



# NORTHWEST LICHENOLOGISTS



## 2018 Newsletter

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## Upcoming NWL Events

### **Badger Mountain Lichen Biodiversity Field Trip**

Where: Badger Mountain, located near Richland, WA

When: Sept 8, 2018 – Sept 11, 2018

The goals: to inventory the lichen biodiversity of Badger Mountain, produce labelled voucher specimens, and to prepare a summary report on the lichens of the area and how they vary with habitat and substrate.

We will use laboratory facilities Columbia Basin College (CBC) in Pasco. In the lab, both stereo and compound microscopes are available. The laboratory is the same one used when the Northwest Lichenologists convened at CBC 3 years ago.

Badger Mountain is one of a series of basalt ridges in south central Washington's shrub-steppe habitat. Elevation ranges from about 750' at the base to 1580' at the top. The north-facing slope rises to this elevation within ½ mile, whereas the south-facing slope has a lower gradient and rises to this elevation over a distance of over a mile. Access to the ridge is by trails constructed for public use from two parking lots/trailheads. Most of the probable field sites would be within 1 mile of the trailhead. We have permission from Benton County to go off trail and to collect specimens.

Badger Mountain has varied habitats, aspect, soil types and life history within a relatively small area. We're curious about the differences in lichen communities between north and south aspects, between communities of mature sagebrush on basalt and winterfat on sedimentary interbeds, and/or between burned and unburned areas within a soil type and aspect.

Lodging for out of town participants will be a nearby AirBnB house that sleeps 12. Location details and directions will be provided in follow-up emails as the event date approaches.

The local organizers have obtained funds to help defray the travel and shared-house costs of participants *who contribute substantially to the goals of the project*. We offer two options for registration:

**Plan A.** Shared housing (3 nights) and dinners. \$40 nonrefundable registration, but this may be partially reimbursed, depending on availability of funds. Supply your own breakfast and lunch makings. Limit: 12 participants (only five slots remaining at the time of newsletter preparation!)

**Plan B.** On your own for housing and food; registration required but no payment needed (ten slots remaining at the time of newsletter preparation)

Both options include shared lab space for working on collections. We will carpool for travel between lab, field sites, and housing. Note that you need to be [signed up as a NW Lichenologist participant](#) in order to register.

If you have questions, please [contact the secretary](#).



## Recent NWL Events

### **Annual Meeting**

(from Andrea Pipp)

The 2018 NWL Annual Meeting was held on March 27 through March 30 at The Evergreen State College in Olympia, Washington, in conjunction with the 89<sup>th</sup> annual Northwest Scientific Association meeting. This year's theme was *Coping with Change through Innovation: New Approaches, Tools, and Collaborations*.

It was a big gathering with about 230 participants! Lalita Calabria organized the many NWL events and did a wonderful job! In the true spirit of NWL, the conference began with a foray and ended with two field trips. In between, there were 14 lichen-centric oral presentations which occupied a day and a half, a discussion on Washington's rare lichen list, a workshop examining the crustose lichens found on coniferous bark, and 8 non-vascular poster presentations.

The breadth of talks on mosses and lichens kept the audience in their seats. Talks covered molecular studies, surveying for calicioid lichens in Washington, examining distribution patterns on trees, studying heavy metal deposition on lichens in Alaska, studying biological soil crust in Idaho, documenting a newly recognized moss from the alpine, to using lichens to artistically express comments about humanity. Coming from Alberta with his family, Toby Spribille was our guest speaker and longtime member. Toby presenting a historical review of how scientists have perceived lichens and making the case that the lichen symbiosis about more than just the fungus; algae and microbes have more significant roles than believed previously. Other presenters also came from great distances, including Hanne Larsen from Denmark and Veera Tuovinen from Alberta.

What do lichenologists talk about when they get together? This meeting had plenty of conversations. Walter Fertig, Washington Natural Heritage Program Botanist, engaged with NWL to help devise a system for ranking the status of rare lichens. The evening discussion at Jeanne Ponzetti's home focused on the changing names of lichens. Focusing on the crustose lichens that live on coniferous bark, discussions were all about identifying and using the recently published books, *Microlichens of the Pacific Northwest (volumes I and II)*, by Bruce McCune. Lalita Calabria hosted a fun evening of slurping oysters from the half-shell, passing around the geoduck, and telling stories around the fire. Many thanks to her husband for the fresh oyster bar and tasty sauces. Conversations continued through the field trips that explored the sphagnum mosses and lichens hanging out in peatlands and discovering the lichen communities at the Deschutes Falls County Park.

NWL is pleased to have presented the Trevor Goward Hand-Lens Award to Heather Stewart-Ahn for the best student talk, *Identification of ascomycete and basidiomycete symbionts in Cladonia macilenta using integrative taxonomy!* Congratulations, Heather!

Highlights and proceedings with abstracts at NWSA website:

<https://www.northwestscience.org/2018-Olympia>

Photos at NWL website:

<http://northwest-lichenologists.wildapricot.org/Olympia-2018>

Next year we're meeting in Lewiston, Idaho. Dates TBD.





Attendees at an oral presentation



Poster session



Participants of the NWL workshop *Pacific Northwest Crust Lichens on Conifer Bark*



Several participants of the field trip *Bryophytes, Lichens and Ecosystem Ecology of Acidic Peatlands*



Participants of the field trip *Lichens of Deschutes Falls County Park*





NWL evening social

For future years: We are eager to have YOU help to organize the meeting. The meeting is arranged on a year-by-year basis, depending on the location of the NWSA meeting. This usually happens in mid to late March. The annual meeting typically has four components: talks that present ongoing or completed research (we try to keep this as casual and informal as possible); a workshop on a particular topic, genus, or area; field trips to some local spots of interest; and evening socializing, usually at a local restaurant.

## 2017 NWL Certification Test (from Daphne Stone)

This year we met at the Environmental Learning Center at Lewis & Clark State Park near Toledo WA, from Sept 6-8, 2017. Although the forest near the facility was old growth, it was mossy with few lichens, even in the litterfall, so the field portion of the exam was at Rainbow Falls State park, on the Chehalis River, a beautiful park with very diverse lichens. Daphne Stone and Scot Loring were the examiners. Three people took and passed the exam: Maysa Miller, Adrienne Kovasi and Nils Nelson. Congratulations to you!

Seven trainees also signed up. Their experience ranged from knowledgeable about the common lichens to inexperienced with lichens. Scot and Daphne shared time with them, so they got a lot of instruction time and exposure to technical terminology, keying and air quality monitoring.

One exciting find was a large population of *Hypotrachyna revoluta* on shrubs around the Learning Center.

The 2017 exam was a success in several ways: we certified 3 new lichenologists and we provided a great training for seven people who had little experience with lichens before. I think the training is a great outreach to the public, and they certainly get the program at a great price.





## Upcoming Workshops / Courses:

### Northwest Botanical Institute

#### **Field Bryology Workshop: September 24-28, 2018**

I am offering a three and a half day, intensive bryophyte identification workshop at the Andrews Experimental Forest, Blue River, Oregon (<http://andrewsforest.oregonstate.edu>). This workshop is designed for those with a strong botany background and basic knowledge of bryophyte structure and life cycles. Folks with previous experience studying bryophytes can expect to increase their familiarity with the regional flora. The class involves integrated lectures, field study and lab practice. The classroom has good microscope bench space for 12, which limits the size of the class. Participants must bring their own microscopes, personal dissecting tools, and laptop computers.

The focus is on practice with contemporary identification keys pertinent to the Pacific Northwest:

- Contributions Toward a Bryoflora of California: II A Key to the Mosses (D. Norris and J. Shevock, Madroño 2004) with attention also given to Elva Lawton's 1971 Moss Flora of the Pacific Northwest and the moss volumes (v. 27 & 28) of the Flora of North America.
- Identification of liverworts and hornworts emphasizing Contributions toward a Bryoflora of California: III Keys ...for Liverworts and Hornworts (W. Doyle and R. Stotler, Madroño 2006).
- Using the digital Guide to the Liverworts of Oregon (D.H. Wagner, Northwest Botanical Institute, 2018 version), supplemented by online treatments of the as yet unpublished liverwort volume of Flora of North America.

Participants will receive:

- Practical tips for hand lens identification in the field.
- Supervised training in lab techniques needed to observe features used in keying.
- A selection of archival and unpublished material (some printed but mostly digital format).
- A comprehensive review of online resources.
- Review of the most useful current literature from other parts of the world.
- A selection of study specimens for microscopy, including prepared slides.

Arrival and microscope set up in the laboratory will take place Monday morning, September 24. The first classroom session begins at 1 pm. The classroom will be available at all times from Monday through Friday. Evening sessions are designed for individual, supervised study. Lodging check in will take place on Monday, September 24, either during an afternoon break in the class or in the evening after the class session. All participants are encouraged to use the H. J. Andrews Experimental Forest housing. Staying on site allows evening sessions in the classroom and socializing in the apartment common area. Participants fend themselves in a kitchen furnished with pots and pans and utensils. A small grocery is located a few miles away. We'll work together and eat together. The apartments have 4 bedrooms, each with 2 single beds, and a communal kitchen. The reservation is for four nights; rooms must be vacated Friday morning, September 28.

Tuition is \$400 plus \$120 for lodging, including bed linens, pillow, blanket and towels. Space is limited; early inquiry is recommended. Please contact me directly at [davidwagner@mac.com](mailto:davidwagner@mac.com) for registration instructions.

David H. Wagner, Ph.D.  
Northwest Botanical Institute  
P.O. Box 30064  
Eugene, OR 97403-1064  
[fernzenmosses.com](http://fernzenmosses.com)

## **Siskiyou Field Institute**

### Beginner's Guide to Bryophytes

Instructor: Scot Loring

Dates: TBD, September 2018

Tuition: \$150

To register, go to <http://www.thesfi.org/index.asp>

Mosses, liverworts, and hornworts perform important roles in local ecosystems, providing buffers and collecting water and nutrients for vascular plants. They're also important indicators of habitat quality. Meet some of the many often overlooked bryophyte species in an especially diverse community in the Klamath-Siskiyou Bioregion. We'll cover basic bryophyte biology, learn to recognize common species in the field, and become familiar with simple microscopy. Class time will alternate between classroom lectures, labs, and fieldwork.

## **Katherine Glew**

### Lichen Presentation, WNPS Bellevue Botanic Garden

Dates: Oct 9, 2018

The Central Puget Sound Chapter of the WA Native Plant Society, east side, will host a presentation on lichens by Dr. Katherine Glew from the University of Washington Herbarium, Burke Museum of Natural History.

Dr. Glew will introduce lichens through photos and field material. The importance of lichens in the forest and all environments will be discussed. Lichens are part of most ecosystems and contribute nutrients from which other plants can benefit.

Fun lichen facts will be shared, such as using them for creating the dyes in Scottish kilts and the making of lichen schnapps in Iceland. Did you know that lichens can be used as indicators of air pollution? They also have medicinal properties that have been use over centuries. Join me in discovering these fascinating fungi that form partnerships with green algae and cyanobacteria.

### Cemetery Lichen Walk, Seattle

Dates: Oct 27, 2018

Why not consider lichens as an alternative for Hallowe'en? Lichens are friendly and interesting organisms that love to grow on headstones and old trees. They are harmless to your plants and add aesthetic value to trees and shrubs. We can actually use them as indicators of air pollution! Katherine Glew is offering a 2 hour lichen experience at the Mount Pleasant Cemetery in Seattle, on Saturday, October 27 from 10:00am to noon. This offering will occur - rain, shine, wind, snow.....

To sign up for the course and read a description, go to the following link:

<https://www.uwbotanicgardenscatalog.org/Cemetery-Lichens-P1711.aspx>

Bring a hand lens to view lichen details.

Cost: \$30 per lichen enthusiast.

## *News and Projects from NW Lichenologists at Home and Abroad*

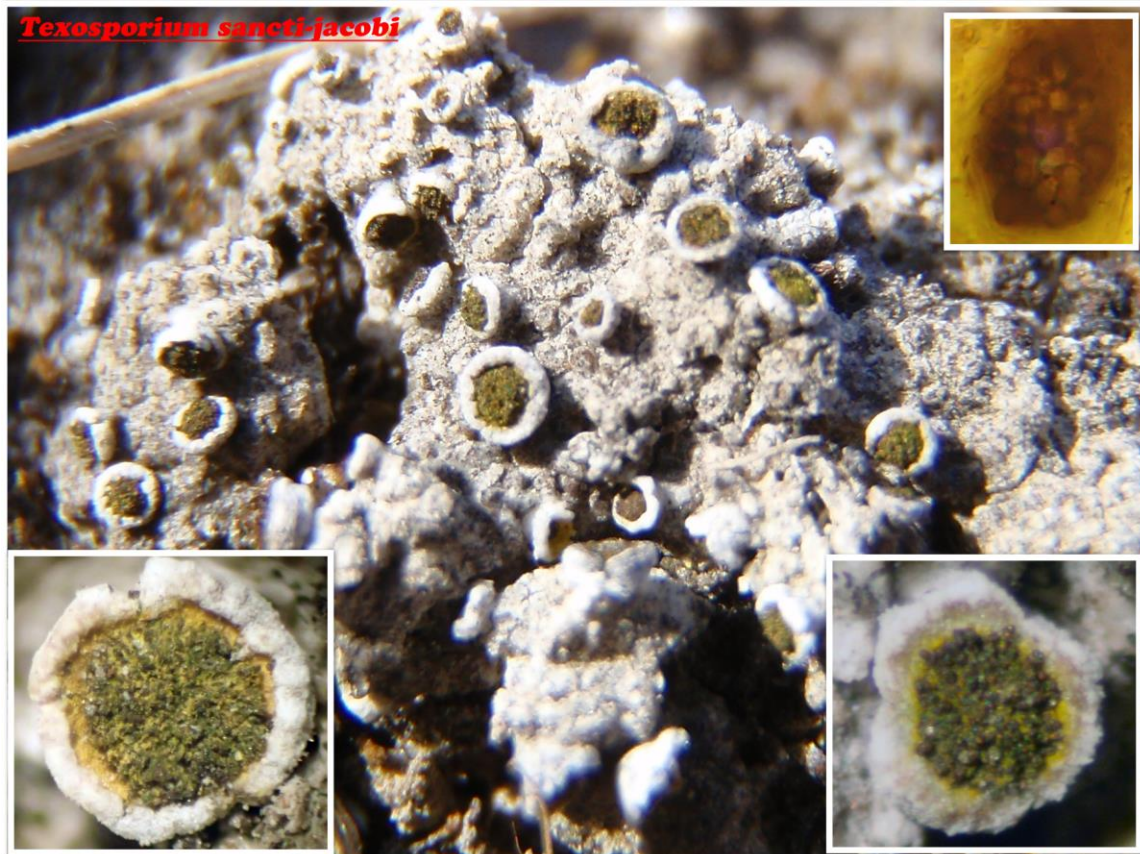
(Generally in the order received)

### **From Jennifer von Reis:**

Mickie Chamness and Jennifer von Reis host an **open lab** for lichenologists and others at Columbia Basin College in Pasco WA from 6-9 pm on the second Monday of the month (except July, August, and December). The lab is equipped with stereo and compound microscopes, lichen literature, and a lichen herbarium. An adjacent prep room contains a fluorescent microscope and microscope imaging capabilities.

Jennifer also recently completed the following Doctoral Dissertation: "The Effects of Select Herbicides on the Biological Soil Crust in Shrub Steppe Areas of the Columbia Basin, Washington" Jennifer Clarke von Reis, Washington State University. Available at:

<https://research.libraries.wsu.edu/xmlui/handle/2376/6171>. Congrats, Jennifer!





## From Steve Sheehy:

### LICHENS of the CALEDONIA OAK WOODLANDS

Caledonia Ranch, west of Klamath Falls, Oregon, is an area generally composed of Oregon white oak (*Quercus garryana*) and ponderosa pine (*Pinus ponderosa*) woodland. The Klamath Lake Land Trust and the property owners are working to create a conservation easement for the entire ranch. If successful, this will protect 314 acres of East Cascade oaks. This area along the Klamath River Canyon and one near the Columbia River are the only places to have oaks on the east side of the Cascade Range.

The lichen community here is different from the west side oaks. The species richness is not as great. I have just started to sample the lichens here, but they are more typical of the eastern Cascades. To date I have 31 species with several as yet unidentified. The area has pockets of diversity. In the oak and curl-leaf mountain mahogany (*Cercocarpus ledifolius*) dominated area, are several types of *Melanohalea* and *Physconia* along with *Usnea*, *Xanthomendoza*, *Candelaria* and *Evernia*. *Physconia isidiigera* is a very common species. In the pine and Doug-fir (*Pseudotsuga menziesii*) dominated areas, *Physconia isidiigera* and *P. perisidiosa* are common. *Parmelia barrenoae* has also been found on the oaks there. Brodo, in the latest edition of his keys says it is infrequent in California and the Northwest. There are a few thalli of *Hypogymnia imshaugii*, although they are very stunted and sickly looking.

I have barely looked at the rock lichens as of yet, but one rare species has been found, that being *Umbilicaria phaea* var. *coccinea*. This is no surprise, as this area is right in the middle of its habitat. *Lecanora*, *Rhizoplaca*, and *Lecidea* are a few of the most easily identified without collecting and doing microscope work. That will come later.

As the roads within the ranch dry more, I will sample an old burn, farther into the conifer forest, the old cinder pit and more of the oak areas. All in all, it is quite an interesting habitat and I consider myself lucky to be allowed to play here.

#### Preliminary Species List:

<i>Biatora aureolepra</i>	<i>Lecanora saligna</i>	<i>Physconia perisidiosa</i>
<i>Candelaria pacifica</i>	<i>Lepraria neglecta</i>	<i>Rhizoplaca melanophthalm</i>
<i>Candelariella rosulans</i>	<i>Letharia vulpina</i>	<i>Thelomma ocellatum</i>
<i>Cetraria playtphylla</i>	<i>Melanohalea exasperatula</i>	<i>Trapeliopsis flexuosa</i>
<i>Cladonia carneola</i>	<i>Melanohalea subolivacea</i>	<i>Umbilicaria phaea</i>
<i>Cladonia chlorophaea</i>	<i>Parmelia hygrophila</i>	<i>Umbilicaria phaea</i> var. <i>cocc</i>
<i>Evernia prunastri</i>	<i>Parmelia barrenoae</i>	<i>Usnea lapponica</i>
<i>Hypocenomyce scalaris</i>	<i>Phaeophyscia orbicularia</i>	<i>Usnea scabrata</i>
<i>Hypogymnia imshaugii</i>	<i>Physcia tenella</i>	<i>Xanthomendoza fulva</i>
<i>Lecanora carpinea</i>	<i>Physconia isidiigera</i>	<i>Xanthomendoza montana</i>
<i>Lecanora muralis</i>		

Some of Steve's photos from Caledonia Ranch:



*Physconia isidiigera* and *Candelaria pacifica*



*Xanthomendoza montana*



## From Amanda Hardman:

New paper:

Hardman, A., D. Stone, and S. B. Selva. 2017. Calicioid lichens and fungi of the Gifford Pinchot and Okanogan-Wenatchee National Forests in Washington, USA. *Opuscula Philolichenum* 16: 1-14. Available at:

[http://sweetgum.nybg.org/science/op/biblio\\_list.php?BucVolume\\_tab=16](http://sweetgum.nybg.org/science/op/biblio_list.php?BucVolume_tab=16)

**ABSTRACT.** – National Forest lands in the state of Washington were surveyed for calicioid lichens and fungi. Sixty-four plots were investigated and 930 collections were made. Fifty-seven species in nine genera were found, including *Chaenothecopsis lecanactidis*, *C. nivea*, *C. vainioana*, and *Phaeocalicium interruptum*, which are reported as new to North America. *Chaenothecopsis norstictica* and *C. nigra* are reported as new to western North America. Our observations confirm conclusions drawn by others that forests with the highest structural diversity have the highest number of calicioid species present.

### Pacific Northwest Air Quality and Climate Monitoring

With help from Linda Geiser, Sarah Uebel, Daphne Stone, Peter Nelson, Nils Nelson, John Villella, Maysa Miller, Adrienne Kovasi, and a handful of volunteers, the Forest Service was able to resample 300 existing lichen biomonitoring plots in the PNW and add ≈15 new plots on Forest Service land in Idaho and Illinois. This year was significant as it marks the third round of data collection for many Forests. We can now analyze trends over a 20-year period for many of our regional forests. Doug Glavich has been working to correlate changes in lichen composition with changes in climate variables. We encourage folks to use our data, which is publicly available online (<http://gis.nacse.org/lichenair/>), in their own analyses. Special status lichens encountered this year include “*Dendriscoaulon*”, *Hypogymnia duplicata*, *Lobaria linita*, *Pseudocyphellaria mallota*, *P. rainierensis*, *P. hawaiiensis*, and *Nephroma occultum*. Greatly reduced funding will limit our sampling for the 2018 field season. Energetic and committed volunteers are always appreciated.



*Nephroma occultum*



## New Books: Microlichens of the Pacific Northwest: Volumes 1 and 2

98.00 ~~120.00~~ (18% discount if you order both volumes)

The two volumes comprising *Microlichens of the Pacific Northwest* provide, for the first time in one place, comprehensive illustrated keys to the genera (*Volume 1*) and species (*Volume 2*) of microlichens from the Pacific Northwest of North America. Microlichens (crustose lichens and other lichen forms that often require a compound microscope for study) encompass a vast range of forms and contribute greatly to the biodiversity of the region and the world; their species richness is, however, often unrecognized. These volumes will greatly enhance knowledge and appreciation of these fascinating organisms, as they provide a synthesis of what is currently known about their biodiversity, distribution, and abundance in the Pacific Northwest.

*Volume 1, Key to the Genera* (iv + 218 pages) provides a general introduction to microlichens, generously illustrated keys to the genera, a glossary, and an index. It includes 623 illustrations (mostly color photographs and a few black-and-white line drawings) and encompasses 253 genera. *Volume 2, Key to the Species*, provides keys to 1424 species from the Pacific Northwest region that have main entries and 297 additional species with secondary treatments that have been reported from neighboring regions with possible occurrences in the Pacific Northwest, for a total of 1721 species. Brief descriptions of each species are embedded in the keys. *Volume 2* contains 755 pages and includes 479 illustrations.

While the geographic area covered by the books is the watershed-based boundary of the Pacific Northwestern United States (south of the US-Canadian border, inland to western Montana and northwestern Wyoming, and dipping into northwestern California), the treatments will also be useful in a much broader area of the western U.S. and Canada, as well as the rest of the Northern Hemisphere.

The books are intended largely for use by serious amateurs or professional lichenologists. A compound microscope will be necessary to identify many of the species, although some genera – and even species – can be identified without using a compound microscope. The author invites you to “dig in” – advance your appreciation of microlichen diversity through use of these comprehensive and beautiful books.

Vol.1 cover photos by Tim Wheeler. Vol. 2 cover photos by Richard Droker.

### [About the Author](#)

Dimensions: 7.75 x 10.25 in

Weight: Volume 1: 1.8 lb, Volume 2: 4.9 lb

McCune, Bruce. 2017. *Microlichens of the Pacific Northwest. Volume 1: Key to the Genera*. Wild Blueberry Media, Corvallis, Oregon, U.S.A. iv + 218 pages.

McCune, Bruce. 2017. *Microlichens of the Pacific Northwest. Volume 2: Key to the Species*. Wild Blueberry Media, Corvallis, Oregon, U.S.A. iv + 755 pages.

Volume 1 ISBN: 9-780998-710808

Volume 2 ISBN: 9-780998-710815

**For information about bulk orders, or to inquire about international shipping to a country not currently supported, please [contact us](#).**

MICROLICHENS OF THE PACIFIC  
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KEY TO THE GENERA



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MICROLICHENS OF THE PACIFIC  
NORTHWEST  
VOLUME 2  
KEYS TO THE SPECIES



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**Lichen Apparel and Publications**

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NWL Shirts and Caps  
 Email this form to Daphne Stone at [daphstone@gmail.com](mailto:daphstone@gmail.com)  
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tissue T, poly mix V-	blue		n/a		n/a	n/a	\$20.00
tissue T, poly mix,	blue	n/a			n/a		
tissue burnout T, round	blue		n/a	n/a	n/a	n/a	\$20.00
ladies tissue, deep V,	black				n/a	n/a	\$20.00
youth T	black	youth S	youth M				\$15.00
Men's zip hoodie	black						\$35.00
Women's zip hoodie	black	n/a			n/a	n/a	\$35.00
shirts: LYCAN							
ladies T	black						\$20.00
men's T	black	n/a					\$20.00
cap w/ embroidered	black						\$18.00
cap w/ embroidered	blue						\$18.00
Shipping	\$28 or less	\$5					
	\$28-\$50	\$9					
	over \$50	ask for quote:					shipping cost:-----
		<a href="mailto:daphstone@gmail.com">daphstone@gmail.com</a>					-----
						TOTAL	



# Monographs in North American Lichenology

## A series sponsored by Northwest 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.

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### ***Monograph in North American Lichenology, Vol. 3***

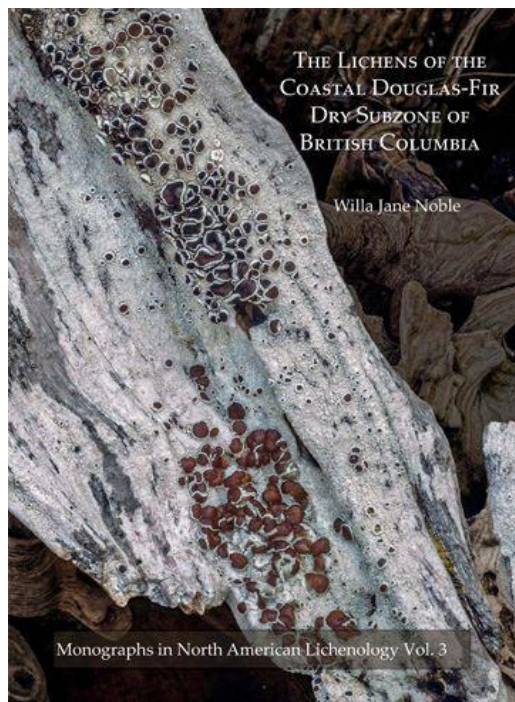
#### **The Lichens of the Coastal Douglas-Fir Dry Subzone of British Columbia**

The single most valuable book for people interested in learning the crustose lichen flora west of the Cascade Range has been Willa Noble's unpublished Ph.D. dissertation. This massive work contains an excellent lichen flora for a portion of British Columbia. But its importance extends well beyond that. It is an indispensable reference work for lichen studies from Alaska to northern California.

For ordering information, please use the "Store" tab at the new NW Lichenologists website. Sample pages are posted

[Order by credit card using PayPal](#) from [www.nwlichens.org](http://www.nwlichens.org)

Noble, W. J. 1982, Reprinted in 2017 with nomenclatural updates by Michael Haldeman. **The Lichens of the Coastal Douglas-Fir Dry Subzone of British Columbia**. Monographs in North American Lichenology 3: 1-260. Pbk. \$30. Keys and full descriptions, B/W line drawings of spores.



## ***Monograph in North American Lichenology, Vol. 2***

We are pleased to announce that we now have in hand volume 2 of *Monographs in North American Lichenology*, entitled **Montana Lichens: An Annotated List**.

Why would a non-Montanian lichenologist want one? This is the first comprehensive summary of the occurrence, literature references, and ecological context for lichens in any state or province in the Pacific Northwest or northern Rocky Mountains. Because we also include reports from adjoining states and provinces, the book should be useful in a broad area. The monograph will be an invaluable reference for people delving into either crustose lichens or macrolichens.

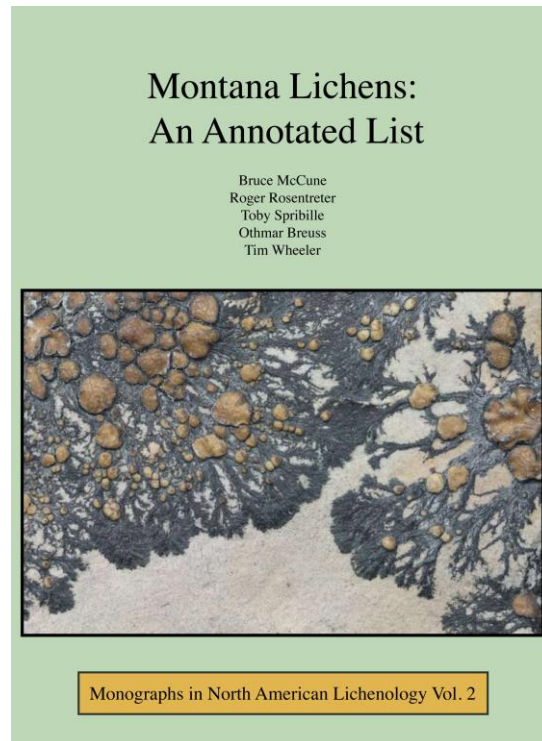
So far, a total of 1074 species are documented from Montana. Of these, 283 species are new for the state and 19 are new to North America. We discuss the rare, threatened, and endangered lichens of Montana. Priorities for surveys and monitoring are evaluated by placing species in one of eight categories, based on all combinations of global rarity, ease of detection, and habitat vulnerability.

You will also find new names for a number of old friends. Do you recognize *Lobaria anomala*? *Scytinium palmatum*? *Circinaria rogeri*? Dig in and find out.

For ordering information, please use the "Store" tab at the new NW Lichenologists website. Sample pages are posted.

[Order by credit card using PayPal](#) from [www.nwlichens.org](http://www.nwlichens.org)

McCune, B., R. Rosentreter, T. Spribille, O. Breuss and T. Wheeler. 2014. ***Montana Lichens: An Annotated List***. Monographs in North American Lichenology 2: 1-183. Pbk. \$30. ISBN-13: 978-0-9790737-1-7



***Monograph in North American Lichenology, 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

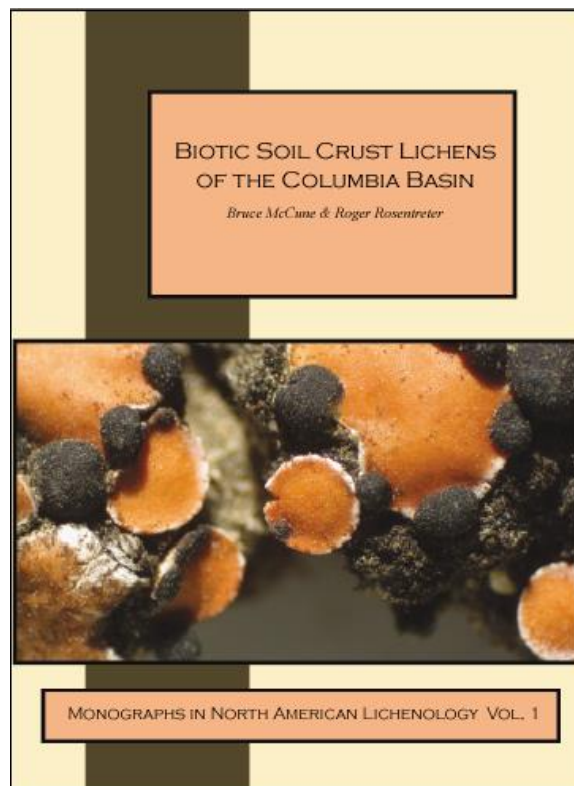
[Order by credit card using PayPal](#) from [www.nwlichens.org](http://www.nwlichens.org)

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](#)