

Habitat.—Atlantic slope of tropical America, from Brazil to Vera Cruz, Mexico (perhaps to southern Texas); west through Amazon Valley to eastern Peru.

The type of *C. burrovianus* and the typical example of *C. urubitinga* compare in measurements as follows:

		Wing.	Tail.	Culmen.	Head.	Length of nostril.	Width of nostril.	Tarsus.	Mid. toe.
Type of <i>C. burrovianus</i> .	Vera Cruz, Mexico.	18.50	8.60	.80	3.20	.50	.30	2.40	2.20
Typical " <i>C. urubitinga</i> ."	Brazil (Natterer coll.)	18.50	8.50	.88	3.40	.52	.32	2.20	2.15

ON ONYCHOTES GRUBERI.

By ROBERT RIDGWAY.

With the single exception of *Buteo cooperi*, Cass., no alleged North American hawk has been so much a puzzle to ornithologists as the species described under the above name. The type specimen was received by the Smithsonian Institution in 1866 from F. Gruber, a San Francisco taxidermist, and was labeled "*Buteo fuliginosus*, California." This specimen was described as a new genus and species, in the "Proceedings" of the Philadelphia Academy of Sciences for December, 1870 (p. 149) and again in *History of North American Birds*, vol. iii, p. 254; in the latter case the description being accompanied by a full-length wood-cut. In November, 1872, there was removed from the Land office Department of the Patent Office building, in Washington, to the Smithsonian Institution, a collection of forty-five mounted birds, for the most part North American species, and, with one or two exceptions, unlabeled. There were altogether 38 species, of which 29 were common North American birds, 8 well-known tropical American species, and the remaining one a hawk, which was subsequently identified as *Onychotes gruberi* in the light phase of plumage. This specimen was described in *Rod and Gun* (newspaper, West Meriden, Conn.), vol. vi, No. 5, May 1, 1875, p. 65. In the "Bulletin" of the United States Geological and Geographical Survey of the Territories, vol. ii, No. 2, April 1, 1876, pp. 134, 135, both specimens were redescribed.

Having a suspicion that *Onychotes gruberi* might possibly be identifiable with some Old World species, the two specimens were, with the consent of the Director of the National Museum, sent to Mr. J. H. Gurney for examination, and while in his hands were inspected by other leading English ornithologists, none of whom could identify them with any other known species. Mr. Gurney published some observations on these specimens in the *Ibis* for July, 1881, pp. 396-398, illustrated by a colored plate (Pl. XII) showing both examples.

After having thus passed the test of examination by the best authorities, there seemed no further reason to doubt the validity of the species,

although the question of habitat was still involved in much uncertainty. The matter therefore remained quiescent until a colored plate of *Buteo solitarius*, Peale, a Sandwich Island species, published with the report on the birds of the Challenger Expedition (Zoology, vol. ii, Part VIII, Report on the Birds; 1881), struck me as bearing a very remarkable resemblance to the light-colored example of *Onychotes gruberi*. This renewed my suspicions, and led to the further investigations on which this paper is based. The type of *B. solitarius*, belonging to the Philadelphia Academy of Natural Sciences, was, through the courtesy of the officers of that institution, borrowed for comparison, and I am thereby enabled to offer the following remarks as throwing more light upon the subject.

I. The plate of *B. solitarius* in the report of the "Challenger" Expedition, the description there given of the same specimen, and that of another example forming part of the same collection given by Mr. Gurney on pp. 141, 142 of his "List of the Diurnal Birds of Prey" (1884), agree far more closely with the light-colored example of "*Onychotes gruberi*" than with the type of *B. solitarius*. In fact, the plate referred to is in some respects a better representation of the *Onychotes* than that of the latter given in the Ibis!

II. There being a very close correspondence in all essential characters between the two "Challenger" specimens of *B. solitarius* and the two examples of *O. gruberi*, scarcely any doubt can exist as to their specific identity, whatever may be their relationship to the true *B. solitarius*.

III. The type specimen of *B. solitarius*, while differing considerably in plumage and slightly in proportions from any of the four examples referred to above, is yet not sufficiently different to preclude the possibility of specific identity; while, on the other hand, the many points of similarity strongly suggest the probability of such relationship.*

Waiving the question of the localities where the examples of *Onychotes gruberi* were obtained, I think that the above evidence will justify the

* The measurements of the five known species are as follows:

Species.	Wing.	Tail.	Culmen.	Bill along gape.	Tarsus.	Bare part of tarsus.	Middle toe.	Middle claw.	Inner claw.	Hind claw.
1. <i>B. solitarius</i> (type).....	12.25	7.20	1.07	1.55	3.00	1.60	1.60	.87	1.05	1.10
2. <i>B. solitarius</i> (Challenger specimen).....	12.00	7.20	1.10	1.50	2.80	.....	1.70	.80	.....	.....
3. <i>B. solitarius</i> (Challenger specimen).....	11.80	.....	1.10	.....	2.80	.....	1.80	.....	.....	.....
4. " <i>O. gruberi</i> " (type).....	10.10	6.50	0.80	.....	2.70	1.60	1.45	.....	.....	1.00
5. " <i>O. gruberi</i> " (light specimen).....	11.50	7.50	.....	.....	2.80	1.80	1.60	.....	1.00	(+1.00)

Measurements of No. 2 are from the "Challenger" report, cited above, and those of No. 3 from Mr. Gurney's "List of the Diurnal Birds of Prey."

The type of *O. gruberi* is probably a male, and is evidently a young bird. This specimen and the type of *B. solitarius* probably represent the dark and light extremes of plumage, respectively.

view that they are referable to the Sandwich Island species, according to which conclusion the synonymy of *Onychotes solitarius* stand as follows:

***Onychotes solitarius* (Peale) Ridgw.**

Buteo solitarius, PEALE, Zool. U. S. Expl. Exp. Birds, 1st ed., 1848, 62 (Hawaii; type in Mus. Phil. Ac.).—SCL., P. Z. S., 1878, 348; Zool. "Challenger" Exp. Zool., ii, pt. viii, Birds, 1881, 96, pl. xxi.—GURNEY, List Diurn. B. Prey, 1884, 64, 141.

Pandion solitarius, CASS., Zool. U. S. Expl. Exp., Ornithology, 2d ed., 1858, 97, pl. iv.

Poliioëtus solitarius, SHARPE, Cat. B. Brit. Mus., i, 1874, 452.

Onychotes gruberi, RIDGW., Pr. Phil. Ac., xxiii, Dec. 1870, 142, 149 ("California"); in Hist. N. Am. B., iii, 1874, 254 (figs.); Rod and Gun, vol. 6, No. 5, May 1, 1875, 65 ("California?"); Bull. U. S. Geol. and Geog. Surv. Terr., ii, No 2, April 1, 1876, 134; Nom. N. Am. B., 1880, No. 446.—COUES, Am. Nat., v, 1871, 238; Key, 1872, 219, 2d ed., 1884, 553; Check List, 1873, No. 659; 2d ed., 1881, No. 529.—SHARPE, Cat. B. Brit. Mus., i, 1874, 158, footnote ("*grueberi*").—GURNEY, Ibis, 1876, 476; ib. 1881, 396, pl. 12 ("*grueberi*"); List. Diurn. B. Prey, 1884, 71.

The genus or subgenus *Onychotes*, in its new signification, while closely related to *Buteo*, is tenable, with the following diagnosis:

GENERAL CHARACTERS.—Nostril nearly circular, or more properly semi-circular, its upper outline being less curved than the lower, more horizontal, its direction nearly parallel with the commissure of the bill; a cartilaginous tubercle is seen within the nostril in its upper portion. *Outstretched feet reaching to or beyond end of the tail*; tarsus long, nearly twice the length of the middle toe; outer toe decidedly longer than the inner, which reaches the second phalangeal articulation of the middle toe; hind toe shorter than the inner. Scutellation of the tarsi and toes as in the typical *Buteones*, there being a continuous single series of transverse plates on the posterior face of the former; those on the anterior face number 11–12. Claws proportionally large, those of the first and second toes considerably exceeding their digits in length; they are much graduated in size to the outer, which is only half the length of the posterior one; their shape is normally buteonine. A well-developed web between outer and middle toes. Wing short and much rounded, reaching to about the middle of the tail, which is slightly rounded, and more than half as long as the wing. Remiges, 24; rectrices, 12. Third, fourth, and fifth quills longest, and nearly equal; first shorter than eighth, sometimes shortest; second about equal to sixth, or a little longer; outer four with inner webs emarginated. Upper third of the tarsus densely feathered in front and on sides. Loes quite densely covered with strong black bristles, these extending forward so as to cover the entire cere beneath the nostrils. Superciliary shield bare and prominent.

The tarsi are proportionally longer than in *Buteo*, while the toes and claws are much longer, compared with the tarsus, than in the long-legged genera *Urubitinga*, *Leucopternis*, *Asturina*, and *Rupornis*.