lowed the first hawk over the hill northwestward. At about 20:15 one of the Swainson's returned to make a last catch.

Meanwhile, the molting Red-tail reappeared from the southwest. Using the same technique as that of the Swainson's Hawks, it made five attempts to catch a bat. Every attempt was unsuccessful. After its last attempt it flew off eastward.

Also while we were watching, a Sparrow Hawk (Falco sparverius) appeared south of the ravine where the mainstream of the bat-flight was well above ground. The hawk captured a bat using the Swainson's technique and, while hovering, transferred its prey momentarily to its bill (perhaps killing it thus), and flew swiftly eastward with the bat in its talons.

When, at 21:30, it had become so dark that we could not see the bats at all clearly, we left. At that time bats were still flying from the cave.

Certain points about our observations should be stressed. Every hawk that we observed used the same capture technique. The two Swainson's Hawks and the Sparrow Hawk were successful in capturing bats; the Red-tailed Hawk was entirely unsuccessful. Not once did we see a hawk stoop through the bat-flight. Nowhere in the area did we see a Marsh Hawk (Circus hudsonius). We saw no owl either before or after dark.

1609 ROSEMONT DRIVE, NORMAN, OKLAHOMA 73069, 1 FEBRUARY 1972.

## THE WESTERN LIMITS OF THE PILEATED WOODPECKER'S RANGE IN OKLAHOMA

BY LOUIS E. MCGEE AND FRANCES NEELD

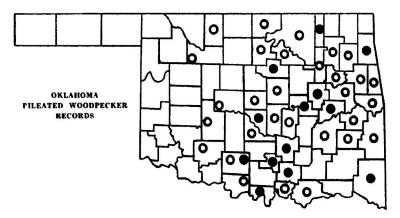
In the Southern half of the United States the Pileated Woodpecker (Dryocopus pileatus) is chiefly an eastern bird; it is locally common southward to the Gulf of Mexico. In the western United States, on the other hand, it is merely "casual" as far south as "southeastern Utah (Bluff), northern Arizona (Kaibab Plateau), and southwestern New Mexico" (1957, AOU Check-list, p. 315). Its range in Oklahoma very nearly coincides with that of the "Eastern Forest" (see map of "Forest Regions of the United States," 1948, U. S. Dept. Agric., Forest Service), the westernmost records for it being from southwestern Major County (one seen 6 April 1955 among cottonwoods along the North Canadian River near Chester by J. L. Steele, Jr.) and from Comanche County, where J. H. Gaut collected a female specimen (U. S. National Museum 195,664) on Mount Scott in the Wichita Mountains in Febnuary 1902, and where Gaut saw "a few . . . along Medicine Creek" (Nice, 1931, Birds of Oklahoma, p. 112) between 11 March and 28 May 1904 (Nice, op. cit., p. 43).

So far as we know, the Pileated Woodpecker has not been seen in Comanche County since Gaut's day, this despite continued efforts of the Lawton-Fort Sill Bird Club to find it during the past four years. There are, however, two recent

records for Caddo County (one seen 6 December 1956 in a wooded canyon near Hinton by C. A. Ely; female specimen found dead 2 miles north of Fort Cobb Reservoir on 16 January 1965 by H. B. Lyman), three vague, not wholly satisfactory early records and one valid recent record for Canadian County (one seen by G. B. Wint on 1 May 1954 along the North Canadian River near El Reno), and two recent records for the Salt Plains National Wildlife Refuge in Alfalfa County (one seen 28 April 1946 by S. H. Low; one seen 8 December 1956 by L. L. Byfield). The species has not been reported from Dewey, Blaine, and Cotton counties.

Data filed at the University of Oklahoma Bird Range make clear that the known western limits of the Pileated Woodpecker's breeding range in Oklahoma today are in Payne, Cleveland, and Stephens counties: in Payne County a pair nested in a "highline pole" along the Cimarron River just west of Ripley in the spring of 1967 (fide Zella Moorman); in Cleveland County one or two pairs have nested regularly, and fairly successfully, during the past 20 years in the vicinity of Norman (D. F. Parmelee, R. L. Hosner, J. Janovy Jr., G. W. Dickson, G. M. Sutton); in the northeastern corner of Stephens County, about 1 May 1966, W. M. Brewer and C. Brewer saw a bird at a nest about 20 feet up in a partly dead blackjack oak about 2 miles west of the Garvin County line and 1 mile south of State Highway 29. In Jefferson County, in March 1970, R. W. Wilson and L. Ball found two "nest holes" about 20 feet up in a big cottonwood stub near Ringling: while these holes were not quite proof of breeding, they certainly indicated that the woodpecker was well established in the area.

Members of the Stephens County Audubon Society have ascertained what the present day western limits of the Pileated Woodpecker's range are in that



Species is known to have bred in every county having a solid black spot; a circle indicates at least one sight record for the county; positioning of westernmost circles is accurate, of all other symbols approximate.

county. They have observed the species regularly and rather widely in the northeastern quarter of the county during the past five years. In the vicinity of Lake Fuqua, the county's most recent large impoundment, they failed to find it in 1968 and 1969, but on 31 October 1970 Frances Neeld, William Fox, John Craythorne and his wife Moryne sighted two birds there. Dorothy Paul has observed the species repeatedly among big trees along a creek that feeds a "conservation pond" on the Ringer Ranch near the village of Velma in the east-central part of the county. On a Breeding Bird Survey made on 16 June 1967, the Pauls and their son Stephen saw one along the "Loco Route" (Loco is one of the oldest settlements in the county) near Comanche Lake. On the 1968 Christmas Count (28 December) one was seen by Frances Neeld et al. at Clear Creek Lake (1969, Audubon Field Notes, 23: 346). The westernmost, as well as the most frequent, sightings in the county have been in tall trees just west of Lake Humphreys, an impoundment slightly west of Clear Creek Lake and 6 miles south of the Grady County line. About 1 November 1971 someone shot a male Pileated Woodpecker in the Clear Creek Lake area-6 miles east, 212 miles south of Marlow. The specimen is now in the Tyler Collection at Cameron College in Lawton, Oklahoma.

Along Beaver Creek near the town of Corum, in the extreme southwestern corner of Stephens County, Frances Neeld and several other members of the Stephens County Audubon Society failed to find the Pileated Woodpecker on 17 January or 9 May 1970. In this area there are large trees of the sort in which one might expect to find the bird. Part of this watershed will be inundated when the Waurika Reservoir is completed in the mid-1980's. As the reservoir fills, the surrounding woodland should be observed carefully, for the combination of big trees and water should provide an attractive habitat for the big woodpecker.

1703 N. 43rd ST., LAWTON, OKLAHOMA 73501; 1304 ELM ST., DUNCAN, OKLAHOMA 73533, 17 MAY 1971.

## GENERAL NOTE

Aggressive behavior of Starling at Yellow-shafted Flicker nest-site.—On 25 April 1971, in a small patch of woods just north of the Harold S. Cooksey residence at 909 Morningside Drive, in Norman, Cleveland County, central Oklahoma, Mr. Cooksey and I witnessed an encounter between a female Yellow-shafted Flicker (Colaptes auratus) and a Starling (Sturnus vulgaris). At a newly excavated hole about 2½ inches in diameter and 30 feet up in a cottonwood, a female flicker came and went so frequently that we felt sure she was nesting—or preparing to nest—there. Each time she went into the hole she stayed for 30 seconds or so, then left the tree. Since we heard no sound of excavating, we assumed that the nest cavity had been finished.

On returning to the cottonwood after a brief walk through the woods, we saw the flicker go into the hole. She had been inside only a short time when a Starling flew directly to the hole and also went in. Within about 15 seconds we heard the muffled clucking of the flicker. Almost immediately