



Taking ecological restoration to the next level in B.C.

by Don Gayton, Ecosystem Management Specialist

Ecological restoration is a new, complex, and messy concept and difficult to define. Asking where “land reclamation” stops and “ecological restoration” starts guarantees a lengthy, yet interesting argument. But if we take a very simple working definition of ecological restoration, “the process of assisting the recovery of an ecosystem that has been damaged or destroyed,” we can be assured that this new idea has an important role to play in shaping the forests and landscapes of British Columbia.

Eric Higgs, Director of the School of Environmental Studies at the University of Victoria, which co-manages the Restoration of Natural Systems Program, and past Chair of the Society for Ecological Restoration International (SER), is bullish about restoration. “We hosted the Society’s conference in Victoria last year, and it was a huge event, with 700 people attending, and some 30 countries represented,” he says. “The genius of this movement is that it spans the whole spectrum, from reclamation to restoration. At the conference we had scientists, practitioners, agency people, industry people, activists, and community members.”

The ecological restoration projects underway in British Columbia are legion. They include restoration of threatened assemblages like the Garry oak ecosystems of southern Vancouver Island and the

Selkirk College instructor Derek Marcoux leads a class project in ecological restoration each year.



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Annie Kruger was a traditional fire keeper for the Pentiction Indian Band, and we mourn her recent passing. A respectful awareness of indigenous peoples’ knowledge is a crucial component of any restoration project.

Gulf islands, restoration of damaged ecosystems such as the dry forests and grasslands in the East Kootenay Trench, and the creation of old-growth attributes in second-growth coastal forests. Riparian and aquatic restoration is also a major focus in British Columbia, whether it be stabilizing roadcuts adjacent to rivers, fertilizing lakes made nutrient-poor by dams, or placing coarse woody debris in streams to recreate lost spawning habitat.

One of the perennial questions of ecological restoration is “What condition do we restore to?” The period of the late 1800s in British Columbia can provide clues, since ecosystems were relatively undisturbed by European settlement, yet detailed travel accounts, sketches, and even photographs are available from that era as background for the development of modern restoration templates. This time period will also reflect the crucial—but often ignored—component of First Nations’ land management activities. However, fixed historical benchmarks are often less useful than an understanding of the range of historical variation: knowing the

continued on page 7...

More Information

- Society for Ecological Restoration, B.C. Chapter: www.serbc.info/public/ser_bc_home
- Society for Ecological Restoration International: www.ser.org
- UVic Restoration of Natural Systems Program www.uvcs.uvic.ca/restore/

B.C. a leader in restoration movement

... continued from page 6

long-term limits of a system helps to set appropriate goals for the future. In addition, restorationists are recognizing the tremendous potential that indigenous peoples' knowledge offers in helping us understand natural systems and restore them to a healthy state. However, the use of indigenous peoples' knowledge comes with major caveats. First Nations leaders like **Jeannette Armstrong** of the En'owkin Centre in Penticton caution that we must respect their proprietary rights to that knowledge. Other native leaders warn against "cherry-picking"—taking isolated bits of indigenous peoples' knowledge while ignoring the larger cultural context within which that knowledge is embedded.

As we approach the first anniversary of the groundbreaking Victoria conference, I asked Eric Higgs about the outcomes for the British Columbia chapter of the SER, which hosted the event. He mentions an understandable lag phase, as exhausted

volunteers recuperate and digest the big event, but now, he says, "our B.C. Chapter knows we had the vision, the capacity, and the confidence to pull off an event like that. B.C.'s restoration projects, people, and expertise are definitely on the map now."

Ecological restorationists have come up with remarkably ingenious methods for speeding up natural processes, such as the use of willow cuttings in bank stabilization, as well as for replacing key natural elements that have been eliminated from ecosystems. With the gradual elimination of old growth in many parts of the province, the loss of wildlife trees is keenly felt. Restorationists are trying a number of techniques to replace the wildlife tree cohort, including topping younger trees, installing standing dead snags, and even injecting selected trees with heart rot to create a "living snag." Replacing a key natural disturbance process such as fire is another major challenge, but practitioners in the East Kootenays and elsewhere have devised safe and ecologically appropriate methods of re-introducing fire into the landscape.

In spite of the semantic confusion, the term ecological restoration is gradually settling into the lexicon of British Columbia forestry and natural resource management. We can be rightfully proud of our practitioners who are putting this province at the forefront of the ecological restoration movement. 🌲



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Saltspring Island is the site of a rare and threatened Garry oak meadow, which is a major focus for restoration efforts.