FRIENDS of Sax-ZimBog

BOGDIVERSITY THURSDAY

—from Head Naturalist Clinton

White Sucker

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April is a season of change in the Sax-Zim Bog. Most of our overwintering species, like Common Redpoll and Pine Grosbeak, have long since started their migrations back north and west to their breeding grounds. Rough-legged Hawks continue their migrations north to beyond the treeline. Resident species in the Sax-Zim Bog, especially non-bird residents, have begun to make their presence known: Wood Frogs begin their calls from newly wet meadows and pools; Painted Turtles start warming themselves in the bright sun after months of hibernation; and below the water, fish activity begins to increase! Today, let's take a look underwater at one species of fish that is a great marker of season change, whether you know it or not! Our feature species today is the White Sucker!

Suckers are members of the family Catostomidae, a rich family of fish containing buffalo, redhorse, suckers, chubsuckers, carpsuckers, and jumprocks. Although Catostomidae is one of the most species diverse fish families in Minnesota, very little attention is given to these incredibly important species. They are

a valuable food species for birds, fish, and mammals; they are important indicators of water quality; they are incredibly long-lived species and increasingly popular targets for anglers. White Suckers are one of the most widespread and adaptable species of fish in the state of Minnesota. They are found in the deepest lakes, the smallest streams, and every waterway in between. This species is also a great marker of seasonal change as it is one of the earliest fish species to spawn in Minnesota, starting their breeding migrations and color change when water temperatures approach 45 degrees F.

Many species of fish rely on water temperature to trigger breeding behaviors, and suckers just so happen to undergo some amazing changes before breeding! Normally a uniformly colored fish, with muted golds and tans throughout their bodies, during breeding White Suckers develop a series of bold black and stripes along their flanks. Their fins develop bumps called tubercles, that look like spikes, to help hold on to females when spawning in fast moving water. Spawning migrations for this species are well known by indigenous and non-indigenous communities alike. Not only are suckers a popular sport fish, but they are an important food fish for humans and animals. Because their spawning runs take place in shallow water, it is very easy to both observe and capture fish on their migrations. Some folks use suckers for fishing bait (for catfish, pike, and muskies), while others enjoy smoking these fish or pickling them for consumption at a later date.

As noted above, many species of sucker are important indicators of water quality. White sucker is one of a few species fish

qualified as “indicator species” on many biological survey protocols regarding water quality. While they are found in wide range of aquatic ecosystems, they are still sensitive to disturbances in water quality. White Suckers feed on plants and aquatic insects found on the bottom of a body of water. These organisms are often the first to be exposed to environmental contamination, making White Suckers susceptible to those same contaminants. White Suckers need high quality water in their aquatic homes, just like many other species in the family Catostomidae.

White Sucker is only the second fish species to be profiled as part of our BogDiversity Thursday Series! We hope to profile a few more fish this summer season, in preparation for a Fish-based Field Trip this summer! More information about White Suckers can be found in the photos below.

(White Sucker photos by Head Naturalist Clinton)

A beautiful adult White Sucker! These are not very large fish, with 2-3 pounds being fairly common across their range. The subtle browns and golds, as well as the orangish fins can change intensity based on the color of the water body.

White Suckers in breeding condition don't look much like White Suckers at all! If you peer through the tannin-stained waters here, you can see a group of White Suckers in breeding condition, with those alternating bars of black, white, and red. Gorgeous fish!

Young White Suckers can be quite abundant and often sport alternating, vertical bands of brown along their flanks to help them blend into the rocks and sand along the bottom of streams, rivers, and lakes. This individual is transitioning into adult coloration, but you can still see the vertical bands along the midsection of the fish.