

An Oligocene Hawk from Colorado.—In 1937, while collecting in the White River deposits of northeastern Colorado, a field party from the Museum of Paleontology of the University of California obtained part of the tarsometatarsus of a large hawk. The bone was taken from the Oreodon beds which are of Middle Oligocene age.

The description of *Palaeoplancus sternbergi* (Wetmore, Smithsonian Misc. Coll., 87, 1933:1-9), a large raptorial bird from the Oligocene of Wyoming, seemed to indicate possible relationships of the newly found fossil to that form. In the course of a recent visit to Washington, D.C., the junior author was enabled to examine the type of *Palaeoplancus* through the kindness of Dr. Alexander Wetmore of the U. S. National Museum. Comparison with the White River fossil showed the two to be fundamentally different. As suggested by Dr. Wetmore, the bone has the characters of the genus *Buteo* in its broadest sense and is best allocated to that group. In general the fossil is more different from typical *Buteo* than are the aberrant buteonids, such as those of the *Geranoaëtus* group. Nothing is gained, however, by erecting a new genus. This form is therefore placed in *Buteo* and may be known as

Buteo fluviaticus, new species

Characters.—Compared with *Palaeoplancus sternbergi*, the scar of the hallux on the tarsometatarsus extends much higher on the shaft, and the blade of the inner trochlea is more produced posteromedially. The body of the inner trochlea in *B. fluviaticus* is heavier and the condylar region in general is more massive.

The modern *Buteo melanoleucus* [variously classed at times in *Spizastur*, *Spizaëtus* and *Geranoaëtus*] was found to provide excellent comparative material. It is of the same general type as *B. fluviaticus* and has been used by Wetmore in comparing other extinct forms, namely, *Buteo contortus*, *B. coterminus*, *B. grangeri* and *B. ales*. In addition, it was found that the type of *B. fluviaticus* was of exactly the same size in gross measurements as a specimen of *Buteo melanoleucus* (U.S.N.M. no. 18471).

The scar of the hallux of *B. melanoleucus* is more restricted and does not extend as far proximally as in *fluviaticus*. The inner and middle trochleae are of unequal length in *B. melanoleucus* but are equal in *B. fluviaticus*. The middle trochlea is stouter in all respects in *fluviaticus* than in *melanoleucus*. The posterior plate or flange of the outer trochlea is more incurved when viewed distally in *melanoleucus* than in *fluviaticus*. The White River fossil has a well marked intermuscular line on the outer face of the external trochlea, extending from the posterior edge of the shaft toward the center of the trochlea. This line is present in *Palaeoplancus* but is nearly absent in *Buteo melanoleucus*. The flange of the inner trochlea is more recurved toward the midline in *B. melanoleucus*.

Similar differences are found in comparing the fossil with smaller forms such as *Buteo borealis*.

Type.—Distal third of right tarsometatarsus (see fig. 12), no. 36266 Univ. Calif. Mus. Paleo., from locality V-3743, Chalk Bluffs, Oreodon beds, Roy Elum Ranch on Owl Creek, R 66 west, T 11 north, six miles east of Carr, Weld County, Colorado.

Measurements in millimeters.—Greatest width across condyles, 19.9. Distance from proximal end of metatarsal facet to most distal point on internal condyle, 26.4. Width of middle trochlea, 5.8. Transverse diameter of shaft at proximal end of metatarsal facet, 9.2.

Remarks.—*Buteo grangeri* (Wetmore and Case, Contr. Mus. Paleo. Univ. Michigan, 4, 1934:129) is from the same horizon as *B. fluviaticus* but is known only from the skull. The relative size of the elements is similar and it is not impossible that they are of the same species. Until the skull and tarsus are found together, however, both names must be employed.

Buteo typhoëus (Wetmore, Bull. Am. Mus. Nat. Hist., 48, 1923:489-492), from the Upper Miocene differs from *B. fluviaticus* in possession of a distinct groove on the anterior face of the shaft which extends nearly to the internal trochlea. This area in *fluviaticus* is flat and lacks any suggestion of such a groove.

Buteo contortus (Wetmore, *op. cit.*: 492-497) is somewhat larger than *fluviaticus*; it is 23 mm. across the trochlea as compared with 19.9 mm. *Contortus* is described as being "similar to . . .

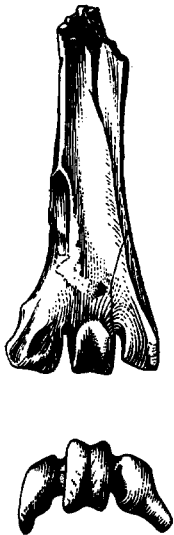


Fig. 12. Tarsometatarsus of *Buteo fluviaticus*, natural size. Above, plantar aspect; below, distal aspect of trochleae (drawings by Viola Memmler).

Geranoaëtus melanoleucus but larger, and relatively more robust." Since *fluviaticus* is the same size as *Buteo* (*Geranoaëtus*) *melanoleucus*, it follows that *B. contortus* is larger than *fluviaticus*. Regardless of size, *contortus* has a longer first trochlea (digit II) than *fluviaticus*.

Buteo coterminus (Wetmore, *op. cit.*: 497-499) differs from *B. fluviaticus* in having a more massive inner trochlea and in larger size.

Buteo ales (Wetmore, Ann. Carnegie Mus., 16, 1926:403) from the Miocene is smaller (16.2 mm. across condyles) than *B. fluviaticus*. The illustration accompanying the description of *ales* shows no indication of an intermuscular line on the outer face of the external trochlea as in *fluviaticus*.

Buteo antecursor (Wetmore, Bull. Mus. Comp. Zool., 75, 1933:298-300) from the Upper Oligocene is somewhat smaller (18.1 mm. across condyles) than *fluviaticus* and differs among other things in its convex rather than straight lateral contour of the outer metatarsal. However, *antecursor* seems to have many characters which parallel those of *fluviaticus*. The metatarsal facet is relatively long and extends far up the shaft. The second trochlea is also more massive than in later forms such as *B. ales*. In these respects the Oligocene species resemble each other. This suggests a line of development from the older to the more recent types.

Buteo dananus (Marsh, Amer. Jour. Sci., ser. 3, 2, 1871:125) was described from a tibiotarsus. It is smaller than *B. melanoleucus*.

In the same quarry with the type of *fluviaticus* was a well preserved proximal third of a femur representing a hawk of the same size as the type. This femur is exactly the same size as the corresponding element in *B. melanoleucus*. It is therefore referred to *B. fluviaticus* but since it is lacking in diagnostic characters, it is not included in the description. The following list serves to review the relative position in the geologic time scale of the several species of *Buteo* from the Tertiary of North America.

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| Lower Pliocene | <i>Buteo coterminus</i> |
| Upper Miocene | <i>B. contortus</i> , <i>B. typhoius</i> , |
| Lower Miocene | <i>B. ales</i> |
| Upper Oligocene | <i>B. antecursor</i> |
| Middle Oligocene | <i>B. grangeri</i> , <i>B. fluviaticus</i> |

—ALDEN H. MILLER and CHARLES G. SIBLEY, *Museum of Vertebrate Zoology, Berkeley, California, December 5, 1941.*

Black Swift in Orange County, California.—About five o'clock on August 10, 1941, and again at about the same time on the following day, I saw a single Black Swift (*Nephoecetes niger*) flying high in a southeasterly direction over a bluff at Corona del Mar, Orange County, California. This is a sight record but I feel very sure of my identification.—WILSON C. HANNA, *Colton, California, September 4, 1941.*

Whooping Cranes in Texas in Summer.—The Whooping Crane (*Grus americana*) is a regular winter resident of the Aransas National Wildlife Refuge, Aransas and Refugio counties, Texas. A few also spend the winter in salt marshes and along bay shores of other sections of these counties and in Calhoun County. Extreme dates of occurrence on the refuge, up to this spring, are October 21 (1938 and 1939) and May 6 (1939).

It was therefore a surprise to note that one of our wintering family groups was still present on the refuge's east shore flats near Mullet Bay, Aransas County, on May 16, 1941. This group consisted of two adults with their single young, apparently hatched in 1940. The birds have been observed frequently since then in the same general area and are still here (October 10). Courtship of the adults was noted by Everett Beaty and the writer on May 16 and as late as May 23. No evidence of nesting was observed.

This family formed part of a group of 26 birds (21 adults and 5 immatures) which spent the winter of 1940-1941 on the Aransas National Wildlife Refuge. It is possible that some of these were birds which would normally remain in Louisiana in winter. Mr. John J. Lynch (in litt., September 10, 1941) states: "Our Louisiana cranes were badly scattered by high water last fall [1940]. Flood water stood three and four feet deep over most of their range from August until late October, and never did drop down to normal until this summer. Concensus of opinion is that most of the birds 'went down the Texas Coast.'"

The only other definite summer record for the State, which I can find, is also for the Gulf coast of southern Texas. Bent (U. S. Nat. Mus. Bull. 135, 1926:229) quotes Mr. Richard M. Kleberg as stating that there were, in 1919, 16 cranes on the King Ranch, in Kleberg County, which grew from a flock of 3 which bred there. Bent makes the comment that there is no positive evidence of their