

BOGDIVERSITY THURSDAY



—from *Head Naturalist Clinton*

Daces

POST #55—January 5, 2023

We have reached our 55th post about the biodiversity found in the Sax-Zim Bog! Our posts so far have covered nearly all major species groups found in the Sax-Zim Bog... except one! Today, we take our first look into the diversity of fish found in the Sax-Zim Bog. Though the fish fauna found in the Sax-Zim Bog might not be as specialized or exciting as some of our birds or bugs, there are a few interesting species to consider. Our first group to consider are the daces!

Daces are a rather colorful group of fishes, found through most of North America. Minnesota is home to 7 species of dace, with 5 of those species found in the waterways of the Sax-Zim Bog. During the breeding season, male daces will often develop bright red coloration on their flanks. Outside of the breeding season, most are drab by comparison. Dace are a member of the family Cyprinidae which include minnows, carp, shiners, dace, and more! Cyprinids are a very diverse and very successful group of fishes found across the world. Dace differ from most cyprinids by having very small scales, as well as bright colors.

In our area, there are two distinct groups of daces: the Riffle Daces (2 species) and the Typical Daces (3 species). As the name suggests, Riffle Daces are found in fast moving water in rivers, streams, and ditches throughout their range. Usually, they can be found in the fastest water available and rarely found in slow moving water. The Typical Daces are found in slow to fast moving water, but usually prefer slow moving water in streams and rivers, as well as lakes.

All daces eat aquatic invertebrates, with plant matter making up a small part of their diets. Two species in our area have specialized foraging biology. Longnose dace have an elongated snout that helps them flip rocks to find invertebrates in the fast moving water they prefer. Northern Redbelly Dace has a very small, upturned mouth that it uses to forage on surface-based food items like mosquito larvae.

The fish fauna in the Sax-Zim Bog is not nearly as diverse as other groups of plants and animals found in our vast ecosystem community. At present, 39 species of fish have been documented in the Sax-Zim Bog, which is basically every fish species possible for our region. Unlike birds or butterflies, fish don't have the same ability to colonize new areas. Knowing this, we do not expect any new additions to the list and very likely, fish are the first group of organisms we have completely documented for our region!

More information about these species can be found in the photos below! Western Blacknose Dace (the 5th species of dace in the Bog) is not included in the photos below.

(photos below by Head Naturalist Clinton)



It might seem like this Northern Redbelly Dace was named poorly, as the belly of this male is bright yellow! However, this fish is not in breeding condition. Fish can change their colors depending on water temperature. In the right conditions, the bright yellow of this fish will change to a bright red.



Longnose Dace are a super specialized fish species. Not only are their snouts elongated to help them turn over rocks to find food, their body shape and fin size help them navigate fast moving water with ease.



A very subtle fish, Northern Pearl Dace are one of the largest species of dace in our region. This one is showing a faint red stripe along its belly, which is about as colorful as this species gets during breeding. Northern Pearl Dace was recently split from the Pearl Dace species complex, which also includes the Allegheny Pearl Dace found in the eastern US and Canada.



This drab fish represents our only record (so far) of Finescale Dace! Both Finescale and Northern Redbelly Dace are hard to capture due to their preference of bog ponds and beaver ponds. Those habitats make it very hard to capture these fish for photos.