

# BOGDIVERSITY THURSDAY



—*from Head Naturalist Clinton*

## Gray Lichens

POST #63—March 9, 2023

Lichens are ever present in the Sax-Zim Bog. We have taken an initial look at a few lichen species in these posts:

<https://saxzim.org/wp-content/uploads/2022/10/Bogdiversity-Thursday-Post-17-1.pdf> and <https://saxzim.org/wp-content/uploads/2022/11/Bogdiversity-Thursday-Post-40.pdf>

The initial posts only featured a small part of the biodiversity of lichens in our region, merely 7 of the 97 species of lichens in the Bog. Today, on this gray and overcast Thursday, let's take a look at a couple of gray lichens! Two of these species are quite common, while one is more difficult to find.

There are a number of species of lichens that are gray, blending in with the substrates they grow on whether it is tree bark, rocks, or the ground. The photos below, at first glance, feature lichens that look the same as one another... at least to the untrained eye! When looking at lichens it is important not a few important structures, especially apothecia. Apothecia are the cup-shaped reproductive structures of lichens that release spores. Not all

lichens have apothecia, some have reproductive structures called soredia, which look like fluffy fringes. Take a look at the lichens below and notice that one of these gray lichens lack apothecia, one has small blackish apothecia, and the other has large brownish apothecia!

Let's investigate these lichens a little closer below.

Our first lichen to consider is Hammered Shield Lichen (*Parmelia sulcata*). This lichen is quite common and probably the most common blueish, grayish lichens seen in the Sax-Zim Bog. You can find it growing on most trees along trails or deep in the woods. Even though most species in this family are gray, folks who like making natural dyes might know this group for their dark, deep red-brown dye.

Next, a member of a really diverse and interesting group of lichens is Star Rosette Lichen (*Physica stellaris*). The genus *Physica* is a group of quite small lichens, with a pale blue-gray thallus (the structural component of a lichen), and often very round edges or fringes. This group of lichens is also incredibly widespread in North America with species in the desert Southwest ranging to boreal forest species reaching the Arctic Circle. Star Rosette is the only member in our area (that we have found so far!) that has any apothecia at all! The great things about the apothecia of this species is that it is always in the center of the lichens.

Our last gray lichen today is one of the more difficult species to find in our area: Smooth Axil-bristle Lichen (*Myeochroa galbina*)!

This species does not have much, if anything to do with axles. The name comes from the abundant rhizines (fungal root-like structures on the bottom of the thallus). This species primarily grows on deciduous trees. The large, brownish apothecia are quite distinctive and no other lichen in our area has the combination of apothecia size and color with thallus color and shape. A great lichen to find, if you can! There are only two locations we have found it so far in the Sax-Zim Bog: Yellow-bellied Bog and behind the Welcome Center.

Identification and more information about the lichens noted above in the photos below!

(Photos below by Head Naturalist Clinton)



Hammered Shield Lichen is very, very common! Note the blueish gray thallus, with slight texture to the upper surface of the lichen. This texture looks similar to hammered brass or tool marks on metal.



Star Rosette Lichen is a lot smaller than it looks, with large individuals perhaps the width of your thumb. The apothecia on this lichen is always found in the center and can be quite abundant.



One of the more difficult to find species of lichen in the Bog is Smooth Axil-Bristle lichen. Note the large, brownish apothecia over the grayish thallus. Have you ever seen this species in Bog?