

Acharius Medallists

Bruce McCune

Bruce graduated with a BA in Botany and Biology and an MA in Botany, both from the University of Montana. Bruce's career in lichen research began in 1977 as a summer teaching assistant for Mason Hale at the University of Montana's Flathead Lake Biological Field Station. His Master's degree correlated lichen and moss distributions with landscape gradients in the Swan Mountains of Montana and he wrote his own computer code to analyse the complex data set. Bruce then moved to the University of Wisconsin at Madison where he undertook a PhD in forest ecology. While in Madison, he continued honing his lichen taxonomy skills. John Thomson was just down the corridor from Bruce's lab; he was retired but continued to work and publish on lichens, and would help Bruce with identifications and chemical tests. In 1984, after obtaining his doctorate, Bruce was appointed as Research Associate at Butler University in Indianapolis, and taught plant ecology during summers at the same University of Montana field station at which he was first introduced to Mason Hale. In 1987, Bruce was appointed as an Assistant Professor in the Department of General Science at Oregon State University, and in 1991 he moved to an Assistant Professorship in the Department of Botany and Plant Pathology, where he continues to work. He was promoted to Associate Professor in 1993 and full Professor in 1999.

Bruce has published prolifically in journals and books. He is a polymath. His lichen research spans ecology, floristics, conservation, response to pollution, growth and development, and taxonomy. Bruce has described many new species, especially in the genus *Hypogymnia*, on which he is a world authority, but also in *Bactrospora*, *Hypotrachyna*, *Letharia*, *Pseudocyphellaria*, *Rhizocarpon*, *Rinodina* and *Trapeliopsis*. He was a contributor to each of the three volumes of the Sonoran Desert lichen flora. His ecological and floristic interests have focused mainly on forest epiphytes and soil crust communities (both very well-represented in Oregon) but more recently have extended to the Alaskan tundra. One of Bruce's principal interests has been identifying drivers of epiphytic lichen diversity. His 1993 paper "Gradients in epiphytic biomass in 3 *Pseudotsuga-Tsuga* forests of different ages in western Oregon and Washington" is the most highly cited lichen paper published in *The Bryologist* since 1969 (ranks fourth if you add in bryophyte papers). Bruce is possibly just as well known in plant ecology circles as he is as a lichenologist and he continues to publish research on ecology in the broad sense. In fact his most highly cited paper is "Equations for potential annual direct incident radiation and heat load" which he published in *The Journal of Vegetation Science* in 2002 with Dylan Keon. He is an expert on ecological analysis methods and modelling, and is of course the co-author with M.J. Mefford of PC-ORD. *Multi-variate Analysis of Ecological Data* and its numerous revisions (1991, 1993, 1995, 1997, 1999, 2006, 2011). PC-ORD and Hyperniche have revolutionized the way ecologists approach community analysis.

His other books include: *The Lichens of British Columbia*, Part 1 (1994 with Trevor Goward & Del Meidinger); *Macrolichens of the Northern Rocky Mountains* (1995, with Trevor Goward); *Macrolichens of the Pacific Northwest* (1997, with Linda Geiser); *Analysis of Ecological Communities* (2002 with James Grace); *Biotic Soil Crust Lichens of the Columbia Basin* (2007 with Roger Rosentreter); *Montana Lichens: An Annotated List* (2014 with several others). His books have made field and laboratory identification of lichens much more accessible to citizens, students, and professional naturalists alike.

Throughout his career, Bruce has been an avid formal collector of plants, bryophytes and lichens with over 37000 accession numbers to his name. These specimens are largely deposited in the Oregon State University Herbarium or in Bruce's private herbarium.

In addition to being a gifted and prolific researcher, Bruce has made an unstinting contribution to the promotion of lichenology and to the training of several generations of professional lichenologists. He is a founding member of, and the driving energy behind, the Northwest Lichenologists; he is currently their Secretary and Treasurer, and has also served as Editor in Chief of its associated journal *Monographs in Lichenology*. The Northwest Lichenologists works to mentor and train lichen fieldworkers from various sectors; it organizes annual field and written tests to provide certification for regional professional lichenologists. Bruce has also served on the Editorial Board of *The Bryologist* (since 2012) and on the IAL Council.

At a more local level Bruce – together with his wife Pat, his two daughters Sara and Myrica and their two cats called Alectoria and Bryoria – regularly hosts “bring and shares” or “potlucks” at his house for his students and other lichenologists who are in the vicinity. Here new research ideas are discussed over beer, after which there is frequently a game of whiffle ball or table tennis – the latter a sport in which I am told Bruce shows considerable prowess. I can imagine that Bruce’s method for inoculating forest trees with *Usnea longissima* might well have been dreamt up at one of these gatherings after a few beers: this involves stuffing a fistful of *U. longissima* filaments into a condom, filling and inflating the condom with water for added weight, sealing it with a knot and then catapulting the lichen-loaded “French letter” high up into the canopy to inseminate the tree of choice – this takes tree-hugging to new heights! Bruce also hosts the Northwest Lichenologists’ annual board meeting at his home which I am told is a well-attended and enjoyable social event.

Bruce is highly regarded by those who work with him. Adjectives used by his close associates to describe him include amazing, supportive, generous, humble, inspiring, brilliant, productive, kind, encouraging, and inquisitive. In correspondence with his collaborators, one person wrote “Bruce is one of my favourite people on the planet”; another, “Every conversation (with him) is a treasure because he is such a wonderful bank of knowledge and ideas”. It is clear that Bruce is greatly appreciated by, and a friend to, all who have worked with him.

For his outstanding contribution to lichenology, the IAL Council is delighted to award the Acharius Medal to Bruce McCune.

Peter Crittenden, Nottingham (UK)