

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