

# Chicago, Illinois, USA

## Common Lichens of Chicagoland

Todd Widhelm & Thorsten Lumbsch  
Field Museum



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Hidden Lake Forest Preserve, Dupage County, Illinois

### Lichens & Chicagoland

They look like mosses but actually are not plants. In fact, lichens are fungi that form a close relationship with algae or cyanobacteria, and this association, called symbiosis, is so tight that they look like one organism. The fungus provides structural support, while the algae provide food. This unique symbiosis allows these fungi to act as plants in an ecosystem and for a long time they were considered plants by scientists. Lichens occur on all continents, covering nearly seven percent of the Earth's surface, and can be dominant in extreme climates, such as deserts and near the poles of Earth. Today there are about 20,000 described species of lichenized fungi, nearly one-third of the fungi, but scientists estimate that thousands more await discovery.

Chicagoland has a long history of lichen study. Over a century ago, William Wirt Calkins published the lichen flora of "Chicago and vicinity" containing 125 lichen species. A little over 20 years ago, Gerould S. Wilhelm, reassessed the lichen flora and reported 222 species. Some of the species Calkins reported in 1896 were no longer found, and other species seemed to have migrated recently to Chicagoland, demonstrating the dynamic nature of lichen species diversity across landscapes and time. Today, the lichen research group at the Field Museum aims to understand why some lichen species come and go and why some have persisted in Chicagoland since Calkins' publication. Some reasons for gains and losses of lichen species may include, introduction by humans on landscaping trees, changes in nature preserve land management, changes in levels of air pollution, and climate change. All probably contribute to some extent to shaping the constantly changing lichen flora. This guide introduces our most common species that can be found just about everywhere, some even in the heart of the city! The next time you go walking around Chicagoland, take this guide with you and try to identify the lichens you encounter.



1 **Candleflame Lichen**  
*Candelaria concolor*  
CANDELARIACEAE



2 **Common Goldspeck**  
*Candelariella vitellina*  
CANDELARIACEAE



3 **Frosted Comma Lichen**  
*Chrysothrix caesia*  
CHRYSOTHRICACEAE



4 **Pixie Cup Lichens**  
*Cladonia macilenta*  
CLADONIACEAE

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5 **Mortar Rim Lichen**  
*Myriolecis (Lecanora) dispersa*  
LECANORACEAE



6 **Common Greenshield Lichen**  
*Flavoparmelia caperata*  
PARMELIACEAE



7 **Powdered Ruffle Lichen**  
*Parmotrema hypotropum*  
PARMELIACEAE



8 **Black Sheet Lichen**  
*Parmotrema reticulatum*  
PARMELIACEAE



9 **Rough Speckled Shield Lichen**  
*Punctelia rudecta*  
PARMELIACEAE



10 **Field Dog Lichen**  
*Peltigera rufescens*  
PELTIGERACEAE



11 **Grainy Shaddow-crust Lichen**  
*Hyperphyscia adglutinata*  
PHYSICIACEAE



12 **Smooth Shadow-crust Lichen**  
*Hyperphyscia syncolla*  
PHYSICIACEAE



13 **Pom-pom Shadow Lichen**  
*Phaeophyscia pusilloides*  
PHYSICIACEAE



14 **Orange-cored Shadow Lichen**  
*Phaeophyscia rubropulchra*  
PHYSICIACEAE



15 **Hooded Rosette Lichen**  
*Physcia adscendens*  
PHYSICIACEAE

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16 **Rosette Lichen**  
*Physcia millegrana*  
PHYSICIACEAE



17 **Star Rosette Lichen**  
*Physcia stellaris*  
PHYSICIACEAE



18 **Powdery-margined  
Cryptic Shade Lichen**  
*Physciella chloantha*  
PHYSICIACEAE



19 **Frost Lichen**  
*Physconia leucoleiptes*  
PHYSICIACEAE



20 **Fluffy Dust Lichen**  
*Lepraria finkii*  
STEREOCAULACEAE



21 **Firedots**  
*Caloplaca* sp.  
TELOSCHISTACEAE



22 **Hooded Sunburst Lichen**  
*Xanthomendoza fallax*  
TELOSCHISTACEAE



23 **Bare-bottom Sunburst Lichen**  
*Xanthomendoza fulva*  
TELOSCHISTACEAE



24 **Bare-bottom Sunburst Lichen**  
*Xanthomendoza weberi*  
TELOSCHISTACEAE



25 **Common Sunburst Lichen**  
*Xanthoria parietina*  
TELOSCHISTACEAE



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