



Driftless Prairies: Native Ecosystems

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Lichens, Mosses, and Ferns

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Lichens, mosses, and ferns add to our biodiversity. They serve as soil creators, food, and nutrient providers.

Lichens

A lichen is a combination of 2 things: fungi and algae or fungi and cyanobacteria.

North America has 3,600 species of lichens. They are found on soil, on rocks, and mainly trees mainly, but they can grow on any undisturbed surface. They are very slow growing, sometimes only 1mm a year and they have long lives.

Lichens provide nesting materials for many biota. They are great indicators of air quality and can recycle airborne chemicals into the soil, Lichens have antibacterial qualities can produce up to 500 different chemical compounds – good for the medical community.

Lichens found at Driftless Prairies...so far.

Candelaria concolor – Candleflame Lichen

Flavoparmelia carperata – Common Greenshield

Physcia stellaris – Star Rosette Lichen

Xanthoria hasseana – Poplar Sunburst Lichen

[Lichen Resources](#)

Mosses

Mosses are among the oldest and simplest plants on Earth.

Unlike other “plants,” mosses are mostly unpalatable to insects because of secondary compounds they create. Yet, these compounds are valuable as they are antibacterial, antifungal, and antiviral; some even have anticancer properties.

Mosses require rain or splashed water to develop, which is why they can cover areas where soil is not. Yet they do promote soil formation because of they chemically weather rocks.

Mosses found at Driftless Prairies:

Plagiomnium cuspidatum

Polytrichum

Thuidium delicatulum

Moss Resources

Ferns

Ferns are unique from other plants because they have a 2-stage development. The first stage is when their sexual organs are formed. This is generally about a 2 week period. Once developed and cross fertilization occurs, a new fern will appear in 3-4 months. Since each new fern has both sexual organs on it, they have methods of dispersing the spores to prevent self fertilization. This reminds me of how fungi do it. As they dry up, it creates tension, and once that tension is too great, the area containing the spores then flings them.

Ferns found at Driftless Prairies:

Adiantum pedatum – Maidenhair fern

Dryopteris phegopteris – Narrow Beechfern

Pteridium aquilium – Bracken fern

Fern Resources

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