FRIENDS of Sax-ZimBog

BOGDIVERSITY THURSDAY

—from Head Naturalist Clinton

Early Spring Moths

POST #65—March 23, 2023

A large portion of the biodiversity found in the Sax-Zim Bog consists of insects, especially butterflies and moths. Moth diversity includes 611 species, with many more to come! In Minnesota, moth activity may begin as early as February, with some species active during the heart of winter when it is warm enough. Today, we will take a look at just a smattering of early season moths found in the Sax-Zim Bog!

On a couple of our earlier BogDiversity Thursday Posts, we profiled a few butterfly species that overwinter as adults (find those posts here: https://saxzim.org/.../bogdiversity-thursday-post-archive/).

During these posts, we did not make mention of the huge number of moths that also overwinter as adults. There are a couple of classic examples of moths that overwinter as adults. Those two species, The Herald and Tissue Moth, both have been found in the Sax-Zim Bog and seek out buildings, cave openings, wood piles, or other places with cover to overwinter. These species can often be

seen in the late Fall and the same individuals that survive the winter can be seen again in the Spring! Other early season moths, like Willow Dart and The Infant, overwinter as pupae and emerge as adults in the Spring.

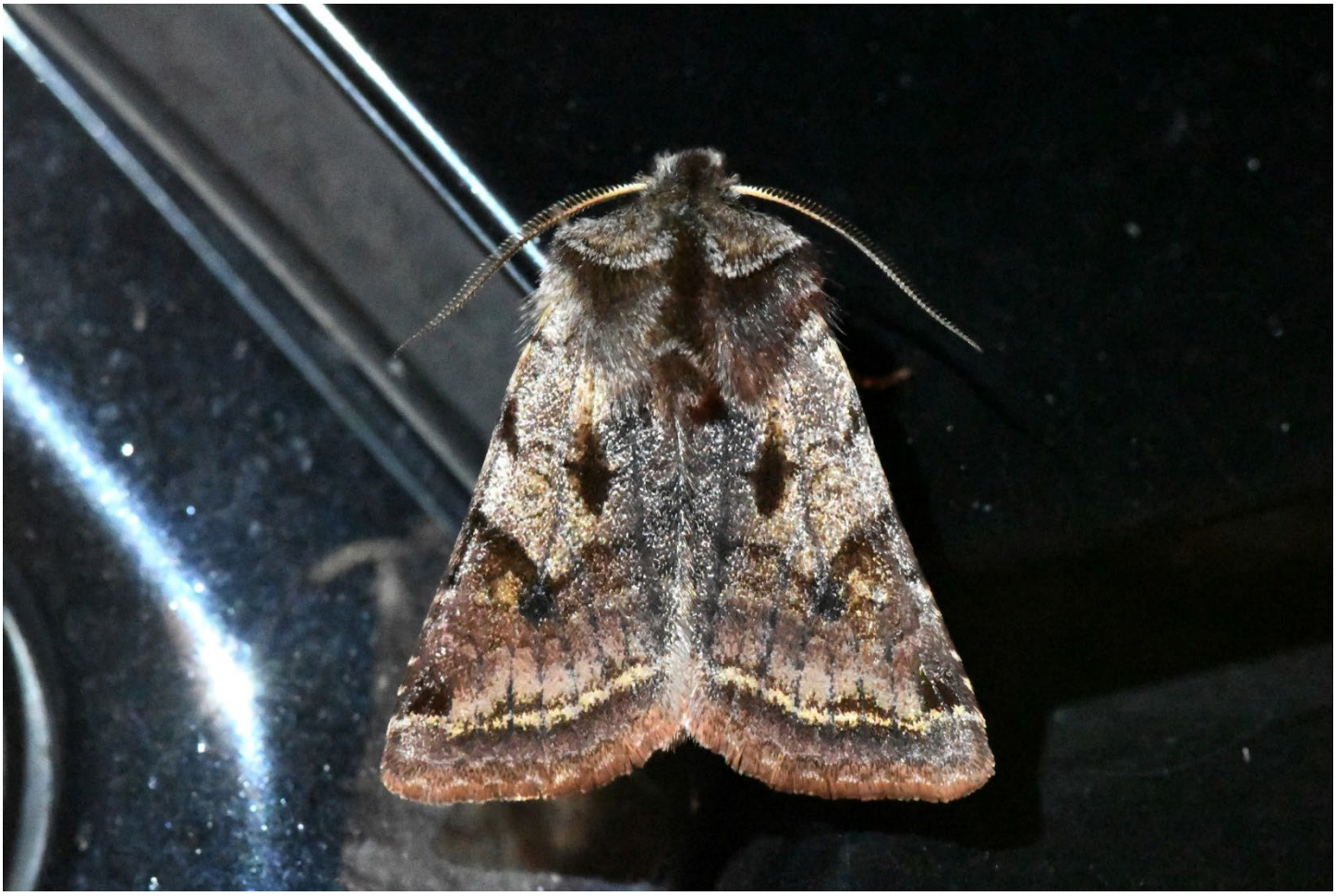
It is important to remember that insects are cold-blooded creatures or ectotherms, meaning they do not make their own body heat, like mammals. As ectotherms, they need to warm up their bodies by moving around or waiting until temperatures reach appropriate levels to function. For most insects 50-60 degrees F is about as cold as they can be active, but moths can be seen flying in temperatures as low as 20 degrees F! Moths that fly during the Fall or Spring often have functional mouthparts and will feed on sugary baits or sap during the Spring that helps fuel them on cold nights. Some early season moths have adopted day-active life histories to take advantage of the early season sunshine and sap that is more readily available during the warmth of the day.

If you are hoping to find early season moth species, there are a few tips that might make your searching more fruitful!
First, moths fly at all times of day during the early season, so search during the day and at night. During the day, find areas with maples or other sap producing trees (like birches!) or dark rock or roadways where these species might warm up. Next, try leaving bait out at night! There are a number of different mixes for "moth bait" out there, so it might take some trial and error to figure out what works best. Last, plant early blooming native species like willows! Willows are really important nectar sources for not just

early season moths, but queen bumble bees, flower flies, beetles, and more. Many of the early season moths we see use willow or other shrubs as their hosts to lay eggs.

More information can be found in the photos below!

(Photos below by Head Naturalist Clinton)

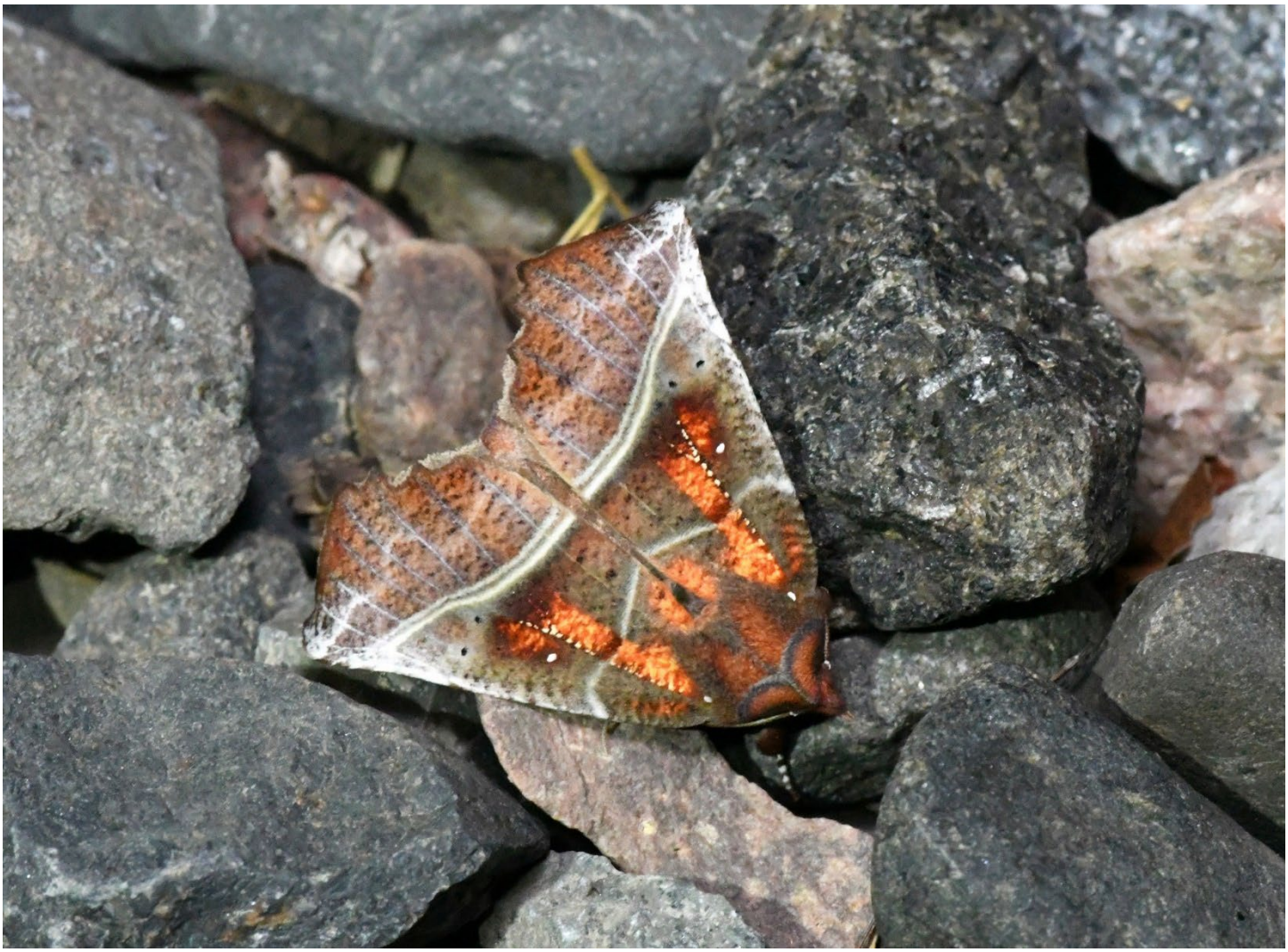


Willow Dart is a beautiful species and was first observed during an early April Owl Survey at 27 degrees F! This species, as the name suggests, uses willow as its primary host plant.

Tissue Moth has been observed in the Sax-Zim Bog both in the early season and late season. A variable species, some can be quite dark, while others are paler like the individual above.

Hoary Pinion is a striking moth! Many pinions have two major seasons of activity, very early or very late. Pinions are quite distinct in shape, with very narrow wings and long bodies.

While this moth might not look terribly flashy, it is really quite lovely! Goat Sallow has multiple color forms, ranging from black and gray to reddish.



The Herald is a beautiful moth! While many early season species are drab and cryptic in coloration, this species is quite colorful. This species can often be seen overwintering in caves, right alongside bats!

The Infant is an odd name for a moth, but it is quite descriptive. The name calls back to early Latin names, relating to its early emergence from a pupa in the Spring. Another common name for this species is First-born Geometer!