

BOGDIVERSITY THURSDAY



—from *Head Naturalist Clinton*

Lichenicolous Fungi

POST #19 —February 24, 2022

On our recent Winter World of Lichens Field Trip report I had mentioned that there were potentially a few new species added to the Master Species List seen during the field trip. The Biodiversity Thursday post today will profile one of those species! Meet one of the newest additions to the Master Species List: *Illosporiosis christiansenii*!

This is a species of lichenicolous (lichen-ick-o-lus) fungi. In the photo below, those pinkish blobs on the grayish lichen are the fungi! Lichenicolous fungi are species of fungi that parasitize the fungal component of lichens. *Illosporiosis christiansenii* is also classified as an anamorphic fungi, which means it reproduces asexually, different from many species of fungi which reproduce with spores.

Interestingly enough, we had seen this fungi before on previous field trips to Yellow-bellied Bog, but had no idea what we were looking at until last week (thanks to Tony Ernst). We found this fungi on Star Rosette Lichen (*Phycia stellaris*) at Yellow-bellied

Bog and *I. christiansenii* specifically parasitizes lichens in the genus *Physcia*.

Historically, lichenicolous fungi were rarely studied by mycologists (folks who study mushrooms) though these fungi were often observed by lichenologists. A 2003 paper by Lawrey and Diederich serves as a great history of study and classification of lichenicolous fungi, if you would like to learn more! In the paper, the authors noted that while European species have been studied well for around 200 years, North American species are still relatively unknown. Though *I. christiansenii* is not the only parasitic fungi on our species list, it is the first lichenicolous fungi on our list!

Regardless of species relationships, parasitic species are often under observed and sometimes unknown to science. During the 2021 BioBlitz, we were excited to learn a great deal about common parasitic species (fungi, mites, flies, etc) from Sam Guida and we hope to continue to show more of these incredibly diverse and fascinating group of species!

(Photo below by Head Naturalist Clinton)



This photo shows the distinct relationship between Star Rosette Lichen and the lichenicolous fungi *Illosporiosis christiansenii*! The pink fungi is quite obvious if you get up close and personal to the grayish lichen.