

Inventory of the common lichens of the Natural Area Teaching Laboratory

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Introduction:

Lichens are perennials and are found throughout the year. Despite their abundance, lichens are an often overlooked organism in ecosystems because they are difficult to collect and also because there is a lack of field oriented keys for amateur naturalists. To address this lack of information a field oriented key with color photos was made for the lichens of the Natural Area Teaching Laboratory (University of Florida).

Materials and Methods:

Lichens were collected on January 28 (*Pinus* flatwoods and xeric and mesic forest) and May 8, 2015 (hydric forest and SEEP trail). All main trails as well as numerous off trail areas were sampled. Specimens were brought back to the laboratory in paper bags, and were identified using information from three sources: Brodo et al. 2001, Harris 1995, Rosentreter et al. (unpublished keys). Standard spot tests of 10% potassium hydroxide were utilized.

A field oriented dichotomous key with each species was created and is available on the NATL website (www.natl.ifas.ufl.edu). Brief descriptions of each species including habitat preference, determining characteristics and pictures, also are available on the NATL website. Pictures were taken with a Canon UltraSonic with a 100mm lens. Specimens were deposited at the Florida Museum of Natural History Herbarium (FLAS).

Results:

Thirty collections were made for a total of 25 species (Table 1). Further taxonomic information is present in the dichotomous key and the species descriptions that follow the key.

Table 1: List of lichen species collected at NATL arranged by alphabetical order.

Lichen at NATL
<i>Bulbothrix isidiza</i>
<i>Canoparmelia amazonica</i>
<i>Canoparmelia caroliniana</i>
<i>Canoparmelia cryptochlorophaea</i>
<i>Canoparmelia texana</i>
<i>Chrysothrix sp.</i>
<i>Cladonia didyma</i>
<i>Cryptothecia striata</i>
<i>Dirinaria picta</i>
<i>Graphis sp.</i>
<i>Herpothallon rubrocincta</i>
<i>Heterodermia albicans</i>
<i>Lecanora floridula</i>
<i>Leptogium austroamericanum</i>
<i>Leptogium cyanescens</i>
<i>Leptogium isidiosellum</i>
<i>Leptogium marginellum</i>
<i>Parmotrema cristiiferum complex</i>
<i>Parmotrema perforatum complex</i>
<i>Parmotrema rampoddense</i>
<i>Parmotrema reticulatum</i>
<i>Parmotrema tinctorum</i>
<i>Physcia solediosa</i>
<i>Pyxine eschweileri</i>
<i>Ramalina montagnei</i>
<i>Usnea strigosa</i>

Discussion:

The lichens listed in Table 1, are species that are common throughout Florida from Lake Okeechobee north through Jacksonville and the Florida Panhandle. The dichotomous key and species descriptions closely match the lichen flora of the mesic hardwood and *Pinus* forests of Paynes Prairie State Park and O'Leno State Park.

One rare species was collected in NATL, *Canoparmelia texana*. According to the Consortium of North American Lichen Herbaria, *C. texana* has been collected 14 times in Florida. It may be that this species is more common than reported.

The species collected in the hydric forest and the xeric forest were largely similar. Most likely, all lichen species found in the drier habitats also are present in the hydric forest, except for *Cladonia didyma*. However, this species may be more limited by substrate availability. Many microhabitats are found in both localities, which probably contributes to the flora's similarity between localities. Two species, *Lecanora floridula* and *Bulbothrix isidiza* were only found in the hydric forest but not the drier habitats. *Bulbothrix isidiza* is probably present in drier habitats in NATL, while *L. floridula* has a strong preference for moist habitats. The hydric and xeric forests contained many of the same trees. For example, a few *Pinus* were present at the edge of the hydric forest. Despite the overlap of tree species, the frequency of each species probably differs between the hydric forests and upland forests. *Leptogium* species are probably more common in the hydric forests while some species, such as *Parmotrema*, are more prevalent in *Pinus* habitat.

Works Cited:

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