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## **Review: British Columbia's Inland Rainforest: Ecology, Conservation, and Management**

By Susan K. Stevenson, Harold M. Armleder, André Arsenault, Darwyn Coxson, S. Craig Delong, and Michael Jull

**Reviewed by Daniel S. Helman**

*Pasadena, California, USA*

Stevenson, Susan K., Armleder, Harold M., Arsenault, André, Coxson, Darwyn, Delong, S. Craig and Jull, Michael. *British Columbia's Inland Rainforest: Ecology, Conservation, and Management*. Vancouver, Canada: University of British Columbia Press, 2011. 456 pp. ISBN: 9780774818506, paperback. US\$ 41.95, illustrated. Also available in hardcover format ISBN 9780774818490.

A fact-filled and extremely useful offering from silvicultural and ecosystem professionals, biologists, ecologists, systems scientists and others, *British Columbia's Inland Rainforest* provides a snapshot, a look at the present conditions of this unique ecosystem in light of past and future management choices. Included are 128 figures, color plates and illustrations, 20 tables, three appendices, a species index, glossary and various exposés that highlight features of the text, which itself includes more than 50 sections detailing everything from carbon stocks to soil horizons to forest edge effects on plant and animal life to native medicine and many others. The book grew from a project with scientific goals—to supplement a government forestry report with data so that managers and other stakeholders could make well-informed choices. The authors made a wonderful choice to expand their scope and offer the work to the public.

British Columbia's inland rainforest is unique. There is no other place on the planet where a temperate rainforest exists so far from the coast, with much of its biome determined by continental rather than coastal geography. For example, many of the species in the inland rainforest migrated from elsewhere in continental North America during the end of the last glaciation, or from the coast via specific vectors. They continue to survive in a setting that includes thousand-year-old red cedar trees and lichen species (e.g. cyanolichen) that are not found elsewhere or nowhere else in such great diversity and abundance. Snowmelt during the summer promotes groundwater abundance and a humidity level unrivaled in a continental forest setting.

Here, ancient red cedar and western hemlock make unique rotted-out settings for fungus, bryophyte, lichen, vascular plants, invertebrates and vertebrate animals, dens in hollowed out trees for martens and black bears. Yet in human terms, the same trees providing the substrate for such a rich ecology have also driven management choices that have led to their destruction.

Historically, such immense trees with internal voids are called “decadent” and forest management has opted to harvest these old landscapes to allow planting of young plantation stands that replace them, often with changes to species for a standardized harvest regime. Ironically, the work is done in winter when the marshy rainforest soil has frozen and ice roads or other means of transport can be constructed.

The book details a wide array of analyses and data related to this habitat and its management, including the physical setting, the ecology and history, as well as current and projected changes to timber practices, climate and forestry management. What is presented doesn't take a political side, but rather tries to give a very clear picture of all that is at stake. Current practices and future possibilities are described. Landscape- and stand-scale recommendations are made within a context of competing forest values, and include both deficiencies and benefits to management in a context of the interconnected web of ecosystems reach, e.g. lichen decline from timber extraction of old-wood forests has led to decreases in caribou populations to the benefit of moose and wolf who feed on the moose, and also limit the non-timber forest products that might be developed.

*British Columbia's Inland Rainforest* is a poem written in the language of science. The reading level of the text is high, with vocabulary suited for professionals, members of government and any who wish to immerse themselves in the technical beauty of naturalist writing. The book would be appropriate as a supplemental text in college and graduate-level courses in forestry, ecology, public policy, economics, botany, geography, resource management, or others, or as the main text in a course dealing with British Columbia's inland rainforest. Student enjoyment is likely, considering the breadth and clarity of the treatment. Public or private libraries with an interest in ecology, forestry, biodiversity or the Pacific Northwest would likewise find this a strong addition to their collections. Forestry management professionals and government agencies with responsibilities in this or similar settings would find the book informative and extremely useful. *British Columbia's Inland Rainforest* is compelling in its presentation and conclusions, and readers are assured of learning on many levels.

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