

BOGDIVERSITY THURSDAY



—*from Head Naturalist Clinton*

Introduction to Heaths

POST #69—April 20, 2023

With regional snowfall records continuing to fall, we are going to push ahead towards greener times in the Sax-Zim Bog! One of the most important groups of plants in the Sax-Zim Bog belong to the family Ericaceae. The "heaths" are quite diverse, often grow very well in acidic conditions, and have a number of insects that rely on them as a host plant! Today, we are going to take a look at just a few members of this cool group of plants!

In the photos below there are four plants, all of which belong to the family Ericaceae. None of these plants are in the same genus though their flowers are very, very similar! The family Ericaceae is really interesting, as far as plants go. While many species have bell shaped flowers, there are some members that have very different flowers (like Cranberries and Rhododendrons). Most members of this family of plants have woody stems and some, like the Manzanitas, a large enough to be considered trees! A diverse family of plants, there are around 4300 species, ranging across the globe from subtropical habitats to the arctic.

As noted above, most heaths grow in either acidic soil conditions or in nutrient poor habitats. Bogs just so happen to have both of these soil conditions! Heaths are very well represented in Bogs. In bog habitats in our region, plants in the family Ericaceae make up around 85-90% of the plant abundance. Four species of that family make up the bulk of biodiversity and biomass: Leatherleaf, Labrador Tea, Bog Laurel, and Bog Rosemary. Part of the reason these plants can survive the harsh growing climate of bogs is their relationship with mycorrhizal fungi! These fungi help the plants breakdown and synthesize nutrients, transfer those nutrients into and across roots, and in some cases protect the roots. There will be more posts about these fungi in the future!

One common trait between these plants, besides the flower shape, is the production of fruits. Blueberries, lingonberries, and cranberries all have significant roles to play in the food available to both humans and animals! Black bears, Hermit Thrushes, American Robins, Eastern Chipmunks, Gray Foxes, and more utilize these berries as food sources. Another trait shared across the family Ericaceae are their "evergreen" leaves. This means they keep most of their leaves year round (even under the snow!). This allows these plants to take advantage of the short growing seasons in northern climates.

More information about the species photographed included in the photos below!

(Photos below by Head Naturalist Clinton)



Perhaps the most interesting blueberry in our region, Velvetleaf Blueberry likes growing in the understory of forests and is shade tolerant. The leaves of this plant are very fuzzy, with fine hairs. If you find this species look for an interesting gall made by wasps:
Blueberry Gall Wasp.



One of the earliest blooming non-tree plants in the Sax-Zim Bog, Leatherleaf is a wonderful plant. It is the host plant for a number of bog specialist butterflies and moths! Look for the beautiful white flowers of this plant in the middle parts of May, if not earlier.



If you have been on a field trip with Head Naturalist Clinton, you likely have heard about Bog Rosemary (as it is one of his favorite plants in the ecosystem!). While you may not get much use out of this plant as a cooking herb, you hopefully enjoy the bluish hue to the leaves and soft pink flowers. Another important host plant, Bog Rosemary is a great nectar source for bees and a host for lots of butterflies and moths.



Perhaps the oddball of the group included in today's photos, Bearberry grows in upland forests. This is an amazing little plant that loves growing on sandy substrates. Also known as kinnikinnick, this plant can be found in a few locations in the Sax-Zim Bog, but only on sandy soils.