

Editorial

Ecology and Research

This issue of **Davidsonia** includes a paper by Turkington, which provides a review of the biodiversity research undertaken during the most recent 10 years of the Kluane Forest Boreal Forest Ecosystem Project. The visionary behind this project is Dr. Charles Krebs, a Professor Emeritus in the UBC Department of Zoology. The project seems likely to continue and will form an important foundation for the biological knockout programme at UBC's Centre for Biodiversity Research, led by Dr. Dolph Schluter.

It is clearly time for ecological research in British Columbia to revisit two very important initiatives that have to some extent been left in limbo as fewer governmental resources are being made available to study the enormous complexity of the many ecosystems and landscapes that exist in the province. More than 30 years have passed since the late V.J. Krajina retired from the UBC Botany Department, but his legacy lives on. Krajina developed an ecological map of British Columbia that subdivided the province into twelve or more biogeoclimatic zones. The basis for this classification was the community ecological system devised in Europe during the first half of the 20th century by Braun-Blanquet. Krajina proposed that ecological communities have a successional structure that can be used to describe and make long term predictions about forest structure and long-term regeneration. Krajina was not partial to submitting his work to the formal, and what he perceived as often negative, effects of journal peer review and publication. He published much of his work in the short-lived journal, *Ecology of Western North America*, and in 1973 the BC Ministry of Lands, Forests and Water Resources published a biogeoclimatic zone map that is still found on the officewalls of forest companies and resource managers. A 1976 paper by Charles Beil, Roy Taylor and Geraldine Guppy (**Davidsonia** 7: 45-55) provides a clear review of the Krajina system.

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Krajina's second legacy was the identification of and obtaining legislative approval for a network of almost 150 (in 2002) ecological reserves, which were various sized, land and aquatic areas that were set aside for research and to provide "control" plots for studies of ecological change. In spite of enormous efforts by leading biologists, the British Columbia provincial government in 2002 undertook a major reorganization and down-sizing of the ministries (including Water, Land & Air Protection; and Sustainable Resource Management) that were responsible for Wildlife, Fisheries, Habitat Protection and Parks. The government took the approach that having the reserves may not always be beneficial to the provincial economy and hence industrial arguments could be accepted that would allow development in any otherwise protected area. After all, the reasoning seems to be, BC has such vast areas of pristine wilderness that using small sections of previously protected landscape will do trivial ecological harm while ensuring economic progress.

The second paper in this issue, by Mosquin and Rowe (reprinted with permission), brings us back to the reality of enormous ecological damage that is the accumulation of literally thousands of these trivial ecological harms. In less than three hundred years, human numbers have increased at least sixfold. Lack of any serious efforts to control population and even less effort to deal with uncontrolled destruction of the natural diversity without which humanity certainly faces a huge population crash, means that regardless of specific cause, prognosis for the long-term survival of our species is uncertain at best. Clearly the world cannot correct such problems in one single action, but understanding ecological structure and having a baseline of sites that let us see what might have been are absolutely essential to our taking any meaningful action.

Universities, particularly their researchers who study all aspects of biodiversity, have an obligation to drive knowledge and understanding forward with at least the fervour and expertise shown by biomedical researchers whose goals are to cure cancer or HIV/AIDS. Long-term rigorous studies such as those in Kluane and natural control sites such as ecological reserves are absolutely critical to our research future from which any Manifesto for Earth can be moved forward to reality.