cottonwood tree about forty feet in height. The hole was twenty-five feet from the ground, and near the top of the same tree were three similar holes, very probably occupied by the same pair in previous years. The entrance was rather large for the size of the bird. At the bottom of the cavity, about ten inches deep, lay five eggs upon wood dust and a few chips. These eggs were far advanced and measure .91×.72; .90×.73; .93×.71; .93×.73; .91×.73. The male, which was shot, was evidently assisting the female in incubating.

Fort Custer, Montana.

ON A TROPICAL AMERICAN HAWK TO BE ADDED TO THE NORTH AMERICAN FAUNA.

BY ROBERT RIDGWAY.

In "Forest and Stream" for April 14, 1881 (p. 206), I briefly announced the capture, at Oyster Bay, Florida, by Mr. W. S. Crawford,* of a specimen of a small black Hawk, well-known as an inhabitant of Tropical America, but not previously recorded from any portion of the United States; the name Buteo fuliginosus. Sclater, being provisionally adopted for the species. Since the announcement in question was published, Mr. George A. Boardman, of Calais, Maine, has sent me for examination a finely mounted specimen of a Hawk obtained by him on the first of February last at Palatka, East Florida, which proves to be the Buteo brachyurus of Vieillot, a bird having the same range as B. fuliginosus, and by many ornithologists regarded as the light-colored phase of the same species. The question of the relationship of the two forms was referred to in the "Forest and Stream" article as follows:—

"This question of what name the species [i.e. the black specimen obtained at Oyster Bay] should bear is one involving considerable investigation, pending which I will call it, provisionally, Buteo fuliginosus, Sclater. It is a small species, about the size of B. pennsylvanicus, but with longer wings, and of a

^{*} This specimen was presented to the National Museum by Mr. W. H. Collins of Detroit.

uniform black color, like *B. abbreviatus.** It has been considered by various writers to be a dark or melanistic phase of *B. brachyurus*, but in this view I cannot concur, no specimens among many which I have examined indicating that any light color-phase exists; both young and old, though otherwise quite different, being uniform black below as well as above.

"While premising that this bird may be the Buteo fuliginosus of Sclater, it should be remarked that in 'History of North American Birds' (Vol. III, p. 266), I referred this name to B. swainsoni, on the presumption that it was probably based on a small specimen of the latter species in the dark phase of plumage;

but I may have been wrong in this determination."

That this latter conclusion was incorrect seems now quite certain, as the following will show. Having, as previously stated, a suspicion that the Buteo fuliginosus of Sclater might be the small black Hawk usually regarded as a phase of B. brachyurus Vieill., I wrote to Dr. Sclater about the matter, laying special stress upon the following facts: (1) That in the plate of B. fuliginosus there appeared no trace of the white frontlet usually, if not always, observable in the so-called black form of B. brachyurus, and (2) that of the considerable number of specimens of the latter which I had examined the characters were very uniform, giving one the impression of its being, like B. abbreviatus, a species without any light color-phase. The type of B. fuliginosus being in the Norwich Museum, Dr. Sclater applied to Mr. Gurney, the well-known high authority on Raptorial birds, the results of whose investigations I have, through the courtesy of Dr. Sclater, the privilege of giving herewith. Mr. Gurney writes : -

"I have consulted Mr. Salvin on the subject of Mr. Ridgway's inquiry, with the following result in which we both concur:

"We think that Mr. Ridgway is correct in his identification of the bird which he refers to the melanistic phase of *Buteola brachyura*, but we observe that the melanistic specimens of this species vary as to the intensity of the black coloring of the plumage and also as to the amount of white on the forehead which is sometimes almost nil.

"Messrs. Salvin and Godman have a good series of Buteola brachyura in various stages and they also have a specimen from

^{* &}quot;B. zonocercus" of Hist, N. Am. Birds,

Guatemala which appears to me to be identical with the type of Buteo fuliginosus preserved at Norwich. This specimen agrees in dimensions with the female of B. brachyura but (like the type specimen of B. fuliginosus) is dark brown rather than black and has scarcely any white on the forehead, the type specimen having absolutely none.

"Mr. Salvin and myself are now of opinion that these are only individual variations (seeing that the dimensions and form of the primaries agree) and that therefore *Buteo fuliginosus* should sink into a synonym of *Buteola brachyura* and should not

be considered as a melanism of Buteo swainsoni."

That this black form, for which Buteo fuliginosus appears to be the earliest name, is unquestionably referable to B. brachyurus does not, however, appear to be so easily demonstrable; at least none of the authors whom I have been able to consult give sufficient reasons for taking this view of its status. I have examined altogether eleven examples of B. fuliginosus and four of normal B. brachyurus, the latter all adults, the former including both adults and young. Not one of the former indicated in the slightest degree, by any variation from the typical plumage, the probability of intergradation with true B. brachyurus, which, considering the number of specimens, seems strange if they were really the same species. It is a well-known fact that in the case of all the other North American Buteones which have a wellmarked melanistic phase (e.g. Buteo borealis, B. swainsoni, and Archibuteo lagopus sancti-johannis), examples wholly black in plumage are comparatively rare, or altogether less numerous than those which simply tend toward this condition, the light normal and the completely melanistic extremes of plumage being connected by an unbroken series of variously intermediate specimens. In the eleven specimens of B. fuliginosus, however, we observe exactly the same uniformity of characters as in B. abbreviatus - a species which, so far as known, has no light-colored phase, while the differences distinguishing the young and old are exactly the same as in that species! The four adult specimens of B. brachyurus are likewise very much alike, and I have never heard of any specimens of this species, except young birds, which possessed a mixed lower plumage. Taking these facts alone as my guide, I should not think of uniting the two forms, but assuming that Messrs. Gurney and Salvin, having

access to larger series of specimens than I have been able to examine, may have seen intermediate specimens (though I am not aware that either of these gentlemen have so stated in their writings) I yield to the opinion of such high authority, though, for the sake of convenience, and in view of possible future developments, have arranged separately the synonymy and description of the two forms.

440.*-Buteo brachyurus.*

SHORT-TAILED BUZZARD.

Normal phase.

Buteo brachyurus VIEILL. N. D. iv, 1816, 477 (= Q adult). Gray, Gen. B. i. 1849. 12.—Pucher. Rev. et Mag. Zool. 1850, 86.—Bonap. ib. 481.—Ridgw. Pr. Boston Soc. May, 1873. 67 (Brazil).

Buteola brachyura Bonap. Rev. et Mag. Zook: 1850, 489.—Scl. and Salv. P.Z.S. 1869, 130; Nom. Neotr. 1873, 118 (Guatemala to Brazil).—Taczan. P.Z.S. 1874, 552 (Central Peru).—Sharpe, Cat. B. Brit. Mus. i. 1874, 201† (Veragua to Amazonia and Peru).—Gurney, Ibis, 1875, 477-'80 (part).

Asturina brachyura Bonap. Rev. et Mag. Zool. 1850, 489. — STRICKL. Orn. Syn. i. 1855, 42.

Astur brachyura GRAY, Hand-list, i. 1869, 30.

Falco albifrons MAX. Beitr. iii, 1830, 187 (= adult).

Asturina albifrons Kaup, Isis, 1847, 200; Jardine's Contr. Orn. 1850, 67.—Bonap. Consp. i. 1850, 31.

Buteo albifrons Schleg. Mus. P.-B. Buteones, 1862, 10; Rev. Acc. 1873, 109.—RIDGW. Pr. Phil. Acad. Dec. 1870, 142.

(?) "Asturina diadema Kaup, Rev. et Mag. Zool. 1850, p. 489." (Sharpe?)

Buteo minutus Pelz. Sitz. Ak. Wien, xliv, 1862, 14 (= young); Verh. z.-b. Wien, 1862, 141; Reis. Novara, Vög. 1865, 16; Orn. Bras. 1871, 3, 396.

Buteola minuta GIEBEL, Thes. Orn. i. 1875, 517.

Hab. Tropical America in general, from Brazil and Peru to Eastern Mexico (Mirador) and Eastern Florida (Palatka).

Sp. Ch. — Size small (total length not more than 16 inches); wings proportionately long, reaching when closed nearly or quite to the end of the tail. 3rd or 4th quill longest, 1st about equal to or a little longer than the 10th; four outer quills with their inner webs distinctly emarginated. Tarsal scutellæ 8–9. Wing, 11.25–12.70; extent of primaries beyond longest tertials, 2.70–3.30; tail, 7.00–7.20; culmen, .75; tarsus, 2.05–2.50; middle toe, 1.35–1.80.

^{*} The number (440*) prefixed to the name is that which the species should bear in the new catalogue of North American Birds.

⁺ Excl. syn, " Buteo melanoleucus Less " and " Astur poliogaster Gray"!

Adult & (Palatka, Florida, February 1, 1881; G. A. Boardman): Upper surface continuous and nearly uniform blackish-brown, darkest and most uniform on the head, which, with the exception of the anterior half of the lores, the anterior malar region, chin, and throat, is solid sooty black, the occipital feathers snow-white beneath the surface; back with a strong chalky or glaucous cast in certain lights, the scapulars and wings dull grayish-brown with the feathers darker centrally; sides of the rump strongly tinged with rufous. Tail grayish-brown, very narrowly tipped with dull white, and crossed near the end by an indistinct band of dusky, and showing, when widely spread, indications of about four other narrow broken bands, in the form of irregular, but mostly somewhat V-shaped, bars of black along the middle portion of the feathers. Lateral upper tail-coverts lighter brownish-gray, with broad but rather indistinct bars or spots of dusky. A spot on each side of the base of the bill, covering the anterior half of the loral and malar regions, chin, throat, middle of the jugulum, breast, and remaining lower parts, immaculate pure white, the tibiæ, especially on their inner side, washed with pale ochraceous or light buff. Sides of the jugulum rufous-brown, the feathers with dusky shaft-streaks; sides of the breast and anterior portion of the sides marked with a few dusky shaft-streaks, the more posterior ones of which expand terminally into a broad streak of dusky brown. Lining of the wing and axillars immaculate pure white, the under primary-coverts, however, with a large patch of dusky near the end. Bill black, bluish basally; cere, legs, and feet, yellow; iris, brown. Wing, 12.00; tail, 7.00; culmen, .75; tarsus, 2.10; middle toe, 1.35.

Adult 9 (?): Similar to the 3, but without rufous tinge on sides of breast, which are grayish-brown, similar to, but lighter than, the wing-

coverts. Size larger (wing about 12.70).

Young: "Very similar to the adult, but browner above, the feathers being margined with fulvous; the crown and sides of face streaked with pale ochre; the under surface, especially the under wing-coverts, washed with ochre." (Sharpe, l.c.)

An adult specimen (sex not indicated) from Mirador, Eastern Mexico (No. 23,887, U. S. Nat. Mus.), is much like the Florida example described above, but has the white loral spaces larger and connected across the anterior part of the forehead, the sides of the breast almost entirely rufous (there being little if any of the grayish-brown) and the dusky shaft-streaks more distinct. The upper portion of the flanks, adjoining the sides of the rump, are also more distinctly and more extensively rufous. The 3rd quill, instead of the 4th, is longest, the wing-formula being 3, 4, 5-2, 6-7-8, 1. Wing, 11.25; tail, 7.20; culmen, .75; tarsus, 2.05; middle toe, 1.40.

Some specimens presumed to be adult females have the sides of the breast grayish-brown, like the wing-coverts, without any tinge of rufous.

While the young are, like the adult, sometimes immaculate beneath, as described by Mr. Sharpe, they appear to occasionally have the lower plumage striped with dusky, since Mr. Gurney (Ibis, 1876, p. 480) describes an example from Peru, which he refers to B. fuliginosus, and which "bears a considerable general resemblance to the young of Buteola brachyura, from which, however, it differs in having all the feathers of the underparts, except those of the throat and crissum, which are immaculate, embellished with a conspicuous dark longitudinal shaftmark of varying breadth, these being narrowest on the upper breast and abdomen, broader on the lower breast, and occupying almost the entirety of each feather on the flanks; on the tibiæ the shaft-marks are expanded into a double transverse bar across each feather; the transverse dark bars on the upper surface of the tail in this specimen are ten, whereas in the immature Buteola brachyura they are but seven."

(?) Buteola fuliginosus SCLATER.

LITTLE BLACK HAWK,

(= melanistic phase of B. brachyurus?)

Buteo fuliginosus Scl. P.Z.S. 1858, 356 (Tamaulipas, N. E. Mexico; = young \$\mathbb{Q}\$); Trans. Zool. Soc. iv, 1858, 1, 267, pl. lxii.—Lawr. Ann. Lyc. N. Y. ix, 1868, 133 (La Palma, Costa Rica); Bull. U. S. Nat. Mus. no. 4, 1876, 42 (Tehuantepec City, S. W. Mexico).—Ridgw. Pr. Philad. Acad. 1870, 142.—Gurney, Ibis, 1876, 235, 477-'80 (critical).

"Buteo brachyurus" SALVIN, P.Z.S. 1870, 215.

"Buteola brachyura" GURNEY, Ibis, 1876, 477-'80 (part).

Hab. Eastern Tropical America, from Brazil to Northern Mexico

(Mazatlan and Tamaulipas) and Western Florida (Oyster Bay).

Sp. Ch. — Size small (total length not exceeding 16 inches); wing proportionately long, reaching, when closed, nearly or quite to the end of the tail. 3rd or 4th quill longest, the 1st equal to or longer than the 10th; four outer quills with inner webs emarginated, the cutting less abrupt on the 4th, however. Tarsal scutellæ 8-11. Wing, 11.20-13.20; extent of primaries beyond longest tertials, 2.50-4.50; tail, 7.00-8.00; culmen, .70-.85: tarsus, 2.05-2.65; middle toe, 1.35-1.60.

Adult: Uniform black or dusky, varying from dark sooty brown to almost a coal-black, freshly moulted specimens usually having a chalky or glaucous cast on the back, and a more or less distinct purplish reflection

to the general plumage; frontlet usually more or less distinctly white, but this sometimes wholly absent; occipital feathers pure white beneath the surface; outer surface of primaries plain black, without the slightest indication of spots or bars. Tail browish-gray, or grayish-brown, crossed by about six or seven narrow bands of black, of which the subterminal is much the broadest, the grayish bands becoming gradually narrower toward the base of the tail; under surface of the tail appearing silvery white, with cross-bands of slate-color. Under surface of the primaries chiefly white anterior to their emargination, but this broken by irregular bars, or, as is sometimes the case, confused mottlings of grayish; rest of under surface of the wing uniform dark brown or black, the under primary-coverts sometimes spotted or barred with white. Bill black, bluish basally; cere and feet yellow; iris brown. 8: Wing, 11.20-11.70; tail, 7.00-7.30; culmen, .70-.75; tarsus, 2.05-2.25; middle toe, 1.35-1.40 (4 specimens). 9: Wing, 11.90-13.10; tail, 7.50-8.00; culmen, .78-.85; tarsus, 2.50-2.65; middle toe, 1.50-1.60 (6 specimens).

Young: Very similar to the adult, but tail dull brown with more numerous, narrower, and much less distinct bars of dusky, usually 8-9 in number. Contour feathers (both above and below) with much concealed white on the basal portion of the feathers, the lower parts sometimes slightly varied with white or ochraceous spots and streaks, the axillars and under wing-coverts with small round spots of the same, and the under tail-coverts spotted with ochraceous.

Specimens of this form are exceedingly constant in their characters, the eleven which have come under my notice being so much alike that all variations are covered by the terms of the above diagnoses.

A specimen from Mazatlan (12,117, U. S. Nat. Mus.; Col. Abert), appears to very exactly resemble in coloration the type of *B. fuliginosus*, as described and figured by Dr. Sclater. The dimensions also agree rather closely, as may be seen below:

| Type of B. fuliginosus. Mazatlan specimen. | Wing. | Tail. 4.10 | Tarsus. 2.05 | Middle toe. 1.50 |
|---------------------------------------------|-------|---------------|-----------------|---------------------|
| | 12.90 | 3.65 | 2.25 | 1.50 |

The specimen from Oyster Bay, Florida, being an adult female in perfect plumage, a detailed description of it is given herewith:—

Adult Q (No. 81,757, U. S. Nat. Mus., Oyster Bay, Florida, Jan. 28, 1881; W. S. Crawford): General color uniform brownish-black, deeper black and more uniform on the lower parts, which show no markings whatever, though the concealed bases of the feathers are white; frontlet and anterior portion of the lores white, and occipital feathers pure white beneath the surface, showing wherever the feathers are disarranged; inter-

scapulars with a slight chalky cast, showing, however, only in certain lights; terminal borders of the tertials, secondaries and shorter primaries smoky brownish, and secondaries more brownish than the general surface; outer surface of wing showing no indication of bars, except exceedingly faint ones on the secondaries, discernible only on close inspection. Tail grayish-brown (the intermediæ more grayish), narrowly bordered at extreme tip with paler grayish, crossed with a well-defined subterminal band of black nearly one inch wide, and with about six narrow, irregular bands of the same, broken on the intermediæ into irregular spots; under surface of the tail light silvery-gray (appearing hoary-white in some lights) relieved by a distinct subterminal band of dusky, and, anterior to this, by another less distinct, narrower, and more grayish band, the others being concealed by the lower coverts. Under surface of the primaries with the broad portion of the quills chiefly white, but this more or less broken, chiefly on the inner quills, by a grayish clouding, tending to form regular broad bars when the quills are separated; lining of the wing and narrowed portion of the quills uniform black.

Wing, 13.10; tail, 7.50; culmen, .85; tarsus, 2.50 (the unfeathered portion in front 1.50, and with 10 large transverse scutæ); middle toe, 1.55.

The specimens of this species in the U.S. National Museum are from the following localities: Oyster Bay, Western Florida (Jan. 28, 1881; W. S. Crawford); Mirador, Mazatlan, and Tehuantepec, Mexico; La Palma, Costa Rica, and Brazil (Sr. Albuquerque).

ON PODICEPS OCCIDENTALIS AND P. CLARKII.

BY H. W. HENSHAW.

By at least one author* the specific distinctness of our two largest Grebes, P. occidentalis et clarkii, has been denied and clarkii formally reduced to varietal rank. Since, however, this view of the relationship of the two seems not to be fully accepted;† and inasmuch as recently I have examined an unusually

^{*} Coues in Birds of the Northwest, p. 128.

[†] Mr. Ridgway in the recent "Check List of North American Birds" nar es them as full species.