

BOGDIVERSITY THURSDAY



—from Head Naturalist Clinton

American Bittern

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The first field trip of the 2024 Spring and Summer Education is almost here! This Saturday, May 4, is our first field trip of the season: Buzz, Croak, Hoot, and Bump in the Night! Traditionally, this is not only our first field trip of the season, but it also serves as a good introduction to the greater Sax-Zim Bog at night. One of the species we hope to experience (and was a highlight of the first ever Buzz, Croak, Hoot, and Bump in the Night Field Trip!), is our featured species today. Let's learn more about a cryptic wetland heron: American Bittern!

American Bittern is a medium-sized herons, part of a group of cryptic, mostly brown, dense wetland loving herons. Globally, there are 14 species of bittern, with two species in North America. American Bittern is a species with a special relationship with the Sax-Zim Bog Important Bird Area. When an area is designated as an Important Bird Area, there are often a few species selected as important species to the region. American Bittern was one of the species identified as important to the area, as it is a wetland

species of conservation need that is in decline due to wetlands and wetland quality declining.

When thinking of an American Bittern, it is hard not to think of their sounds! If you have never experienced their “hunk-a-chunks” across a marsh, you should make an effort to do so. They make this sound by filling their esophagus with air. The process of filling their esophagus is something to watch: they shoot their necks forward and backwards, as if they are trying to catch a bug. This lunging often includes sharp bill clacks, as they open and close their bills, drawing in air. When their esophagus is full, they pump out the air to produce their calls! The following series of calls are used to define territory boundaries and attract mates.

American Bitterns are well adapted to the dense marshes they prefer. They have long, strong toes to help climb through and over dense reed, sedge, and cattail beds. Their plumage helps hide them, but so does an interesting behavior. To hide, American Bitterns stand straight up, extend their necks, and sway slightly. The stripes on their plumage hide their body shape against the vertical vegetation of marshland habitats and the swaying helps take that camouflage a step further. One of the coolest parts of this camouflage display is how their skulls are adapted to allow them to keep an eye on the situation, so to speak. Their eyes sit fairly low on their skull, so when their bills point straight up, their eyes are still pointed forward, in such a way they can see any predators and it allows them to identify any disturbances in their area.

As noted above, American Bitterns are a species of conservation need in Minnesota and across much of their range. According to North American Breeding Bird Survey data, American Bitterns have been declining 4.9% annually since 1966. In Minnesota, this species was once found breeding throughout the state. However, recent breeding bird atlas data showed that American Bitterns breeding range has been severely restricted to only the northern parts of Minnesota. Part of the decline and range retraction can be explained by the loss of wetlands, especially large, intact wetlands. Studies have shown that the presence of bitterns in a wetland is strongly correlated to the size of wetland and amount of vegetation across the wetland. They require tall and dense patches of vegetation for nesting, not just any old marsh. While this species can be found throughout most of Minnesota during migration, they only breed in the northern and central parts of the state. We are lucky to have a fairly robust population of American Bitterns in the greater Sax-Zim Bog ecosystem and to have enough quality habitat to support them!

More information about this cool bird found with the photos below!

(Photos below by Sparky Stensaas)

This bittern has the distinction of being the first bird observed on the first annual Buzz, Hoot, Croak, and Bump in the Night Field Trip many years ago! This one was seen in the sedge meadow right behind the Welcome Center!



In flight, herons and egrets are quite distinct. They tuck their necks and extend their legs, giving them a top-heavy shape. American Bitterns have distinctly stocky, bicolored wings!



Even when exposed, American Bitterns can be very hard to find!
Do you see the bittern in this photo?



American Bitterns are at home in the dense vegetation around the edges of marshes. You don't often get to see the full bird when appropriate habitat is available.



American Bitterns hide well, even against green backgrounds!
Note the eye position of this bird as its bill is pointed straight up.