

another example of a young bird wandering far from its normal range.—LAURENCE M. HUBY, *San Diego Society of Natural History, Balboa Park, San Diego, California, August 27, 1935.*

The Vocal Apparatus of the Elf Owl and Spotted Screech Owl.—In an earlier paper (Condor, 36, 1934, pp. 204-213) on the vocal equipment of North American owls I was unable to consider that extreme pygmy of the bubonid tribe, the Elf Owl (*Micropallas whitneyi*). Through the efforts of Loye Miller, examination of two syringes of male Elf Owls and correlation with the pitch of their hoots are now possible. As expected, the syrinx is extremely small, but it fits into the series of owls previously studied as a terminal member. The measurements with those of the Pygmy Owl, *Glaucidium gnoma*, in parentheses for comparison are: length of vibrating membrane, 3.1-3.2 mm. (3.6-3.9); length of membrane as per cent of bronchial diameter, 200-206 (205-211); bronchial diameter 1.5-1.6 mm. (1.8-1.9); tracheal diameter, 2.1 mm. (2.5-3.0).

The pitch of an Elf Owl's hoot or whistle is E² flat to E² natural. This is two octaves and a little more above the hoot of male Horned Owls (D). The inverse proportion between membrane length and pitch has been used in computing the theoretical vibration rate of the Elf Owl. The ratio of the membrane to vibration rate in the male Horned Owl was taken as the norm. The computed rate for the Elf Owl is 1158.5 or about D² natural of the tempered scale which, it will be noted, departs from observations by only half a tone. Thus over the extreme range of size in the owls, structures and notes produced are well correlated. The dependence of hoot on diameter of air passages and this in turn on size of the bird is further borne out (see p. 212, *op. cit.*).

The muscle attachments of the Elf Owl syrinx are on the seventh bronchial semiring on both sides. This arrangement is not unlike that in other small owls. There is no asymmetry as in *Glaucidium* and *Strix*.

The syrinx of a male Spotted Screech Owl (*Otus trichopsis*) has the insertion of the intrinsic muscles on the eighth right bronchial ring and the seventh left ring, identical with one asymmetrical *Otus asio* already reported. The measurements are: length of vibrating membrane, 4.4 mm.; length as per cent of bronchial diameter, 209; bronchial diameter, 2.1 mm.; tracheal diameter, 3.6 mm. Compared with males of the small race *gilmani* of *Otus asio*, these are but slightly smaller. No important difference in pitch should result. Loye Miller reports that he observed no higher pitch in *trichopsis*. The special characteristic of the Spotted Screech Owl's note is its rhythm, which of course is a matter of nervous control.—ALDEN H. MILLER, *Museum of Vertebrate Zoology, Berkeley, California, August 6, 1935.*

Pigmy Nuthatch in Berkeley.—On August 6, 1935 and frequently thereafter, one or two Pigmy Nuthatches, *Sitta pygmaea pygmaea*, were heard or seen in a region lying between Professor Sidney Mitchell's garden on Woodmont Avenue in Contra Costa County, and Grizzly Peak Boulevard in Berkeley (Alameda County) just south of this. They appeared to be immature birds of the current season. They fed mainly in Monterey pines, but also in eucalyptus woods and on brooms (*Genista* sp.) which were infested with aphids and overrun by ants and lady-beetles. After August 26 only one individual was seen at a time; it was last seen on September 8. The writer was already thoroughly familiar with this species as seen near Monterey. Ample opportunity was had for indubitable identification, fortified by reference to specimens in the Museum of Vertebrate Zoology of the University of California.—S. C. BROOKS, *Berkeley, California, September 18, 1935.*

Flickers and Jays Feeding on Scarab Beetles in Flight.—*Pleocomma behrensi* is a species of scarab beetle occurring in the foothills of the San Francisco Bay region in California. It is a fairly large insect, females measuring about one and one-fourth inches long by three-fourths of an inch wide, and males about one inch long by half an inch wide. The host plant is *Baccharis pilularis*, commonly known as coyote brush, a predominant shrub of the chaparral in this region. In the fall, during or just after, the first rains, the adults of *P. behrensi* emerge from the ground. The females, being flightless, remain within their open burrows, usually near the surface

of the ground. At dusk, or in the daytime when it is raining, the nuptial flight of the males begins. The species is crepuscular, and thus the flight only occurs in dim light as just before dawn, at dusk, or during a shower, and lasts but two or three days each fall.

In the afternoons of October 14 and 15, 1935, Mr. M. A. Cazier, Mr. F. R. Platt, and I visited Strawberry Canyon, east of the University of California Campus, Berkeley, to collect specimens of this species of scarab. While waiting on a hillside for the flight to begin, I observed several Red-shafted Flickers (*Colaptes cafer collaris*), Coast Jays (*Cyanocitta stelleri carbonacea*), and California Jays (*Aphelocoma c. oocleptica*) perched on the branches of a number of dead eucalyptus trees near-by, facing the setting sun. As soon as the sun disappeared behind Marin Point, across the bay, the pleocoma flight began. Here and there, flying low over the tops of the chaparral shrubs we could observe individual male scarabs. Just as I started after a specimen, one of the California Jays swooped down the canyon and, following the erratic flight of the beetle, snatched it in mid-air and returned with it to one of the dead trees. Thereafter I observed several California Jays, two Coast Jays and three Red-shafted Flickers capture individual beetles in flycatcher fashion. In each case, the bird attained a position behind its intended victim, then, taking up the erratic zigzag course of the beetle, suddenly swooped down and captured it in mid-air. In relatively few instances did the birds miss their prey. After a capture had been made, each bird apparently returned to its original tree to eat its prize before starting in pursuit of another.—JACK C. VON BLOEKER, JR., *Museum of Vertebrate Zoology, University of California, Berkeley, October 17, 1935.*

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NOTES AND NEWS

As this issue of the *Condor* goes to press, word comes of the death of Harry S. Swarth. No brief statement can appropriately express the loss of so eminent an ornithologist. His well known achievements in the study of birds and mammals on the Pacific Coast are perpetual testimony of his scientific and literary abilities. Intimate knowledge of birds from many sections of the West in which he explored and collected and from regions so far separated as the Galapagos Islands and Alaska enabled him to deal authoritatively with distribution and speciation in western North America. In the course of his professional career he had been associated with the Los Angeles Museum, the Museum of Vertebrate Zoology, and the California Academy of Sciences. These varied connections developed close acquaintances with many Club members. In both northern and southern divisions he was widely known and respected. Few people have played so large a part in the affairs of the Cooper Club. He gave generously in serv-

ice through his 39 years of membership. From 1910 to 1927 he was associate editor of the *Condor*. But aside from these tangible things there stand in the memory of his associates the wit and subtle humor which he imparted to many hours of conversation and debate.—A. H. M.

Part VIII of Hellmayr's "Catalogue of Birds of the Americas" appeared September 16, 1935, making the second volume of this extensive work to be issued in less than a year. This part covers the Alaudidae, Hirundinidae, Motacillidae, Bombycillidae, Ptilonotidae, Dulidae, Vireonidae, Vireolaniidae, Cyclarhidae, Laniidae, Sturnidae, Coerebidae and Comptolypidae. It follows the style of the previous volume (see review, *Condor*, 37, 1935, pp. 90-92). The rapid appearance of the sections of such a comprehensive work is a distinct advantage in that it makes for uniformity in style and viewpoint. It also means that earlier volumes will not become seriously antiquated before completion of the project.—A. H. M.