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**A Practical Application of Lichenology for Urban Livability---Lichens as Canaries in the Coal Mine**

**By Daniel Salomon**

How polluted is the air in your neighborhood? Look for the presence/absence of this pollution-tolerant lichen---*Xanthoria*?

*Xanthoria* is golden colored crust lichen. Take into account that this species of lichen can also grow in areas with bird droppings. It is important to separate whether this species of lichen is present because the air in your neighborhood is polluted or because there is an abundance of birds in a particular place like a tree where birds roast.

Are there any lichens in your neighborhood at all?

The presence/absence of lichens in your neighborhood can also determine the air quality of your neighborhood because some species of lichens are sensitive to air pollution and need clean air to survive.

(Peter McCoy, *Radical Mycology-A Treatise on Seeing and Working with Fungi*).

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**Places to Go Around the Portland Area to See Moses, Lichens and Liverworts by Daniel Salomon**

* Cooper Mountain: A good place to see Apple Moss which grows in open prairie.
* Goose Hollow: A good place to see liverworts, as well as mosses and lichens in the city. A good walking tour is to start at the Goose Hollow Max Station. Turn left past two Oregon heritage trees, walk up the staircases to SW Market and make a right turn and walk the road to SW Vista Ave and make a right turn. Walk over the Vista Bridge. Check-out all the mosses and lichens growing on the Vista Bridge. Make an immediate right into the historic King’s Hill Neighborhood. On your right---there will be another hidden staircase. Walk down this hidden staircase which is more like a walking ramp and you will find a stand of the less common hard-scale liverwort. In-fact, you will find mosses, lichens and liverworts throughout Goose Hollow. Just keep your eyes peeled.
* Hoyt Arboretum: A good place to see mosses, lichens and horsetails. One of the best places to see mosses and lichens is around the Hoyt Visitor Center, parking lot, trail around visitor center and the Overlook Trail. Bray Lane has some impressive stand of horsetails. Also many of the drainage lawns around the Hoyt are also excellent places to see whole stands of horsetails. A stand of horsetails also comes up each year in the witch-hazel garden across the street from the Vietnam Memorial.
* Japanese Garden: Moses, lichens and liverworts are protected as a valued and integral part of their collection, where visitors are even prohibited from touching all plants including mosses, lichens and liverworts.
* Oregon Zoo Max Station: A good place to see crust lichens growing on the surrounding rock gardens.
* Oxbow Regional Park: Harbors a true old-growth forest which has an unusual abundance of mosses and liverworts.
* Pittock Mansion and Sanctuary: A good place for mosses, lichens, liverworts and horsetails. Walk the main road to the mansion from Burnside and you have a good chance of seeing some liverwort stands and a stand of horsetails. Explore the house and grounds. There are sometimes even mosses and lichens growing on the mansion. Look into the deep rainforests surrounding the mansion and you will see tapestries of mosses. If you walk the Wildwood Trail from Burnside to the Mansion, you will have an opportunity to find one of the moss species with vascular looking leaves (leaves like the leaves of flowering plants and ferns). I even discover a little bit of peat moss on this stretch of the Wildwood.
* Portland Florists: Many Portland florists sell moss as well as lichens as curiosity plants.
* Silver Falls State Park: You can find examples of almost everything we have covered in this workshop. Both rag and crust lichens, mosses and peat mosses and multiple species of liverworts. Cushions, draperies, tapestries, hanging hairs and fruiting bodies. An excellent reprehensive sample of substrates of all kinds, from rocks to the forest canopy, from the forest floor to flowing water, logs to seepages even the caves behind the waterfalls. There is so much lichen, moss and liverwort diversity at Silver Falls because of an almost year round supply of water and moisture supplied by an unusual abundance of waterfalls, flowing streams and seepages, combined with the dense shade of a mature temperate rainforest ecosystem with some old-growth.