THE STATUS OF THE CATTLE EGRET IN ALABAMA, 1966

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With the advent of the Cattle Egret, Bubulcus ibis, into the heron colonies of Alabama, we have directed much of our heron research effort toward studies of this invading species, in an attempt to record its behavior and effects on our native species of wading birds and also to record the impact of the ecological factors of Alabama on this egret.

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Summerour, 1964, has summarized the immigration of the Cattle Egret into Alabama and the first records of the colonies we have worked together, including our first positive nesting record (Dusi and Dusi, 1963) and the banding of the young from that nest. Manar, 1966, has characterized the egg white proteins of the Cattle Egret and Dusi, 1966, has described the characteristic appearance of the developing young. Our present report will summarize, in part, our data from banding and observations of population movements and density since 1963.

Banding of nestlings was done at colonies near Decatur, Montgomery, Opp, and Pansey, with most of the banding done at the Montgomery and Pansey colonies. Numbered aluminum Fish and Wildlife Service bands were used. In addition to the numbered bands, colored plastic Bandettes, obtained from the National Band and Tag Company, Newport, Kentucky, were used. The color band combinations used in 1963 were: Decatur, red band on the same leg as the numbered band; Montgomery, red and green bands on the leg opposite the numbered band; Opp, red band on leg opposite the numbered band; and Pansey, red and yellow bands on leg opposite the numbered band. In 1964, the same color code was used at Decatur, and at the Pansey colony, only the yellow bands were used. In 1965, the same combinations were used at the Decatur and Montgomery colonies. No color banding was done in 1966.

Each time a colony was visited, adults were carefully observed for bands, using 8 x 40 bioculars and sometimes a 20 power spotting scope. Groups of Cattle Egrets seen in pastures were usually checked for color bands also.

Observations were made at the colonies in an attempt to determine population trends. Groups of egrets seen in pastures along highways traveled and those observed by aerial reconnaissance, were used for the determination of distribution and relative density. Field reports of associates were also used for this purpose.

Results and Discussion

Migration and site faithfulness

Table 1, contains the numbers of birds banded and Table 2, contains the recovery data.

Table 1. Numbers of Nestlings Banded

Colony Locality	Numbers of bandings per year				
	1963	1964	1965	1966	
Decatur	13	22	3	0 (1)	
Montgomery	5	0	60	0	
Opp	3	0 (1)	0 (1)	0 (1)	
Pansey	282	413	0 (2)	0 (1)	
Totals	303	435	63	0	801

(1) Cattle Egrets did not nest in this colony this year.
(2) No nestlings reared to banding age.

Table 2. Banding Recoveries

Band Number				
636-44159	07-04-63	Pansey	12-30-63	El Pinal, Guatamala
636-44298	07-06-63	Pansey	09-__-65	Highlands, Texas
636-44301	07-06-63	Pansey	03-01-64	El Progresso, Honduras
636-44304	07-06-63	Pansey	08-06-63	Dothan, Alabama
636-44386	07-27-63	Pansey	07-06-64	Hartford, Alabama
636-44439	07-06-63	Pansey	01-10-64	Emiliano Zapato, Mexico
676-02950	08-01-64	Pansey	07-__-66	Port Comfort, Texas

Of the 801 nestlings banded, only seven recoveries, or about 0.8 per cent, have been obtained thus far. Even though the records are few and fragmentary, they are a definite indication that the Cattle Egrets from the Pansey colony migrate westward through Texas, Mexico, and into Central America. This is quite different from the pattern of the Little Blue Heron migration from Alabama, through Florida and the Bahamas, or through Cuba, to Central and South America (Dusi, 1964 and 1967). Too few recoveries are available for computing the mortality rate for the

Cattle Egret, as was done for the Little Blue Heron (Dusi, 1963), but general observations indicate that nestling mortality is similar and probably first-year mortality approaches that of the Little Blue Heron. With the first-year Little Blue Heron mortality rate of 74.1 per cent for hypothetical use, we calculate that of the 282 nestlings banded at Pansey in 1963, 73 would have survived the first year and of the 413 banded in 1964, 107 would have survived, as possible returnees to the Pansey colony. No returning birds were sighted in the colony area in 1964, and in 1965, one adult banded in 1964 was seen. This means that for breeding site faithfulness, none of the (73) 1963 nestlings returned and was seen and that of the (107) 1964 nestlings, one, or 0.93 per cent, returned. This is comparable to the results we have obtained (Dusi, 1963) for the Little Blue Heron nestlings of the same colony. In other colonies, returning birds were checked for color bands but none was seen. This was to be expected because of the small numbers of birds banded and the high mortality rate probability.

Nesting Colony Status

As Summerour, op. cit., has reported, prior to 1963 there were no absolute records of the nesting of Cattle Egrets in Alabama. In 1963, we reported the first and only nest from the Opp colony. Shortly thereafter, Summerour located the Pansey colony and re-located the shifting one near Faunsdale. We both found Cattle Egrets at the Swan Creek colony at Decatur and they were present in the colony at Montgomery, that James E. Keeler and Robert W. Skinner described to us.

In 1964, the colony at Opp had no Cattle Egrets. All of the others we saw in 1963 had good nesting populations. Lloyd Crawford located a new colony near Florala and it contained a small population of Cattle Egrets.

The new colony of 1965 was one found on Cat Island, in Mississippi Sound, by Wilson Gaillard. The colony at Opp still had no more Cattle Egrets and the colony at Florala had none either. The Pansey colony, which had been strong for the past two years, was a nesting failure for the egrets. The Montgomery colony was strong and so was the colony at Faunsdale.

In 1966, there was no nesting colony at Pansey, Decatur, or Florala and no egrets at Opp. The colony at Montgomery was smaller because the area had been logged partially and the larger trees removed. The Faunsdale colony was very large and a new colony of Little Blue Herons, probably split off from the Faunsdale group, was reported by Robert R. Reid to be just south of Uniontown. Robert Skinner reported that the colony on Cat Island was large.

Table 3, gives the approximate numbers of Cattle Egret nests for the colonies for each of the years of the study. It also shows the additional species composition of each colony. It is interesting to note that we have seen no colonies that are completely formed of Cattle Egrets.

Table 3. Estimated Numbers of Cattle Egret Nests and Additonal Species Composition in Colonies

Colony Locality	Numbers of Nests for Each Year of Study			
	1963	1964	1965	1966
Cat Island	--	--	75 (6)	75 (6)
Decatur	3 (3)	10 (3)	5 (3)	0
Faunsdale	50 (1)	100 (1)	100 (1)	200 (1)
Florala	--	25 (5)	0	0
Montgomery	25 (2)	20 (2)	150 (2)	25 (1)
Opp	1 (5)	0 (5)	0 (1)	0 (1)
Pansey	100 (4)	125 (4)	214 (1)	0

(1) Little Blue Heron
(2) Little Blue Heron, Snowy Egret and Common Egret
(3) Little Blue Heron, Snowy Egret, Common Egret and Black-crowned Night Heron
(4) Little Blue Heron, Snowy Egret, Common Egret, White Ibis and Anhinga
(5) Little Blue Heron and White Ibis
(6) Snowy Egret, Louisiana Herons and Reddish Egret

Movement and Distribution

The movements and distribution of Cattle Egrets depend to a great degree on the presence or absence of lush pastures and a good population of insects. The birds arrive along the gulf coast early in February. Fairly Chandler told us that his first sighting at Magnolia Springs in 1966 was on February 11. Most of the birds stay along the gulf tier of counties feeding with cattle, following tractors, or by themselves, until the pastures inland grow and a population of forage crop insects develops. This is middle to late March, or even April in the northern counties. Then the egrets move into areas providing cattle and pasture acreage in the vicinity of a native heron colony. They roost in the colony with the already nesting Little Blue Herons but do not build nests themselves until sometime in May, usually after there are already young Little Blue Herons in the nests. Apparently nesting may go on into August and the adults and young still continue to use the colony area as a roosting site. They move from much of the State in early September and are found in the lower tier of counties until October. George Folkerts reported seeing no Cattle Egrets in Alabama or northern Florida but did see them from Ocala and southward, on November 24, 1966. Maurice F. Baker reported seeing two flocks of Cattle Egrets, each of about 50 birds, along Interstate Highway 75 between Ocala and Gainesville, Florida, on December 27, 1966. None were reported seen north of Gainesville.

In general, distribution in Alabama is heaviest in the good pasture regions in the southern tier of counties and following the large rivers northward through the coastal plain, especially in localities with nesting colonies of native herons. They are also present in the pastures of the Tennessee Valley. Rarely are they seen in the Piedmont and mountain areas, as well as in the large heavily wooded areas in much of the rest of the state.

LITERATURE CITED

Dusi, J. L. 1958. Dispersal of Little Blue Herons From a Pond in Macon County, Alabama. ALABAMA BIRDLIFE 6(3-4):9-11.

Dusi, J. L. 1963. Mortality of the Little Blue Heron. ALABAMA BIRDLIFE 11(4):39-42.

Dusi, J. L. 1966. The Identification Characters of Nests, Eggs and Nestlings of Some Herons, Ibises and Anhingas. ALABAMA BIRDLIFE 14(2-3):2-8.

Dusi, J. L. 1967. Migration in the Little Blue Heron. Wilson Bull. 78:(in press).

Dusi, J. L. and R. T. Dusi. 1963. Some Observations of a Nest of the Cattle Egret. ALABAMA BIRDLIFE 11(2-3):25-26.

Manar, A. T. 1966. Electrophoretic Analysis of Egg White Proteins of Some Members of the Families Ardeidae and Threskiornithidae. Unpublished Thesis, Auburn University.

Summerour, C. W. 1964. The Cattle Egret, Bubulcus ibis ibis, in Alabama. ALABAMA BIRDLIFE 12(3-4):35-39.

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1966 - EVENING GROSBEAK YEAR

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Howell (1924) does not include the Evening Grosbeak among the birds of Alabama. Imhof (1962:532) states that since 1956 the Evening Grosbeak, Hesperiphona vespertina, has become known as a rare and local bird in winter in Alabama.

Evening Grosbeaks have appeared in Alabama in greater numbers during the first part of the years 1958, 1962, 1966 (Wright 1962). A much smaller number was noted in the fall of 1959 and early part of 1960 (Anon. 1960). Only one record is reported for the first part of 1961 (Imhof 1961). No Evening Grosbeaks were reported in ALABAMA BIRDLIFE for the first part of the years 1957, 1959, 1963, 1964, 1965. It will be of interest to observe the Evening Grosbeak invasions in future years to note if the greater numbers follow the four year cycle suggested by the 1958, 1962 and 1966 invasions.

Ludlow Griscom emphasized the importance of food availability when explaining movements of nomadic species (James 1958). Douglas James (1958) pointed out that in the winter of 1957-58 there was a general scarcity of conifer seeds, deciduous tree seeds and berries in the boreal forest. The 1961-62 winter marked the first year that Arkansas and Louisiana experienced an Evening Grosbeak invasion and showed a progressively greater southern penetration, close to the Gulf Coast in three states (James, 1962). According to James (1962), Aaron Bagg reported the increasing breeding population of Evening Grosbeaks in the northeast which may be noteworthy in regard to the increasing wintering of Evening Grosbeaks in the south.

The first report of the Evening Grosbeaks in Alabama for the 1965-1966 season was made on the Christmas counts of December, 1965, both for the Birmingham area and Anniston area (Anon. 1966). Not until February 5, 1966, did two male Evening Grosbeaks appear at the feeder of the author. Following this date Evening Grosbeaks were seen at the feeder until May 4th with a final appearance of one female. A total of 76 Evening Grosbeaks, 25 males and 51 females, were banded. Rarely, in a flock of 15-20 could more than two bands be seen. This might indicate that the flock was more or less moving, but does suggest very substantial numbers of Grosbeaks in the vicinity.

Two Evening Grosbeaks trapped in the 1966 spring season were recoveries: a male, 591-37968, banded at Sykesville, Pa. March 18, 1960 and retrapped at this station April 10, 1966; the second, a female, 631-06122, banded at Lake Junaluska, N. C. on April 12, 1964 and retrapped at this station April 14, 1966. Of the 50 Evening Grosbeaks banded at this station in the spring of 1962, one female, 621-70642, banded April 16, was retrapped March 21, 1963 at Ballaton Spa, N. Y.