

feather the notches are white. Coverts generally uniform, but some feathers of median series with large white patches on outer webs. Tail about the same as back with about eight irregular and almost obsolete cross bars. The short plumulaceous feathers below and behind the eye are finely mottled with pale cinnamon, brown, and whitish. Behind ear the feathers of incomplete ruff broadly tipped with blackish brown forming a prominent dark band on side of head. Bristly feathers of lores whitish at bases; tips blackish brown; the longest about 0.80 of an inch; anterior bristles pale cinnamon. Tarsi feathered to bases of toes. Bill, cere, and feet dirty brown; nails, horn brown; irides, yellow. Total length, 9.25 inches; wing, 6.68; tail, 3.25; culmen, 0.89; tarsus, 1.38; middle toe with claw, 1.30.

Type.—No. 2185, adult female, light phase. Philippine Museum Collection. Cuyo Island. Paragua Province, P. I. Collected March 5, 1903, by R. C. McGregor and A. Celestino.

Not essentially different from male, but white notches on primaries and bastard wing with a cinnamon wash. Total length, 9.25 inches; wing, 6.90; tail, 3.27; culmen (tip broken), 0.83; tarsus, 1.38; middle toe with claw, 1.26.

No. 1912, January 12, 1903, red phase.—The pattern of coloration is the same as in the light phase; white and whitish markings nearly all replaced by rufous; chin and upper throat and modified feathers below and behind eye almost clear rufous; blackish brown markings on breast very wide. A few whitish bars on abdomen and flanks.

I have been unable to define the specific characters for this owl, as we have on hand none of the other species except *O. longicornis*, with which of course this has nothing to do. Dr. Richmond, who examined specimens, writes: "Apparently new. Does *not* belong to the *lempigi* group, but more inclined to the *menadensis* style of coloration." This bird is abundant on Cuyo and is known as "bu-caó." The female type was flushed from the end of a hollow horizontal limb where she probably had a nest with eggs, as the ovary contained one egg soon to be deposited. I greatly regretted that we had to leave Cuyo the next day and were thus unable to get the eggs.

OTUS CALAYENSIS, new species.

Type.—No. 4058, adult male, light phase. Philippine Museum Collection. Calayan Island, P. I. Collected December 15, 1903, by R. C. McGregor and A. Celestino.

Description.—Lower parts dark cinnamon finely mottled with brown and white, a few feathers on throat and breast with dark-brown shaft stripes or spots; abdomen, flanks, and under tail coverts extensively white with very little cinnamon and the brown mostly reduced to fine speckles; thighs and tarsi cinnamon with cross lines of dark brown. Upper parts dark rufous finely mottled with blackish brown, producing

a rather uniform coloration; lores, continuous with a line above eyes, white; tips of nasal and loreal bristles dusky brown or cinnamon, the longest about 0.80 of an inch. Modified feathers of ear-coverts and below eye finely speckled with white and dark brown; behind this the incomplete ruff forms a conspicuous rufous band along side of head, but most of the feathers tipped with dusky brown. Feathers of "horns" dark rufous with irregular blackish spots toward tips. Wings coverts and scapulars about same as back, some of latter with a large white area on outer web. Exposed surface of quills and tail similar and a little lighter than back; tail crossed by several irregular lighter bars. Quills dusky brown; outer webs of outer primaries notched with pale cinnamon; inner webs of quills crossed by pale cinnamon bars which become very wide on secondaries. Tarsi feathered nearly to toes. Bill, feet, and nails brown, the feet with a slight green wash; irides bright yellow. Total length, 8.50 inches wing, 6.66; tail, 3.35; culmen, 0.84; tarsus, 1.23; middle toe with claw, 1.13.

Type of female.—No. 4077, Philippine Museum Collection. Calayan Island, P. I. Collected January 2, 1904, by R. C. McGregor and A. Celestino. In every way similar to the male. Total length, 8.00 inches; wing, 6.48; tail, 3.20; culmen, 0.83; tarsus, 1.24; middle toe with claw, 1.12. In the red phase the white markings except a few bars and freckles on abdomen and flanks are replaced by rufous.

This species is common enough on Calayan, but like all the small owls rather difficult to obtain. We took a pair in the light phase and a pair in the red phase of plumage. They were often heard calling in the woods and one flew into our house early one morning. Known to the natives as "cok-cok babuy," or pig owl, from a notion that it follows the wild hogs. Its call may be written "cok-cok," but *Ninox*, to which the natives apply the name "cok-cok," was silent except for a low chattering as it flew goatsucker-like after beetles. *Otus* was often found about houses near the forest. Its food was beetles and locusts.

EURYSTOMUS ORIENTALIS (Linn.).

Abundant on both Calayan and Fuga. Known as "ta-ga-tac."

ALCEDO ISPIDA Linn.

Rather scarce along the beach and rivers of Calayan. The native name given me for this kingfisher is "ma-min-di'-ta." *Ceyx* is lacking on Calayan.

HALCYON COROMANDUS (Latham).

More common on Calayan than on any other island we have visited. This species was found in deep woods and thickets, where it fed upon land mollusks and small land crabs. Known as "sa-luc-sac."

HALCYON CHLORIS (Bodd.).

Seen on Fuga only.

HALCYON LINDSAYI (Vigors).

One of my hunters killed a male of this species at his home in Silang, Cavite Province, Luzon, and brought it to Manila.

MEROPS BICOLOR Bodd.

Several seen on Fuga.

CAPRIMULGUS JOTAKA Temm. and Schl.; Bourns and Worcester, Minn. Acad. Sci., Oc. Papers, vol. 1, p. 42 (Palawan).

One female from Calayan, where it is extremely rare and shy. In Bulletin No. 1 I described the female plumage of *Caprimulgus griseatus*. I have now received from Mr. William Eagle Clarke his fourth paper on Negros birds and find that he had already described this plumage.

SALANGANA¹ MARGINATA (Salvad.).

Collocalia marginata MCGREGOR, Bull. Phil. Mus., No. 1, p. 9; *ibid*, No. 3, p. 9.

This little swift, previously believed to be extremely rare, was abundant on Calayan during our entire stay. During the stormiest weather it was feeding for many hours and often in company with the smaller swallows. If the weather was calm large parties of swifts hawked high about the trees or played among the tree tops, occasionally turning a somersault with no apparent reason. At other times, when the wind was strong off shore, they were found hunting low near the beach, thus securing the protection of a thick fringe of trees which grew just above high water. During such times it was an easy matter to get near them, as they had little fear. I caught one with a butterfly net on a stormy day. Two were brought me alive which were said to have entered houses. Local name, "nido"; also called by some "sá-lum-pi-ping-aú," but the latter name refers more strictly to the various species of *Hirundo*.

In September most of the birds had the first primary but partly grown and this is true of a few up to the middle of November or later. Specimens with flesh-colored feet, which I take to be young of the year, do not differ from the adult in plumage, nor is this peculiar, for the nestling of *S. linchi* is almost exactly like the adult. In these two species a single plume grows from the upper side of the hind toe, the tip of the plume reaching about middle of claw.

Measurements of Salangana marginata.

No.	Sex.	Locality.	Date.	Wing.	Tail.
3383	Male	Calayan	Sept. 29	4.12	1.59
3465	do	do	Oct. 4	4.03	1.56
3503	do	do	Oct. 7	4.03	1.66
3724	do	do	Oct. 25	4.20	1.80
3944	do	do	Nov. 19	4.08	1.59
3235	Female	do	Sept. 24	4.10	1.63
3464	do	do	Oct. 4	4.15	1.63
3505	do	do	Oct. 7	4.00	1.64
3671	do	do	Oct. 17	4.04	1.65
3913	do	do	Nov. 15	4.06	1.60

¹ *Salangana*, Geoffr. St.-Hilaire. Cf. Richmond, Proc. U. S. N. M., Vol. XXV, p. 301.

CHÆTURA, species.

Large swifts were seen a few times on both Fuga and Calayan. During a heavy rain I saw a party flying low, but to my disgust they all took to the hills before I could come within range.

TACHORNIS INFUMATA (Scl.); McGregor, Bull. Phil. Mus., I, p. 5
(Ticao).

During a recent trip to Anao, Tarlac Province, we were fortunate in killing a bird of this species. A few others were seen, but it was by no means common. This fork-tailed swift is now recorded from Luzon for the first time.

EUDYNAMIS MINDANENSIS (Linn.).

Occurs on Calayan in same localities as the following species, but is much less common. The two species are known to the natives as "tu-aoó." Probably occurs on Fuga also, but during our short stop there we got samples of the larger species only.

There seems to be much variation among the females of this species as stated by Captain Shelley (Cat. Bds., XIX, p. 317). None of our female specimens is barred with white on upper tail coverts and tail as described by Shelley and they are probably young birds. However, that the very young female bird is black there is no doubt, as our series from Calayan contains females in which the black and spotted plumages are variously mixed. For example, a female taken October 2 has seven tail feathers uniform black and three tail feathers black barred with rufous buff. The uniform feathers are evidently of the old plumage. We have others in which the wings and body feathers show similar mixtures.

Whitehead got one male *Eudynamis* on Fuga which Grant was unwilling to refer to any described species, pointing out, however, that it was larger than *E. mindanensis*. On Calayan we found both large and small birds of this genus, the large ones being by far the more common. For this species I propose a new name.

ENDYNAMIS FRATER, new species.

Eudynamis sp. inc. GRANT, Ibis, 1896, p. 125 (Fuga).

Eudynamis mindanensis WHITEHEAD, Ibis, 1899, p. 394 (Fuga).

Specific characters.—Similar to *E. mindanensis* (Linn.), but much larger, the female more nearly uniform black above and with head more rufous.

Type.—No. 3697, male, Philippine Museum Collection. Calayan Island, Babuyan, P. I. Collected October 22, 1903, by R. C. McGregor and A. Celestino.

Description.—Entire plumage glossy blue-black. Bill dusky greenish; irides crimson; legs and feet dark steel blue; nails brown. Total length, 19.25 inches; wing, 9.52; tail, 9.34; exposed culmen, 1.24; bill from nostril, 0.87.