

Notes on the call of a Ferruginous Pigmy Owl.—In May and June, 1949, we recorded on magnetic sound tape a call of a Ferruginous Pigmy Owl (*Glaucidium brasilianum*). The recordings were obtained in the Santa Ana Wildlife Refuge, located some 30 miles west of Harlingen, Texas. L. Irby Davis indicated that our records furnished the first positive proof that the bird inhabited this Refuge. In our work we were aided materially by Luther Goldman, the Refuge director. The refuge tract lies between a flood dyke and the Rio Grande and, excepting some flood-filled lakes, is densely timbered; the trees are festooned with vines and Spanish moss and are almost impenetrable in many places because of the heavy undergrowth of thorny shrubs. Our recorder was located about one-half mile from the northern edge of the tract on a partially-cleared neck of land between two of the lakes. One microphone was close by, with another about 500 feet to the south in dense vegetation; at that point, the Rio Grande was about a mile and a half farther south.

Our attention was first called to the owl while reviewing an earlier recording, obtained about 4:30 a.m. The owl must have been at a considerable distance from the microphone; using the greatest play-back volume obtainable, a faint, frog-like sound was heard, a single short note repeated at a uniform rate. On our next visit, the bird called from a tree rather close to the recorder; it was still dark, and we were not able to see the bird on his perch; after calling for a minute or so, a brief glimpse was obtained against the sky as he flew south. Immediately we picked him up on the distant microphone; after calling for a minute or so near that location, there was a brief silence; then the call again, quite faint; then silence, and we heard the bird no more.

During its performance, the owl gave the call at a rate of about 150 repetitions per minute; this rate was maintained throughout our recordings. The call would be repeated a varying number of times, ranging from 10 to 45 repetitions; then the bird would pause for about 10 seconds, and again begin the call. Subsequently, through the courtesy of Dr. P. P. Kellogg of Cornell University, we were privileged to hear the call of another Ferruginous Pigmy Owl, recorded some years previously on a phonograph record by Dr. A. A. Allen in Mexico. For all practical purposes, the recordings are identical with respect to quality, pitch, and time intervals.

Published "oral" descriptions of the call differ appreciably, possibly because of a difference in individual birds, but more likely because the call sounds differently to different observers. A. C. Bent, in his "Life Histories" (*U. S. Natl. Mus. Bull.* 170:437-438) quoting others, gives brief descriptions of the call: to Bendire, it sounded like *chu*; to Euler, like *khiu*; and to Stephens, like *cuck*. Peterson (1941, "A Field Guide to Western Birds," p. 90) adds one from Sutton: *chook* or *took*.

In the recordings of our bird, we are not able to detect with certainty either the "c" "k," or "t" sounds indicated above. The quality is not shrill nor sibilant; rather, it is clear and mellow, something like *whah* (short "a" as in "ah"), with the sound originating well back in the mouth, not near the teeth. By puffing, or "whuffing" the breath across the opening of a bottle, partially filled with water, we were able to produce a note resembling the call of this owl, both in quality and in pitch. Using a pitch pipe, we estimate the tone as F sharp in the third octave above middle C on the piano, close to 1400 cycles per second.—JERRY AND NORMA STILLWELL, *RFD #2, Fayetteville, Arkansas, January 22, 1954.*

A nest of the Yellow Warbler superimposed on a Red-eyed Vireo nest.—On June 6, 1953, while collecting nesting data in Rondeau Park, Canada, I found the nest of a Yellow Warbler (*Dendroica petechia*) superimposed on the nest of a Red-eyed

Vireo (*Vireo olivaceus*). The nests were in a horizontal fork of a beech tree (*Fagus grandifolia*) suspended between two small branchlets, 93 inches above the ground. The area in which the nests were found represented a small cut-over section of a surrounding virgin beech-maple forest. This type of habitat may be considered typical for the Red-eyed Vireo but somewhat different from the habitat in which the Yellow Warbler usually nests.

Upon discovery, the female Yellow Warbler flushed from the nest and was joined in a nearby tree by the male after she had uttered alarm notes. The nest was collected and the following data obtained: The completed vireo's nest contained two Cowbird's (*Molothrus ater*) eggs which probably had been abandoned before the warbler's nest was started. The warbler's nest was built inside the cup of the vireo's nest and firmly attached to the materials at the rim of the vireo's nest, making what appeared at first glance to be a semi-pensile nest of the warbler. The finished nest of the Yellow Warbler also contained two eggs of the Cowbird, apparently laid by different females since the markings of the two eggs were decidedly different. The Cowbird eggs were covered by a second lining on which the female Yellow Warbler was incubating two eggs of her own. The measurements of the nest were: total height, 68 mm.; height of vireo's nest, 32 mm.; height of warbler's nest, 36 mm.; inside diameter of warbler's nest, 33 mm.; outside diameter of warbler's nest, 44 mm.; inside depth of warbler's nest, 31 mm.

These observations were confirmed by Douglas S. Middleton and Walter P. Nickell at the time the nest was discovered.—HAROLD D. MAHAN, 582 E. Drayton Avenue, Ferndale, Michigan, August 24, 1953.

Cardinal's period of dependency.—A female Cardinal (*Richmondia cardinalis*) that hatched July 25, 1953, and was color-banded before it left the nest August 4, was next seen when it began coming to my feeding shelf with its parents on September 5. This juvenile was fed regularly through September 7, on that same day began to eat raisins and crumbs of seed kernels for itself, was still fed occasionally through September 12, first succeeded in opening its own sunflower seeds September 20, begged rarely as late as September 26, and was last seen with a parent October 2. That is partial independence at the age of 44 days, complete independence at 50 days, and severance of family ties at 70 days; these figures are even higher than those I found for two other juveniles (1944. *Wilson Bull.*, 56:173-174). This bird was a member of the third and last brood of a color-banded pair, and the only member that survived the age of three weeks.—HERVEY BRACKBILL, 4608 Springdale Avenue, Baltimore 7, Maryland, December 10, 1953.

The Aves section of the *Zoological Record* covering the ornithological literature of 1952 was issued in March, 1954. Again we acknowledge our indebtedness to Lt. Col. W. P. C. Tenison for so ably preparing this essential bibliography and we urge our readers to support this publication, which is available for seven shillings and sixpence from The Zoological Society of London.