

## Black-crowned Night-heron, *Nycticorax nycticorax*

**Status:**

*State:* Threatened

*Federal:* Not listed

### Identification

The black-crowned night-heron is a stocky, medium sized, black, gray and white wading bird. In comparison to other egrets and herons, the legs and neck of the night-heron are relatively short. Adult black-crowned night-herons are distinct, with a black back and crown, gray hind neck and wings, and a white cheek and underparts. In breeding plumage, long white streamers extend from the crown down the back beyond the neck. The bill, which is black in adults, is



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thick, stout, and spear-shaped. The legs are greenish-yellow, but turn pink in breeding adults. Eye color changes from yellow in juveniles to red in adults. In flight, the toes extend beyond the tail. The call of the black-crowned night-heron is a loud, guttural woc!

Although their body shape is similar, the plumage of juvenile black-crowned night-herons is quite different from that of adults. Juveniles are buff below with brown streaking and brown above with buff-white markings. The bill is grayish-yellow at the base with a dark tip. Adult plumage is acquired by two years of age.

Black-crowned night-herons are similar in appearance to yellow-crowned night-herons (*Nyctanassa violacea*), especially in juvenile plumage. The yellow-crowned has a longer neck and more slender body than the stocky black-crowned night-heron. The adult yellow-crowned lacks the black back of the black-crowned and has a black head with a white cap and cheek patch. The juvenile yellow-crowned is darker brown above, with smaller buffy markings on the back and more brown below. The bill of the yellow-crowned is shorter, yet heavier, than that of the black-crowned, and does not have a light base on juveniles. In flight, the legs and feet extend beyond the tail in the yellow-crowned, while only the toes extend beyond the tail in the black-crowned night-heron.

Juvenile black-crowned night-herons may also be confused with American bitterns (*Botaurus lentiginosus*). In flight, the night heron shows a solid brown upperwing, while that of the bittern is two-toned. The bill of the bittern is also longer, thinner, and lighter colored. The back of the bittern is chestnut brown and lacks buffy spotting.

## Habitat

Forests, scrub/shrub, marshes, and ponds serve as nesting, roosting, and foraging habitats for black-crowned night-herons. Heronries may be located in wooded swamps, coastal dune forests, vegetated dredge spoil islands, scrub thickets, or mixed phragmites (*Phragmites communis*) marshes that are in close proximity to water. Black-crowned night-herons avoid nesting at exposed sites that offer little cover. Mixed hardwood forests containing red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), black gum (*Nyssa sylvatica*), and blueberry (*Vaccinium* spp.) may be used by nesting or roosting birds. Dense thickets containing red cedar (*Juniperus virginiana*), holly (*Ilex opaca*), greenbrier (*Smilax* spp.), and poison ivy (*Toxicodendron radicans*) may also serve as nesting and roosting habitats. In addition, colonies have been documented in stands of cherry (*Prunus* spp.) as well as in marshes containing phragmites and marsh elder (*Iva frutescens*). Islands created through the deposition of dredged material may provide nesting and roosting habitat when revegetated.

Black-crowned night-herons nest in forested or scrubby habitats containing vegetation of various heights. Maximum heights of vegetation at local colonies range from 1.5 to 12 m (4.9 to 39.4 ft) (Burger 1978). Within these habitats, nests are located, on average, 0.19 to 3.95 m (0.6 to 13 ft) above the ground (Burger 1978). When nesting in mixed-species colonies with low vegetation height, black-crowned night-herons tend to nest closer to the ground than other species. Similarly, when in mixed-species colonies, black-crowned night-herons tend to nest nearby other black-crowned night-herons due to their similar habitat preferences.

Black-crowned night-herons forage in marshes and along the edges of ponds and creeks. Within coastal salt marshes, shallow tide pools, tidal channels, mudflats, and vegetated marsh provide foraging habitat.

## Status and Conservation

The black-crowned night-heron was historically a common breeding species along the New Jersey coast. During the late 1880s, the species was frequently shot at nesting and roosting sites for its plumes and as food. Following the 1910 ban of plume sales in New York markets, populations began to quickly recover. By the 1930s, the species was once again common along the Atlantic Coast, with colonies in excess of 300 pairs. A peak migration count included 1,050 individuals at Cape May on October 23, 1935 (Stone 1965). In recent years, a peak migration count of 400 individuals was tallied at Cape May Point on October 2, 1994 (Sibley 1997).

The destruction of coastal maritime dune forests to accommodate the growing number of summer cottages along the Atlantic shore greatly reduced habitat for black-crowned night-herons. Consequently, their populations declined during the 1940s and 1950s. Habitat loss also contributed to the decline of inland breeding populations during this period. Contaminants, including PCBs and DDT, caused further reductions of black-crowned night-herons in the northeast during the 1950s and 1960s. PCBs affected growth, metabolism, reproduction, and behavior. The pesticide DDT caused reduced clutch size and lower productivity due to the breakage of thinned-shelled eggs. Eggshells collected in 1952 exhibited significant thinning in comparison to those collected prior to

1947 (Ohlendorf et al. 1978). With the ban of DDT in the United States in 1972, night-heron populations began to gradually recover during the 1970s. Although Breeding Bird Surveys showed an increase in black-crowned night-heron numbers in the Northeast from 1966 to 1979, the population declined from 1980 to 1999 (Sauer et al. 2000).

The black-crowned night-heron population in New Jersey has declined from about 1,500 individuals in the late 1970s to only 200 in the late 1990s, nearly a 90% loss. This reduction, attributed to habitat destruction, disturbance to nesting colonies, and contaminants, led to the inclusion of the black-crowned night-heron on the New Jersey list of threatened species in 1999. The New Jersey Natural Heritage Program considers the breeding population of the black-crowned night-heron to be “demonstrably secure globally,” yet “rare in New Jersey” (Office of Natural Lands Management 2000).