ALABAMA BIRDLIFE

VOL. 33 1986 No. 1, 2

ALABAMA BIRDLIFE

Journal of the Alabama Ornithological Society

Vol. 33 1986 Nos. 1,2

CONTENTS

OBSERVATIONS ON THE NESTING OF HOUSE WRENS, TROGLODYTES AEDON, IN JACKSONVILLE, ALABAMA

Bill Summerour

HISTORY

The House Wren, Troglodytes aedon, is a fairly common transient throughout Alabama. In winter it is rare to uncommon above the Fall Line, fairly common on the Coastal Plain, and common ~~the~~ the Gulf Coast (Imhof, 1976). In recent years (1970's) the species has been increasing in summer in the northern half of the state and has attempted to breed, but without success (Summerour, 1983). On 29 May 1984, a nest containing 5 eggs was found by the author in Jacksonville and represented the first reported occurrence of House Wrens nesting successfully in Alabama.

The first summer record for the state was reported by Helen Kittinger who recorded a singing male in Birmingham on 7 July 1971. That same summer H. Adams reported an unsuccessful nesting attempt at Auburn. In the summer of 1973, an unmated female was observed by E. L. Grimley at Mountain Brook near Birmingham, and in the summer of 1981, 3 males established territories in Jacksonville but none was successful in securing a mate (Summerour, 1983).

METHODS

After the male was discovered on territory on 9 May, surveys were conducted in Jacksonville by surveying each street in town in an effort to locate other singing males. Selected streets were also surveyed in Piedmont, 12 miles north of Jacksonville, and spot checks were made in rural areas on the outskirts of Jacksonville. These surveys or "counts" were made throughout the summer but no other males were found.

Forty-nine hours, including 21 timed, one-hour sample counts, were spent studying the wrens from 27 May until early September.

HABITAT

In Alabama, the few summer records available have all been from suburban areas (Summerour, 1983). In winter the House Wren more often occurs near the ground in dense tangles in shrubby grown-over fields, hedgerows, woodland openings, and bottom lands.

Of 3 bachelor males observed on territory in Jacksonville in the summer of 1984, all were located in suburban areas. Two of the 4 were found in a relatively new subdivision having a patchwork of weedy openings, gardens, and unkept edges. The other 2, including the pair in the present study, were located in older sections of town having well-shaded streets, lawns and an abundance of old growth hedges and shrubbery.

All 4 territories had gardens, open, weedy areas, and unkept edges adjacent to woods, ditch banks, and roadways. Three of the 4 territories encompassed at least 2 or more bird houses which were probably a significant influence in the initial selection of the site for establishing a territory (see also Territory).

SONG

The male in this study was a frequent singer throughout the 2 breeding cycles from early May through the first week in August, but the frequency and intensity varied with the phase of the nesting cycle and between the first and second broods.

In the first brood, as well as the second, singing dropped off abruptly at hatching when the male turned his attention to helping care for the young. On 14 June, when the young of the first brood were 10 days old, the male abandoned the female and moved 300 feet away to the south end of the territory where he burst into song, singing at a rate of 285 times per hour compared to only 38 times per hour when he was helping feed the young. During this period, from 15 to 25 June, the male spent an average of 60

percent of his time singing, averaging 308 songs per hour and an estimated 4,468 times per day. A maximum of 82 percent of his time was spent singing on 18 June, with 446 songs per hour, or an estimated 6,467 times per day. House Wrens are known for a tendency toward polygamy and the most probable reason for the male leaving the female was in an attempt to attract another mate.

The duration of singing intervals between 15 and 25 June averaged 6.8 minutes per "burst" with an average of 57 songs per interval, or a rate of about one song every 7 seconds, with pauses averaging 3.4 mins. between "bursts."

The male sang frequently while accompanying the female and fledglings of the first brood, but the song was muted and only about half the volume of his territorial song.

After the second brood left the nest the male stayed with the family group but did not sing. The last time he was heard singing was on 6 August, at which time he sang only once, the day after the young left the box.

TERRITORY

Since there were no other males to apply pressure from adjacent areas, the only limit to the size of the territory was the amount of real estate the male could claim and still manage to maintain and control. This presented an ideal situation for study since it was easy to follow the movements of the male without confusin from other wrens in the area.

The territory encompassed parts of 3 city blocks with the nest box located in the middle of the territory. The territory measured 775 feet long and 350 feet wide at its widest poiint and totaled 2.80 acres. The shape was wide at one end and long and narrow at the other. According to Kendeigh (1941), territories at Hillcrest, Ohio averaged 1.0 acres but varied inversely with the size of the House Wren population.

Significantly, the territory included six "bluebird" boxes which were probably the initial attraction for choosing the site for a territory. Two of the 6 boxes were used as dummy nests and a third was utilized for the primary nest. Two of the remaining 3 were unused and the other was occupied earlier by blackbirds.

NEST BOX

The nest box was a brick red "bluebird" box placed 4.5 feet high atop an iron pole 3 inches in diameter. The pole was placed in the center of a small lawn space about 50 feet in diameter that was enclosed by a dense growth of dogwoods, white pines and shrubbery.

The entrance hole measured 1.5 inches in diameter and the depth from the bottom of the hole to the floor of the box was 4.4 inches. Inside dimensions measured 3.5 X 4 inches.

NEST

The time required for construction of the first nest was not determined since the nest was already completed and the female incubating when the nest was discovered on 29 May. After the first brood left the nest on 20 June, the male stayed with the family group for 1 day, then returned to the nest box and spent 2 days cleaning out the old nest. The old material was thrown out of the hole and accumulated on the ground below the box.

The foundation for the new nest was constructed entirely by the male while the female was still with the fledglings of the first brood. Construction was begun by 24 June and continued until 28 or 29 June. The foundation was composed of 80% hardwood twigs, 10% pine, and 12% cedar twigs (Table 1). Bits and pieces of 25 spider's cocoons were also used. The foundation of twigs was elevated to the level of the entrance hole with a framework of twigs obstructing about half the entrance. One twig protruded about 3 inches from the hole and was frequently used as a

perch by the adults. Completion of the foundation by the male required 5 or 6 days, from 24 June to the 29th.

The female inspected the nest for the first time on 29 June, and the male and female were both observed carrying nesting material into the box on the following day.

The deep inner cup of soft bark fibers and a few pine needles were added by the female and placed against the back wall of the box opposite the entrance hole, forming three fourths of a cup against the back of the box. The lining was composed of hair and feathers and the nest essentially was completed on 3 July, although the female continued to add feathers to the lining at least until the time the third egg was deposited on 6 July.

The total time for nest construction was 5 or 6 days by the male and about 4 days by the female, totaling 9 to 10 days.

In addition to the primary nest, the male also constructed 2 "dummy nests," one in a box 75 feet from the primary nest and the other in a box 350 feet away on the south end of the territory. The dummy nests were composed of a foundation of twigs similar to the primary nest, but were more loosely constructed and not composed of as many twigs.

COPULATION

Mating was observed at 8:30 on the morning of 3 July, and the first egg was deposited the following day. It was present when the box was checked at 6:30 p.m.

EGGS

Each clutch consisted of 5 eggs. Baldwin and Bowen (1928) found that in 21 pairs that had 2 broods, the average was 6 for the first set and 5.5 for the second. According to Bent (1948), the number in a complete set varies from 5 to 12, but the range is usually 6 to 8. Harlow (1918) found that in 47 nests in New Jersey and Pennsylvania, the range was 5 to 8.

TABLE 1. COMPOSITION OF HOUSE WREN NEST AND ESTIMATED NUMBER OF TRIPS TO BOX

Outer cup (constructed by male)	No. Items	Est. No. Trips
Twigs		
Pine (1"-4.25", ve. 2")	36	36
Red cedar (1"-4.25", ave. 2.25")	43	43
Hardwood, mostly oak (1"=6.26", ave. 2.25").		
Short (1"-2")	190	190
Medium (2"-4")	70	70
Long (4"=6.25")	30	30
Spider's cocoons	25	25
	394	394
Inner cup and lining (constructed by female)		
Bark shreds	135	45
Pine needles	6	2
Hair	15	4
Feathers	30	30
	186	81
Totals	580	475

The eggs varied in shape from rounded ovate to oval. The ground color was grayish white but was covered or obscured by a dense covering of minute dots of reddish brown, giving the eggs a salmon pink color. The pigment tended to be concentrated toward the larger end and in some of the eggs formed a wreath around the larger end.

LAYING INTERVAL

The laying interval was not recorded for the first set of eggs since the clutch was already completed when the nest was discovered on 29 May.

The first egg of the second clutch was deposited on 4 July, and the laying interval was 1 egg per day until the full set of 5 eggs was completed on 8 July. Bent (1948) also noted that "one egg is laid each day during the egg-laying period until the full complement of eggs is completed."

The box was checked at 1230 hr on 3 July, and the nest appeared completed but held no eggs. The box was checked the following day, at 1830 hr and contained 1 egg. At 0900 hr the following morning there were 2 eggs, indicating the second egg was deposited during the night or early the next morning, probably the latter. The third egg was recorded at 0800 hr on 6 July. The box was next checked at 1600 hr on 7 July, at which time there were 4 eggs. At 1000 hr on 8 July, the fifth egg was present, again indicating that egg laying must take place at night or early in the morning.

INCUBATION

Incubation of the second clutch was underway at least by the time the last egg was deposited on 8 July, and continued until the first egg hatched on 20 July and the last egg on 21 July. There is some doubt when the last egg hatched, but presumably on the afternoon of 21 July. The incubation period was therefore determined to be about 13 days. Bent (1948) also reported 13 days as the incubation period. According to Bent, different observers have given

variation of 11 to 15 days, but this discrepancy can be explained in part through a lack of proper consideration of the factors involved and especially through the lack of accurate determination when incubation actually started.

As one would expect, the percent attentiveness (time in the box/total time of observation period) during the incubation period increased as incubation advanced. Since the female stayed in the box an average of 4.3 minutes per trip during the egg-laying period, it was assumed that some degree of egg warming was in effect during this period. This is also supported by the fact that hatching took place over a period of 2 days.

The attentiveness increased from 22% on 6 July when there was an incomplete clutch of 3 eggs in the nest, to 55% on 10 July, the third day of incubation, to 76% on the eighth day. Attentiveness then declined slightly to 70% on the eleventh day. During hatching on 20 July, when there were 2 eggs and 3 nestlings in the nest, the female spent 67% of the time incubating the eggs and brooding the newly hatched young, and 33% of the time out of the box. Attentiveness after the eggs hatched declined steadily as the nestlings grew older and the female spent less time brooding.

NESTLINGS

The first brood of 5 nestlings hatched on 4 June, and left the box 15.5 to 16 days later, on 20 June. The second brood, also of five young, hatched during 20, 21 July, and also left the box at 15.5 to 16 days of age, on 5 August.

The number of feeding visits for the first brood remained remarkably consistent, ranging from 20 to 39 per hour with an average of 23. Even after the male abandoned the female on 14 June (see also Song), and left the care of the young to the female, she maintained an average of 27 visits per hour until the last 2 days the young were in the nest, at which time the number of visits increased to 30 and 38 trips per hour. The overall average from hatching

to the time the young left the nest was 27 feeding visits per hour or an estimated avarage of 391 visits per day, totaling an estimated 6,060 feeding trips for the 15.5 days the young were in the nest (Table 2).

TABLE 2. ESTIMATED NUMBER OF TRIPS MADE TO BOX BY MALE AND FEMALE HOUSE WRENS, MAY 5 - AUGUST 5.

Stage	1st Brood	2nd Brood	Total
Nest construction	475	475	950
Laying	215	215	430
Incubation	784	784	1,568
Feeding young	6,060	3,875	9,935
Total	7,534	5,349	12,883

The number of feeding trips for the second brood was less consistent than for the first, ranging from 6 to 32 visits per hour with an average of 17, or an estimated 250 trips per day and an estimated 3,875 feeding visits for the 15.5 days the young were in the nest. One possible explanation for this difference was that the contents of the box were not checked in the second brood from the time the last egg hatched until the young left the box. One of the 5 young may have died and this could account for the difference in the number of trips.

FLEDGLINGS

The young of the first brood left the nest on 20 June at 15.5 to 16 days of age and were capable of flying short distances from the time they left the box. By the second day 1 of the young was observed flying from an elevated perch in a hedgerow downward across an opening for a distance of 20 feet or more.

The fledglings were observed feeding independently for the first time on 29 July, 9 days out of the nest.

The second brood left the nest on the morning of 5 August at 15.5 to 16 days of age and by late afternoon the fledglings had worked their way alonga hedgerow some 350 ft north of the nest box. Both the male and female accompanied the young for almost 2 weeks, during which time the family group was observed going to roost in the same second growth thicket used for roostings by both broods.

The male was silent after the second brood left the box except for chattering and scolding and showed no interst in a third nesting effort. The young and adults were last seen on 6 September.

SUMMARY

A House Wren nest containing 5 eggs was found by the author in Jacksonville, in northeast Alabama, on 29 May 1985. This was the first reported occurrence of the species nesting successfully in the state. Two broods were raised.

The male alone built the foundation of the nest, and the female added the inner cup and lining. Time required for nest construction was 9 to 10 days. The male also constructed 2 secondary, or "dummy nests" within the 2.80 acre territory.

The laying interval for the second clutch was 1 egg per day until the complete set of 5 eggs was laid. The incubation period was 13 days and the nestlings of both broods stayed in the box for about 16 days.

An estimated 10,000 food items, mainly insects and spiders, were consumed by the 2 broods. The adults made approximately 12,900 trips to the box during nest construction, laying, incubation and care of the young.

Both parents attended the fledglings which were observed feeding independently 9 days after leaving the box. The adults and fledglings of the second brood were last seen on 6 September.

ACKNOWLEDGEMENTS

I am particularly indebted to Mrs. Sue Boozer, Mrs. Alma Smith, and Mr. and Mrs. Gaither Snoody, who gave me free range over their property during the course of the study. I am also grateful to Mr. Ron Hardy, a biology student at JSU, who spent nine hours helping gather the data, and to Dr. Don Patterson, a psychology professor at JSU, who baked in a blind for hours under an August sun in an effort to insure good pictures of the adult wrens.

LITERATURE CITED

Baldwin, S. P. and W. P. Bowen. 1928. Nesting and Local Distribution of the House Wren. Auk, Vol. 95, pp. 186-199.

Bent, A. C. 1948. Life Histories of North American Nuthatcher, Wrens, Thrashers and Their Allies. Dover Publications, Inc., N. Y.

Harlow, R. C. 1918. Notes on the Breeding Birds of Pennsylvania and New Jersey. Auk, Vol. 35, pp. 136-147.

Imhof, T. A. 1976. Alabama Birds, 2nd ed., University of Alabama Press, University, Alabama.

Kendeigh, S. C. 1941. Territorial and Mating Behavior of the House Wren. Ill. Biol. Monogr., Vol. 18, No. 3, pp. 1-120.

Potter, E. F., Parnell, J. F. and R. P. Teulings. 1980. Birds of the Carolinas. The University of North Carolina Press, Chapel Hill, N. C.

Summerour, C. W. 1983. House Wrens, Troglodytes aedon, Attempt Nesting in Jacksonville. Alabama Birdlife, Vol. 30, No. 1, 2, p. 12.

Bill Summerour
Jacksonville State University
Jacksonville, AL

UPDATE ON SONG SPARROW RANGE EXTENSION INTO ALABAMA

Bill Summerour

The summer range extension of the Song Sparrow, Melospiza melodia, into northeast Alabama has been documented by Summerour in Alabama Birdlife in 1979, 1980 and 1983. Since these accounts, the species has been noted farther south each summer.

In August 1984, I heard and observed two singing male Song Sparrows in Talladege, 20 miles south of the leading edge of their previously recorded breeding range in Alabama. Also in 1984, Joe Meyers, Non-game Wildlife Coordinator for the Department of Conservation and Natural Resources, reported a singing male on 8 June just west of LaFayette on census stop number 37 of the Breeding Bird Survey.

In 1980 Erskine Ashbee of Mobile related to me that he had observed a singing male Song Sparrow in June at Still Waters resort on Lake Martin in Tallapoosa County, the southern-most summer record for the species in Alabama. Since Song Sparrows have apparently been at Lake Martin since at least 1980, it may be that the observers are just now catching up with the birds in Talladega and LaFayette rather than Song Sparrows having only recently extended their range into these areas.

Either way, the leading edge of the breeding range of the Song Sparrow in 1985 now extends from Talladega south to Lake Martin and northeast to LaFayette. I have checked likely habitats in Sylacauga, 20 miles south of Talladega, for the past two years but so far no pioneering males have turned up. This would be the next likely place the species could be expected if they continue to push southward.

At present the Song Sparrow is a common breeding resident as far south as Piedmont, fairly common in Jacksonville and occasional south to Anniston, Oxford, Talladega, Lake Martin and LaFayette.

LITERATURE CITED

Summerour, C. W. 1979. Breeding Status of the Song Sparrow, Melospiza melodia in Alabama. Alabama Birdlife, Vol. 27:3-5.

_____. 1980. Song Sparrows Continue Range Extension. Alabama Birdlife, Vol. 28:3.

_____. 1983. Song Sparrows, Melospiza melodia, Move Further South in Alabama. Alabama Birdlife, Vol. 30:14.

Bill Summerour
Jacksonville State University
Jacksonville, AL

HOUSE FINCHES, CARPODACUS MEXICANUS, NESTING IN ANNISTON

Bill Summerour

On 8 April 1985, while standing in downtown Anniston, AL., I noticed warbling coming from one of the ornamental trees on the main thoroughfare through town. An investigation revealed a pair of House Finches on territory and busily engaged in searching for a nesting site among the trees in front of the Federal Building.

Two days later, on 10 April, Patty Smith, an ornithology student at Jacksonville State University, searched the downtown area and found a half dozen singing males, including 1 pair that was building a nest under a metal awning. On 13 April, I found 3 more nests under construction, one in a crevice in a building, another under the metal braces supporting the insulators on top of a telephone pole, and another in a dense, ornamental cedar. I also noted about a dozen singing males.

On 16 April, Chris Nixon and John Chapman, also ornithology students at JSU, found a pair building a nest in a hanging fern bracket on the front porch of a house. The nest, which was composed of grasses and soft plant

fibers, was nestled in the center of the fern and completely hidden among the fronds. Nest construction required about 1 week. On 19 April, the nest held 2 pale blue eggs lightly flecked with black dots. The resident of the house (Ms. Bright) kept a check on the nest and said that one egg was laid each day between 0600 hr and 0800 hr until the full set of 6 eggs was completed on 23 April. The last egg hatched on 4 May, making the incubation period about 12 days. One egg failed to hatch. According to Ms. Bright, the young remained in the nest for 16 to 17 days, leaving on 21 May.

By 29 April, nesting activities in town were in all stages, from nest building to young out of the nest.

Two old nests were found in the shrubbery around Ms. Bright's house, indicating that House Finches have been nesting in Anniston since at least 1984. This is also supported by an observation by Dr. George Richards, an English professor at JSU, who called last year to say that he had seen a pair of House Finches feeding a fledgling near the library in Anniston on 31 May. However, a follow-up on that observation turned up no further evidence of the species in Anniston in 1984.

All indications are that House Finches will become an abundant breeding resident in Anniston. At present the breeding population is confined to the center of town between Quintard Avenue on the east, 9th Street on the south, Moore Avenue on the west and 16th Street on the north. The current population is estimated to be 2 or 3 pairs per block.

Dr. Julian Dusi (1982) cited evidence of House Finches nesting in Auburn in the summer of 1982, the first account of the species breeding in Alabama. Since then they have also been reported from Montgomery and now in Anniston. A summary of the occurence of the House Finch in Alabama is given by Summerour (1980) in Alabama Birdlife.

LITERATURE CITED

Dusi, Julian. 1982. House Finches Breeding in Auburn, Alabama. Alabama Birdlife, Vol. 29:6.

Summerour, C. W. 1980. House Finches Observed Near Anniston, Alabama. Alabama Birdlife, Vol. 28:7.

Bill Summerour
Jacksonville State University
Jacksonville, AL

A SUCCESSFUL NESTING OF THE REDDISH EGRET (DICHROMANASSA RUFESCENS) ON CAT ISLAND, ALABAMA

John Dindo and Ken Marion

The Reddish Egret (Dichromanassa rufescens) is a transient along the Alabama Gulf coast. Breeding occurs from lower California, coastal Texas, and Florida, followed by migration along the Gulf coast (Imhof, 1976). Probable nesting of the Reddish Egret in Alabama has been reported only once. This record was by W. M. Gaillard in 1965 on Cat Island (Imhof, 1976). In an ongoing study being conducted on Cat Island (a 5.2 ha island located 11 km north of Dauphin Island in Mississippi Sound), Reddish Egrets began to appear shortly after the first arrival of Snowy Egrets (Egretta thula), and tricolored Herons (Hydranassa tricolor) on 28 March 1985. The latter 2 species quickly established nest sites and nest building activity was underway by 4 April. Three pairs of Reddish Egrets also started nest building on 25 April. Nests were constructed in the upper branches of a dense stand of marsh elder (Iva frutescens), approximately 1.2 m off the ground. Upon examination two weeks later, only 2 pairs had successfully established nests, with 4 eggs in one nest and 2 in the other. The nests were tagged and followed throughout the study, along with nests of other species in the colony. Only 1 of the 2 Reddish Egret nests was successful, with 2 birds being fledged. The other nest site was destroyed during early incubation and

reestablishment of another nest by that pair was not observed. Three adults and 2 fledglings were seen on the nest site or near the water's edge on all subsequent trips to Cat Island until the arrival of Hurricane Elena on 30 August 1985. On 2 successive trips to Cat Island (3 and 4 September), no herons or egrets were seen. During the weeks following the hurricane, there were no further sightings of Reddish Egrets. It is believe that the birds blew inland or to the west with the approaching storm.

LITERATURE CITED

Imhof, T. A. 1976. Alabama Birds, 2nd ed.. University of Alabama Press, University, AL.

John J. Dindo and Ken R. Marion
Dauphin Island Sea Lab
Dauphin Island, AL 36528

Biology Department
University of Alabama at Birmingham
Birmingham, AL 35294

REQUEST FOR ASSISTANCE

As part of a species restoration project in north Alabama, 66 great white egrets were "hacked" near Guntersville Reservoir this summer. Fledglings were marked with 2-inch long red flags attached to U.S. Fish and Wildlife Service bands on the right leg. Sightings should be reported to:

Burline Pullin
Wildlife Resources Development Program
Tennessee Valley Authority
Norris, Tennessee 37828
Telephone: 615-494-9800

Please note number and location of egrets and the date of observations.

NOTES TO CONTRIBUTORS

Submit all material on typed double-spaced pages. Figures and tables should be numbered and labeled at the top of the figure or table in all capital letters. Common names of birds should be capitalized and should include the scientific name at the first use of the name, e.g. Red-tailed Hawk (Buteo jamaicensis). Use numerals when appropriate, use a 24 hr clock for time and dates in the form of 26 Jan 1986, etc. Look at papers in the current issue.

Alabama Birdlife is a publication of the Alabama Ornithological Society. Membership in the society includes a subscription to Alabama Birdlife.

Classes of Membership

Active	$ 8.00
Associate (outside AL)	5.00
Student (undergraduate)	3.00
Family	12.00
Sustaining	15.00
Life	100.00

Dues are payable on January 1 of each year and should be mailed to the treasurer.