the latter gentleman found a Hooded Pitta breeding in the central regions of Nepal and about Darjeeling in April and May. They build large globular nests, one of which measured nearly 6.75 inches externally and had a circular opening fully 3 inches in diameter on one side. They place their nests very generally on the ground, in clumps of bamboos; and they construct them of dry bamboo leaves and twigs, and stems of plants, firmly and compactly interwoven. The exterior is rough and strong; the interior lined with soft vegetable fibres. They lay four eggs, very broad oval, glossy, with a pinky white ground, pretty thickly spotted all over with reddish and brownish purple; an egg figured measures 0.96 by 0.79 inch. Dr. Jerdon observes that he "procured one specimen, which was killed by a Lepcha when seated on her nest on the banks of the Great Rungit river, about 1200 feet above the sea. The nest was composed chiefly of roots and other fibrous matter, with a few hairs, and contained three eggs of a faint greenish white with a few reddish and some fawn-coloured spots." Mr. Hume also states that it is very common in Sikhim. Blyth, in his 'Birds of Burmah,' mentions its occurrence in the Khasia Hills and in Arakan; and Captain Wardlaw Ramsay obtained it at Rangoon, as did also Captain Feilden at Thayetmyo. Writing of its occurrence in Upper Pegu, Mr. Oates remarks:—"I met with this bird in one ravine only, in the evergreen forests, where I procured several specimens. I searched many precisely similar localities, but never again met with it." It was doubtless on migration that the species was procured by Mr. Oates on the above-mentioned occasion; for it is stated by Mr. Hume to be only a seasonal visitant to the southern and central portions of Tenasserim; and it is doubtless only as a migrant that it is met with in the Malayan peninsula. Mr. Davison's note on the bird in Tenasserim is as follows:—" This species is much rarer and more of a forest bird than P. moluccensis. Its call is similar, but not nearly so often heard—firstly because the bird is only about one tenth as numerous, and secondly because those that are there call much less frequently. These also sit about in trees a great deal, and, like P. moluccensis, are, I believe, merely migrants, as I have only shot them from April to July."

Body green above; head light chestnut-brown, the lores, eyebrows, sides of face, sides of neck, as well as the hind part of the latter and throat, black; upper tail-coverts rich cobalt; least wing-coverts rich cobalt; primaries with a broad band of white; under surface of body green; on the upper abdomen a black patch; the lower abdomen and under tail-coverts scarlet, thighs brown. The soft parts are described by Mr. Oates as follows:—"The bill was black, the inside of the mouth dusky fleshy, irides dark coffeebrown, eyelids pale plumbeous fleshy pink, claws pinkish horny."

All writers agree that specimens from the Eastern Himalayas are perfectly identical with those from the Burmese provinces and Malacca; some of the birds, however, have the back striped with dusky; and these I take to be immature.

The figures in the Plate, which are drawn from specimens in my collection, are of the natural size.

[R. B. S.]



MELANOPITTA MAFOORANA.

Mafoor-Island Pitta.

Pitta novæ-guineæ, pt., Schlegel, Nederl. Tijdschr. Dierk. iv. p. 16 (1871).—Rosenb. Reist. naar Geelvinksb. p. 36 (1875).

Pitta novæ-guineæ mafoorana, Schlegel, Mus. Pays-Bas, Revue Pitta, p. 8 (1874).—Meyer, in Dawson Rowley's Orn. Misc. p. 268 (1877).

Pitta mafoerana, Beccari, Ann. Mus. Civic. Genov. vii. p. 709 (1875).—Id. Ibis, 1876, p. 248.

Pitta maforensis, Gould, Birds of New Guinea, part vii. (1878).

Pitta mayforeana, Legge, Birds of Ceylon, p. 689 (1879).

Pitta mafoorana, Salvad. Ann. Mus. Civic. Genov. xvi. p. 184 (1880).—Id. Orn. della Papuasia &c. p. 386 (1881).

This species was separated by Professor Schlegel in 1874, in his Review of the Pittas in the Leiden Museum, under the trinomial title above quoted; and he apparently regards it as nothing but a race of M. novæguineæ. In this conclusion I am unable to agree, as it seems to me to be a thoroughly well-marked species. It is nearly allied to the last-mentioned bird and to Melanopitta rosenbergi, but is distinct from both. It is of about the same size, and has the colour of the chest, breast, and nape of a fine glistening greenish white, as it exists in M. novæ-guineæ, but more extended, the green of the chest blending into green and blue on the flanks; and it differs also in having the long upper tail-coverts black, slightly edged with blue.

Dr. Meyer did not get a Pitta on the island of Mafoor; but the Leiden Museum possesses four specimens, killed there in January and February 1869 by Rosenberg, who says that it is called "Popek" by the natives. Dr. Beccari also managed to procure some examples.

In describing the species, Professor Schlegel says that the Mafoor bird is similar to M. novæ-guineæ, but has the tail-feathers more or less tipped with dirty green, the large upper tail-coverts black, with a fine blue edging, the smaller upper tail-coverts of a fine metallic whitish green, and the blue of the abdomen darker, the quills being without white spots. This constitutes, as far as I know, all that has been published respecting the present bird. The Plate represents a pair of these birds, of the natural size. They form part of the rich collections made by Dr. Beccari in New Guinea and the islands of Geelvink Bay. They were kindly lent to me by Count Salvadori during his visit to this country; and to him I have once more to express my high appreciation of his kindness.

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

In illustrating this species in my work on the Birds of New Guinea, I unwittingly gave the name of the species as Pitta maforensis; and I am glad to be able to restore to it on the present occasion the original title bestowed upon it by Professor Schlegel. [R. B. S.]

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MELANOPITTA NOVÆ-GUINEÆ.

Papuan Pitta.

Pitta atricapilla, Quoy et Gaim. Voy. de l'Astrol. i. p. 258, pl. 8, fig. 3 (1830).

Pitta novæ-guineæ, Müll. & Schleg. Verhandl. nat. Gesch., fol., Zool. Pitta, pp. 19, 20 (1839-44).—Gray, Gen. B. i. p. 214 (1846).—Sclater, Proc. Linn. Soc. ii. p. 158 (1858).—Gray, Proc. Zool. Soc. 1858, pp. 175, 191.—Id. Cat. B. New Guinea, pp. 26, 56 (1859).—Id. Proc. Zool. Soc. 1861, p. 434.—Schlegel, Vog. Nederl. Ind., Pitta, pp. 7, 21, pl. ii. fig. 4 (1863).—Id. Mus. Pays-Bas, Pitta, p. 4 (1863).—Wallace, Ibis, 1864, p. 102.—Finsch, Neu-Guinea, p. 167 (1865).—Schlegel, Nederl. Tijdschr. Dierk. iii. p. 189 (1866), iv. p. 15 (1871).—Gray, Hand-l. B. i. p. 295, no. 4358 (1869).—Schleg. Mus. Pays-Bas, Revue Pitta, p. 6 (1874).—Rosenb. Reist. n. Geelvinksbai, p. 114 (1875).—Salvad. Ann. Mus. Civic. Genova, vii. p. 777 (1875), viii. p. 398 (1876), ix. p. 210 (1876).—Gould, Birds of New Guinea, pt. iv. (1877).—Salvad. Ann. Mus. Civic. Genova, ix. p. 128 (1877), x. p. 11 (1877).—Sharpe, Journ. Linn. Soc. xiii. p. 315 (1877), xiv. p. 687 (1879).—Salvad. & D'Albert. Ann. Mus. Civic. Genova, xiv. p. 84 (1879).—Ramsay, Proc. Linn. Soc. New S. Wales, iii. p. 277 (1879), iv. p. 98 (1879).—Legge, Birds of Ceylon, p. 689 (1879).—Salvad. Ann. Mus. Civic. Genova, xv. p. 184 (1880).—Id. Orn. della Papuasia &c. p. 380 (1881).

Brachyurus novæ-guineæ, Bp. Consp. i. p. 256 (1850).—Wall. Ann. & Mag. Nat. Hist. (2) xx. p. 477 (1857).— Rosenb. Journ. f. Orn. 1864, p. 119.—Elliot, Ibis, 1870, p. 420.

Melanopitta novæ-guineæ, Bp. Consp. Volucr. Anis. p. 7 (1854).

Brachyurus (Melanopitta) novæ-guineæ, Elliot, Monogr. pl. 27 (1861-63).

Pitta papuensis, Gray, Hand-l. B. i. p. 295, no. 4361 (1869; ? ex Schleg. MS.).

Pitta waigiouensis, Schleg. MS., teste Salvad. Orn. della Papuasia &c. p. 385 (1881).

The Papuan Pitta, although by its name of novæ-guineæ one might suppose that it is confined to the great island of New Guinea, is not really restricted to that locality, but is spread over a habitat almost as extensive as that of Erythropitta mackloti. It inhabits the whole of New Guinea; and a long list of specimens is given by Count Salvadori in his great work on the Ornithology of Papuasia, showing that the Italian travellers Beccari and D'Albertis, and the well-known collector Bruijn, have discovered it in every portion visited by themselves or their hunters. In all the parts explored on the Arfak Mountains it was met with, as well as in Salwatti, while numerous specimens enriched Signor D'Albertis's collections from Southern New Guinea, where he procured the species on the Fly river, and further eastward on Yule Island and the mainland of South-east Papua. We have ourselves seen specimens from the interior of Port Moresby and also from East Cape, the latter procured by Mr. Charles Hunstein, the discoverer of the remarkable Clytoceyx rex. It has also been said to occur in the peninsula of Cape York, on Mr. Cockerell's authority; but we are certain that many of the latter's Aru-Island birds were mixed up in his Cape-York collections, and we do not believe that the bird has ever been really procured in Northern Australia.

Returning to its insular distribution, we find that it has been met with on the following islands—Batanta, Waigiou, Gagie, Koffiao, and Mysol; and it is not at all rare in the Aru Islands, where, according to Von Rosenberg, it is called by the natives "Kaberber." Professor Schlegel has pointed out that the birds from the last-named locality are constantly smaller than those from other places; but Count Salvadori, who has compared large series from all parts inhabited by the species, does not consider that there is any real difference to be seen in the Aru birds.

Great variation takes place also in the size and extent of the white spots on the quills, which appear to vanish entirely on some occasions; and Schlegel mentions a specimen from Waigiou in which the white spot existed on one wing and not on the other; and Count Salvadori has found these white marks largest in young birds, whence he surmises that their disappearance takes place with age.

In the Aru Islands, Mr. Wallace states that both the present species and Erythropitta mackloti quite baffled his Malay hunters; but the little Papuan boys, creeping stealthily through the thick jungle, shot them with blunt prong-headed arrows, and thus procured him many fine specimens. Baron von Rosenberg states that they are most active birds, and are always elevating and depressing the tail like the European Wagtails; during this movement the fine red colour of the belly catches the eye even at some distance. At Wonambai he found both the present bird and Erythropitta mackloti in great abundance, and found the nests and eggs. The nests were rough structures made of grass, mosses, and leaves, and contained three or four white eggs spotted with reddish or ashy grey. The food of the species consists of insects.

Head and neck black; back and wings dark green; lesser wing-coverts light blue; primaries dark

brown, a white spot in the centre of the fourth, fifth, and sixth; tail brownish green; breast light green, with metallic reflections; abdomen black; crissum and under tail-coverts deep red; bill dark brown; feet and tarsi very light brown. Signor D'Albertis records the soft parts as follows:—"Bill black; feet leaden violet-colour, or brownish; eyes black or chestnut-brown." Mr. Wallace gives them as—"Bill black, feet dusky, iris olive-brown." Young birds, according to Count Salvadori, have the head blackish brown, and the green of the back not uniform, the throat greyish, and the lower parts varied with green and greyish brown, the black spot on the abdomen less strongly pronounced, and the red of the abdomen and under tail-coverts pale and feebly indicated.

The accompanying Plate contains two life-size figures.

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MELANOPITTA SORDIDA.

Black-headed Pitta.

Le Merle verd à teste noire des Moluques, Brisson, Orn. ii. p. 319.

Merle des Philippines, D'Aub. Pl. Enl. pl. 89.

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Brève des Philippines, Montb. Hist. Nat. Ois. iii. p. 412.

Turdus sordidus, P. L. S. Müll. Hist. Nat. Anhang, p. 143 (1766).

Turdus brevicauda, Bodd. Pl. Enl. de D'Aub. p. 6.

Corvus philippensis, Gmel. Syst. Nat. i. p. 375 (1788).

Citta melanocephala, Wagl. Syst. Av. Corvus, no. 14 (nec Forst.).

Pitta atricapilla, Less. Traité, p. 394 (nec Müll. & Schleg.).—Temm. Pl. Col. Tabl. Méth. p. 16.—Less. Compl. Buff. 1840, p. 501.

Pitta macrorhyncha, J. E. Gray, Zool. Misc. p. 3.

Brachyurus atricapillus, Elliot, Monogr. Pittidæ, pl. 25.

Pitta sordida, Gray, Hand-l. B. i. p. 295, no. 4359.

Brachyurus sordidus, Elliot, Ibis, 1870, p. 419 (part.).—Sharpe, Trans. Linn. Soc. 2nd ser. Zool. i. p. 331.

Melanopitta sordida, Wald. Trans. Zool. Soc. ix. p. 187.—Tweedd. Proc. Zool. Soc. 1878, p. 949.—Wardlaw-Ramsay, Orn. Works of Marquis of Tweeddale, pp. 352, 411, 639, 657 (1881).

The long list of names given above shows that this species has been the recipient of many different titles; and much confusion has been the result. I think I cannot do better than quote the remarks on the subject given by the late Marquis of Tweeddale in his paper on the Birds of the Philippine Archipelago (Trans. Zool. Soc. ix. p. 188).

"The synonymy of this species is somewhat perplexing, in consequence of Brisson (l. c.) having given a description, applying in all its details to the Philippine bird, to an individual said by him to have been sent to l'Abbéy Aubre from the Moluccas. Montbeillard (l. c.) some years later described seemingly the same bird (and it was figured by D'Aubenton l. c.), but attributed its origin to the Philippines. The difficulty thus caused would probably have remained through all time unsolved had not Le Vaillant, by one of his gratuitous and carping criticisms, unintentionally assisted us. With the view of showing that Buffon was in the habit of describing as good species individuals that had been manufactured by dishonest dealers, Le Vaillant (Ois. de Par. vol. i. p. 106) incidentally alludes to this species. He asserts that the description given by Buffon (Montbeillard) of his 'Brève des Philippines' was taken from a specimen of the 'Brève de Ceylan' (= Corvus brachyurus, Linn.), in which the head of the common Blackbird had been substituted. This example, Le Vaillant says, formed part of the Abbé Aubrey's cabinet; and adds that he purchased it when that collection was sold, and at once discovered the imposition. This story Cuvier (R. A. 1817, p. 356, note 2) repeated on Le Vaillant's authority. Vieillot (Nouv. Dict. p. 358, and Tabl. Méthod. Orn. p. 686) did the same without mentioning his authority. It remained uncontradicted until Wagler (l. c.) showed that Le Vaillant was in error. And Cuvier in the second edition of the 'Règne Animal' (p. 373, note) also corrected Le Vaillant. The statement that Montbeillard described from the specimen in Aubrey's cabinet may be accepted; for it is supported by the collateral evidence of Montbeillard (l. c.), who, in a footnote, remarks that it is the same bird that Brisson made his 57th 'Grive.' As no species of Melanopitta is known to exist in the Moluccas, we are justified in assuming that Brisson and Montbeillard described from the same, a Philippine example, and in regarding their descriptions as having formed the common basis of all subsequent synonyms applied to this Philippine form

With this species has very often been united the Bornean Melanopitta muelleri; but this is quite distinct, M. sordida not having the black patch on the belly which is conspicuous in M. muelleri. The present bird, as far as we know, is entirely confined to the Philippine group, where it is tolerably widely distributed, having been met with in the following islands—Luzon, Negros, Camiguin, Mindanao, Basilan, and Palawan. In the last two localities it was procured by Professor Steere, who writes that it is common in both. "They alight," he observes "on the low stumps and logs in the woods, and emit a curious shrill note at intervals alight," he observes "on the low stumps and logs in the woods, and emit a curious shrill note at intervals alight, but very soon of about a minute. On being disturbed they fly off rapidly and disappear in the jungle, but very soon of about a minute. On being disturbed they fly off rapidly and disappears to have passed. They return to the same spot and commence whistling again directly the danger appears to have passed. They are said by the natives to raise a large heap of leaves and nest on the top of the mound." The are said by the natives to raise a large heap of leaves and nest on the top of the mound. The fact of the discovery of this bird by Professor Steere in Palawan is, as has been pointed out by Mr. Sharpe, fact of the discovery of this bird by Professor Steere in Palawan is, as has been pointed out by Mr. Sharpe, fact of the discovery of this bird by Professor Steere in Palawan is, as has been pointed out by Mr. Sharpe, fact of the discovery of this bird by Professor Steere in Palawan is, as has been pointed out by Mr. Sharpe, fact of the discovery of this bird by Professor Steere in Palawan is, as has been pointed out by Mr. Sharpe, fact of the Bornean Melanopitta muelleri, many of the birds discovered in Palawan being more nearly allied to those of Borneo than to those of the Philippine Islands.

The following note was published by the late Marquis of Tweeddale:—"This species has the black central abdominal patch much more largely developed than in *M. muelleri* of Borneo. In no other respect does it appear to differ. The extent of pure white on the quills is dependent on sex. Of fourteen individuals with the sex noted by Mr. Everett, nine are males and five are females. The primaries of the male have a much greater white surface than is found in the primaries of the female. The 6th, 7th, and 8th primaries are scarcely tipped with black; and the first five primaries have double the amount of white that exists on the primaries of the female. On examining Luzon and Negros examples with the sexes noted by Dr. B. Meyer, the same character differentiates the sexes. In Bornean individuals of *M. muelleri* (sex determined by Mr. Everett) the sexes can be discriminated by the amount of white on the remiges. In *M. cucullata* some of my examples exhibit a maximum of white on the quills, and the others a minimum; but as none have had their sexes determined by dissection, I am unable to affirm that in that species the same law holds good. In two Zamboanga skins the green of the breast and flanks is assuming the blue tint so prominent in the large representative form *M. steerii.*"

Mr. Everett gives the soft parts as follows:—"Iris chocolate; bill black; legs brownish grey."

Head and neck deep black; back, scapularies and tertiaries dark grass-green; lesser wing-coverts shining verditer blue; greater coverts light grass-green; primaries white, tipped with brownish black; spurious wing and base of the secondaries deep black; rump and upper tail-coverts shining verditer blue; tail deep black, slightly tipped with green; under surface of the shoulder black; breast, abdomen and flanks green; centre of the abdomen and under tail-coverts blood-red.

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The front figure is of the natural size, the hinder one somewhat reduced.

ERYTHROPITTA RUBRINUCHA.

Red-naped Pitta.

Pitta rubrinucha, Wallace, Proc. Zool. Soc. 1862, p. 187.—Id. Proc. Zool. Soc. 1863, p. 19.—Id. Ibis, 1864, p. 101.—Finsch, Neu-Guinea, p. 167 (1865).—Schlegel, Nederl. Tijdschr. Dierk. iii. p. 188 (1866).—Gray, Hand-l. B. i. p. 297, no. 4381 (1869).—Schlegel, Mus. Pays-Bas, Revue Pitta, p. 12 (1874).—Salvad. Ann. Mus. Civic. Genova, viii. p. 375 (1876).—Gould, Birds of New Guinea, part vii. (1878). Legge, Birds of Ceylon, p. 687 (1879).—Salvad. Ann. Mus. Civic. Genova, xvi. p. 185 (1880).—Id. Orn. della Papuasia &c. p. 393 (1881).

Brachyurus rubrinucha, Elliot, Monogr. Pittidæ, pl. 18 (1861).—Id. Ibis, 1870, p. 418.

Although bearing a general resemblance to the other red-breasted species of the genus *Pitta*, the present bird possesses such a well-marked character in its red nape-spot that it can be easily distinguished at a glance from all its allies. Another conspicuous and peculiar mark exists in the blue colour on the ear-coverts. It was discovered by Mr. Wallace in the Moluccan island of Bouru, where it has since been met with by the hunters of Mr. Bruijn, who sent four specimens to the museum at Genoa.

Professor Schlegel, in his Review of the Ant-thrushes contained in the Leiden Museum, records a single specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there by Von Rosenberg—a new locality for the species, and specimen from the island of Ceram, collected there is the island of Ceram, collected there is the island of Ceram, collected there is the island of Ceram from the island of Ceram from

Nothing whatever has been written of the habits or mode of life of the Red-naped Pitta, which still remains one of the rarest of the genus. I am indebted to Count Salvadori for the opportunity of figuring remains one of the rarest of the genus. I am indebted to Count Salvadori for the opportunity of figuring remains one of the rarest of the genus. I am indebted to Count Salvadori for the opportunity of figuring remains one of the rarest of the genus. I am indebted to Count Salvadori for the opportunity of figuring remains one of the rarest of the genus. I am indebted to Count Salvadori for the opportunity of figuring remains one of the rarest of the genus. I am indebted to Count Salvadori for the opportunity of figuring remains one of the rarest of the genus. I am indebted to Count Salvadori for the opportunity of figuring remains one of the rarest of the genus. I am indebted to Count Salvadori for the opportunity of figuring remains one of the rarest of the genus. I am indebted to Count Salvadori for the opportunity of figuring remains one of the rarest of the genus. I am indebted to Count Salvadori for the opportunity of figuring remains one of the genus. I am indebted to Count Salvadori for the opportunity of figuring remains one of the genus and I herewith return my hearty thanks for the loan of the Genoa Museum.

I add a short description:—

General colour above olive-green, with a broad scarlet patch on the nape; head chestnut-brown, with a blue patch on the crown; sides of face and throat light reddish grey, the ear-coverts bluish; lower throat blue patch on the crown; sides of face and throat light reddish grey, the ear-coverts bluish; lower throat blackish brown, succeeded by a broad chest-band of pale blue, the rest of the under surface being scarlet; blackish brown, succeeded by a broad chest-band of pale blue, the rest of the under surface being scarlet; primaries black, with a white spot on two or three of them; bill brown; legs light grey.

The sexes are alike in plumage.

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

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ERYTHROPITTA CÆRULEITORQUES.

Red-headed Pitta.

Pitta cæruleitorques, Salvad. Ann. Mus. Civ. Genov. ix. p. 53 (1876-77)—Rowley, Ornithological Miscellany, ii. p. 324, pl. lxiv. (1877).—Meyer, tom. cit. p. 327.—Gould, Birds of New Guinea, part vii. (1878).

In an interesting communication made by Dr. Meyer to Mr. Dawson Rowley's 'Ornithological Miscellany' that gentleman points out the distribution of the red-breasted Pittæ in the Malayan archipelago, and shows how each of the species which I consider should be kept under the heading of Erythropitta in the present work has its own separate area of distribution, however closely they may be allied as species. Thus Erythropitta celebensis is the species of Celebes, E. palliceps of Siao, E. cæruleitorques of Sangi (Sanghir), E. erythrogastra of the Philippines, E. cyanonota of Ternate, E. rufiventris of Batchian and Gilolo, and E. mackloti of Papua and its islands, as well as the northern part of Australia. Many other instances of a similar distribution could be brought forward.

Count Salvadori, in his original description of the present species, writes as follows:—"This species and the P. erythrogastra of the Philippines are the only species of the subgenus Erythropitta which have a blue band on the neck; and P. cæruleitorques differs from the above-named bird principally in the more uniform red colour of the head, which becomes much brighter on the neck, by the absence of the two dull bands on the side of the crown, by the reddish-brown colour of the sides of the head and throat, by the blue colour of the breast being more extended crosswise and separated from the red of the abdomen by a well-marked black band, and by the somewhat larger dimensions."

Dr. Meyer obtained several examples of the blue-ringed Pitta from Sangi, at Tabukan, on the north-east coast of the island, no difference being observable in the colour of the sexes; and I give the following extract from his remarks communicated to the 'Ornithological Miscellany:'-

"This species inhabits the largest island of the Sangi group, and is an interesting one, because it is more closely allied to Pitta erythrogastra from the Philippines in the north than to the two species from islands immediately to the south (viz. Pitta palliceps from Siao, and Pitta celebensis from Celebes), and therefore presents a good example of variation of species in consequence of separated insular habitat. Good examples for the same point of view are, amongst others, Pitta cyanonota from Ternate, and Pitta rufiventris from Halmahera, in their relation to the species from the neighbouring islands (New Guinea, Celebes, the Sangi and the Philippine Islands). Pitta palliceps on Siao is as slightly different from Pitta celebensis on Celebes as Pitta cæruleitorques on Sangi is from Pitta erythrogastra on the Philippines. That insular separation is a reason for such variations is not to be doubted, in my opinion; nevertheless we cannot examine this subject more closely at present. Pitta celebensis, for instance, does not show the least difference over the whole extent of the island of Celebes. My specimens from the neighbourhood of Makassar resemble exactly those from Manado (nearly the north and south points of this long island); whereas when we cross over to the closely neighbouring island of Siao, immediately a variation appears in Pitta palliceps. Whether this variation has specific value or not is of no importance at all upon this part of the question. Authors do not agree, and never will agree, at least for some time to come: one says it has, the other says it has not; but all see that a difference exists; and this is of value, notwithstanding its smallness, because it is a constant one. That insular separation does not always produce constant differences is known; and I only mention it here for this reason—that it refers to a closely allied species, Pitta macklotii. I got a large series of specimens on New Guinea in different places, viz. at Dorè, Andei, Passim, Inwiorage, Rubi, and on the Elephant Mountains, and some on the island of Jobi in the north of Geelvink Bay. I first thought that the Jobi specimens differed by brighter colours in general, and noted this difference in my diary; but now, in the cabinet, I do not see the slightest difference from several of the New-Guinea specimens."

The following description is a translation of the original one given by Count Salvadori:— Head above red, the latter colour perceptibly brighter towards the hind neck; sides of head and throat brownish red; a very broad patch of black on the lower throat; a blue band round the hind neck, another very broad one on the breast, the latter succeeded by a band of black; the wings, upper tail-coverts, and tail bluish lead-grey; back, scapulars, and sides of breast olivaceous; abdomen and under tail-coverts very bright red; tips of the longer under tail-coverts blue; primaries marked in the middle with a white spot; a white spot near the bend of the wing; bill and feet dusky.

I owe the opportunity of figuring this species to the kindness of two friends, Count Salvadori and Mr.

George Dawson Rowley, both of whom lent me their specimens.



ERYTHROPITTA CELEBENSIS.

Celebean Pitta.

Pitta celebensis, Müller & Schlegel, Verh. nat. Geschied., fol., Zool. Pitta, fol., p. 18, no. 16 (1839-44, ex Forster MS.).—Gray, Genera of Birds, i. p. 213 (1846).—Westerman, Bijdr. tot de Dierkunde, folio, i. p. 46, Plii. (1848-54).—Wallace, Ibis, 1860, p. 142.—Schlegel, Mus. Pays-Bas, Pitta, p. 6 (1863).—Id. Hand-list of Birds, i. p. 296, no. 4377 (1869).—Schlegel, Mus. Pays-Bas, Revue Pitta, p. 105.—Gray, Salvad. Ann. Mus. Civic. Genov. vii. p. 663 (1875).—Meyer in Rowley's Ornith. Misc. part viii. (1877).—Gould, Birds of Asia, part vii. (1878).

Brachyurus celebensis, Bonap. Consp. Gen. Av. i. p. 253 (1850).—Elliot, Monogr. Pittidæ, pl. xvii. (1863).—Id.

Erythropitta celebensis, Bonap. Consp. Volucr. Anisod. p. 7 (1854).—Walden, Trans. Zool. Soc. viii. p. 62 (1872).

—Meyer, Ibis, 1879, p. 126.—Wardlaw-Ramsay, Orn. Works of Marquis of Tweeddale, p. 164

I have already, in one of my other articles, spoken of the distribution of the red-breasted Pittas in the Malay archipelago; and below I quote the remarks of Dr. Meyer on this subject; I therefore need only say that the present species is the representative of that section of the genus on the island of Celebes, to which it appears entirely restricted. It is true that, in his Review of the Pittas contained in the Leiden Museum, Professor Schlegel enumerates several examples from the island of Siao in the Sanghir archipelago; but these no doubt belong to the species since named Pitta palliceps by the late Dr. Brüggemann. Certain Siao the rufous colour of the head is paler than in examples from Celebes, and often replaces the black bordering the blue stripe on the head.

Mr. Wallace found the species scarce in Northern Celebes, which appears to be the only part of the island where it has yet been found. I may be mistaken in this, as the localities Modélido, Négri-lama, and Boné, mentioned in the list of specimens at Leiden, do not occur in any of the maps I have examined. The other places, however, Menado, Gorontalo, and Tondano are situated in the northern part of Celebes; and Dr. Beccari, although he collected at Buton, in the south-west corner of the island, only met with this Pitta at Kema, in the north. The presumption, at least, is, that, even if it is found all over the island, it is more abundant in the northern portion.

Count Salvadori mentions that the specimen shot by Dr. Beccari at Kema had the outermost of the smaller wing-coverts close to the bend of the wing marked with white—a feature not previously noted or figured in the plates of the species which have at present appeared.

Dr. Meyer has published the following note:-

"Although the red-breasted Pitta of Celebes is not so difficult to procure as the black-headed, it is nevertheless a bird which it is not easy to get a shot at, being very quiet in the daytime, and seldom calling except in the morning and evening its traviii tehui. In the evening the cry oppo (origin of the native name) is heard, with which male and female call one another, the note sounding melancholy and protracted. 'Oppo' means, in the language of the country, 'grandfather;' and the natives tell a tale, that once a child had gone with its grandfather into the forest, got astray, and was transformed into a bird, which now always calls for its grandfather. Pitta celebensis only runs on the ground, and is very shy and watchful; it glides noiselessly through the leaves; and, as its back is green, it can only with difficulty be detected. To approach it one must creep through the densest bushes; and without imitating the call of the bird its pursuit would be in vain; but if the hunter imitates the cry, he can draw the bird almost to the muzzle of his gun. During the daytime they go singly, in the evening in pairs together. The nest is to be found in brushes, near small pools. The bird digs a hole in the slope of the river-bank, and builds its nest therein, of wood and leaves, lined with cotton or hairy-plant materials (for instance, from Arrenga saccharifera, Lab.). It lays two eggs. If the female sits on the eggs, the male watches in the neighbourhood, and he takes the place of the female when she goes for food. This Pitta feeds on beetles, small caterpillars, &c."

The soft parts are noted by Mr. Wallace to be as follows in freshly killed specimens:—"Bill blackish-horny; feet dusky lead-colour; iris pale olive."

The figures in the Plate are of the size of life, and are drawn from examples in my own collection.

[R. B. S.]



IRIDIPITTA BAUDII.

Red-backed Pitta.

Pitta baudii, Müll. & Schleg. Verh. natuurl. Gesch., fol., Zool. Pitta, pp. 10-20, pl. 2 (1839-44).—Gray, Gen. B. i. p. 243 (1846).—Low, Sarawak, p. 410 (1848).—Schl. Handl. Dierk. i. p. 253 (1857).—Id. Vog. Nederl. Ind., Pitta, pl. 5, figs. 1 & 2 (1863).—Id. Mus. Pays-Bas, Pitta, p. 5. (1863).—Wall. Ibis, 1864, p. 107.—Gray, Hand-list of Birds, i. p. 296, no. 4374.—Salvad. Ucc. Born. p. 243, no. 254.—Gould, Birds of Asia, part xxix. (1877).

Brachyurus baudii, Bp. Consp. i. p. 255 (1850).—Elliot, Monogr. Pittidæ, pl. xxii. (1863).—Id. Ibis, 1870, p. 419. Iridipitta baudii, Bp. Consp. Volucr. Anisod. p. 7 (1854).

This is a very rare bird in collections, and, as far as we know at present, is confined to the northern part of the island of Borneo. Thus the female example figured in the Plate was the first adult bird of that sex ever procured, having been obtained by Mr. Hugh Low on the Mengalong river in North-western Borneo; and more recently I have seen quite a series obtained by Mr. W. B. Pryer in Sandakan on the north-east coast of the same island; but its scarcity in Museums proves beyond a doubt that it is a rare bird.

Good figures of the species are given in Professor Schlegel's illustrations to the species of *Pitta* found in the Dutch East Indies; but the picture in Mr. Elliot's 'Monograph of the Pittidæ' is not quite so satisfactory, as the bird is there represented with a conspicuous white band across the lower rump, and the white band on the wing is also different from that of any specimen examined by me. As the bird from which this illustration was drawn is stated to be in the Museum of the Philadelphia Academy, I hope that some naturalist will re-examine it on some future occasion.

I add a full description of both sexes of this Pitta:—

Adult male. Crown of head and nape brilliant cobalt blue; lores, feathers round the eye, sides of head, ear-coverts, and sides of neck black, bordering the blue crown for its entire extent, the lower feathers at the sides of the neck purple, tipped with red where they adjoin the mantle; back and scapulars red, somewhat washed with sandy brown on the scapulars, rump, and upper tail-coverts; the lower tail-coverts bright cobalt, with a mesial streak of black; tail deep blue, black below; wing-coverts black, the median series tipped with white, forming a diagonal bar across the wing; quills blackish brown, the innermost secondaries externally sandy brown, the outermost of the latter tipped with white, forming a second bar across the wing; cheeks, throat, and sides of neck white; fore neck and breast black, the rest of the under surface purplish blue, shaded with richer purple on the sides of the body; thighs ashy white; under wing-coverts black, the axillaries tipped with white; lower surface of quills blackish brown; bill black; feet pale yellowish.

Total length 6.5 inches, culmen 0.85, wings 3.4, tail 1.75, tarsus 1.4.

Adult female. Above red, the head dull ochraceous brown; sides of face and under surface of body ochraceous brown, paler and inclining to buff on the abdomen; the sides of the neck washed with the same red as the back; under tail-coverts blue, slightly washed with ochre on the margins; wing-coverts as in the male, but browner and having the white bar across the wing slightly tinged with ochre; quills blackish, the inner secondaries dull sandy brown, the outer secondaries ochraceous towards the tips; upper tail-coverts bright cobalt; tail deep blue.

Total length 6 inches, culmen 0.9, wing 3.55, tail 1.6, tarsus 1.5.

The figures in the Plate represent two adult males and a female, of the natural size. One of them, a fine male, is in my own possession, and was received in exchange direct from M. Temminck. The female, collected by Mr. Hugh Low, is now in the collection of the British Museum.



GIGANTIPITTA CÆRULEA.

Large Blue Pitta.

Myiothera cærulea, Raffles, Trans. Linn. Soc. xii. p. 301 (1821).

Pitta gigas, Temm. Pl. Col. p. 217 (1823).—Less. Traité d'Orn. p. 394 (1831).—Müll. & Schleg. Verh. nat. Gesch., fol., Zool. Pitta, p. 14 (1839-44).

Pitta cærulea, Vigors, Mem. Raffles, App. p. 659 (1830).—Gray, Gen. B. i. p. 213 (1846).—Blyth, Cat. B. Mus. As. Soc. p. 156 (1849).—Moore, Proc. Zool. Soc. 1854, p. 273.—Horsf. & Moore, Cat. B. E.I. Co. Mus. i. p. 181 (1854).—Schleg. Vog. Nederl. Indië, Pitta, p. 2, pl. i. figs. 1–3 (1863).—Wall. Ibis, 1864, p. 108.—Gray, Hand-l. B. i. p. 296, no. 4368 (1869).—Gould, Birds of Asia, pt. xxx. (1877).—Hume & Davison, Str. F. 1878, pt. 1, p. 238.—Hume, Str. F. 1879, p. 59.

Brachyurus cæruleus, Blyth, J. A. S. Beng. xvi. p. 153 (1847).—Bp. Consp. i. p. 253 (1850).—Elliot, Monogr. Pittidæ, pl. 1 (1863).—Id. Ibis, 1870, p. 412.—Hume, Str. F. 1875, p. 321.

Gigantipitta cærulea, Bp. Consp. Volucr. Anis. p. 7 (1854).

Brachyurus davisoni, Hume, Str. F. 1875, p. 321 (note).

Since this species was first discovered in Sumatra by the late Sir Stamford Raffles, our knowledge of its habitat has increased only by slow degrees—so much so that even as lately as the year 1874 Professor Schlegel stated that it was confined to the island of Sumatra; nor did Mr. Elliot acknowledge any other locality for the species. As early as 1854, however, Mr. Frederick Moore had included it in the list of Malayan birds collected by Dr. Cantor; and we have on several occasions seen specimens in consignments from Malacca and Singapore. Mr. Hume has duly included it in his list of the birds of the Malayan Peninsula; and we have no doubt that it ranges up the whole of the last-named country into Tenasserim. It is true that Mr. Hume has provisionally named the bird from the latter locality Brachyurus davisoni; but we cannot see from his descriptions that it is really distinct from the true P. cærulea of Sumatra and Malacca. It was procured by Mr. Davison at Bankasoon; and he records it as a rare visitant to the evergreen forests of the southern extremity of the province of Tenasserim. He also gives the following note:—" I first obtained this species on the 26th March in the evergreen forests of Bankasoon, two males on the same day: one I found caught in one of my traps in the morning; the second I shot as it was hopping along the forest path the same evening. For a couple of months previously I had daily been exploring these forests, but had never met with the bird; and it is my belief that they had then only just arrived. From this time up to my departure from Malewoon, in July, I on several occasions saw the bird; the most northern point at which I observed it was near the village of Laynah, on the 16th of May. The next year, in April, I shot a third male at Bankasoon, and in May we obtained our first female. They are extremely shy, and not at all like the other Pittas. Directly they catch sight of you they rise, flying low but rapidly, and not alighting under 200 or 300 yards, when, of course, in the dense forests, where alone they occur, all trace of them is lost. They doubtless must call; but I have never heard their note to distinguish it. My specimens had fed entirely on large black ants."

Assuming, therefore, that the *Pitta davisoni* of Hume is identical with the true *P. cærulea*, we have the range of the latter bird extending from Southern Tenasserim, down the Malayan peninsula, to Sumatra, a habitat which is perfectly intelligible and is followed out by many other species of birds; nor is there any thing surprising in the fact that it should be met with in Borneo, which we now know to be the case; for we have recently seen examples of both sexes, collected by Mr. W. B. Pryer in Sandakan, in the northeastern portion of that island. On comparing these Sandakan birds with others from Malacca, we found them to be perfectly identical; and there is therefore every probability that this large Pitta, like so many others of its congeners, is a migratory bird, whose breeding-place is probably in Sumatra.

Independently of its large size and peculiar coloration, the present species differs from most of its allies in having the sexes differing from one another; and although this is by no means the only case within the limits of the family, it is decidedly the exception rather than the rule.

A detailed description of the species is unnecessary, as the adult birds are easily recognizable. The young bird, however, is somewhat different; and I transcribe Salomon Müller's account of the capture of one in Sumatra, as translated from his great work on the Dutch East Indies by Mr. Elliot:—"In the month of June, 1834, in Sumatra, not far from the base of the mountain Singalang, in a dark retired valley which was entirely covered with a thick undergrowth, we saw a young male. He was sitting on the dead branch of a low tree, and was not in the least shy; the mellow reddish mouth and the peculiar softness of his feathers showed that he had not yet attained his first moult. The deep blue hue which adorns the older birds was in this specimen entirely wanting, with the exception of a slight indication on

the tail. Those portions which in the adults assume the blue livery were with him of a dark yellowish brown, still darker towards the wings; and the lower parts, which are of a deep yellow colour, were with this young bird dirty yellow, towards the breast mixed with yellowish white and blackish brown. The same distribution of colours is observed among the feathers of the head and shoulders; the yellow becomes much clearer towards the sides of the head, with a rose-coloured tint near the throat. The bill, which is black in the adult, was in this one almost transparent, and of the colour of horn. The black colour was entirely wanting; but the black line behind the eye was clearly observable."

In the Plate I have represented the adult male and female, of the natural size. Mr. Hume says that in the male the legs and feet are bluish fleshy or dark fleshy, tinged with pale plumbeous, the bill black, the

inside of the mouth white, the eyelids and gape very dark fleshy, and the irides hazel-grey.

PHŒNICOCICHLA USSHERI.

Ussher's Pitta.

Pitta ussheri, Sharpe, Proc. Zool. Soc. 1877, p. 94.—Id. Ibis, 1879, p. 263.—Gould, Birds of Asia, pt. xxix. (1877).—Sharpe, Proc. Zool. Soc. 1881, p. 798.

Since I published my figure of this fine species in the 'Birds of Asia,' the gentleman who discovered this beautiful Pitta, and in whose honour it was named by Mr. Bowdler Sharpe, has passed away. Governor Ussher, when a young man, served on the Gold Coast, where he stayed for nearly sixteen years; and during the whole of this time he was interesting himself in the study of natural history, though for the greater portion of it he was engaged only in collecting insects, many fine species of which were sent home by him to his friend Mr. Andrew Swanzy. A letter which Mr. Sharpe wrote to him, calling his attention to the comparatively unworked field for natural history in the interior of the Gold Coast, induced him to study the ornithology of Denkera and the inner provinces, by means of native collectors; and with such success did he persevere, that in the space of two years he had formed a complete collection of the birds known to occur there up to the year 1869, while at the same time he sent home many splendid novelties. After leaving the Gold Coast, he was for a short time Governor of Tobago, and then became Governor of Labuan. While in the West Indies his ill-health prevented his collecting much; but when in Borneo he recommenced with all his old energy, and sent over to England exhaustive collections from the island of Labuan itself, as well as from the Lawas river, which he diligently explored, chiefly in the hope of getting living specimens of Bulwer's Pheasant. A full description of these collections was given by Mr. Sharpe in 'The Ibis' and in the 'Proceedings of the Zoological Society' for 1879. His failing health obliged him at last to quit Labuan for England, where he recovered his strength considerably, and he was, to his great delight, appointed by Mr Disraeli's government to the Gold Coast, for which he set out as Governor in 1879. During his absence from West Africa, the seat of government in that quarter of the globe had been changed from Cape-Coast Castle to Accra; and in the neighbourhood of the latter town the country is more open, and the fauna resembles that of Senegambia rather than that of the rich forest districts to be found inland from the former town. He managed, however, by means of his collectors, to form a considerable collection in Denkera, while he himself worked at the avifauna of his own immediate neighbourhood; and he was about to return to England in December last in the S.S. 'Lualaba' to recruit his health: but it appears that he had delayed his return too long; for he died the day before the arrival of that vessel at Accra. Such is a brief outline of the career of one of England's best colonial governors; and it only shows what material aid to science can be given by an energetic and intelligent official in a foreign country. In the case of Governor Ussher, his loss is mourned not only by the country which he served so well, but also by the English community of natural historians for whom he has done so much successful work.

Ussher's Pitta was discovered by him during his exploration of the Lawas river in North-western Borneo, where it was also met with by Mr. Treacher. It has more recently been procured by Mr. W. B. Pryer in Sandakan, in the north-eastern portion of that island. It is closely allied to *Pitta venusta* of Java; but it is distinguished at once from that species by its black colour washed with purple above, as well as by the throat and chest being of the same purplish black; the enamel-like blue markings on the wing are also very much larger and brighter.

The following is a careful description of the typical example:—

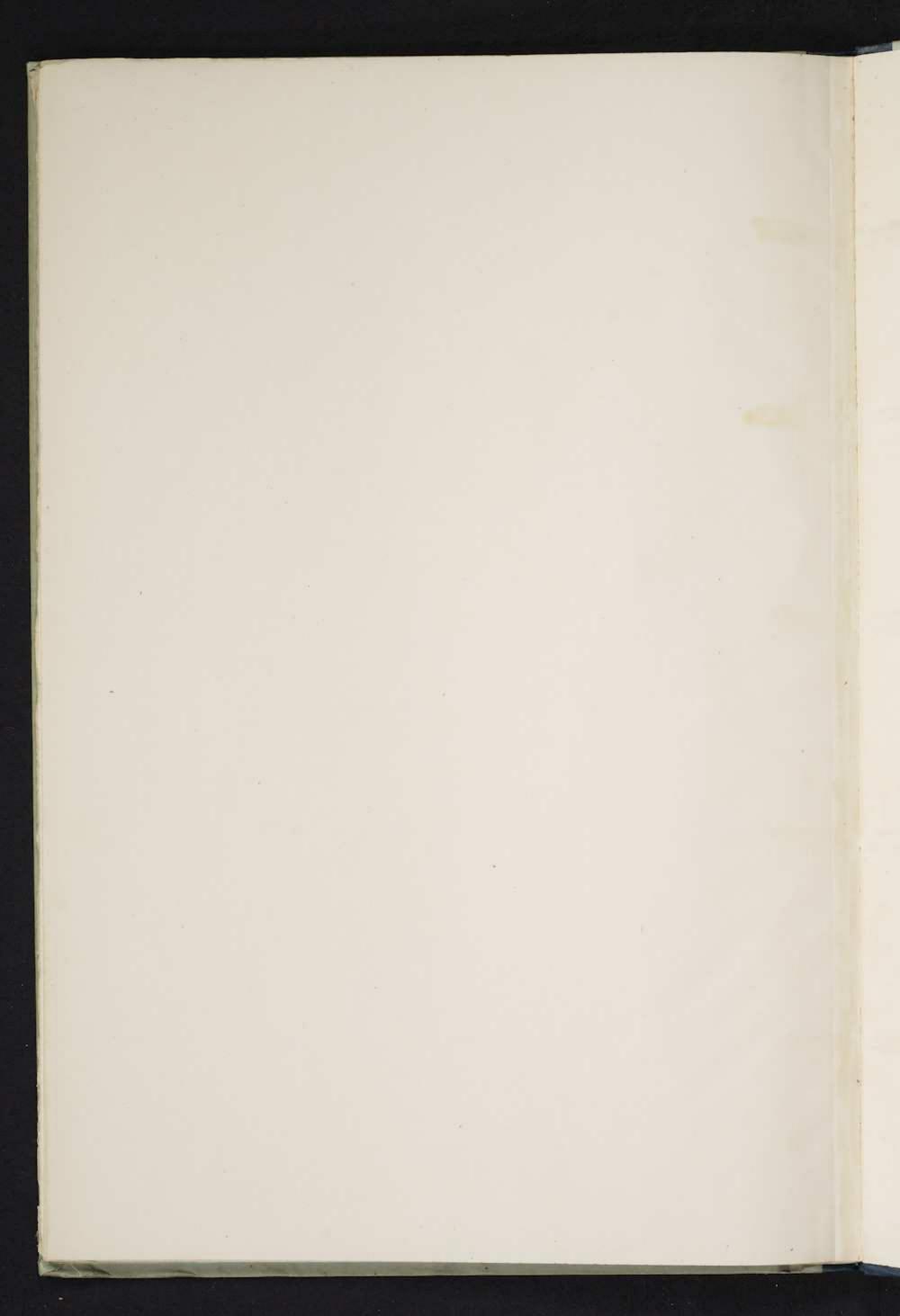
General colour above black, with a distinct shade of purple everywhere except on the head, which is glossy black, as well as the lores and sides of the face; from above the eye to the nape runs a distinct superciliary streak of pointed feathers, silvery cobalt in colour, slightly shaded with purple on the hinder plumes; wings blue-black, the median and greater coverts bright cobalt at the tips and on the outer webs, forming an enamel-like patch on the wing; quills black, the inner secondaries externally deep blue; tail deep blue; throat and chest black, the latter strongly washed with purple, shading into the crimson of the breast; rest of the under surface of the body deep crimson; thighs brown; under wing-coverts black.

Total length 6.8 inches, culmen 0.85, wing 3.45, tail 1.3, tarsus 1.6.

The figures in the Plate represent the old bird in two positions, as well as a nestling which I discovered in my own collection, and which doubtless belongs to this species. The figures of the adult are drawn from the typical specimen.







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