

FROM FIELD AND STUDY

Raptorial Hosts of Protocalliphora.—Recently Work and Hill (Condor, 49, 1947:74-75) reported larvae of *Protocalliphora* parasitizing the Sparrow Hawk (*Falco sparverius*) and the Golden Eagle (*Aquila chrysaetos*). It was stated in that report that no mention of any raptorial birds as hosts for these flies had been found in the ornithological literature. Since then several references to raptorial hosts have been uncovered, but none of these mentions either the Sparrow Hawk or the Golden Eagle. The earlier references are as follows: Burtch (Auk, 37, 1920:293) reports removal of maggots from the ears of three seventeen-day old Cooper Hawks (*Accipiter cooperii*) in New York. He suggests that the maggots may have been screwworm fly larvae (*Comptosmia macellaria*). However, according to Hall (The Blowflies of North America, 1948:137) this name is an old synonym for *Callitroga americana*, the screwworm fly which is the common cause of myiasis in domestic and wild animals and known to be entirely parasitic on mammals. Hence, it is probable that Burtch was dealing instead with bird nest screwworm fly larvae (*Protocalliphora*). Sargent (Auk, 55, 1938:82-84) found *Protocalliphora* larvae "in great numbers" in the nests of Red-tailed Hawks (*Buteo jamaicensis*), Red-shouldered Hawks (*Buteo lineatus*), and Cooper Hawks (*Accipiter cooperii*), in New York. They were commonly found in the ear canals of the two species of *Buteo*, but never in the ears of the Cooper Hawks. Shannon and Dobrosky (Jour. Wash. Acad. Sci., 14, 1924:250) report a nest of the Long-eared Owl (*Asio otus*) parasitized at McElroy Lake, Paha, Washington.

I communicated recently with C. F. W. Muesebeck, Division of Insect Identification, Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture, in regard to published records of raptorial hosts for *Protocalliphora*. He was able to find no references further than those mentioned above, excepting Hall's monograph on the blowflies (*op. cit.*). This work, which has just been published, lists the three species of hawks and the one owl mentioned above and, in addition, the Swainson Hawk (*Buteo swainsoni*). It has not been possible to account for the original source of the record of the Swainson Hawk.

According to Hall (*op. cit.*), North American blowflies which have been referred to as *Protocalliphora* are now correctly referred to the genus *Apaulina* (new genus) and given the common name of bird nest screwworm flies. The name *Protocalliphora* is now applicable only to a genus of closely related European forms. Hall recognizes ten species of *Apaulina* and states that the habits of all species are similar. The larvae of all are obligate blood-sucking parasites upon nestling birds. There is apparently little, if any, host specificity, and probably any species of *Apaulina* will attack any of the known host species within its distributional area.

In summary, seven species of raptores, including five species of hawks, one eagle, and one owl, have now been reported as hosts for the bird nest screwworm flies, which have recently been placed in the new genus *Apaulina*.—HAROLD M. HILL, *Ann Arbor, Michigan, March 5, 1948.*

A New Western Race of the Nighthawk.—An apparently new race of Nighthawk was discovered during the course of the Carnegie Museum expedition to Idaho in 1947. It may be called

***Chordeiles minor twomeyi*, new subspecies**

Type.—No. 131,534, Carnegie Museum, adult male; collected two miles southwest of Melba, elevation 3,000 feet, Owyhee County, Idaho, on June 23, 1947, by A. C. Twomey; original number 12,258.

Description.—Similar to *Chordeiles minor sennetti* but underparts more suffused white and barring darker and more distinct, with less buff ochre undertone; scapulars lighter with greater contrast in grays and browns; interscapular region darker, with less buffy intermixture.

In *sennetti* there is more ochraceous tawny and lighter brown, compared with the darker blackish-brown of *twomeyi*. The over-all whiteness of the underparts, with their more distinct and darker vermiculations, and the lighter scapulars, with their strong contrast against the darker browns, serve to define this race and make it easily separable from *sennetti*.

Measurements.—Wing, 199-202 (200.6) mm.; tail, 104.5-106.0 (105.1); culmen from base, 7.5-8.0 (7.66); tarsus, 13-14 (13.6).

Specimens examined.—Four; the type and a topotype; one from Lowman (7 miles east), Boise County, Idaho; and one from Adel (9 miles south), Lake County, Oregon.

Distribution.—Great Basin region of the Snake River, north to the South Fork of the Payette River, Idaho; and Warner Valley, southeastern Oregon, possibly extending into southeastern Washington and northern Utah. This race occurs in a region characterized by sagebrush (*Artemisia tridentata*), with major associates of *Atriplex nuttallii*, *Atriplex spinescens* and *Sarcobatus vermiculatus*. The birds were seen along the river bottoms where a deciduous growth of *Populus angustifolia* and *Cercocarpus ledifolius* existed.

Remarks.—This race is intermediate between *hesperis* and *sennetti*. It resembles *sennetti* in the lightness of the underparts and *hesperis* in the darkness of the back. One specimen shows a slight intergradation towards *hesperis*. It may intergrade with *sennetti* in the region of the mixed prairie association to the east.—ROLAND W. HAWKINS, *Carnegie Museum, Pittsburgh, Pennsylvania, March 15, 1948.*

The Whistling Swan in the Upper Pliocene of Idaho.—A fossil humerus of a swan was found by Mr. Cecil Childs two miles west of Hagerman, Idaho, in the summer of 1947. The bone consists of the proximal end, including all the deltoid crest; it is thoroughly mineralized and is well preserved except for an area broken out of the center of the palmar surface and the loss of the surface of the internal tuberosity. The specimen was found as surface float in the Hagerman Lake beds, Blancan age, Upper Pliocene, on the west side of the Snake River, in Twin Falls County. The locality is number V 3818 of the Museum of Paleontology of the University of California and the specimen is number 38306. Mr. J. A. Macdonald, who was collecting with Mr. Childs, states that in view of local topography there is no reasonable chance that the humerus could have washed out from beds of later age.

Howard (Carnegie Inst. Wash., publ. 551, 1946:141-195) in her study of the Pleistocene birds of Fossil Lake, Oregon, gave much attention to the osteology of swans and geese. She concluded that but two species of swan are present in the material from Fossil Lake, the modern Trumpeter Swan, *Cygnus buccinator*, and the extinct *Sthenelides paloreganus*. In contrasting the humeri of *Cygnus* and *Sthenelides* (included in *Cygnus* by many authors) she describes six points of difference in the proximal end of this element (pp. 163-164). In my own comparison of modern "*Sthenelides*" *olor* with *Cygnus columbianus*, I am able to verify each of these differences. In every detail the Hagerman fossil corresponds with the genus *Cygnus* in the restricted sense. There seem to be no constant differences in configuration between *C. columbianus* and *C. buccinator*, but there is of course a size differential. Humeri of 16 modern *C. columbianus* average 50.12 mm. in greatest width of head, with extremes of 48.0 and 53.5 and standard deviation of 1.45. An immature female *C. buccinator*, which may be presumed to be a small representative of its species, measures 57.2 mm. The Pliocene fossil measures 53.5 mm., which is within the limits of variability of the species *C. columbianus*. In all respects, then, this fossil agrees with the corresponding part of the modern Whistling Swan, *C. columbianus*, and may be so identified.

It is noteworthy that *Cygnus columbianus* dates back to the Upper Pliocene. Relatively great antiquity of avian species and genera, compared with mammals, has for some time been evident as a generalization. The Whistling Swan affords another significant example of this. It is strange that the Whistling Swan did not appear among the collections from the Pleistocene of Fossil Lake, but it is reported from the Pleistocene of southern California and Florida. Loye Miller (Condor, 46, 1944:25-32) reports swan material, some of it of the approximate size of *columbianus*, from the Owyhee Pliocene of Oregon and from the Pliocene near the Bruneau-Mountain Home bridge, Idaho. The material was too incomplete to permit exact identification, but the presence of two different species of swans was indicated by the sizes of scapular fragments.

I am indebted to Messrs. Childs and Macdonald and to Dr. R. A. Stirton for making the fossil available for study and to Drs. Hildegarde Howard and Loye Miller for use of comparative material.—ALDEN H. MILLER, *Museum of Vertebrate Zoology, Berkeley, California, January 15, 1948.*

Wren-tits in the Roseburg Area, Oregon.—On a field trip into the interior valley of the Umpqua River near Roseburg, Douglas County, Oregon, on April 19, 1947, I was fortunate to find a small colony of Wren-tits (*Chamaea fasciata*) in the Garden Valley area some five miles northwest of Roseburg, near the confluence of the North and South Umpqua rivers. Two birds were seen in chaparral at very close range and a third was heard in the immediate vicinity. The two birds I observed were somewhat grayer and lighter in color than the Coast Wren-tit, *Chamaea fasciata phaea*, which is so common along the Oregon coastline. These birds undoubtedly represent the Pallid Wren-tit, *Chamaea fasciata henshawi*.