

BOGDIVERSITY THURSDAY



—*from Head Naturalist Clinton*

Darners

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August is a season of change in the Sax-Zim Bog. The first inklings of fall migration appear in the form of shorebirds, like Solitary Sandpiper, moving through the area. We also experience an entirely new cast of sounds on the landscape with bird song changing to the persistent sounds of katydids and grasshoppers. August is also the season of large dragonflies! Today, let's take a look at the largest dragonflies in the region: the darners!

In the Sax-Zim Bog, we have documented 87 species of dragonfly and damselfly. Of these odonates (the collective term for dragonflies and damselflies) darners are, on average, the largest dragonflies in our ecosystem. Most darners stretch somewhere between 2.2 and 3.1 inches in length, with most between 2.5 to 2.7 inches. Darners are widespread, occupying most ecosystems with water throughout the world. There are even records of these strong flying insects in deserts! Water is critical to the life cycle of odonates, with much of their life cycle taking place underwater. With darners, their nymph stage could be as long as 4-6 years! We have documented 10 species of darner in the Sax-Zim Bog,

including Subarctic Darner, a species of Special Concern in Minnesota.

Darners are an interesting group of dragonflies, especially considering their name! The common names of these odonates range from Emperor and Hawker in Europe and Asia, to simply Darner in North and South America. The name darner comes from the shape of the abdomen being similar to that of a darning needle. There are a number of wild folk tales about darners using their sharp abdomens to sew people's ears shut! Of course, there is no truth to those stories and odonates are harmless to humans.

In general, darners have a helmet of large eyes, long and slender abdomens, with long, powerful wings and impressive jaws. There are two main genera to consider when thinking about darners: *Aeshna* and *Anax*. The genus *Aeshna* contains the "blue" or mosaic darners, while the genus *Anax* contains the "green" darners. There are other darner genera represented in the region, as well as through Minnesota, including *Basiaeschna*, *Rhionaeschna*, *Gomphaeschna*, *Nasiaeschna*, and *Boyeria*.

You are very likely to encounter darners in the later parts of the summer and into the fall. Large foraging swarms of multiple species of darners can be seen flying over open fields, pasture, roadsides, and lawns searching for food during the day and in the early evening. Darners are a very active group of dragonflies, with males patrolling territories searching for females, fighting with other males, engaging with other dragonfly species entering their territories, and chasing down prey. Speaking of prey items,

darners, like other odonates, primarily capture their prey in the air with their mouths or legs. The large size of darners makes them capable aerial predators capturing other dragonflies, butterflies, beetles, and a wide range of medium to large sized flying insects. In their aquatic stage, darners are also quite fearsome predators capturing and eating prey much larger than themselves, like tadpoles and small fish!

More information about darners can be found within the photos below!

(Photos below by Sparky Stensaas)



The only breeding "green" darner in Minnesota is the widespread Common Green Darner! In this photo a pair of Common Green Darners are mating. The genus *Anax* is much more species diverse further south of Minnesota.



Subarctic Darner is an impressive dragonfly and also in need of conservation. This species prefers bog pools with persistent water and is usually found around buckbean! We are lucky to have found this somewhat uncommon and rare dragonfly in at least three locations in the Sax-Zim Bog.



Fawn Darner is a bit of an anomaly when it comes to dragonflies in our region. It is the only brown darner in our area and one of two in Minnesota! This cryptic species patrols tight to the bank of larger rivers and streams, making them difficult to spot and harder to catch!



Lake Darner is the longest dragonfly in Minnesota, averaging 3.1 inches in length. While often the "Largest Dragonfly in Minnesota" award goes to Dragonhunter, Lake Darner is technically longer, though not as robust or imposing.



Shadow Darter is aptly named! It prefers shady streams and rivers, but can sometime be found perching in the sun, like many dragonflies on cool mornings.