ALABAMA BIRDLIFE

NESTING OF EURASIAN COLLARED-DOVES (*STREPTOPELIA DECAOCTO*) IN BARBOUR COUNTY, ALABAMA

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INTRODUCTION

Since 1982, the Eurasian Collared-Dove (abbreviated ECD) has been consistently noted throughout Florida. Hengeveld (1993) summarized the species' rapid migration, colonization and nesting within the state. In the panhandle, Robertson and Woolfenden (1992) discovered a colony in Walton County on 6 December 1987 and McMillan (Duncan, pers. commun., 1996) confirmed nests and young on Santa Rosa Island (Escambia County). In 1993, Menart (pers. commun., 1995) reported nesting in his yard at Baypoint (Bay County).

The dispersal from Florida into Alabama was first documented in April 1991 by Holmes (1992). He speculated that the dove probably occurred in Alabama before 1991, since records for Florida documented their presence in the panhandle.

Even though numerous sightings of the ECD throughout Alabama have been documented (Moske and Moske 1996; Gardella 1992 and Holmes 1992), no nesting data has been published. Time intervals (in days) of nest building, incubation and fledging are well known throughout their natural old-world range (Cramp 1985 and Combs et al. 1985). However initial dates for nesting in Alabama are not available. In this article I document their earliest nesting dates

in Eufaula, Barbour County, Alabama.

METHODS

Eufaula is a small town with oak-lined streets. Peanut (*Arachis hypogaea*) and corn (*Zea mays*) production is extensive throughout the county. There are many agricultural fields and the Eufaula National Wildlife Refuge within the city limits.

ECD nests were observed in the live oak (*Quercus virginiana*) -lined median of East Broad Street: from the intersection with State Highway 431 (Eufaula Avenue), east to Reeves Peanut Warehouse. Most of the trees were approximately 20-25 ft (6.1-7.6 m) high. Total length of the study area was 0.3 mile (0.48 km). East Broad Street is the major commerce area for the town. Businesses, some in two-story buildings, line both sides of the street. Vehicle traffic is heavy during daylight.

Notes about nesting of ECD's in Eufaula were made between March 1994 and November 1996. Nest initiation and fledging dates were estimated by back dating (Cramp, 1985): nest building, 3-4 days; incubation of eggs, 14-18 days; and fledging period, 15-19 days. Using these constants the dates for nesting were determined. For example, if a nest had new hatchlings on 30 March, then by counting backwards 18 days to 12 March, an estimated date for egg laying was found.

A total of 41 days from nest building to fledging was used (back dated using Cramp, 1985). A nest was not considered fledged until the young birds had left the nest tree. The same date was used when calculating the date

when egg incubation stopped and hatching began. When the nest was found disturbed, the time intervals were back dated from the last notation.

RESULTS AND DISCUSSION

Nesting data based on actual observations and back dating are listed in Table 1. The earliest date noted for nest building was 3 February 1994. February was assumed to be the initial nesting month for each year since no nests were found earlier in January 1995 or January 1996. Adults with nesting material in their bills were noted throughout February and March of 1994-1996. Fledging dates were earliest in 1994. Earliest nest incubation interval was 7 February 1994, while the earliest hatching date was 24 February 1994. On 9 March 1995, a broken egg was collected under a nest tree. It contained a 13 day-old (Muller et al. 1994) embryonic ECD that was back dated to have an incubation interval from about 20 February 1995 to 4 March 1995. Unfortunately the nest was found destroyed on 8 March 1995.

Cramp (1985) found the breeding season to be "prolonged" throughout its natural range in Northwest Europe (mid-February to November). He also reported that eggs were laid from March to September in Iraq.

Table 1

NESTING DATA BASED ON ACTUAL OBSERVATIONS AND BACK DATING

YEAR	1994	1995	1996
Number nests	6	6	4
Earliest nest building date	02/3	02/15	02/16
Earliest incubation date	02/7	02/20	02/21
Earliest hatching date	02/24	03/9*	03/14
Earliest fledged date	03/14	03/21	Not determined

* Earlier nest destroyed before hatching

Of the 17 nests noted between 1994-1996, 3 were found to be successful, 4 were unsuccessful and 9 undetermined due to the weather, man-made disturbances or the author missing the fledging time.

Nest Characteristics

The ECD's in this study built flimsy stick nests on overhanging limbs or within the crotch of the tree. Only one nest per tree was noted. The nest height ranged from approximately 12-25 ft (3.7-7.6 m). When the nest was constructed on a limb, it was 7-10 ft (2.1-3.0 m) from the tree's center. Nests with eggs contained 1 or 2.

Cramp (1985) found an average nesting height in Germany and Czechoslovakia from 6.2-72.2 ft (1.9-22.0 m), with the majority of nests between 11.5-41.0 ft (3.5-12.5 m).

Distribution in Town

During 1994 the ECD's were noted only along East Broad Street, especially while feeding on spilled peanuts at Reeves Peanut Warehouse. They commonly perched on power lines, poles and buildings along the study site. However by 1995 and 1996, sightings of ECD's within the suburban neighborhoods around the town were common.

Mourning Dove (*Zenaida macroura*) hunting is very popular locally; however, no harvested or observed ECD's have been reported in agricultural fields or at the Eufaula National Wildlife Refuge (5 miles (8.1 km) north of the study area). Smith (1985) summarized the preference of ECD's for suburbs, small towns and agricultural settlements and their avoidance of urban centers, open countryside and forested areas. However, there are several reports of hunters harvesting ECD's: Sewell (1995) in Bulloch County, Georgia; Crawford (1995) in Grady County, Georgia; Holliman (1996 pers. commun.) in Jefferson County, Alabama, and Shelby County, Tennessee.

Other birds observed feeding with the ECD's were Rock Doves (*Columba livia*), Mourning Doves, and House Sparrows (*Passer domesticus*). Bird species that nested within the same tree or adjacent trees along East Broad Street with the ECD's included House Sparrow, Loggerhead Shrike (*Lanius ludovicianus*) and House Finch (*Carpodacus mexicanus*). Birds that utilized the trees but did not nest there were Northern Mockingbird (*Mimus polyglottos*), Eastern Bluebird (*Sialia sialis*), Red-bellied Woodpecker (*Centurus carolinus*) and Yellow-bellied Sapsucker (*Sphyrapicus varius*).

CONCLUSION

Nesting of ECD's was documented in Eufaula between 1994-1996. Earliest dates for nest building, incubation and fledging were established by direct observation and back dating. Nest height and lateral limb distance from the tree's center were found. All values were within the range of data from Europe and the Middle East summarized by Cramp (1985). Between 1994-1996 ECD's were expanding into residential areas of the town, but none were reported in rural areas or agricultural fields even though they were commonly seen at a local peanut warehouse. **Daniel J. Drennen**, 323 Cherry Street, Eufaula, Al., 36027.

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EASTERN BLUEBIRD (*SIALIA SIALIS*) STUDIES DURING THE CONSTRUCTION OF A GOLFING COMMUNITY IN NORTH SHELBY COUNTY, ALABAMA

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ABSTRACT

This eight year study traces the history of an Eastern Bluebird population on lands that were being developed for a golfing community in north Shelby County, Alabama. The results of a nest box and banding program are discussed. One thousand three hundred and sixty birds were fledged and 736 banded during the construction period from 1991-1996. The effects of human disturbance associated with PGA tournaments during five nesting seasons are analyzed. A strategy for the establishment of an Eastern Bluebird population in a newly created and planned urban development is given.

Little information is available concerning the establishment of an Eastern Bluebird population during the construction of a golfing community, particularly where PGA tournaments attract 100-130 thousand visitors during the nesting season. Usually, Eastern Bluebird trails are installed after a development has been completed, not while one is under construction. This research is only one topic of a 34-year study to determine the long term effects of a planned urban development upon a natural environment. The purpose of this research is to trace the history of an Eastern Bluebird population through the various construction phases of Greystone, a planned 2000 acre (809.4 hectare) urban development in north Shelby County, Alabama. Information concerning Eastern Bluebird habitat, banding and ecology is given. Precautions are listed that could mitigate golfing disturbance during the nesting season. A