

BOGDIVERSITY THURSDAY



—*from Head Naturalist Clinton*

Moose

POST #48—October 20, 2022

In the life of many mammals, fall is a season of preparation (if you hibernate), movement (searching for mates or winter food sources), and change (adding winter coats or changing color). For our featured species this Thursday, fall is a time of moving around in search of mates! Which makes it one of the best times of year to find.... Moose!

Moose are a mythical creature to most visitors to the northwoods. Very few visitors to the Sax-Zim Bog during the winter chance an encounter with this species, and even fewer visitors see them during the fall. It is likely that moose stick around the Sax-Zim Bog during the summer months, but finding one is like looking for a large brown needle in an even larger brown and green haystack. As large as moose are, they are masters of disappearing into the wilderness.

If you have been lucky enough to see a moose, you certainly noted their size! Bull Western Moose (the subspecies found in Minnesota) stand over 6 feet tall at the shoulder and can weigh

over 1500 pounds! Cow Western Moose are no slouches either, standing just under 6 feet at the shoulder and weighing nearly 800 pounds. These impressive creatures tower over the landscape and outside of humans, their only regular predators in Minnesota are wolves.

Moose have incredibly interesting biology. It is well known that moose are great swimmers and spend nearly as much time in the water as they do on land. Aquatic vegetation is an important part of their diet and they will even dive underwater to access aquatic plants at depth. Their long legs and large feet allow them to travel through marshes, wetlands, and deep snow with ease.

Even their long noses are specially adapted. Moose do not sweat and rely on their breathing to expel excess heat, often through their nose. Long noses are equally as useful during periods of cold weather, warming up breathed air before it reaches the lungs. But moose noses have another adaptation. Inside their noses are valves that close automatically when a moose submerges its head, making it easy for them to spend time foraging underwater.

As noted above, moose are big creatures and their great size does come with some drawbacks. Moose are incredibly sensitive to heat. Their large, dark bodies are great at absorbing and retaining heat, which is great during cold winter periods, but is a problem during the summer. In fact, moose begin to experience heat stress between 57-68° F. The behavior of a moose is highly influenced by the need to mitigate their potential to overheat. Habitat chosen by moose for summer use often is near areas with completely

shaded forest and abundant food resources. Moose select fully shaded areas specifically for bedding, which allows them to mitigate the effects of solar radiation on their bodies. Moose also might become more active at night during the summer in response to warm temperatures.

There are an infinite number of cool things about moose, but we only have so much space in a single post! More information is included in the photos below.

(Moose photos by Sparky Stensaas, Moose track photo by Head Naturalist Clinton)



Moose have different diets, based on the season. In the summer, all manner of vegetation is consumed, especially aquatic plants. However, in the winter, their diet is primarily woody vegetation like the twigs of dogwoods, willows, and conifers. Uniquely, moose operate on a negative food budget during the winter because they are not able to eat enough food to sustain their metabolism.



Moose tracks are very seldom confused with other species in the Sax-Zim Bog. We don't have another hooved animal that approaches the size of moose, unlike folks out west!



This photo shows pretty typical moose habitat, but also gives you an idea of how easily a creature of their size can hide. Did you spot the moose in this photo?



Moose really are huge! This moose was seen in the Bog a few years ago and was very happy to slowly plod along and have vehicles wait for it to cross the road.