

BOGDIVERSITY THURSDAY



—*from Head Naturalist Clinton*

Boletes and Slippery Jacks

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Leaves are covering the ground, showing off the change of seasons. Fall in the Sax-Zim Bog offers up an entirely different community of organisms for visitors to enjoy. From new birds migrating through the area, to colorful mosses along the boardwalks, to abundant fungi on the forest floor... there is a lot to enjoy. Today, let's introduce an interesting group of mushrooms... Boletes and Slippery Jacks!

The order Boletales includes non-polypore mushrooms with pores instead of gills. Within the order Boletales, there are two families of including our fungi of interest: Boleteaceae and Suillaceae. These mushrooms, known as the Boletes and the Slippery Jacks, have pores rather than gills! Species may have tiny, circular pores or wide, hexagonal pores. Covering a wide range of habitats, from bogs to upland areas, a few species in these families are sought after as choice edible mushrooms.

Boletes are perhaps the better known of the two fungi noted above, with a couple of species in this group highly sought after as

food mushrooms! Sometimes known as porcini, the family Boletaceae includes fungi with names like King Bolete, Peppery Bolete, Butter Bolete, Aspen Scaberstalk, and more. Whatever name you call them, these often large fungi are lovely signposts of a fall landscape. Many boletes have tiny pores which hold their spores, similar in function as gills of more typical fungi! Boletes are ectomycorrhizal with trees and shrubs, especially oaks. This means they help the trees gain certain nutrients from the soil, all the while taking some nutrients from the trees with which they associate. In our area, there are a few boletes that have relationships with conifers and aspen.

The Slippery Jacks, also known as the Chicken Fat Mushrooms or Butter Mushrooms, are members of the family Suillaceae. The Slippery Jacks are primarily found in the Northern Hemisphere and many are associated with the boreal forest and bogs as they are primarily associated with pines, spruces, tamaracks, and Douglas-firs. The Slippery Jacks have wide, hexagonal pores, much larger than their bolete relatives. Unlike boletes, the slippery jacks are not as highly sought after as an edible mushroom, at least in North America! The genus *Suillus* are utilized food species in eastern Europe. While these mushrooms often look quite plain, the undersides of their caps are often bright yellow, with beautiful latticed pores. Right now, there are lots of Western Hollow Jacks (*Suillus ampliporus*) fruiting along the John C. Gale Boardwalk behind the Welcome Center!

As noted above, both Boletes and Slippery Jacks contain edible members. When foraging for fungi, always confirm your ID from

multiple sources before consuming. There are no deadly fungi in the Bolete group, but there are a few species that will cause extreme gastrointestinal distress. Definitely use caution with some members of this group and always be careful when foraging fungi! If eating mushrooms is not your thing, mushrooms in the genus Suillus can also be used to make natural dyes. Of course, it wouldn't be a post about fungi without including parasitic fungi! Both groups of fungi above a parasitic fungal species called Bolete Mould!

More information and ID notes included with the photos below!

(Fungi photos by Head Naturalist Clinton)



Aspen Scaberstalk is name for its association with aspens, as well as its rough (scabrous) stipe. These beautiful mushrooms get quite large, with beautiful rusty red caps.



No, we didn't dip this mushroom in marshmallow! This is Bolete Mould parasitizing a Suillus species! Bolete Mould is in the same genus (*Hypomyces*) as the fungus responsible for Lobster Mushrooms!



Chicken Fat Mushroom is another large, beautiful member of Boletales! This species is used for dyes and is strongly associated with Eastern White Pine.



Common to all of the Boletes and Slippery Jacks are pores on the underside of the cap, as opposed to gills. Those tiny dots hold and help distribute the mushroom's spores.



An exceptional species to see, this is Red Bog Bolete! Though it has the name bolete, it is actually a member of the genus *Suillus* (the Slippery Jacks!). These beauties were growing in the understory at Blue Dasher Bog.



Peppery Bolete is one of the smaller members of the group, but is quite distinctly orangey-brown, with a bright yellow based to the stipe. The name comes from the slightly peppery/spicy flavor of this mushroom.