

BOGDIVERSITY THURSDAY



—*from Head Naturalist Clinton*

Goldenrod Biodiversity

POST # 42—August 18, 2022

Late season wildflowers in the Sax-Zim Bog are dominated by wetland species and goldenrods. With today's Bogdiversity Thursday Post, let's take a look at just a couple of fairly easy to observe species that utilize goldenrod in August and beyond!

Goldenrods are an obvious feature of the late season landscape, with their golden-yellow flower stalks dotting the landscape. A successful group of plants, they grow well in shaded forests, dry prairies, rocky outcrops, and even bogs! Goldenrods are a member of the broadly diverse and huge plant family Asteraceae. In the Sax-Zim Bog we have documented 12 species of goldenrod and Minnesota is home to 18 species of goldenrod. With abundant flowers, these species offer a lot of nectar and pollen for pollinators.

One of the most common species of beetle seen on goldenrods is the aptly named Goldenrod Soldier Beetle. These beetles eat goldenrod pollen, but also predate caterpillars, insect eggs, and other plant pests. Goldenrod Soldier Beetles are a member of

Cantharidae, a group of soldier beetles with leathery wing covers, not hard wing covers like most beetles. This species can often be found mating on or near goldenrods.

A group of species that most folks might not associate with goldenrods are wasps! It is not uncommon to see a dozen species of wasp or more in a stand of goldenrods. A very placid group of insects, wasps are not interested in stinging us, especially when distracted by goldenrod pollen. Wasps are usually not very good pollinators of goldenrod, as they are not as hairy as bees, but they do some incidental pollination of these plants.

Keen observers may also note caterpillars along the stems or eating the flowers of goldenrods. An especially prominent group of caterpillars observed are the hooded owlets in the genus of *Cucullia*. Below is the handsome caterpillar of Brown Hooded Owlet! The bright colors and patterns are wonderful to see when sifting through a stand of goldenrods.

Upon even closer inspection, you will see a number of odd blemishes on goldenrods. There are a wide variety of leaf-mining flies, gall flies, and midges that use goldenrods of all species. Below is a really cool gall found on the leaves of goldenrod called Carbonifera Goldenrod Gall Midge. This midge forms round and bicolored galls that often also play host to a species of fungus!

More information on the species above in the photos below.
(Photos by Head Naturalist Clinton)



Goldenrod Soldier Beetles don't just use goldenrod, but can be found a wide variety of Aster species. These handsome beetles are usually found right on the flowers of goldenrods.



Bald-faced Hornet is one of a number of wasp species found on goldenrods. Bald-faced Hornet is not a true hornet, but a member of the Yellowjacket wasps.



Carbonifera Goldenrod Gall Mite can be detected by the round and bicolored circles on leaves of goldenrods. Many species of gall forming wasps and flies, as well as a number of leafmining beetle, fly, and moth species can be found by looking at especially dense stands of goldenrod.



This is the handsome caterpillar of Brown Hooded Owlet! While goldenrods are not the host of this species of moth, they are quite happy to eat the pollen, leaves, and flowers of goldenrods.