NORTHWEST LICHENOLOGISTS

2013 Newsletter

Upcoming Events

NWL Annual General Meeting

Our annual general meeting is generally held in conjunction with the Northwest Scientific Association.

For those of you attending the 84th Annual Meeting of the Northwest Scientific Association with the Cascadia Prairie-Oak Partnership and Northwest Lichenologists, March 20-23:

Northwest Lichenogists Workshop: EPIPHYTIC MACROLICHENS FOUND ON OREGON WHITE OAK
Moderators: Daphne Stone and Lalita Calabria, Time: 2:00-4:40

The workshop begins with an informal discussion focusing on a recent survey of oak lichen communities in WA (see talk abstract for: Villella, J. et. al.). The effects of poor air quality and fire disturbance on oak lichen communities will be discussed. This will be followed by a hands-on educational lab introducing the community of epiphytes found on oaks in Washington. There will be five stations with examples to be shared:

1. Common and widespread macrolichens found on oaks in Washington.

2. Rare species and new state records on oaks found during recent surveys of oaks in Washington.

3. Usnea, a conspicuous, diverse and difficult genus.

4. Comparison of WA oak lichen communities east and west of the Cascade Range.

5. Examples of common species displaying pollution-affected morphologies.

Oak/prairie land managers, restoration ecologists and anyone interested in learning more about oak lichen communities are encouraged to attend. Microscopes and chemical reagents will be available and participants are encouraged to bring their own specimens to identify during the workshop.

-Lalita Calabria

In a study that will be presented at the 2013 NWSA conference, John Villella, Lalita Calabria, Daphne Stone, and Greg Eide collaborated to survey macrolichen diversity on *Quercus garryana* in Washington State. This was the first investigation of lichens on the native oaks in Washington to record and compile data from a wide range of stands throughout the state. In all, 113 species were found, and voucher specimens were accessioned into The Evergreen State College herbarium.

The researchers visited 9 oak stands throughout Washington, establishing air quality data plots at many sites. They collected 2 new state records (e.g *Fuscopannaria pulveracea, Collema quadrifidum)* and expanded the known ranges of oak-associated species (e.g. *Platismatia wheeleri*). Records from herbaria and other Washington oak lichen studies were also included to evaluate the rarity of observed species and potentially rare species known from nearby locations.

-Greg Eide

Collema quadrifidum, John Villella, crustose.net

Click here for more information on NWL meetings in general.

NW LICHENOLOGISTS SOIL CRUST FORAY
3-6 September, 2013

Led by Daphne Stone, the Foray will take place in Lakeview BLM in southeastern Oregon. We will camp nearby and visit one or two sites each day, looking for soil crusts and enjoying ourselves. Daphne will have a small demonstration collection, and can show newcomers to the soil crust world a little bit about what we might find. We will probably have time to visit other interesting geological features as well, for instance Hole in the Ground and Crack in the Ground. The Lost Forest is nearby, with a beautiful stand of *Pinus ponderosa,* and the largest *Juniperus occidentalis.*

This NWL foray is open to anyone who would like to join us. It is funded by the BLM, and includes gas money for those who would like to be reimbursed. Depending on the itinerary, there may be motels within driving distance, but most participants will camp.

Please sign up with Daphne Stone at daphstone@gmail.com, or call me at 541-344-3274 so you get communications about our plans.

Recent Events

Mount Saint Helens Field Trip

Late on Thursday, September 13, 2012, around a dozen lichen enthusiasts from as far away as Utah and South Dakota and as near as Randle, WA converged on a remote field camp of high up on the road to Windy Ridge on Mt St Helens. In the dusky evening, folks set up tents on the pumice amongst the trees that had been planted after the eruption. In a large wall tent, Coleman lanterns whirred, providing the only noise for miles while some talked about their journey to the mountain and others continued to arrive. Charlie Crisafulli, an ecologist with USFS, was the "proprietor" of the field camp and had invited the NW lichenologists to come to the mountain to collect specimens and data on the lichen community in different volcanic disturbances. Over the last 20 years, Charlie had studied many aspects of the ecological response post-1980 eruption of Mt St Helens; many aspects except lichens.

On Friday, we all awoke to a feast that Charlie and his helpers were preparing: eggs, potatoes, etc. and, most importantly, coffee. After breakfast, we gathered around a table to ID a few lichens Charlie had collected over the years. Charlie then broke out some maps and gave us a 20-minute primer on the eruption and the resulting disturbance zones. He then laid out the plan; head up the road to the pumice plain where a pyroclastic flow had erased almost all life and do some collecting. The following day was to be spent in the toppled forest, where trees had been sheared off by a lateral blast of hot gases and debris after which we would visit forests that had either survived the blast or only been partially burnt. The last day, for those who didn't have to leave, would be devoted to collecting in the lahar that had run down the south side of the mountain.

On Friday morning, we drove up the road and descended into the pumice plane, where we walked a couple miles out into the open expanse left by the mountain's explosive past. Looking west, we gazed up into the cleft on the mountain left by the collapse of the slope while to the east we could see Spirit Lake with its raft of logs moving wherever the wind blew them. People spread out to search for lichens while others installed a couple FIA-style plots for more systematic lichenological observations. We saw an interesting *Lecidea* (*L. plana*) growing on the pebbles of pumice in many areas that were mostly devoid of vegetation. *Cladonia verruculosa* was commonly found amid the mats of *Niphotrichum*. On some of the andesitic rocks, strange colonies of normally epiphytic species were observed, such as *Platismatia glauca* or *Alectoria sarmentosa*. After several hours in the pumice plane, we headed down to Spirit Lake, where other interesting lichens were found growing on the massive logs along the shore. Some folks explored a grove of red alder while others lounged enjoying the sunshine.

The next morning we drove not far from the field camp to an area of toppled forest that had been replanted with conifers. Again, some did plots while others wandered looking for interesting species. The usual suspects of second growth west slope conifer forests were observed here. Piling back in the cars, we drove downhill to the Meta Lake trailhead area where we surveyed another area of blown down forest and where it appeared there was more snow accumulation in the winter. Here we saw the typical lichen lines on the trees with abundant *Alectoria* and *Bryoria* high up in some of the snags or young trees.

The following day (Saturday) we headed to the Ghost Lake area, where the forests had been burned by the hot gases of the 1980 eruption but individual trees remained upright. As with Meta Lake, there appeared to be high snow levels, making detecting some lichens more difficult as they were restricted to higher on the boles. Some interesting crusts, such as *Elixia*, were found on the Vaccinium shrubs. On our way back to the car, we headed into a patch of old-growth conifer forest that had survived the eruption but sustained heavy tephra deposits. On the plot

and through our wanderings, we saw many species one would expect to find in such a place, such as *Lobaria oregana* and *Sphaerophorus tuckermanii*. The trees were quite large and provided a continuous canopy making the understory cool and pleasant on an otherwise hot, late summer day.

On the final day (Sunday), many participants had to leave. The remainder of the group headed to the lahar on south side of the mountain. The forests here had been inundated or removed by a fast moving slurry of mud, rock and water. Some trees had colonized the edges of the lahar upon which we found the starts of some epiphytes such as *Hypogymina physodes* and *Usnea*. There were also *Stereocaulon* and *Umbilicaria* species on some of the boulders but the lichen community was otherwise rather depauperate. We also put a plot slightly into the forest away from the lahar where only intermittent shallow lahar deposits were observed from the 1980 eruption. The lichen community here was well developed, with masses of *Alectoria* draping off the trees. We even found a tiny patch of *Cladonia rangiferina*, which was a surprise. We saw quite a few species relative to just a couple hundred meters into the lahar. After the lahar, the group dispersed and headed back to their respective homes.

The data resulting from the field trip will be included in the chapter on lichens in a 35th anniversary book on the ecological legacy of the Mt St Helens. Thanks to all the participants and especially Charlie Crisafulli, the USFS and the Mt St Helens Institute for hosting yet another successful NW Lichenologist trip.

-Peter R. Nelson

Headed to Spirit Lake, by Jim Riley

By Lindsey Karr

Spirit Lake Crew (above), Pumice Plain (below), by Tim Wheeler

Lots of Looking, by Jim Riley

By Lindsey Karr

2013 NWL Certification Test (Westside Macrolichens)

NW LICHENOLOGISTS CERTIFICATION EXAM
Cispus Learning Center
Randle, WA
12-13 October, 2013

Cispus Learning Center is near Randle WA, in a beautiful forested area.

The exam is offered every two years, and the location is changed each year, so this will be a great opportunity to be certified in Washington. The next exam will be held in 2015, and will probably be in Oregon.

REGISTRATION: Please email Daphne Stone at daphstone@gmail.com by 1 September 2013.

THIS YEAR: You can choose to attend the certification as a training, instead of an exam with certification. You will still collect on the plot but after collection, you will work through your identifications with help from Scot Loring and Daphne Stone, both lichenologists. This gives you a chance to learn how to work on difficult genera. Relevant literature will be shared with these trainees.

HOUSING: We will stay in a doublewide trailer and cook our own meals. There is a second trailer available if we need it to accommodate everyone. You will need to bring food, cookware, dishes and bedding. Tent space is also available.

COST: the exam costs $100, and housing and facilities will cost approximately $20 depending on how many people take the exam this year.

WHY? Lichen Certification is a valuable addition to your resume, agency botanists and private contracting companies view it as a plus when considering who gets federal contracts and internal jobs.

MORE INFORMATION: Read about the exam on the Northwest Lichenologists website, www.nwlichens.org or contact the examiners, Daphne Stone at daphstone@gmail.com; Scot Loring at gniroltocs@hotmail.com.

Upcoming Workshops / Courses:

Siskiyou Field Institute

Lichen-related courses organized by date:

Delving into the Lichen Genus *Cladonia*
Dates: March 29-30, 2013
Location: Deer Creek Center, Selma, OR
Instructor: Daphne Stone
Tuition: $150

Join us in exploring the magical, diverse and complex genus *Cladonia*. We will discuss the vocabulary used for this genus, learn how to use the Cladonia key in McCune & Geiser, and try to identify collections found on local field trips. We'll then test specimens with chemical spotting and learn how to interpret results. Class will emphasize common species in all their diverse forms, so a slow pace will be encouraged. Time will also be allowed for students to enhance their in-class study with drawing and photography.

Rare and Sensitive Bryophytes and Lichens
Dates: September 25-27, 2013
Location: Deer Creek Center, Selma, OR
Instructor: Scot Loring
Tuition: $225

The Pacific Northwest region's diverse lichen and bryophyte population includes many species officially recognized as rare and/or sensitive by state heritage programs and the federal government (Forest Service, BLM). We'll address these species in classroom discussions and lab work, and also cover species newly discovered in the region. Learn about bryophyte and lichen ranges and habitats and learn to distinguish species through notable characteristics and common look-alikes.

The Siskiyou Field Institute also offers many other botanical and mycological courses: (http://www.thesfi.org/index.asp)

Recent Workshops / Courses:

Calicioid Lichen Workshop
March 16-18, 2012
Southern Oregon University

Taught by Dr. Steve Selva, a full classroom of lichen enthusiasts learned much about pin lichens during this three-day course. The first day was spent in the field, visiting local habitats such as oak woodlands and old-growth conifer/hardwood forests. The next two days was spent in the lab, learning about pins through Steve's lectures and examination of the numerous specimens he brought. There was also a substantial amount of time devoted to identifying collections made during the field trip, along with many brought in by students. Overall, a very informative and fun gathering!

Scot Loring

News and Projects from NW Lichenologists at Home and Abroad

(Generally in the order received)

From Trevor Goward:

EDGEWOOD LICHEN REVIVAL: 21 - 23 June 2013.

Please join Trevor Goward and visiting scientist David Galloway in British Columbia's Clearwater Valley for a weekend of stories, wide-ranging discussions and hands-on experience with lichens in our living landscapes. Find out what lichens are, where they grow, what they do, where they come from (biogeography) and what they can tell us about climate, geology and the world at large.

Says David: "Long study of lichen biogeography has taught me that lichens respond much more quickly to environmental change than received wisdom would have us believe. Over the past 20 years I have been amazed at how rapidly lichens have begun invading urban habitats in southern New Zealand. Lichens are very definitely on the move. The invasion or departure of common lichens from a variety of niches, habitats and biomes goes very often unmarked. These species are telling us a fascinating story if only we can tune in to what this is. So present-day lichen distributions, and changes over quite small time scales are things we need to reassess. Let's talk about it".

Says Trevor: "Systems thinking is changing the way we think about ecosystems and the plants and animals that inhabit them. It's also soon likely to change the way we think about lichens, which are ecosystems and organisms both. The subtleties of lichen response to the environment will probably forever elude us, but some of the broader patterns are staring us in the face and are easy to grasp. Learning to read the lichen thallus is really about learning to read the landscape at high resolution. Let's talk about this too".

WHEN: Our Lichen Revival begins Friday evening (21 June) at 7:00 PM with an introductory talk by Trevor entitled *What's so special about Wells Gray Park: a new world hotspot for lichen diversity.* It then runs through Saturday and ends mid to late Sunday afternoon.

WHERE: Friday evening's talk will be held at the Upper Clearwater Community Hall (Google Earth: 51 51.840'N, 120 0.979'W). Other activities will take place at Trevor's home, Edgewood Blue, ten minutes by foot from the Community Hall (Google Earth: 51 52.121'N, 120 01.325'W).

ACTIVITIES: On Saturday, Trevor will lead a conversation on what lichens are, what they do, and how to "read" them: lichen literacy. Later we'll take a driving and walking tour of the local lichen landscape. On Sunday, David Galloway will give a Southern Hemisphere perspective, and share some thoughts on lichen distribution both locally and globally, again in a presentation/discussion format. He will also make a plea for documenting distributions and active movements of "common" lichens – the ones that so often get missed out of herbarium collections and scientific discussions. We can then consider in the field round about Edgewood, what small lichen stories might be unfolding there.

REGISTRATION: This event will be capped at about 20 people. To register, please contact Trevor at trevor.goward@botany.ubc.ca.

COST: By donation (for grounds upkeep). Please be in touch with resident naturalist Karena Schmidt during the event.

READING: For more about reading the thallus, check out the Edgewood website at waysofenlichenment.net/.

MORE INFORMATION: Upon registration, participants will receive an information package giving details on meals, accommodations, weather, footwear and clothing.

Clearwater Valley and Clearwater River, looking south, by Jason Hollinger

Edgewood Blue, where the Lichen Revival will be held, by Jason Hollinger

Helmcken Falls, by Trevor Goward

From Dave Wagner:

A new genus name was published 9 February 2013 for the aquatic liverwort I've been studying for over 30 years. *Rivulariella* a (A.W. Evans) D.H. Wagner is endemic to western North America. I have taken advantage of the new rules of nomenclature to publish in an electronic journal. Here's the the link:

http://www.phytoneuron.net/2013Phytoneuron/10PhytoN-Rivulariella.pdf

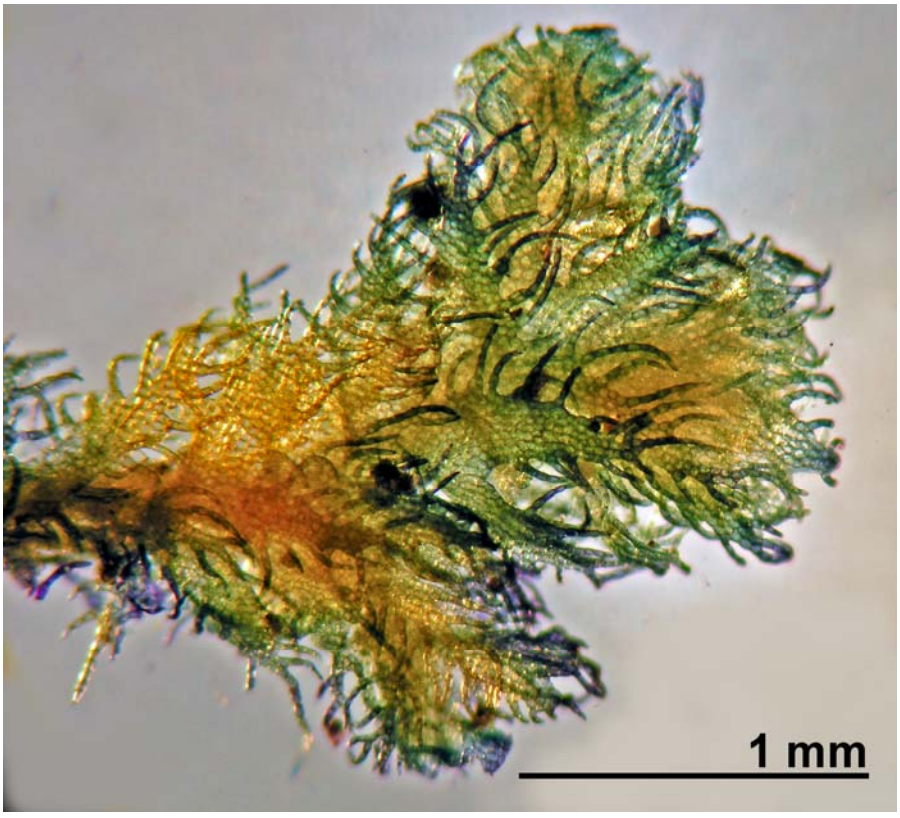
N.B., a typo slipped by. Although correctly spelled everywhere else, *gemmipara* was mispelled *gemmipera* in the comb. nov. just after the Latin diagnosis on page 2.

Note from editor: Dave also points out that the above journal has an amazingly fast turnaround to publishing and allows all the color pictures you want.

I also strongly encourage folks to visit Dave's website, **fernzenmosses** (http://fernzenmosses.com), which has useful bryology resources including identification keys (*Oregon hornworts* and *Oregon* Racomitrium), tutorials (*Important Bryophyte Habitats of Western Oregon* and *Tools, Tips, and Techniques*), amazing photographs, a blog, and more.

Through his website, you can also obtain a CD of his *Guide to the Liverworts of Oregon* (http://fernzenmosses.com/?wpsc-product=440-2), which includes keys for all species known from Oregon as of June, 2012. It contains many species descriptions, comments, comparisons, and great photos.

Examples of Dave's photography from fernzenmosses:



Ptilidium pulcherrimum – shoot tip, female plant

Peltolepis quadrata capsule wall

From Linda Geiser:

This past year was a productive one with lots of people helping out. **Heather Root** lead the analysis and writing of two manuscripts, one that links lichen nitrogen concentrations to nitrogen deposition, and therefore makes it possible to estimate nitrogen deposition from % N in *Letharia vulpina* or *Platismatia glauca* in the western US. **Sarah Jovan, Martin Hutten, Jill Grenon,** and **Karen Dillman** were among the co-authors of this paper. Heather also took the lead to help Sarah and I figure out how to characterize air quality and climate in eastern OR & WA, northern ID and western MT using lichens. Another boon this year was having **Amanda Hardman** take charge of our field program—and with help from **Rory Nichols**, **Elisa Alphandary**, **Joe DiMeglio**, **Doug Glavich**, and **Keira Nicholson**, we completed lichen surveys at ~80 sites in Wilderness last summer including the identifications, preparation for elemental analysis, and databasing. Amanda also accomplished a record for our program, having prepared 65 reports, one for each of the Pacific Northwest Region's Wilderness Area in just 6 weeks. The reports summarize the findings of the past twenty years of air and climate monitoring in Wilderness using lichens.

Sarah Jovan and I have been working together a lot this year and one of our greatest accomplishments is the lichen megadatabase, or 'the MegaD' as Sarah calls it. The MegaD is a combined Forest Service and FIA national lichen database, and stores data from over 11,000 surveys of lichen communities and lichen elemental analysis results in over 100,000 records. Sarah was the true warrior of this project in a battle to literally wrestle data from nearly forgotten sources stashed all over the country. Luckily we had highly competent help from **Jenny Moore, Rick Shory**, and **Marilyn Erway** in cleaning up all the data we rounded up. **Dylan Keon** of OSU's Computer Science Department will be uploading the MegaD soon to our website (http://gis.nacse.org/lichenair) where it can be queried using a new interface that Dylan designed to display our sites on google maps. These days, **Sarah Jovan**, **Doug Glavich**, and I are in the middle of using the MegaD to understand nitrogen deposition responses of lichens across all six major forested ecoregions of the continental US and refining critical loads of nitrogen deposition for those areas. Critical loads are supposed to be the pollution loading level below which no harmful effect can be detected on a sensitive ecosystem component, however we are finding that the response of lichen communities is essentially continuous—reducing sensitive species abundance and increasing the abundance of tolerant species with EVERY increment of nutrient nitrogen or acidity.

And that's the news in a nutshell.

From Kerry Knudsen, UCR Herbarium:

Jana Kocourkova and I got married in July 2012 in Las Vegas after a 5 year engagement. This year we continue floristic work at Channel Islands National Park and Joshua Tree National Park. We are currently surveying the east end of Santa Cruz Island, From the Mojave Desert we are describing new species of *Lecidea, Heteroplacidium, Sarcogyne,* and *Dimelaeana* as well as lichenicolous fungi and revising saxicolous *Lichenothelia* species. I am continuing work on Acarosporaceae, especially *Sarcogyne*, the *strigata* group, and the family in central Europe. The mission of the lichen herbarium at UCR is a well-curated collection documenting the lichen flora of southern and central California. This year, to expand the collection, we will be collecting regularly in Laguna, San Gabriel, San Jacinto, and Santa Ana Mountains. We will be making our second annual trip to the top of the San Bernardino Mountains, collecting this year above 10000 feet. In October James Lendemer and Jana and I will be collecting in northern Arizona, principally on gypsum. Due to the illness of my mother, I will be spending this year in California.

Kerry Knudsen in mountains of Joshua Tree, by Jana Kocourkova

DON'T FORGET THE LITTLE THINGS:

A PILOT STUDY EXAMINING LICHEN COMMUNITIES OF SOUTH PUGET SOUND PRAIRIES

Abigail Arnold, Evan Charatz, Griffin Jackmond, Joe Nannes and Lalita Calabria, Ph.D.

The Evergreen State College, Olympia WA

Imagine yourself as a small gopher running through the tall grass of one of the few remaining stretches of South Sound prairie habitat. Around your burrow, there are many different species of grass, moss, and lichen, making up a diverse and unique ecosystem. You see smoke off in the distance, and before you know it everything in front of you is up in flames. Everything green around you smokes and blackens; nothing can withstand the burn. You scuttle back into your burrow and wait out the intense heat, surviving another dramatic day on the prairie. Your lichen neighbors, however, are not so lucky. This is what is happening to lichens across the glacial outwash prairies of the Puget Sound.

Current Prairie Management Strategies Do Not Include Bryophytes and Lichens

Current management strategies for the remaining 2-3% of Washington prairies include the use of prescribed burns and herbicide, and are effective at maintaining native vascular plants, keeping out invasive species, and restoring Taylor's checkered-spot butterflies. They do not, however, account for other important groups of organisms that also call these prairies home – bryophytes and lichens.

Figure 1: *Cladonia rangiferina*, commonly known as the reindeer lichen. These lichens exist in South Sound prairie habitats. Copyright: http://pdfcast.net/reindeer-lichen.html

Our Research

Our research group traveled to five different prairies in the south Puget Sound bioregion of Washington to collect lichens. These sites include: Glacial Heritage Nature Preserve, Scatter Creek Wildlife Recreation Area, West Rocky Prairie Natural Area Preserve, Johnson's Prairie, and Tenalquot Priairie Preserve (Figure 2). We used a method called the intuitive control survey, which entails collecting every unique lichen from each prairie site. Work is ongoing, with the use of laboratory tests and consultation of specialists, to identify all collected lichens. Expert review of our work thus far has led to the identification of *Cladonia concinna,* a species that is recorded from only one other location in Washington. This information will be compiled to create a comprehensive species list of all ground-dwelling lichens present at each site, in the hope of laying groundwork for further exploration of prairie lichen communities. We plan to expand our preliminary study to include bryophytes as well. A recent grant from the Washington Native Plant Society will support these efforts.

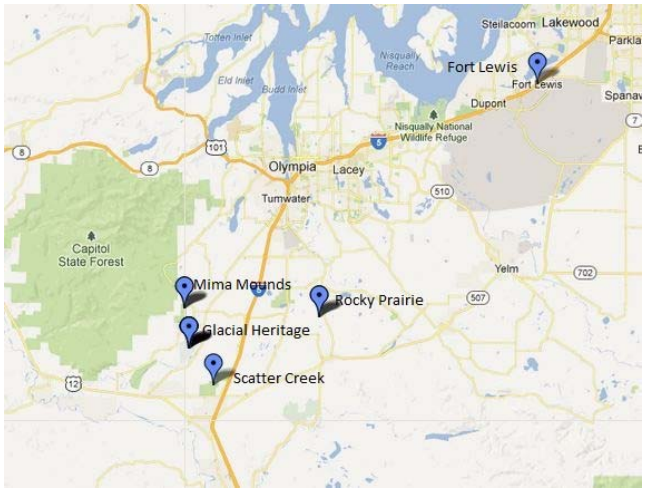


Figure 2: Here is a map of the prairies that we visited. The Tenalquot and Johnson's Prairie are both near Fort Lewis, shown here on the map.

A Dream for the Future

In the course of conducting this study, we hope to examine the impacts current management techniques such as burning and herbicide application, on lichens and bryophyte communities found on these prairies. It is our hope that the results from this research will help prairie managers and other researchers develop new management strategies with lichens and bryophytes in mind.

In the end, one thing is clear, and that is that these majestic, beautiful, and under-appreciated prairie-dwelling lichens deserve to be a part of a comprehensive management plan working towards the goal of ideal ecosystem health, and the first step in creating that plan is determining their biodiversity. It is important to remember the cryptogams, for sometimes the smallest things in life create the biggest impacts.

Figure 3:This picture shows the fire line at Johnson's Prairie dividing a burned area(left) and an unburned plot (right). *Photo by Abigail Arnold*

Lichen Apparel and Publications

Letharia columbiana apparel

NW Lichenologists Shirts and Caps

Email this form to Daphne Stone at daphstone@gmail.com
Once I confirm we have your items, then mail
a check **made out to Northwest Lichenologists** to:

Daphne Stone
30567 Le Bleu Rd.
Eugene, OR 97405

Shirts		youth S	youth M	adult S	adult M	adult L	adult XL	adult XXL	PRICE
regular T all cotton	black								$20.00
regular T all cotton	medium blue	n/a	n/a					n/a	$20.00
ladies T, all cotton	black	n/a	n/a					n/a	$20.00
tissue T, V-neck front, run small!	black	n/a	n/a					n/a	$20.00
burnout T, run small!	blue	n/a	n/a				n/a	n/a	$20.00
ladies turtleneck	black	n/a	n/a	n/a			n/a	n/a	$20.00
zip hoodie sweatshirt	black	n/a	n/a					n/a	$35.00
pullover hoodie sweatshirt	black	n/a	n/a	n/a			n/a	n/a	$35.00
crewneck sweatshirt	black	n/a	n/a	n/a	n/a		n/a	n/a	$35.00
soft shell jacket	black	n/a	n/a	n/a			n/a	n/a	$50.00
cap w/ embroidered logo	blue (dark teal)								$18.00
cap w/ embroidered logo	black								$18.00
Biotic Soil Crusts of the Columbia Basin, McCune and Rosentreter									please purchase online
Shipping	$25 or less:	$4.00							
	$25-$50	$8.00							
	over $50	$12.00				shipping cost:			
								TOTAL	

A note regarding the NWL website: we recently added the ability to accept credit card payments via PayPal for our monograph series, as well as certifications. This should make it easier for non-U.S. residents to buy the monographs or other promotional items from NWL.

Monographs in North American Lichenology

A new series sponsored by NW Lichenologists

Northwest Lichenologists aim to produce a series of reasonably-priced, peer-reviewed, paperback academic books on lichens, with a focus on topics of regional interest, such as generic monographs, annotated state lists, ecological works, local floras, and symposium proceedings. Our purpose is to provide an outlet for very long papers and books of wide interest but that are too long for regular scientific journals. Volumes will be produced sporadically. We expect 0-2 volumes per year. Works on any aspect of lichenology will be considered.

Vol.1

McCune, B. and R. Rosentreter. 2007. Biotic Soil Crust Lichens of the Columbia Basin. Monographs in North American Lichenology 1: 1-105. Pbk. $30. Fully illustrated in color. [See sample pages.] ISBN-10: 0-9790737-0-7 ISBN-13: 978-0-9790737-0-0

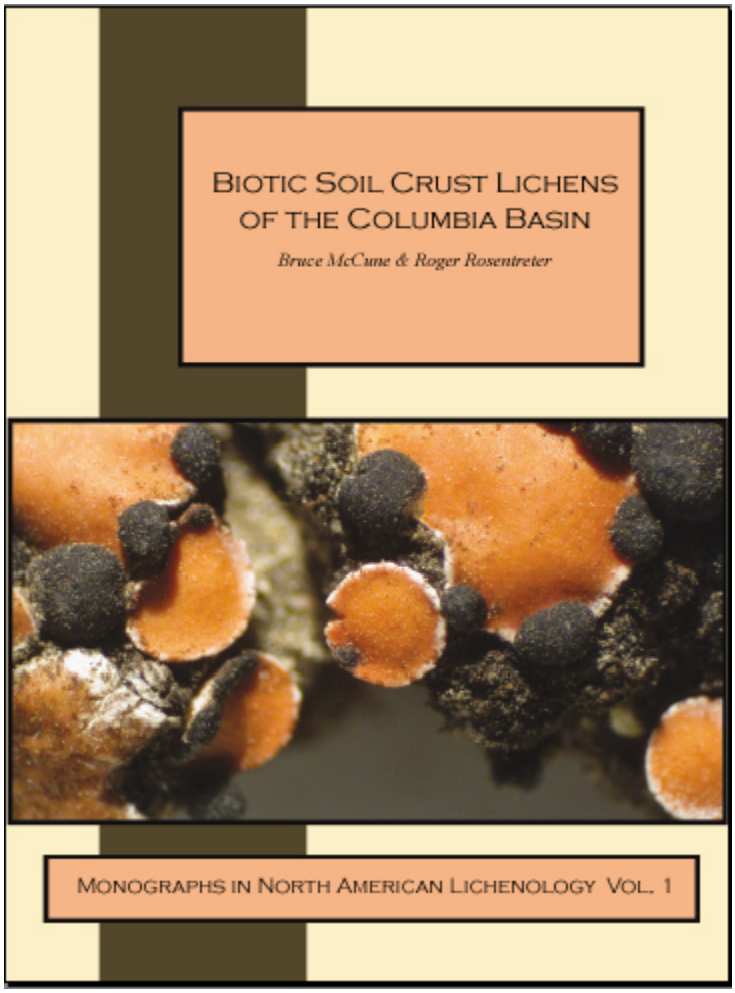
ORDER FORM AS PDF
ORDER FORM (HTML)

Why write a book for identifying soil crust lichens? We have three reasons: (1) they are ecologically important, (2) they can be difficult to identify with existing sources, or they are omitted altogether, and (3) they should be more widely recognized for what they are.

Macrolichens are much better known in North America than crustose lichens, but most of the lichens found in biotic crusts are crustose lichens. Keys and line drawings for macrolichens from the Pacific Northwest and northern Rocky Mountains are provided by Goward et al (1994), McCune and Goward (1995), and Goward (1999). Brodo et al. (2001) and McCune and Geiser (1997) provided color photos for selected species. Despite these resources, almost none of the lichen species growing in biotic crusts in the Pacific Northwest have been illustrated with color photos in sufficient magnification and detail for confident identification. We hope that this book will help to relieve that problem.

Lichens in soil crusts are often difficult to identify. Currently available books for identifying lichens do not illustrate the critical features needed for identification. We try to fill this need by providing photographs of all of the species at the necessary scale – ranging from what you can see with a hand lens to what you can see through a compound microscope. Wherever possible, we emphasize macroscopic features, but in many cases microscopic characters make the task much easier and help to confirm the identification.

This book is aimed at both technical and naturalist audiences. We hope that the use of color photographs will help someone without much experience, while we strive to provide the technical details needed for more certain identification.



Miscellaneous

Lichen Blitz

Are you interested in hosting a NW Lichenologists lichen-blitz?

Once or twice a year NWL members come together for a multi-day fieldtrip to a lichen-rich area in the Pacific Northwest of North America. The purpose is to get to know each other, and learn from each other while doing what we love to do: "lichenize." These gatherings bring together much expertise and typically a species list results from our collaborative efforts.

If you manage a natural area, and are interested in hosting a lichen-blitz, please contact us. We are a low-maintenance group that usually camps or bunkhouses in remote locations. Formal permission to collect lichens is naturally needed. NWL will periodically review its blitz requests and optional associated donation, and schedule a foray to the most interesting area.

Donations will be used to support the educational, nonprofit purposes of NW Lichenologists.

Contact the secretary of NW Lichenologists