

Black-crowned Night Heron

Illustration by Ralph Scott

MASSACHUSETTS WADERS: PAST AND PRESENT

by Wayne R. Petersen, Whitman

The first-time visitor to a major wader location in south Florida, such as Lake Okeechobee or the Everglades National Park, is instantly struck by the lavish abundance of herons, egrets, spoonbills, ibises, and storks. At certain seasons, the density of these lovely birds at feeding areas or rookeries makes an awesome spectacle which ranks as one of North America's leading ornithological attractions. However, this was not always the case. During the heyday of the plume trade in the 1800s, many species of herons and egrets were brought to the brink of extinction as a result of the avaricious use of their aigrettes by the millinery industry. Largely in an effort to save these species as a living legacy, the National Audubon Society was founded in 1905. Since that time, many of these herons and egrets have undergone a series of population fluctuations. Most recently, there have been dramatic population increases and range expansions for a number of species. Many of these recent changes have been reflected in the avifauna of Massachusetts.

At present, the order Ciconiiformes is represented in Massachusetts by eleven members of the family Ardeidae (herons and bitterns) and by one member of the family Threskiornithidae (ibises and spoonbills). These numbers apply only to the breeding species and do not include those species which have occurred as vagrants. Early in this century, Howe and Allen (1901) and Forbush (1925) listed only four species of breeding herons in their works on Massachusetts birdlife. By the middle of the century, Griscom and Snyder (1955) documented the breeding of seven species in the Commonwealth. Thus, in a period of less than a century, the number of breeding species of herons, egrets, and ibises in Massachusetts has increased by more than 100 per cent.

The colonial breeding of a number of Ciconiiformes was historically a reason for their vulnerability during the peak of their persecution and slaughter in the latter part of the 1800s. Today, this same colonial habit has considerably facilitated the documentation of their population and range expansion. The locating of local rookeries and the careful monitoring of the numbers and productivity of breeding pairs have allowed the populations of these birds to be estimated with a precision not readily possible for most non-colonial bird species. It should also be emphasized, however, that colonial breeding continues to expose these populations to threats. Not only are these major wader rookeries highly vulnerable to natural predation, but they are also in constant jeopardy of disturbance through human encroachment. Highly sensitive to indiscreet colony visitation at critical periods in the nesting cycle, all waders also face the threat of competitive use of feeding areas, many of which are heavily

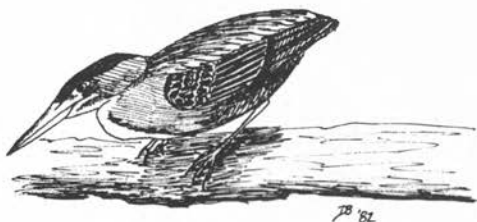
used by the human population. As coastal and interior wetlands are drained, contaminated, or otherwise abused, they become unacceptable to the long-legged wading birds. Thus, while human conscience saved many species from extinction a century ago, continued vigilance is required if we are to maintain healthy populations in the future, both locally and on a more global front.

In the balance of this article, the general status, both past and present, of each species of heron, egret, or ibis presently breeding in Massachusetts is described. Specific details on rookery locations and population counts are often omitted for obvious reasons. However, for the observer wishing to see a number of the colonial heron species, it is not necessary to visit breeding localities to make observations. In fact, some of the more visually spectacular concentrations of waders occur in late summer, well away from the breeding areas (see "Where to Find Herons" in this issue).

Species Accounts

Great Blue Heron (*Ardea herodias*). The Great Blue is perhaps the most generally familiar of all the heron species occurring in the state. While it is most common on the coast, it occurs with frequency in every county in Massachusetts. However, it has always been a rare to casual breeder in this state, and today there are fewer than ten known rookeries in the Commonwealth. Unlike its many gregarious relatives, it prefers to breed in isolated and homogeneous colonies, frequently numbering between five and fifty pairs per locality. It usually prefers to nest in secluded wooded swamps in central and western Massachusetts, and old beaver ponds seem to be a boon to its local success. Undoubtedly, scattered pairs breed periodically in undisturbed wetlands in eastern Massachusetts, but the most important colonies today exist in Westboro, Phillipston, Wendell, Otis, Townsend, and until recently, Sheffield. Many colonies are continually in danger of being vandalized, and at least one recent colony is now defunct as a result of development. The Great Blue Heron has always had a perilous coexistence with mankind, regarded by some men as a fishing competitor and by others as an ideal rifle target.

Green Heron (*Butorides virescens*). Like the Great Blue Heron, the Green Heron is widely distributed throughout Massachusetts and it is a potential breeding resident anywhere that water



exists. Much commoner than the Great Blue as a breeder, the Green Heron typically nests alone or in very loose colonies. Nests are often some distance from water and are usually high in a tree in an inaccessible location. The species also breeds regularly in dense coastal thickets, from which it ventures to nearby tidal marshes to find food for its young.

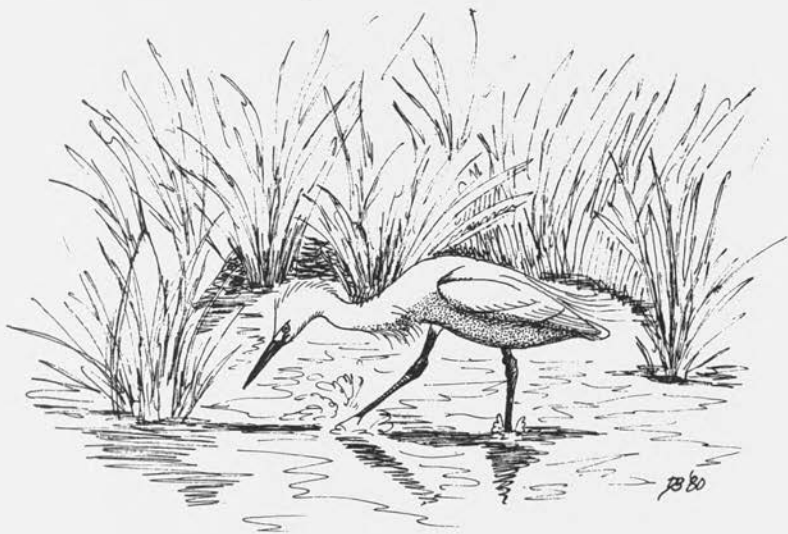
Little Blue Heron (Florida caerulea). The Little Blue Heron represents an interesting success story. Hagar (1941) first recorded nesting in Massachusetts in Marshfield in 1940 and 1941. However, a viable breeding population was not established until the mid 1970s. As with a number of the "southern" herons, its prior status involved mid-to-late summer and fall appearances following the nesting season in the south. By 1977, the Little Blue Heron was nesting at four coastal locations: Westport, Cotuit, Manchester, and Plymouth (Erwin, 1979). These colonies totaled an estimated nineteen pairs of birds. Since that time, no new colonies are known to have been formed. However, there has apparently been a recent (1982) shift in the location of the Manchester rookery from House Island to nearby Kettle and Eagle Islands. Whether the rookery population of Little Blue Herons has participated in this shift is unknown at present.

Cattle Egret (Bubulcus ibis). The extraordinary history of the Cattle Egrets' colonization of the New World from Africa is now a matter of record (see Hancock and Elliott, 1978). The species first reached North America from Central and South America about 1950, and the first specimen for the United States was obtained at Wayland, Massachusetts, on April 23, 1952 (Griscom and Snyder, 1955). Since that vanguard, the species has enjoyed such a meteoric expansion throughout much of the United States and parts of Canada that there is now concern about its possible impact on native breeding species. Cattle Egrets appear in mid-April and then disappear until late summer or fall, but they are known to have nested in the state during several summers. The species was first found breeding in 1974 at Manchester, and a few pairs have since been known to breed at Plymouth, and most recently, at Salem (1982). Erwin's 1977 census (Erwin, 1979) found a total of ten pairs at the Manchester location. It is doubtful whether the state's present breeding population is much in excess of this.

Great Egret (Casmerodius albus). The Great Egret had a history of being a regular summer and fall post-breeding wanderer in Massachusetts, in moderate numbers until about 1920, and occasionally in great flights thereafter, as in 1921 and 1948 (Cottrell, 1949). Then in 1954, it nested in the state for the first time at South Hanson (Griscom and Snyder, 1955). The first coastal nesting occurred in 1956 at Manchester (Erwin, 1979). By 1977, the species was recorded breeding at three locations: Manchester, Plymouth, and Cotuit. In 1981, the author noted a Great Egret carrying nesting material into

the heronry on Spectacle Island in Boston Harbor, suggesting probable breeding at that location as well. There is also good reason to believe that the species has nested, or still does nest, at Westport and possibly at Monomoy. At the present time, there are probably not more than fifteen pairs breeding in the major Massachusetts rookeries.

Snowy Egret (Egretta thula). Forbush (1925) called the Snowy Egret an accidental visitor in Massachusetts, and Griscom and Snyder (1955) reported only six birds in the state between 1926 and 1947. From 1950 on, concurrently with the species' recovery and re-establishment as a breeder in the South and in the Mid-Atlantic States, gradually increasing numbers of Snowys began to be reported, primarily at coastal locations. Quite a success story, the Snowy Egret appears to have eclipsed its former abundance prior to its decimation during the years of the plume trade. Hill (1965) records its first breeding in Massachusetts in East Dennis in 1955, followed by annual breeding at Martha's Vineyard beginning in 1962 (Keith and Chalif, 1968). Since those early records, the Snowy Egret has proliferated to the point that it now is one of the most abundant breeding waders in the state. Erwin (1979) indicated that breeding was occurring in a dozen different areas in 1977, with all colonies being located on offshore coastal islands. During the past decade, colonies at Manchester, Boston Harbor, Plymouth, and Martha's Vineyard have been the most numerically significant. For instance, in 1977, Erwin (1979) indicated that 220 pairs were breeding at House Island, Manchester, while in 1978, 231 active nests were counted at Clark's Island, Plymouth (Davis et al., 1979). As with a number of other heron species, impressive counts of hundreds of birds are now a regular late summer feature at evening roosts at the Parker River Refuge (Plum Island) in Essex County, and the species has become a familiar summer sight in tidewater areas throughout Massachusetts.

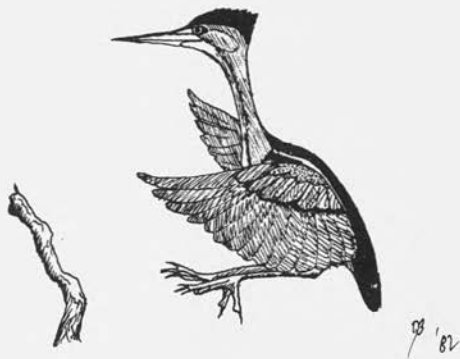


Louisiana Heron (*Hydranassa tricolor*). Unlisted by Forbush in 1925, the Louisiana Heron was not even recorded in Massachusetts until 1940 (Allen, 1941). Since that time, it has slowly become increasingly frequent, and for the past ten to fifteen years, it has become of annual occurrence during the period between April and early October. In 1976 it reached its northern breeding limit when three pairs with young were recorded in Manchester (Forster, 1976). The following year, Erwin (1979) listed one pair at the same location. Since those two years, no breeding confirmations have been made in the state, although the author observed up to four birds entering the rookery at Plymouth in May 1973.

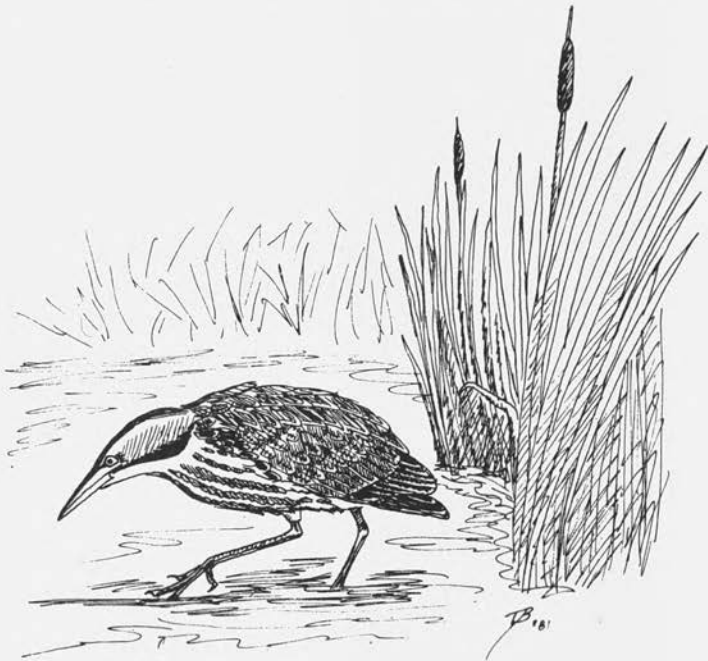
Black-crowned Night Heron (*Nycticorax nycticorax*). The night heron ranks as one of the traditionally common waders in the state. Never as eagerly sought by the plume hunters as the gaudy egrets, the species was spared the near demise that plagued many of the other wader species. In 1920, Alfred O. Gross counted 2536 nests in one historically famous rookery in Barnstable (Gross, 1923). The night heron did, however, fall tragic victim to the contamination resulting from the widespread use of hard pesticides during the 1950's and 1960's. While never totally decimated, it did suffer a severe population crash for nearly a decade and a half. With the ban on the polychlorinated hydrocarbons, it is now quickly returning as a locally common coastal breeder with several colonies numbering into the hundreds of pairs. There are approximately fifteen to twenty major coastal rookeries at this time. In addition, it breeds inland in various small colonies, often numbering only a few pairs, and most frequently occurring in southeastern Massachusetts. It is decidedly uncommon in interior and western regions of the state.

Yellow-crowned Night Heron (*Nyctanassa violacea*). Unlike the Black-crown, the Yellow-crowned Night Heron is a rare and inconspicuous breeder in Massachusetts. Always considered a rarity in the state, it has become of annual occurrence in small numbers since 1940, with the majority of records involving immature birds in summer or early fall. While coastal breeding today is probably annual, its nocturnal and solitary habits make it difficult to confirm. The species first nested in Ipswich in 1928 (Griscom and Snyder, 1955), and since that time it has bred irregularly at Marshfield and at several locations on Cape Cod. Recent continued presence of adults and immatures in summer at Parker River Refuge, Westport, and Martha's Vineyard suggest possible occasional breeding locations in those localities as well. It should be emphasized when considering this species that it is at the northern limit of its breeding range in Massachusetts.

Least Bittern (*Ixobrychus exilis*). The Least Bittern is undoubtedly the most secretive and un-heronlike of all the Ciconiiformes occurring in Massachusetts. Usually choosing extensive marshes overgrown with cattails and buttonbush



(Cephalanthus) for breeding, the species behaves more like a rail than a heron. Like the rails also, its soft crepuscular breeding calls are often the only clues to its presence. While always an historical breeder in the Commonwealth, its precise status remains indefinite because of the problems involved in confirming breeding. During the six years of the Massachusetts Breeding Bird Atlas Project (1974-1979), only four nesting confirmations were established, all in the eastern half of the state. No summer records at all were made west of eastern Worcester County during that same time period, although Griscom and Snyder (1955) record early breed-



ing stations at Longmeadow and at two Berkshire locations. Clearly, the species is overlooked in Massachusetts. However, it is unlikely that it is common anywhere in the state. With the continued deterioration of suitable nesting habitat, its steady decline is inevitable.

American Bittern (Botaurus lentiginosus). Like its tiny relative, the American Bittern is a non-colonial freshwater marsh nester that has a long history of breeding in the state. Both Forbush (1925) and Griscom and Snyder (1955) described it as a common summer resident in appropriate marshy habitat throughout the state. However, while still widespread as a breeder, it faces the same pressure from habitat destruction that all of our marsh birds face. In six years, the Massachusetts Breeding Bird Atlas Project confirmed fourteen nesting locations scattered throughout Massachusetts. As with the Least Bittern, its telltale early spring "pumping" is often the best clue to its presence in an area.

Glossy Ibis (Plegadis falcinellus). The Glossy Ibis was formerly a southern vagrant, first being collected in Massachusetts in 1850, and then recorded only very rarely until 1947, from which time on it has appeared annually. Until the early 1970's the species was most prevalent as an April and May casual visitor, with a few individuals appearing during the summer, probably as part of post-breeding dispersal from the south. In 1974, the Glossy Ibis was first confirmed breeding in the state at Plymouth, and since that time the species has been found breeding in at least two additional coastal rookeries, one at Manchester and one or two in Boston Harbor. As indications of the success of the species, the Plymouth colony had 40 pairs in 1975 (Harrington, 1975) and the Manchester colony had 107 pairs in 1977 (Erwin, 1979). Despite these figures, there seems to be no real increase in any of the presently existing colonies in terms of total breeding pairs. In fact, there may actually be a slight decline in progress in at least one colony. No obvious explanation for this is apparent at the moment.

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