

A BREEDING-BIRD STUDY IN WILCOX COUNTY, ALABAMA

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Introduction

In March, 1958, a study of birds was undertaken in Wilcox County, Alabama, to determine:

1. What species of birds breed in certain habitat types in Wilcox County and their status there.
2. Breeding-bird population densities in certain habitats in Wilcox County.

Our knowledge of distribution and population densities of birds breeding in Southern Alabama is quite limited. It was felt by Dr. Julian Dusi (Associate Professor of Zoology, A.P.I.) and myself that such a study might be of some value.

Methods

Field-work was begun in mid-March, 1958. The early part of the study was primarily concerned with selection of suitable study areas, marking observation stations and mapping.

In the middle of April, recording of individuals in the different study areas was begun. Because in April many migrants were present, only those birds exhibiting marked territoriality were recorded as possible breeding individuals. As Spring wore on, the population became more stable; beginning May 1 every bird occurring in the study areas was recorded—many of these later proved to be not breeding in the area. The study was completed May 27.

Singing males were plotted on maps. When these birds were heard singing or seen repeatedly in the same location, and later seen with a mate, they were considered breeding birds. In every case that individuals were considered breeders:

1. The bird was seen or heard in the same location (+ — 50 feet) at least 10 different days throughout a period of not less than 20 days, or
2. A nest was discovered, or
3. Young birds, out of the nest, were seen being fed by adult birds in a location where a breeding pair of the species was suspected.

These pairs were counted as inhabitants of the Study Areas only when the center of their territory fell with-

in the area. In other words, a breeding-pair spending little time on the area was not included.

No all-out effort was made to find nests. In some cases nests were searched for to verify breeding activity. Few were found. It would be impossible to census more than a very small area if much time is spent in searching for nests.

An attempt was made to compute population densities. It should be pointed out, however, that the densities arrived at in this paper can be interpreted only in the light of the writer's definition of a "breeding-bird." Some species do not show marked territoriality, e. g., vultures, swifts, swallows, hawks. These are here treated as visitors in the study areas. For these species it would be impossible to determine if the center of their territory fell within the study area.

Area One

Study area one is a 1200 ft. x 200 ft. strip along an old logging road in a mixed pine-hardwood stand. The area was heavily logged about four years ago and a heavy underbrush of honeysuckle, smilax, and young hardwoods has developed. Few mature hardwoods are on the area and no pine over 10 inches diameter-breast-high. There is also no over-story cover.

The area held 28 pairs of breeding birds (18 species) in its 5.5 acres. This gives a breeding-bird density of 5.2 birds per acre, or 520 pairs per 100 acres.

Species Occurring in Area One (Cut-Over Pine Woods) and their Status Breeders

Hairy Woodpecker—1 pair was seen in the area throughout the study period.

Downy Woodpecker—1 pair was seen in the area throughout the study period.

Crested Flycatcher—1 pair was seen in the area throughout the study period. Other individuals of this species visited the area.

Wood Pewee—3 pairs were seen in the area throughout the study period. 1 nest found.

Chickadee—1 pair seen repeatedly and seen feeding young May 26. Others of this species visited the area throughout the study period.

Carolina Wren—2 pairs maintained territories throughout the study period.

Blue-Gray Gnatcatcher—3 pairs seen in the area throughout the study period. Others of this species visited the area during the early part of the study.

White-eyed Vireo—1 pair maintained a territory throughout the study period. Another pair with young out of the nest found on the area May 26.

Red-eyed Vireo—2 pairs were seen on the area repeatedly during the month of May.

Yellow-throated Warbler—1 pair was seen on the area throughout the study period.

Pine Warbler—1 pair in the area throughout the period. Other individuals visited the area.

Prairie Warbler—1 pair apparently bred on the area—a discreet territory was maintained. The species was more abundant on the area during the early part of the study.

Kentucky Warbler—1 pair remained on the area throughout the study period.

Yellow-breasted Chat—3 pairs maintained discreet territories on the area.

Summer Tanager—1 pair was seen on the area throughout the period.

Cardinal—2 pairs were on the area throughout the period. A nest was found.

Indigo Bunting—2 pairs maintained territories on the area throughout the study period.

Towhee—1 pair was found on the area throughout the study period.

Visitors

Broad-winged Hawk—seen from time to time in the area, but no good evidence of their breeding there.

Bobwhite—seen several times in the area, but apparently not nesting there.

Turkey—numerous tracks in the area.

Mourning Dove—seen several times in the area but probably not nesting there.

Chimney Swift—flying over the area every day.

Yellow-billed Cuckoo—seen in the area, but no evidence of breeding activities.

Pileated Woodpecker—seen in the area once.

Common Crow—seen in the area 7 times.

Titmouse—seen in the area 5 times.

Redstart—heard singing in area for 3 days.

Chipping Sparrow—seen in the area 3 times during late May.

Area Two

This area is a strip 1500 feet x 200 feet along the edge of an old field. Fifty feet of its width, to the south, is in mixed pine and hardwood, with pine predominating. The remaining 150 feet of width is contained in an old field. The field is knee high in dewberry, smilax, and broom-sedge. A group of seven or eight persimmon trees grow in the field. There is a large pecan tree also.

The area held 15 pairs of birds on its 6.9 acres for a bird density of 2.2 birds per acre or 220 pairs per 100 acres.

Species Occurring in Area Two (Old Field Edge) and Their Status Breeder

Bobwhite—1 pair was observed in the area throughout the month of May. Other individuals visited the area.

Turkey—1 nest was found. Several individuals of the species visited the area throughout the period.

Red-bellied Woodpecker—1 pair seen frequently in the same tree since May 6.

Great Chested Flycatcher—1 pair seen in the area throughout the study period.

Wood Pewee—1 pair seen on the area throughout the period.

Blue-Gray Gnatcatcher—1 nest found.

White-eyed Vireo—2 pairs maintained territories on the area.

Yellow-throated Warbler—1 pair seen on the area throughout the period.

Cardinal—1 pair seen on the area throughout the study period.

Blue Grosbeak—1 pair remained on the area throughout the study period.

Indigo Bunting—1 pair seen on the area throughout the study.

Field Sparrow—3 pairs apparently bred on the area. One nest was found.

Visitors

Turkey Vulture—several seen flying over the area almost every day.

Black Vulture—seen over the area 15 times.

Red-tailed Hawk—seen in the area once.

Mourning Dove—several pairs used the area but may have nested elsewhere.

Chimney Swift—seen flying over the area nearly every day.

Cuckoo—visited the area 12 times.

Hummingbird—occurred in the area 9 times.

Downy Woodpecker—visited the area 6 times.

Eastern Kingbird—several migrants recorded in the early part of the study; none bred in the area.

Rough-winged Swallow—occurred in the area 4 times in May.

Purple Martin—seen in the area 3 times in late May.

Common Crow—several seen in the area.

Fish Crow—several seen in the area.

Blue Jay—seen in the area frequently, but apparently not breeding.

Carolina Wren—seen in the area 8 times.

Starling—seen in the area once.

Redstart—seen in the area 3 times in mid-May.

Orchard Oriole—1 pair stayed in the area for about two weeks and left.

Cowbird—Seen in the area throughout the study and undoubtedly bred there, but no parasitized nest could be found.

Area Three

Area three, 1000 feet x 200 feet, is located along a small, fast-running creek. It extends 100 feet on either side of the creek. The vegetation here is mature hardwood in the over-story (beech, white oak, cucumber tree, and hickory) and in the under-story several species of shade tolerant shrubs, including *Illicium* sp., azalea, dogwood, and young hardwood trees. The terrain is typical of small upland streams in the county—a deep bank with occasional limestone outcroppings and a very steep slope toward the creek. The area is dark, shaded and cool.

This area, 4.6 acres, contained 24 pairs of breeding birds. This gives a density of 520 pairs per 100 acres. By coincidence, this density is identical with that of area one.

Species Occurring in Area Three (Mature Hardwood) and Their Status Breeders

Black Vulture—1 nest was found containing one downy young. Others of the species were seen flying over the area.

Yellow-billed Cuckoo—1 pair was seen everyday throughout the period. Others of the species occurred in the area frequently.

Hummingbird—2 nests were found.

Downy Woodpecker—1 pair remained in the area throughout the study period.

Acadian Flycatcher—2 pairs seen in restricted spots in the area throughout the period.

Carolina Wren—2 pairs remained in the area throughout the study period. One pair was seen with young out of the nest May 25.

Wood Thrush—1 pair was seen repeatedly in the same locality throughout the study period.

Blue-Gray Gnatcatcher—1 pair seemed to be breeding on the area. They were seen 19 times in the same place. Others of the species visited the area.

White-eyed Vireo—1 pair seen on the area throughout the period.

Red-eyed Vireo—3 pairs stayed on the area through-

out the month of May. Others of the species visited the area.

Worm-eating Warbler—1 family and 1 individual adult were on the area from May 7 through the end of the study, May 27. On May 7 one bird was heard singing in a location where on May 26 a family of two adults and two young were observed. Also on May 26, another adult, apparently not belonging to the family, was seen several times throughout the morning. 2 immature specimens were collected June 4.

Parula Warbler—3 pairs apparently bred on the area. One nest was observed being built on May 25. Another nest was found on May 26.

Louisiana Waterthrush—1 pair was seen and heard repeatedly. May 26 two adults and a young bird were seen in that location.

Kentucky Warbler—2 pairs apparently bred on the area. One pair with a fledgling were seen May 26 and 27.

Hooded Warbler—1 pair was seen and heard in the same location throughout the study period.

Redstart—2 pairs were seen and heard in the same restricted locality through the month of May. Other individuals of the species visited the area.

Visitors

Turkey Vulture—seen flying over the area several times during the study.

Pileated Woodpecker—occurred in the area 4 times.

Wood Pewee—occurred in the area several times, but apparently not breeding.

Blue Jay—seen in the area 3 times.

Cowbird—seen in the area 4 times.

Summer Tanager—seen in the area 6 times.

Cardinal—seen visiting the area several times but not nesting there.

Auburn, Alabama
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WHISTLING SWAN RECORDS FROM WHEELER REFUGE

THOMAS Z. ATKESON

That Whistling Swans must have visited northern Alabama rather frequently in earlier days is witnessed by the number of water areas that bear their name. As examples, there is a Swan Pond in Madison County, a Swan Creek and a Swan Lake in Limestone County. In more modern times, swans occur in this end of the State only as rare and irregular visitors. In the 20-year history of the Wheeler National Wildlife Refuge, Whistlers have been recorded in refuge bird records on only four occasions.

The first swan record for the refuge came on November 16, 1942, when Henry H. Grammer, long-time refuge employee, found a single immature Whistler on Lakeside slough. This is an arm of the Flint Creek embayment, paralleling State Highway 67. Grammer remembers that the bird remained for a week or longer and attracted considerable public attention, but it is recorded in the refuge bird records only on November 16 and 17. C. R. Markley, then Wheeler Manager and now Manager of the Red Rocks Migratory Waterfowl Refuge, Monida, Montana, exposed a considerable footage of 16 mm moving picture film at this bird. In a letter to the writer dated August 3, 1955, he stated that this film, in good condition, was still in his possession.

Whistling swans were not seen on the refuge again until March 25, 1950, when Dr. Clarence Cottam, then Assistant Director of the U. S. Fish and Wildlife Service and now Director of the Welder Wildlife Foundation, Sinton, Texas, and Stephen Welline, a pilot-biologist, making an aerial inspection of the refuge, found four adult Whistlers in the flooded White Springs area. An effort was made, both from the ground and from the air, to relocate these birds the following day, but without success. However, Dr. Cottam's impeccable reputation as an ornithologist and his familiarity with the species leaves little room to doubt the validity of this record.

The third swan record came on November 8, 1953, when Paul Bryan, of T.V.A.'s Fish and Game Division, found one mature and one immature Whistler on the western end of Garth slough. On November 17, Gram-