

## PRESIDENT'S PAGE

The fall of 1964 has been one of the most unforgettable autumns that I can remember. It has been marked by scant rainfall and unseasonable temperatures, along with a beautiful array of fall color. Our Society held its Fall meeting in Birmingham, where the members enjoyed field activities and fellowship in a region that is consistently known for its good birding. Oak Mountain, Cahaba Valley and Lake Purdy provided much enjoyment and diversified scenery for us all. Our entire weekend was additionally complemented by the graciousness of our hosts, THE BIRMINGHAM AUDUBON SOCIETY. We look forward to having another meeting in this part of the state.

One need not put away the binoculars and field guide after the last fall migrants have been observed, for we are coming to one of the best activity periods of the year --- THE CHRISTMAS COUNT. This endeavor is sponsored by the National Audubon Society. The purpose of the Christmas Counts is to determine the winter bird population within a given circular area. These counts are registered with the National Audubon Society and the results published each year. These censuses are of particular value because they are made in the same locality at the same time of the year over a long period of time. The accumulation of this type of data is valuable because it can be used as an index to predict changes in our bird populations.

Here in Alabama we have three well-established count areas -- Auburn, Birmingham and Mobile. Each of these count areas is divided into sections, and each section is assigned to a party leader by the compiler of the particular count area. The party leader and members of his party are responsible for tallying the number and species of birds observed in their region during the day which usually begins before dawn and ends after dark. It is a rather strenuous occasion, for efforts are made to bird as many different habitats as possible in order to increase the number of birds observed. Enthusiasm and anticipation mount as each party attempts to beat last year's species count record.

It is hoped that other members in the state will initiate a Christmas Bird Count for their own area this year. Alabama is a large state, and it would be desirable to have several additional count areas set up where there are enough competent birders to carry out a census. I am quite sure that the birders in Auburn, Birmingham, and Mobile would welcome interested people to take part in their own censuses. This would be an excellent opportunity for the visitors to find out what is involved in the establishment of Christmas Counts. Additional information regarding the formation of Christmas Counts may be secured through the officers of AOS or by writing directly to the National Audubon Society. Moreover, I would like to encourage the membership to help in as many of the different Christmas Counts as possible. Here one not only has the opportunity to enjoy good birding in various parts of the state during the winter but also has the opportunity to meet new people and to renew old acquaintances.

Let me take this opportunity to wish you a Happy Holiday Season, and to ask you to help make our Society a better and stronger one for next year. Participate in our activities and be responsible for adding at least one new member to our roles for next year.

THE CATTLE EGRET, BULBULCUS IBIS IBIS, IN ALABAMA

CHARLES W. SUMMEROUR

A preliminary study on the status, distribution and habits of the Cattle Egret in Alabama was conducted under the supervision of Dr. Julian Dusi, professor of zoology, Auburn University, from May, 1963, to May, 1964.

This study combined the efforts and knowledge of many people and the author wishes to express his gratitude especially to those AOS members who so willingly assisted him. These members shared with the author a personal interest in the study and it is hoped that the findings in this report will add to their enjoyment of the avifauna of Alabama.

The study was not intended to concentrate on a limited phase of the biology of the Cattle Egret. Rather, an attempt was made to gather as much information about the status and life history of this species in Alabama as possible, so that the data obtained might serve as a stepping stone for more limited areas of research in the future.

## History of the Cattle Egret

Until the turn of the century, the Cattle Egret was indigenous to the warmer climates of the Old World where it was widespread and well known in southern Spain and Portugal, all of Africa except the Sahara Desert, and the warmer parts of Asia. Two known subspecies exist: The African Cattle Egret, Bulbulcus ibis ibis (Linnaeus), and B.i. coromandus (Boddaert), the Asian race. A third variant of the Seychelles off the east coast of Africa, has not been positively established as a subspecies.

It is not definitely known when and where the Cattle Egret invaded the New World but the earliest records indicate that it first appeared in Surinam, South America, between 1877 and 1882 and British Guiana between 1911 and 1912 (Palmer 1962:441). The first authenticated record for the new world was a specimen collected by Blake (1939) in British Guiana on May 27, 1937, and the species was first recorded in North America by Willard E. Dillee near Clewiston, Florida, in the summer of 1941 or 1942 (Palmer loc. cit.).

Dean (1957) gave a brief history of the Cattle Egret in the New World and explained that the bird had been seen from Florida to Texas and north to Newfoundland. Keeler (1957) reported collecting the first Cattle Egret seen and identified in Alabama on November 8, 1957. He wrote that the bird was first observed "standing about five feet from the edge of the pavement at the mouth of Chocalata Bay, two miles east of the drawbridge on the Mobile causeway in Baldwin County." The specimen was placed in the zoological collection at the University of Alabama.

On April 26, 1958, two Cattle Egrets were seen on Dauphin Island by Lovett E. Williams and Dan W. Speake. One of these was collected by Speake for the Alabama Cooperative Wildlife Research Unit collection. A third specimen was collected by Skinner (1958) at Boatyard Lake, Baldwin

County, on May 5, 1958.

Keeler (1960) related having seen 16 Cattle Egrets on July 6, 1960, near County Road No. 75, 4.3 miles south of Pansey, Houston County, Alabama. This was the first account of the Cattle Egret in Houston County.

Atkeson (1961), Manager of the Wheeler National Wildlife Refuge at Decatur, Alabama, gave the following account:

"On April 13, Louis Nebrig, a local farmer, telephoned to say that three strange birds were walking about his pasture near the southeastern edge of Decatur. Charles Parker, Henry Grammer, William Depreast, and Tom Sandlin investigated and found three fine examples of the Cattle Egret, complete with reddish wash on heads, necks and backs; the first record for northern Alabama."

Atkeson (1962) further reported:

". . . the most interesting observation . . . .  
. . . came on May 12, 1962, when David Hulse found two pair (sic) of Cattle Egrets nesting in a mixed heron colony on the Swan Creek Public Hunting Area, a colony that also included 25 pairs of nesting Little Blue Herons, 12 pairs of Black-crowned Night Herons, and 5 pairs of Snowy Egrets."

This was the first nesting evidence for the state although the actual contents of the nests were not known. Atkeson (loc.cit.) said as many as 17 at a time were seen in the area, but that they were not noted after July 26, 1962.

From the information available through 1961, Imhof (1962:90) concluded that the birds were transient in the State, uncommon on the Gulf Coast, and casual to rare inland in the Coastal Plain and Tennessee Valley. He pointed to the probability of the birds breeding in Baldwin County and Houston County near Dothan. Inclusive dates for Alabama were listed by Imhof as April 6 to November 8; for the Tennessee Valley, April 12 and 13; Mountain Region, no record; Piedmont, no record; Upper Coastal Plain, May 12 to June 2; Lower Coastal Plain, July 6 and May 30; Gulf Coast, over 25 records as of 1961, April 6 to November 8.

#### Status 1963-1964

The present status of the Cattle Egret in Alabama, as found in the 1963-1964 study, is outlined below:

##### A. Dates of Occurrence: (January 18 to November 8)

Tennessee Valley - March 29 to October 17; Mountain Region - April 20 (Imhof, Birmingham); Piedmont Region - August 18 (Summerour, Auburn); Upper Coastal Plain - May 12 (Rosemary Dusi, Green Bay) to August 29 (Summerour, Montgomery); Lower Coastal Plain - March 18

(Dusi and Dusi, Gordon) to September 13 (Summerour, Gordon); Gulf Coast - January 18 (Chandler, Mobile) to November 8 (Keeler, Mobile).

B. Distribution - During migration and post-breeding season dispersal, Cattle Egrets may be seen as singles, groups, or mixed with native species in pastures and wet lands over the entire state. Cattle Egrets were found breeding in 5 widely separated heronries located near Gordon, Green Bay, Montgomery, Decatur, and Faunsdale.

C. Habitat Description - Typically, Cattle Egrets were found in pastures in close association with cattle. Dense long grass pastures such as bahia appeared to be preferred over closely grazed or short grasses such as dallas. Cattle Egrets were found nesting in colonies over water and in bottomland hardwoods over land.

D. Interrelationship with Native Herons - No antagonistic relationships other than territorial defense within the heronries were noted between Cattle Egrets and native species. Cattle Egrets were found in close association with all native species observed in the heronries. One juvenile Cattle Egret was collected by the author on August 18 north of Auburn in the company of six immature Little Blue Herons indicating that it was migrating with these birds.

E. Interrelationship with Cattle - The relationship appears to be one of protocoooperation, in which both species profit but are not forced to associate in order to survive. The egrets benefit by catching insects flushed from the grass by grazing cattle. Food analysis revealed a number of tabanids (horse-flies), presumably taken from or near the cattle, indicating a relationship in which the cattle also benefitted. The cattle may also indirectly profit by an increase in forage due to the consumption of grasshoppers and other pasture insects by Cattle Egrets.

F. Banding Status - Three hundred and seven Cattle Egret nestlings were banded in four heronries as follows: Gordon, 285; Decatur, 14; Montgomery, 5; and Green Bay, 3. One bird banded at Gordon on July 10, 1963, was recovered from Dothan one month later. Color bands were used in the Gordon and Montgomery heronries.

##### G. Breeding Habits

1. Status in Heronries - Cattle Egrets comprised approximately one-third of the total number of nestlings in the Gordon heronry, 40 per cent of the Montgomery heronry (where none was known in 1961), 15 per cent of the Decatur heronry (an estimated 4.5 per cent in 1962) and less than 1 per cent in the Green Bay heronry.

2. Nest - Nests were found in a variety of hardwoods from five to 36 feet from the ground or surface of the water, and were similar to those of the smaller native herons. They were constructed of twigs available in the respective areas. The average of nine nests measured at Decatur was 14.4 inches in diameter and six inches deep. One exceptionally well made nest at Montgomery measured 20 inches in diameter and ten inches deep.

3. Eggs - Inclusive egg dates were from May 17 at Green Bay to August 3 at Montgomery. Cattle Egret eggs could be distinguished from all native heron eggs by their more pale blue color. Some were almost white. Of 23 nests containing eggs, all held either three or four.

4. Young - Nestlings were found from May 18 at Green Bay to August 10 at Gordon. The most distinctive feature of the nestlings over one week old was the yellow-tipped black bills. Other distinctive characteristics were the white iris, erect neossophtiles on the crown, lack of black-tipped primaries and slate grey to black tarsals and toes. The time of transition from black to the characteristic yellow bills of older birds was found to be variable. Based on identification by colored leg bands, the transition from black to yellow bills of two nestlings was known to have taken no more than 38 days or less than 14.

A banded nestling of known age (found when hatching) made short flights up to 50 feet in distance for the first time when 36 days old. The bill of this bird was black with an 8 mm., yellowish tip which was normal for juveniles at flying age. Only rarely were nestlings found with yellowish bills.

Juvenile plumage is solid white. The crown may be white or faintly washed with yellowish-tan.

#### H. Food

1. Nestlings - The regurgitated stomach contents of 20 nestlings from the Gordon heronry consisted of 90 per cent insects by frequency and 53.43 per cent by weight. Eighty-six per cent of the insects consisted of crickets and grasshoppers. Other items included spiders, frogs, toads, small snakes and skinks. Miscellaneous items included a spider's cocoon with eggs, two small reptile eggs, insect larvae and roughage. The type of food consumed by nestlings was the same as that eaten by adults.

2. Adults - The stomach contents of seven adults collected near Gordon contained 91.22 per cent insects by frequency and 59.14 per cent by weight. Approximately 85 per cent of the insects were crickets and grasshoppers; about 10 per cent of the diet consisted of spiders, amphibians, caterpillars, reptiles, millipedes, and roughage. No fish were found in any of the stomachs examined and there was no indication that ticks were eaten.

I. Adult Plumage - Except for the short period, when young birds have black bills, any small white heron with a yellow bill may be identified as a Cattle Egret.

Plumage color was found to be extremely variable; the degree of color was never found to be consistent at any given time. Most birds appeared to be in full breeding plumage through June but birds in full breeding plumage were observed near Montgomery on August 17. One incubating bird observed on July 4 and 8 at Gordon was entirely white save a very faint buff on the crown; the legs, bill and lores were yellow. Another incubating solid white bird with faint buff on the crown was observed on August 3 in the Montgomery heronry. Of seven

adult birds collected near Gordon on August 10 and one on August 11, all showed some degree of post-nuptial molting and two had almost completed the molt.

J. Daily Movement - Banded Cattle Egrets were seen up to 15 linear miles from the Gordon heronry indicating that some birds travel at least 15 miles to feeding areas.

K. Voice - Cattle Egrets were silent away from the nesting sites but were quite vocal within the heronries. The alarm notes were a distinctive kowp, kowp, kowp, similar in tone to the clucking of a domestic hen. Other sounds made by the adults were sharp squawks and guttural croaks. The newly hatched nestlings made thin peeping notes which became progressively louder as the birds matured.

L. Enemies - Boys were known to have killed Cattle Egrets in the Montgomery heronry and observations pointed to the possibility of numerous other enemies. Among those found as possible predators were alligators, turtles, Turkey Vultures, Black Vultures, Red-tailed Hawks, Red-shouldered Hawks, Barred Owls, Bluejays, Common Crows, Fish Crows, Common Grackles and raccoons.

M. External Parasites - Hippoboscid flies were collected from nestlings and adults and lice from adults.

N. Specimens Collected - A total of 15 specimens has been collected in Alabama.

Continued research on the spread and life history of the Cattle Egret in Alabama should prove most informative not only to biologists, but also to cattlemen who will desire information concerning the relationship of these birds to their cattle.

#### LITERATURE CITED

- Atkenson, Thomas Z. 1961. Regional Wingbeats. Alabama Birdlife. 9(2-3):17.
- Atkenson, Thomas Z. 1962. Regional Wingbeats. Alabama Birdlife. 10(2-3):5.
- Blake, Emmet R. 1939. African Cattle Egret taken in British Guiana. Auk. 56:470-571.
- Dean, Blanche E. 1957. The Cattle Egret in Alabama. Alabama Birdlife. 5(1-2):4-6.
- Imhof, Thomas A. 1962. Alabama birds. University of Alabama Press. 591 pp.
- Keeler, James E. 1957. Cattle Egret, a new bird in Alabama. Alabama Birdlife. 5(26):3-4.
- Keeler, James E. 1960. Regional Wingbeats. Alabama Birdlife. 8(3):16.
- Palmer, Ralph S. 1962. Handbook of North American birds. Vol. 1. Yale University Press. New Haven and London. 567 pp.
- Skinner, Robert W. 1958. Notes of Interest. Alabama Birdlife. 6(1-2):19.

902, 12th Avenue N.  
Jacksonville, Alabama