Northwest Lichenologists Newsletter
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Compiled by Katherine Glew, Ph.D.
University of Washington
Herbarium, Burke Museum

Special Issue

Bruce Ryan in the Pacific Northwest

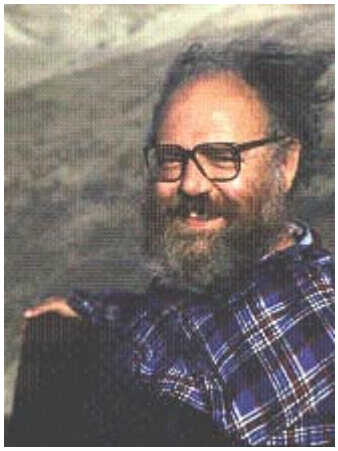

Photo by Steve Sharnoff

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Fred Rhoades, Western Washington University, Bellingham. April, 2004

Bruce Ryan as a younger, self made, lichenologist

I first met Bruce when I came to Western Washington University to fill the cryptogamic botanist position in 1977. Bruce had begun a Master's program under the guidance of the only other cryptogamic specialist at Western at the time, Maurice Dube, a phycologist. Maurice had recognized Bruce's gifts at looking at minutiae and encouraged the many facets of Bruce's skills, including his unique artistic side. I signed onto Bruce's thesis committee and soon became somewhat of a mentor since I had considerable background in lichens.

Bruce struggled with his ecological study of the marine lichens at Washington Park, near Anacortes, Washington (photos). For some reason he and Maurice had decided that his study was to take an ecological approach, but it was obvious to all of us that what Bruce really had a gift for was taxonomy, and since a complete survey of the intertidal lichens
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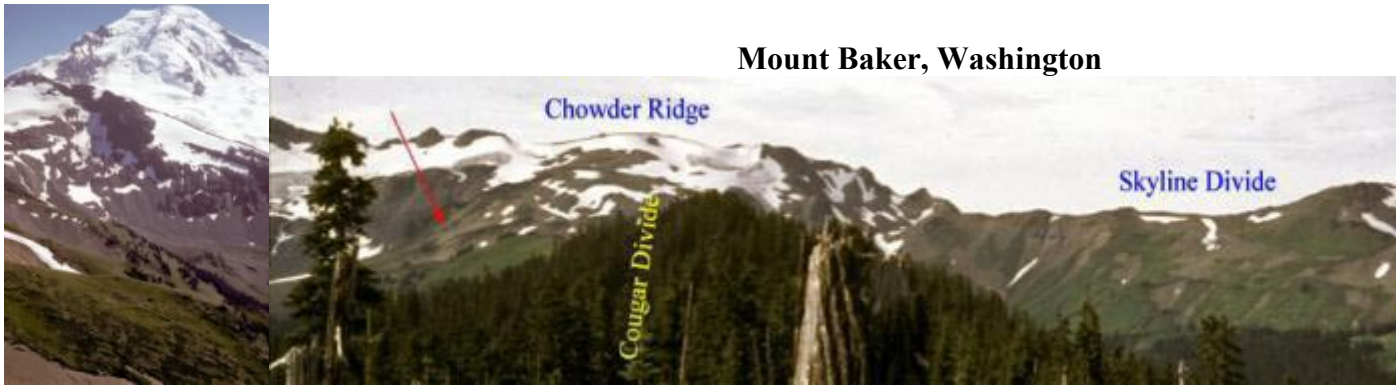
in this part of the northwest had yet to be done, probably he should have been left to his own designs. As the unknown versions of *Verrucaria*s and *Caloplaca*s began to rise, Bruce turned a "simple" zonation study into a major addition to the lichen list of Washington State. Two papers extended from his Master's Thesis, one (Ryan 1988a) an ecological one and one (Ryan 1988b) taxonomic. In the latter Bruce reported finding 61 species, 16 newly reported for Washington State and one, *Verrucaria sandstedei*, newly reported for North America. The former, zonation paper shows Bruce at his best, with detailed discussions of the minute patterns he perceived at Washington Park. What may not be apparent to the casual, non-lichenological reader of this paper, is the incredible work that lies behind it: most of the *Verrucaria*'s discussed are only easily determined microscopically and to propose an ecological zonation of them is an astounding feat!

The same can be said of several other studies nearby, most notably his earlier survey of lichens in the botanically fascinating habitats of Chowder Ridge (photo from the north), an east-west running ridge up the side of Mt. Baker that was turning out to be both the northern limit and southern limit to certain parts of our northwest alpine floras. Bruce struggled to make the long treks up Cougar Divide to Chowder, complaining all the way about the strenuous hike. After camps were set up, he would disappear for the whole day down into the subalpine and rocky outcrop regions below Chowder (red arrow), not to be seen again until late in the evening. The paper (Ryan 1985) reporting on this study listed 200 species of lichens from the alpine and subalpine areas of Chowder Ridge, including 45 species newly reported from Washington State, 80 newly reported from the North Cascades and 3 (*Aspicillia nordlandica*, *Lecanora bicincta*, and *Leciophysma finmarckicum*) new to North America.



Somewhere during the early 80s, Bruce completed the attached artwork in his inimitable style, attempting to illustrate all the kingdoms of life. I bought the work from him and used it on several lab manual covers over the years. I have 16" x 20" copies of this "suitable for framing" which I can send to anyone for the price of postage: If anyone is interested, please e-mail me (fredr@cc.wwu.edu).

Five Kingdoms, by Bruce Ryan

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Bruce McCune, Oregon State University, Corvallis. May 2004

In the spirit of "Bruce News" I should be irreverent, unsentimental, and a bit cynical. But of course Bruce Ryan was inimitable. Bruce and I crossed paths quite a few times, beginning in the days when he was at Western Washington University in Bellingham. He was working on the lichens of rocky shores of Fidalgo Island. From this work he produced two papers, one floristic and one ecological. He was always self deprecating and apologetic about this work, even though it was a nice contribution in an area almost totally neglected in western North America. He was also deprecating about his car - at that time the rear doors were held shut by a taut rope between the handles.

Bruce was one of the participants in the first meeting of the Northwest Lichen Guild (now Northwest Lichenologists) in 1990. He made the effort to come from Arizona to Corvallis. I'm sure that as always he regaled us with tales of woe about his personal life and tales of intrigue from his lichenological life.
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We'll miss his rumpled friendly demeanor. What a shame that his prolific contributions to North American lichenology ended so soon.

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Sharon Eversman, Ecology Department, Montana State University, Bozeman. May 2004

I got to spend part of a day with Bruce when I was at ASU, my last year. It was interesting to watch him (Bruce Ryan) work with, of course, my Lecanoras. I have his keys, and here's my favorite section -- part of the introduction to Aspicilia. It has saved me lots of time with my hundreds of Aspicilias...

Here is part of Bruce's introduction to his keys for Aspicilia:

This genus is almost certainly the worst single genus of organisms on earth (or maybe the whole universe) from a taxonomic point of view. I could go on a long time about just how horrible it is, but let me just make a few brief points and be done with it. Lots and lots of luck!

-The damn things are everywhere, and are one of the most frequent and abundant kinds of lichens on rocks.

-Half the time they're sterile, and then truly hopeless except maybe if they have isidia or soredia.

-Most of the rest of the time the spores are immature, or incredibly variable in size and shape, so spore measurements given in the literature are mostly useless.

-The K reactions (especially K+ yellow) are notoriously variable and unreliable (especially since many K- taxa may well be K+ after HCl), and a lot of so-called species are based on them. TLC data is available only for a very few taxa.

-The color and form of the thallus of a single "species" can vary all to hell, mostly due to environmental modifications.

-There’s too damned many species described based on minor variations referred to under 4 and 5.

-Most herbaria have few if any "reliably determined" comparison material.

-A lot of the types are missing, worthless, or else lost in the labyrinths of the herbarium in Paris.

-Most keys and descriptions in the literature are a lot of bull, and in any case frequently contradictory and totally useless.
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Linda Geiser, Ecologist, USDA-Forest Service, Pacific Northwest Region Air Program

Corvallis, Oregon. May 2004

I had the privilege of working with Bruce Ryan on a daily basis for 3 months in 1995 at Arizona State University. We identified crustose lichens from the Pacific Northwest. Bruce was a fun and patient teacher, and generous with his knowledge. Although our eyes were focused through the

microscopes, we spent the whole day tirelessly talking about lichens, and enjoyed it all. I liked his sense of humor, he wasn't a loud person, but he was keen. Sometimes we came across species that we recognized from previous dissections, but that we were unable to key-- Bruce was great at coming up with temporary names. It was not Lecanora 'sp. 1' or 'Species B', but *Lecanora* 'pseudovaria' or 'Lichen mosaicus'. Bruce had developed keys for every genus in North America, all painstakingly typed up as separate documents in a DOS form of word perfect. We processed several hundred crustose lichens, providing valuable information about the distribution and habitats of many poorly known species.

In the years before and since 1995, Bruce identified many lichens for US Forest Service projects in Alaska, Washington, Oregon, and California. He also did some baseline air quality work in California-- species surveys and tissue analysis. His original reports were simple typed manuscripts. The number of lichens he found at each site was enormous, sometimes nearly 100 species-- which created quite a database job for us. He was just as apt at naming his methodological inventions as he was his taxonomic discoveries. The steel grid he used to estimate lichen biomass for his California air quality studies, he called the "Dotiometer" after the USFS air program manager, Bob Doty.

Bruce was an invaluable American lichen taxonomist-- his wealth of knowledge and his contributions to lichenology were original and extensive. He is already greatly missed.

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Irwin M. Brodo, Ottawa, Canada. June 2004

Bruce Ryan was among the most interesting people I ever met. His knowledge of lichens, especially the western species, was legendary, but that's not what made him so special. What made him stand out were his constant efforts to share whatever he knew. He was extremely giving of his time and expertise to professional and amateur alike. His tentative set of keys to the North American lichens, generously sent at a pittance to anyone who asked, is only one example. When the Sharnoffs and I began to plan in earnest for a guidebook for North American lichens, we naturally went to Bruce with our rough list of species to be included. It wasn't long before we received his response: a detailed, well thought out, funny as hell, commentary on all the lichens we mentioned as possibilities, and similar thoughts about dozens of species we had left out. I don't know how we could

have managed to get a balanced coverage without his sage advice, liberally laced, as it was, with his famous dry humor. He was modest to a fault, and I often felt obliged to remind him about what a valuable, productive person he was, and how much we all appreciated what he was doing. We will all miss him very much.

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Katherine Glew, Herbarium, University of Washington, Seattle. May 2004

Bruce and I were contemporaries from the Tacoma area. It always amazed me that someone so close in age and geographic area would also be so fascinated in lichens. I felt a connection to Bruce, partially because he grew up in the same area, and I was always in total awe of his knowledge in lichen taxonomy.

I first met Bruce in the office of Joe Ammirati, mycologist at the University of Washington, in the early 1980s. I was finishing my Master's in Education and was now finding I had an interest in lichens. Joe introduced me to Bruce and I found him to be a warm and passionate person. Shortly after, I heard he was heading off to Arizona to get a doctorate degree in lichens with Tom Nash. I was envious of anyone getting a lichenology degree. I managed to stay in touch with Bruce from then on, occasionally receiving a "Bruce News."

I occasionally saw Bruce at lichenological and bryological meetings. Bruce was not much of a traveler and was always careful with his budget. It seemed he was getting a lot of lichen work accomplished at Arizona State University (ASU) and was working in the lichen herbarium.

My most memorable experience with Bruce was when I was finishing up my doctorate on alpine lichens from Washington State. I had a lot of crustose collections and wanted someone to look at them who was familiar with crusts and species likely to be found in the state. Since Bruce wrote a paper on the lichens from Chowder Ridge on Mount Baker, he seemed a likely choice. I boxed my rocks, put them in a suitcase marked "Fragile" and headed off for ASU. I had a *whole* week to spend with Bruce on these crusty lichens. Bruce seemed to be beside himself looking through my boxes of the various collections. Frequently he would shout out "This is *really* interesting!" I would ask him what it was. He would answer "I don't know, but it would be worth spending time on it." He would leave the lichen work room, clutching the rock, off to find a better microscope or run the sample on thin-layer chromatography. I learned a lot about crustose species that week. Bruce almost always showed me his microscopic slides of the apothecia and spores. He was a wonderful teacher. With me too, the unknown species came out as *Lecanora* "confuseus", *Aspicillia* "idontknow-whatsus." It made the whole process much more enjoyable. I told him that on some collections I would spend more than five hours and still come to no conclusion. He assured me that our knowledge of lichens west of the Rockies was "a mess." Bruce felt many western crustose species had not yet been described, so it would make sense that some of my collections may not work out in any key. Since that time, we have more lichen experts come out to the area and more folks
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specializing in certain groups or genera to provide us with names for these difficult lichens.

Many of us have his famous keys to genera and species that he developed over twenty-five years and most of us consider those lichen keys invaluable for helping us make determinations for crustose species. With all the work that is yet to be done and with all of the knowledge that Bruce Ryan had, regarding crustose lichens, it is a sad loss to lichenology that he has left us. Bruce's passing is a great loss to all of us in lichenology.

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