

American Bittern, *Botaurus lentiginosus*

Status: *State:* Threatened *Federal:* Migratory Nongame Bird of Management Concern

Identification

A booming pump-er-lunk echoes throughout an otherwise still marsh. This resounding call, the hallmark of the American bittern, has earned the species its alias, “thunder pumper.” Although bitterns may call throughout the night, vocal activity is greatest at dawn and dusk. Infrequently, they may call during the day, particularly when skies are overcast.



The cryptic plumage and elusive

behavior of American bitterns enable them to go undetected, within densely vegetated marshes. Laterally compressed bodies allow bitterns to maneuver through thick reeds and grasses. When disturbed, bitterns assume a reed-like position in which the head points skyward and the body sways back and forth as if it were a blade of grass blowing gently in the breeze. When flushed, bitterns often emit a harsh, croaking kok-kok-kok call.

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dwelling, often

The American bittern is a stocky, medium-sized wading bird. The neck and body are buffy-white with brown vertical streaking and the upperparts are rich brown. Black flight feathers contrast with brown upperwing coverts, giving the wing a two-toned appearance in flight. Adult bitterns have a black patch extending down either side of the white throat. The heavy, spear-like bill is yellow with a dark wash on the upper mandible and a dark tip. Adult bitterns have yellow eyes, which turn orange during courtship. The legs of the American bittern are long and yellowish-green. Sexes are similar, although males are slightly larger than females.

Juvenile American bitterns closely resemble adult birds. However, juveniles do not acquire the black patches that border the throat until their first fall, usually by late October. In addition, the eye color changes from light olive in nestlings to yellow in adults.

American bitterns resemble young black-crowned and yellow-crowned night-herons (*Nycticorax nycticorax* and *Nyctanassa violacea*), but can be distinguished by wing pattern, bill shape, plumage, and flight style. While American bitterns show a two-toned wing in flight, young night-herons have solid brown wings. Night-herons also have shorter, stouter bills than bitterns. In addition, bitterns are a richer, more reddish, brown color than young night-herons, which are grayish-brown. Appearing awkward in flight, the American bittern flies with stiff, laboring wing beats that are quicker than those of other herons. Bitterns fly characteristically low over marshes with their legs trailing behind the body.

Habitat

During the breeding season, American bitterns inhabit emergent wetlands, such as cattail ponds, sedge marshes, and marshes created by impoundments or beaver dams. Nesting habitats typically contain shallow water, often at depths less than 10 cm (4 in.), and dense vegetation, which may be 1 m (3 ft.) high. Cattails (*Typha* spp.), bulrushes (*Scirpus* spp.), wild rice (*Zizania aquatica*), sedges (*Carex* spp.), and arrow arum (*Peltandra virginica*) often dominate breeding sites. Bitterns infrequently nest in coastal brackish marshes that contain reed grass (*Phragmites communis*), salt-hay grass (*Spartina patens*), and saltmarsh cordgrass (*S. alterniflora*). Occasionally, wet fields or grasslands containing tall vegetation serve as nesting habitats.

Although American bitterns occupy similar sites throughout the year, habitat use is less restrictive during the nonbreeding season. Bitterns may be found in freshwater wetlands, coastal salt or brackish marshes, phragmites marshes, grassy fields, and marsh edges during migration or winter.

Status and Conservation

Prior to the early 1900s, the American bittern was a fairly common breeding species within suitable habitat in New Jersey. By the 1920s, market hunting and the destruction of wetlands had caused initial declines in bittern populations. However, bitterns remained within suitable habitat throughout the state during the first half of the century. Since the 1950s, habitat loss has occurred at an alarming rate in New Jersey, destroying wetlands critical to breeding American bitterns. The Breeding Bird Survey detected annual decreases in American bittern populations survey-wide from 1966 to 1999 (Sauer et al. 2000). Likewise, the number of bitterns detected on Christmas Bird Counts in New Jersey had declined by 68% from the early 1970s to the mid-1980s (Vince Elia, Cape May Bird Observatory, pers. comm. 1999).

Due to population declines and habitat loss, the breeding population of the American bittern was listed as threatened in New Jersey in 1987. The New Jersey Natural Heritage Program considers the American bittern to be “apparently secure globally,” yet “rare in New Jersey” (Office of Natural Lands Management 1992). The American bittern was included on the National Audubon Society’s Blue List of Imperiled Species from 1976 to 1986, the final year of the list. Due to its patchy distribution and dependence on declining wetlands, this bittern was also designated as a Migratory Nongame Bird of Management Concern by the U.S. Fish and Wildlife Service in 1982. Elsewhere in the Northeast, it is listed as endangered (Massachusetts, Rhode Island, and Connecticut), threatened (Pennsylvania) or of special concern (Maryland).