

April 25, 100 days later, the four-month-old owl broke loose. Eighty-eight pellets had been accumulated, 24 from adult birds.

The nest tree was situated in a flatwoods comprised of turkey oak and long leaf pine. This area and the mammals therein are described by Moore (Journ. Mamm., 27: 49-59, 1946). Less than a quarter-mile to the northeast is a flatwoods pond upon which a large population of Coot (*Fulica americana*), Florida Gallinule (*Galinula chloropus*), and Lesser Scaup (*Aythya affinis*) resided during the winter and early spring. Directly westward are two other smaller ponds at an equal distance. The St. Johns River flows about one mile from the nest tree. The state fish hatchery ponds lie between the river and the nest. These latter are frequented by many species of water-fowl. These thickly populated habitats were well within the daily foraging radius of this owl, as mentioned by Errington (Condor, 34: 75-86, 1932). The only human dwellings in the locality were adjacent to the hatchery ponds.

A qualitative analysis of each pellet was made to determine the animals preyed upon, and which of these formed the most numerous item of the owl's diet. Eight species of birds were taken and five or six mammals (*Sylvilagus* identified to genus only). Reptiles formed a part of the adult food. Two snakes and one lizard were found but could not be identified from the occasional vertebrae present in the pellet remains. The grasshoppers were probably caught by the tethered bird and formed but a minor component of the diet.

I wish to express my appreciation to Dr. Pierce Brodkorb, Dr. H. B. Sherman, Dr. Irving J. Cantrall, and Mr. Paul Pearson for aid in the identification of the prey species.—BARTLEY J. BURNS, *Department of Biology, University of Florida, Gainesville, Florida.*

**Blue Jay, *Cyanocitta cristata*, "Anting" with Burning Cigarettes.**—A fledgling Blue Jay, brought alive to the Dallas Museum of Natural History in late May of 1949, was kept captive until its death some six months later. During this period the bird was not confined in a cage, but was given the freedom of a large workroom where it quickly became an entertaining if somewhat "mischievous" pet.

The bird early evinced—as opportunity was afforded it—the unusual behavior trait of dressing the feathers of its wings with the lighted and still burning tip of a cigarette. McAtee (Auk, 55: 98-105, 1938) in his summary of the subject of "Anting" has classified recorded observations of birds dressing their plumage with various animate and inanimate objects other than ants, as "Cognate (?) phenomena, not anting."; under this heading he cites an observation by Heinroth (Journ. für. Orn., 59: 172, 1911) in which a tame Magpie "eagerly rubbed its feathers with cigar stumps." As it is not specified that the cigar stumps were lighted and burning, the inference is that they were not.

In the present instance, the bird showed no particular interest in an unlighted cigarette other than occasionally to tear one apart, as it also would other comparable objects; but if a lighted one were left unguarded within its reach or purposely tossed to it on the floor, almost invariably its responses were immediate and positive. It would swoop down and seize the cigarette, which, if the "butt" were a short one, would be taken lengthwise in the bill by the unlighted end. If it were long, it would be held diagonally, with the lighted end away from the bird. Then, partially elevating and carrying forward the wings, the jay would bend its head and with rapidity and vigor rub the burning tip of the cigarette alternately along the under surface of the primaries of first one wing and then the other. In the meantime, it would squat on the length of the tarsi with the tail brought forward and to one side, in which position it appeared to be more or less sitting on its tail. The intensity of the

rubbing action was such that the bird not infrequently lost its balance and fell to its side, but this did not inhibit the continuity of the rubbing which continued until all of the burning tobacco had been abraded from the cigarette's tip. When this had been accomplished the act terminated. The entire performance, which was repeated many times, seldom lasted over 10 or 12 seconds and was executed with a rapidity which made observation difficult.—F. W. MILLER, *Dallas Museum of Natural History, Dallas, Texas.*

**Display of Black-capped Chickadee, *Parus atricapillus.***—A Black-capped Chickadee entered a government sparrow trap at my banding station in Madison, Wis., about 4:45 p. m. on April 25, 1951. It was a color-banded bird, originally ringed in October, 1950. As I remained near the trap verifying the color combination, another chickadee began scolding about 12 feet away. Seeing that the latter bird was also color-banded, I began "squeaking" in an effort to bring it close enough to see the color-bands. It proved to be a bird first banded in September, 1949. For several minutes it remained within 6 to 12 feet of me, scolding intermittently, and going through the following display. With feathers puffed out and tail spread, both wings were raised high over the head and then lowered but kept extended away from the body. This was slowly repeated in a circular motion at the rate of about one revolution per second; at the same time the bird tipped forward on the branch as though losing its balance. When almost upside down, with wings still moving in a circular motion, it would fly to another nearby branch and repeat the performance. Upon liberating the trapped bird, the one displaying immediately returned to normal size and posture, gave a 'chick-a-dee-dee' call, and joined the bird that had just been released. The following day the same two birds were seen feeding together and giving the low, soft notes associated with a pair.

Both the wing-waving and tipping behavior have been described among chickadees by Odum and E. R. Pettingill. Apparently, however, the display consisted only of wing-waving, or only of tipping, not of both simultaneously. In one instance, a young Black-capped Chickadee was captured and the parents, scolding, flew toward the intruder; they raised both wings over the back and flapped them slowly back and forth, with the head held straight out and moved slowly from side to side (Odum, *Auk*, 54 (4): 531). In another case, the display was provoked by a red squirrel approaching the nest of an Acadian Chickadee, *Parus hudsonicus*. One of the adults tipped over backward on a branch until it was upside down with "wings fluttering helplessly"; it then flew to another branch and appeared to fall over sidewise (E. R. Pettingill, *Bird-Lore*, 39 (4): 280).—MARGARET B. HICKEY, *13A Eagle Heights, Madison 5, Wisconsin.*

**Starlings, *Sturnus vulgaris*, Catching Insects on the Wing.**—Observations made chiefly in Baltimore from 1936 through 1950 show it to be a fairly common thing for the Starling to hawk insects by more or less prolonged, circuitous flights in something the manner of swifts or swallows. This agrees with Tucker's findings in Europe (*Auk*, 67: 243, 1950).

My notebooks for the years 1936 to 1950 contain 43 observations of such hawking, made on 37 days; the dates range from March 14 to November 18; most fall between August 21 and October 20. I have 29 observations made on 27 days of Starlings hawking out from trees or roofs and returning to their perches with single insects, in the flycatcher manner that Hodges (*Auk*, 67: 242-243, 1950) regards as the more common of the two; these dates range from March 10 to November 23. On 11 days, both methods of feeding were being used simultaneously by different members of the same Starling flocks.