A STUDY OF OVERWINTERING RAPTORS IN ALABAMA

David T. Rogers, Jr. and Mark Dauber

An absence of quantitative data on raptorial birds in Alabma led to this study of a 40-mile strip of the black belt. This coastal plain belt is an area of natural prairie consisting of plowed fields, pastures and scattered trees. The open nature of the area makes it an excellent area for certain raptors and allows good visibility for counting birds. The area chosen was selected for its representative nature and relative freedom from interference by traffic.

Methods

Counts of raptors were done by two people in a car being driven approximately 40 miles per hour (64 kmph), and was done in conjunction with trapping. No birds were counted if they appeared after the vehicle had stopped for trapping purposes. Thus, the counts approximate the equivalent of a continually moving car. Trapping was done by tossing a bal-chatri trap from the car at a speed of approximately 20 mph (32 kmph). Only the American Kestrel (Falco sparverius) was trapped.

Experimentation with trap designs and mouse colors was done. Weighing of kestrels was done a a spring-type Ohaus scale marked in 10 gm intervals. Estimates of weights were made to the nearest gram. Checking estimated weights against the analytical balance in the laboratory indicated good accuracy. The average error for weights of 10 objects checked against an analytical balance was 0.9 gm.

Results and Discussions

American Kestrels, Red-tailed Hawks (Buteo jamacensis), Marsh Hawks (Circus cyanea) and one Red-shouldered Hawk (Buteo lineatus) were counted on the census strip. Counts were begun on November 21, 1975, and discontinued on March 18, 1976, after which most raptors had left the study area. Table 1 represents data between the dates of November 21 and February 26. The latter date was chosen because most of the kestrels departed at that time. As indicated in Table 1, kestrels were numerically the dominant raptor on the census strip. This contrasts sharply with published data on strip censuses in Michigan (Craighead and Craighead 1975, Harrisburg, Pa. Hawks, Owls and Wildlife, The Stackpole Co., p. 43) where members of the genus Buteo were dominant. Total hawk counts (24.8 per trip) compared favorably with the best year in the Craighead study (33.3 per 40-mile strip).

Kestrels were trapped, banded and weighed using a variety of bal-chatri traps. The tendency of some kestrels to walk around a trap without getting on it led us to use a cage which was smaller than the floor. The effect was to provide a cage surrounded by a platform to which nooses were stapled.

Many kestrels were caught in the platform nooses. Black, white and agouti mice were used in the traps. No difference in effectiveness could be found between the black and agouti, but white mice were definitely inferior. It is interesting to note that although an average of only 13.8 destrels was seen per trip, there were 30 kestrels banded on the census strip. Thus, assuming that we banded all the destrels on our strip, we averaged seeing only 46% on an average day. Since we had no recaptures, we obviously had not banded all the birds.

Table 2 gives the weight data on kestrels, and indicates the characteristic weight gain of a migratory population. The average weight for female kestrels as reported in the literature is 119 gm. (Craighead and Craighead, op. cit., p. 428, Beebe, 1974, Field Studies of the falconiformes of British Columbia, The British Columbia Provincial Museum, p. 103, Brown and Amadon, 1968, New York, Eagles, Hawks and Falcons of the World, McGraw-Hill, Vol 2, p. 771). If the 157 gm bird reported in Table 2 weight 119 gm normally, then this bird may have been carrying 38 gm of migratory fat. A larger sample over a longer period of time and recaptures would help to answer the fat storage question.

Table 3 gives the sex ratios for two groups of kestrels, one from the black belt and the other from different areas of the State of Alabama. Originally, trapping was done only in the black belt, but the preponderance of females led us to do some trapping in other areas.

The 38 to 5 ratio in the black belt does not seem to be shared by the other areas which were eight females to six males. Also it contrasts with the work of Enderson who found a ratio of 22 males to 18 females in an Illinois study (Enderson, 1960, The Wilson Bulletin, 72(3):224). At the present time, we have no explanation for the strange sex ratio of the black belt kestrels.

Table 1. Average Numbers and Standard Deviations of Raptors Seen on a 40-Mile Strip. (November 21 through February 26).

Species	Mean	s.d.
Red-tailed Hawk	7.3	± 2.8
Marsh Hawk	1.1	± 1.0
American Kestrel	13.8	± 6.8

Table 2. Dates and Weights of Female Kestrels. Number per sample in parentheses.

Date	Mean Wgt.	Max Wgt.
1/15	122	123 (5)
1/29	132	140 (5)
2/8	139	150 (8)
2/19	135	157 (14)
2/29	122	146 (3)

Table 3. Sex Ratios of Kestrels Caught in the Black Belt and from Other Areas.

	Male	Female
Black Belt	5	38
Other Areas	6	8

Department of Biology
The University of Alabama
P. O. Box 1927
University, Alabama 35476

NOTE ON INCREASE IN ROBINS DURING BREEDING SEASON IN SOUTH ALABAMA

Robert R. Reid, Jr.

The Am. Robin (Turdus migratorius) is no stranger as a year-round resident in North Alabama, but his not alwaus been so. In addition, although large flocks are found during winter at various places throughout the state (see Imhof, Thomas A., Alabama Birds (1976), 2nd Ed.:303-4, and reports of the AOS Christmas Counts in previous issues of Alabama Birdlife), the Robin was until recently only a winter visitor to South Alabama.

When Arthur H. Howell wrote his Birds of Alabama in 1924 (with data through 1921), he described distribution of the Southern Robin (now the southern race) as occurring "not uncommonly as a migrant and winter resident and very rarely as a breeder in the northern part of the state," breeding season records being listed for localities across the Tennessee Valley and south to Anniston, Jasper and, in 1890, Montgomery (but not known to breed there again until 1921). However, by the time of Imhof's first edition of Alabama Birds (published in 1962 with data through August 1961), the Robin was described as an abundant permanent resident south to the prairie region (or Black Belt) and below there uncommon and local mostly around towns. Thus, it is only during this century that the Robin has expanded its range southward throughout Alabama. However, it is still difficult to find in the breeding season below the Mountain Region except in certain selected localities, usually cities and towns but not even uniformly in them.

Records from Imhot (1st Ed.) show first breeding records for the Robin in Greenville and Brewton in 1953, Mobile in 1958, Coffeeville (Clark County) in 1959, and Dauphin Island in 1960. On June 16, 1974, the bird was found in Brundidge after running of a breeding bird survey route of the U.S. Fish and Wildlife Service that begins in that town, the writer and his wife having been alerted to presence of the bird by hearing it at the first stop before sunrise. Later, discussion with a local observer, Leon Long, confirmed that the bird had been present for a few prior years. (Incidentally, much of the data contained in this note is generated by or is connected with those breeding bird surveys, which is testimony to their value in compiling not only quantitative data but also distributional data on the changing ranges of species.)

In summer of 1976, several observations were noted in the Coastal Plain, which, with reports from previous years, indicate that the Robin may well be increasing its numbers breeding in South Alabama and is now occupying rural in addition to urban areas and also being found more frequently in the cities and towns.

On the Hale-Perry County Route, there had been three observations of single birds prior to 1976. However, in that year single Robins were recorded on the first three stops and, when later being confirmed by visual observation, eight were found in that rural area. On the Choctaw-Sumter County Route, a total of five birds were seen on stops in two very small towns, making the fifth of the last six years on which Robins had been observed on that route with a nest having been found at one stop. In addition, a pair was observed on June 13 in Monroeville, 20 miles south of Beatrice in Monroe County (starting point for the Monroe-Wilcox County Route).

Later, on July 10-11, two birds were observed at a farm just south of Union Springs in Bullock County, one in the small town of Midway also in Bullock County, and another in a roadside park in Montgomery County near the Montgomery-Pike County Line.

Statistics generated by the breeding bird survey program show that, except for blackbirds, Starlings and House Sparrows, the Am. Robin is by far the most numerous songbird in North America. This most attractive and beneficial bird adapts particularly well to the human environment, especially where there are lawns and shade trees. Thus, when it expands its range into an area, it is usually first found in the residential sections of towns and then spreads gradually into the countryside and cities. The number of observations noted above for 1976 indicates that such and expansion is probably now occurring in many parts of South Alabama. Therefore, observers should be on the lookout this coming summer for additional breeding records in that part of our state.

2616 Mountain Brook Parkway
Birmingham, Alabama 35223

Corrigendum and Addendum to 1975 Christmas Counts

The following corrections and additions to the report of the 1975 Christmas Counts contained in Vol. 24, Nos. 1-2, should be noted: Due to a mistake in transmission of data, the number of E. Bluebirds at Eufaula Wildlife Refuge was 19 instead of 69 and, thus, is not a high figure although it is by one, a high for that count. The Black-and-White Warbler there was the first Alabama inland winter record for that species as also was the Black-bellied Plover noted in the main article. The Bullock's Oriole at Magnolia Springs on the Gulf Shores Count was a male rather than a female, of that presently considered subspecies of the now called Northern Oriole.

Robert R. Reid, Jr.
Counts Editor