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HISTORY AND PRESENT STATUS OF THE UNIONTOWN HERONRY

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The purposes of this paper are to (1) report on the status and composition of a large inland heronry located near Uniontown, Perry County, Alabama, (2) present a brief history of heronries in this area, and (3) comment on some conservation measures needed for the management of inland wading bird breeding colonies.

Methods

The Uniontown heronry was visited weekly for 2-day periods between May 5 and July 7, 1977. The physical size of the heronry and nest density were estimated from nest counts and distances on 14 north-south 3-meter wide transect lines spaced every 30 meters. Nesting composition was estimated by recording the relative abundance of each species coming into the heronry for ten 2-minute periods during the hours 1600-1700 on May 24. Information on the location of previous heronries was obtained from interviews of local residents and from Robert R. Reid, Jr., who has been visiting heronries in this area since 1966.

Results

The present site of the heronry is a few kilometers southwest of Uniontown (see Fig. 1) and covers approximately 5.2 hectares with nesting in 2.1 hectares (see Fig. 2). The overstory vegetation is primarily eastern red cedar (Juniperus virginiana) with an occasional (less than 1%) osage orange (Maclura pomifera). The eastern red cedars ranged in height from 1-meter saplings to 11 meters with an average of 8.1 ± 2.8 meters (± 1 S.D.). In those areas where nesting occurred, nest density was fairly uniform (0.78 nests per m²) though higher (1.56 nests per m²) in the western section. The most abundant nesting species was the Cattle Egret (Bubulcus ibis) followed by the White Ibis (Eudocimus ibis), Little Blue Heron (Florida caerulea), Snowy Egret (Leucophoyx thula) and the Great Egret (Casmerodius albus). Table 1 presents the estimates of breeding pairs. This represents an extension of the known Alabama breeding range of the Snowy Egret into the upper coastal plain as recent (post 1955) records are all from the gulf coast region (Imhof 1976). Snowy Egrets have bred in Mississippi near Brooksville, Noxubee Co. (adjacent to Pickens Co., Alabama), since 1972 (Werschkul 1977a). Anhingas (Anhinga anhinga) and Yellow-crowned Night Herons (Nyctanassa violacea) were observed near the heronry, but no nests were seen occupied by either species. Figure 2 shows the nesting area for each species within the heronry.

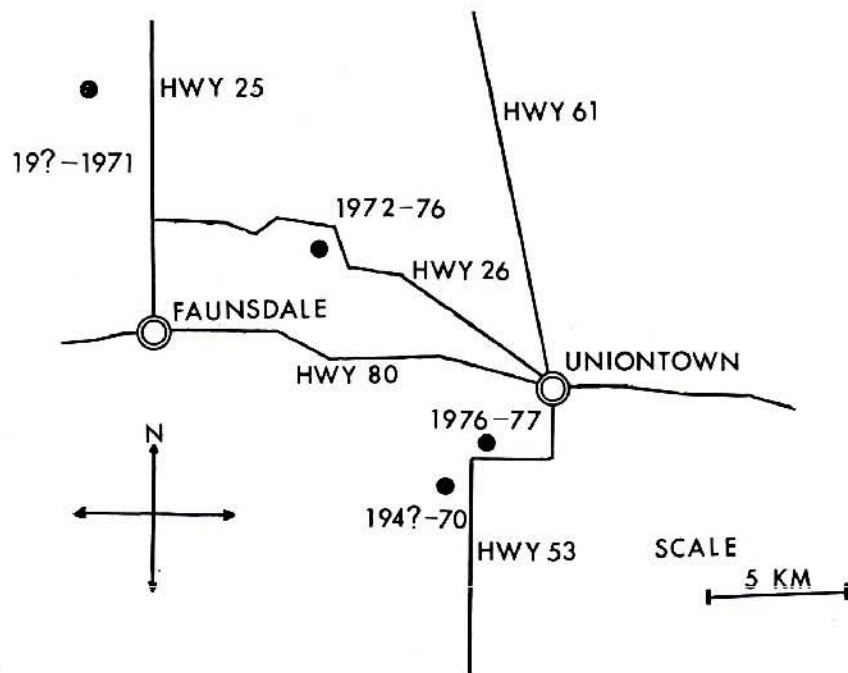


FIGURE 1. Map of Faunsdale-Uniontown area showing the known location of heronries from 1950 to 1970. (● = heronry site).

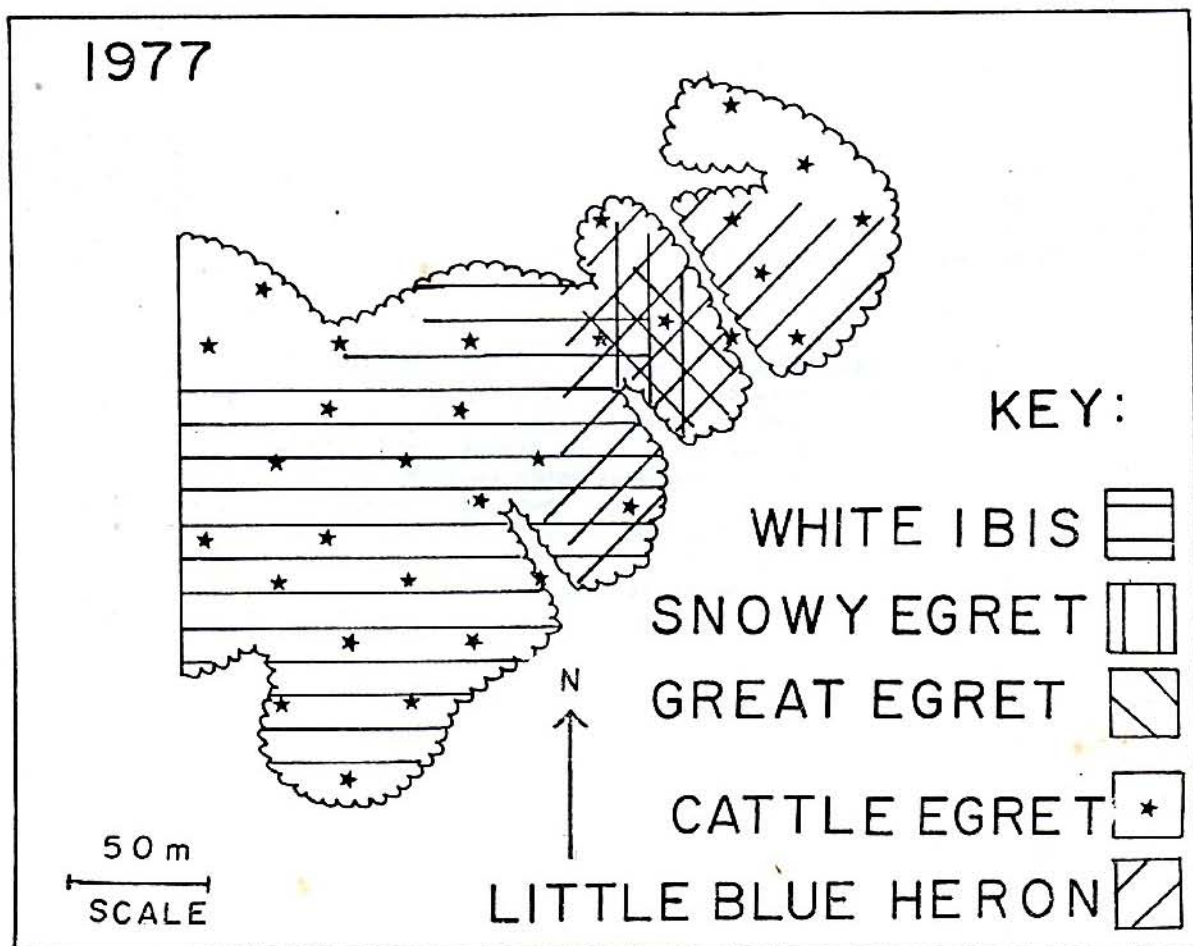


FIGURE 2. Map of the Uniontown heronry in 1977 showing the location of breeding areas.

The present site of the heronry was first used by the herons and egrets in 1970. Previously a heronry was located about 15 kilometers to the northwest, near to Faunsdale. The overstory vegetation of the earlier heronry was deciduous, primarily different oaks (*Quercus* spp.), and was occupied from 1972 until 1976. Apparently the majority of birds moved from this site (see Fig. 2) to the present Uniontown location after the 1975 breeding season, except for some Great Egrets which continued to use the Faunsdale site through the 1976 breeding season. The 1972-76 Faunsdale heronry was preceded by two other sites which were occupied by the herons simultaneously. One of these early heronries was located about 5 kilometers to the west of the 1972-76 Faunsdale site. It is known to have been abandoned in 1972 though the initiation date is obscure. The other heronry was occupied some time in the 1940's and abandoned in 1970. It was located about 4 kilometers to the southwest of the present Uniontown heronry. Local residents were unsure of the initiation date but confirmed that the heronry had been there at least 20 years. A heronry near Brooksville, Mississippi, has been occupied continuously since 1947 (Werschkul 1977a). The overstory vegetation of the 1940's-70 Uniontown heronry was similar to that in the present Uniontown heronry, primarily eastern red cedars.

Discussion

The Uniontown heronry appears to be one of the larger inland breeding colonies of wading birds known. Surprisingly, the two most abundant bird species are not generally associated with upland North American heronries. The Cattle Egret, a relatively new addition to southeastern heronries (Rice 1956), appears to be reaching winter carrying capacity in Florida (Bock and Lepthein 1976) though summer carrying capacity is at present unknown. The White Ibis is indigenous to the new world though generally associated with coastal habitats. The increase inland by the White Ibis may be in response to the decline in the plumage trade (J. Ogden, pers. comm.). Regardless of the causes of the increase in some wading birds in the Uniontown area, this increase presents a number of problems for their management which we wish to explore further.

The consequences of the increasing number of wading birds in the Uniontown area can be separated into three classes: (1) the effects of the different species on each other, (2) the effects of the birds on the nesting habitat, and (3) the tolerance of man to the birds. The first of these questions, on interspecific competition, has been reported on elsewhere (Werschkul 1977b). Though quantitative data on the effect of nest density on future nesting habitat are lacking, it is a common observation that with increasing nest density habitat deterioration is high. Reid visited the 1972-76 Faunsdale heronry and found that the central trees had been defoliated and were dead. Subsequently, the birds nested elsewhere. When herons do shift the location of the breeding colony, it is the Little Blue Herons that locate the new site since they are first to nest. Hence the majority of adverse effects during heronry relocation (e.g., alteration of the normal breeding period) would fall on the Little Blue Herons.

The main problem for the herons in the breeding season is the reaction of man to the heronry. Because of the general ignorance of heron biology among laymen and the heron's normal colonial nesting habits, the heronry has often become the focus of hostile attitudes. In 1976, local residents attempted to move the herons from the present Uniontown site by shooting as many as possible. According to the people present, thousands were killed. However, presumably because of the attachment of herons to the nest site, the birds did not move and returned to nest there in 1977. The landowner is planning to remove the trees this winter from

where the birds have nested. The effects of the shooting on the more common herons is probably minimal, though on the less common herons (e.g., Snowy Egrets and Great Egrets), local extinction is possible. The problem is analogous to the elimination of blackbird roosts in the southeast where other wildlife is threatened by the non-discriminating techniques used (Jackson 1976).

In summary, the Uniontown heronry, among the largest inland congregations of breeding herons, egrets and ibises, is threatened because of increasing size and demands on land use by local residents. While state and federal laws protect the birds and the heronry during the breeding season, enforcement is difficult and does not protect the heronry site during the non-breeding season. Because of economic and aesthetic reasons, it is unreasonable to assume that local landowners will voluntarily restrict land use. Consequently, the probability is small for long-term use of an area by the herons as a breeding site. The simplest solution to this problem is action either by state or private agencies to set aside on a semi-permanent basis land used during the breeding season by the herons. Long-term planning by state or private agencies is urged for the maintenance of a viable wading bird guild in central Alabama.

TABLE 1. Abundance of breeding pairs in the Uniontown heronry, 1977.

<u>Species</u>	<u>% Abundance</u>	<u>Estimate of Breeding Pairs</u>
Cattle Egrets	65%	9810 - 11,810
White Ibises	32%	4200 - 6400
Little Blue Herons	2%	225 - 425
Snowy Egrets	less than 1%	30 - 70
Great Egrets	less than 1%	20 - 60
Total	100%	14,380 - 18,380

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