



## BRITISH COLUMBIA CONSERVATION DATA CENTRE

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Mr. Dan Bouman  
Executive Director  
Sunshine Coast Conservation Association  
Box 1969  
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June 24, 2010

Dear Mr. Bouman

Thank you for contacting the Conservation Data Centre, Ecology program. It is always encouraging to hear from those who are taking personal responsibility for stewardship of ecological and biological diversity in British Columbia. Collaborative efforts of individuals, organizations and governing bodies can collectively make the difference that is needed.

In response to your questions, I am including here summaries of the CDC methodologies related to two Ecological Communities you have asked about: Douglas-fir - lodgepole pine / grey rock-moss (*Pseudotsuga menziesii* – *Pinus contorta* / *Racomitrium canescens*), Woodland Sensitive Ecosystem; and Douglas-fir - western hemlock / salal Dry Maritime (*Pseudotsuga menziesii* – *Tsuga heterophylla* / *Gaultheria shallon* Dry Maritime), Mature Forest Sensitive Ecosystem.

These two ecosystems are listed by the CDC, as Imperilled and Imperilled to Vulnerable, respectively, using the NatureServe methodology for conservation status assessments available at our website <http://www.env.gov.bc.ca/cdc/>. The criteria applied to status assessments include information on distribution, occurrence, ecological integrity, trends, threats, vulnerability and environmental limitations. The occurrence of these two ecosystems within the Coastal Western Hemlock, very dry maritime, occurs on the Sunshine Coast, the Lower Mainland, and east Vancouver Island. In the Lower Mainland, the forest landscape has been extensively converted to other uses, including urban/rural residential, industrial, agricultural, transportation corridors. Ecosystems on east Vancouver Island are somewhat less extensively converted. The Sunshine Coast has the most extensive remaining area, and as such, agencies and individuals in this area carry a significant proportion of the remaining stewardship options and responsibilities for the conservation of these ecosystems.

The Ministry of Environment Ecosystems Branch has developed a Conservation Framework (<http://www.env.gov.bc.ca/conservationframework/>) to assist in prioritizing species and ecosystems most in need of conservation action, and recommendations for the most needed conservation actions. Both of these ecosystems are identified as Priority 2 (out of 6 classes) with recommended actions including Private Land Stewardship, Ecosystem Protection, Planning, Inventory and Monitoring.

The Sensitive Ecosystems Inventory of the Sunshine Coast and Adjacent Islands was undertaken by Environment Canada (Canadian Wildlife Service) and Ministry of Environment (Resource Inventory Branch) in 1999-2005, and supported by stakeholders including Sunshine Coast, Powell River and Strathcona Regional Districts, local First Nations and others. The criteria for mapping Sensitive Ecosystems included ecological sensitivity (limiting site requirements and site requirements that are most vulnerable to disturbance, such as shallow soils, water table and water flow requirements), and the ecological integrity of forested ecosystems. The above ecosystems met the criteria for sensitive ecosystems and occur in your area of interest, on mapsheet 92G.033, polygons 6 and 7.

With respect to your questions on invasive species, their presence does not preclude the conservation of ecosystems. If this were the case, conservation efforts by all levels of government, and other

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organizations, would not be occurring in the Okanagan Basin or the Georgia Basin. Stewardship and restoration efforts are high priorities for those interested in conserving the rich ecological and biological diversity typical of these regions. There are many organizations who are effectively managing for invasive species, Scotch broom is one of them. Please go to the GOERT website for information on managing this species [http://www.goert.ca/pubs\\_invasive.php](http://www.goert.ca/pubs_invasive.php). Travel corridors are one of the common ways in which invasive species are introduced to an area as vehicular traffic can carry the seeds and the road allowance itself exposes mineral soil in which invasive species most easily germinate and establish. Planting alternative non-invasive or native species along roadsides, and having active volunteers/agencies to patrol the roadside and manage the invasive species are two ways of mitigating the effects of transportation corridors.

Old growth is a term which primarily describes the structure of a forest. The presence of invasive species does not preclude the development of old growth coniferous forest. The old age of conifer species, the occurrence of standing and down dead wood, a diversity of layers in the vegetation, from ground lichens and mosses, low herbs and grasses, low and tall shrub layers, and multiple ages of tree species, are the major characteristics of old forests. Mature forest will have some, but not all, or only minor amounts of these characteristics.

With respect to zoning by-laws and covenants), I would refer you to the following references: the Green Bylaws Toolkit (<http://www.greenbylaws.ca/>) and the Land Trust Alliance website <http://landtrustalliance.bc.ca/options.html> respectively. It is my understanding that both of these processes include consultation among stakeholders, local governments and residents, with management requirements decisions based on individual circumstances.

In my experience, where covenants are established for the protection of natural areas, the removal of natural vegetation is not recommended, and would only be undertaken under specialized conditions. Where this has occurred has been primarily in the grasslands and Ponderosa pine forest of BC's southern interior, where fire suppression has altered the natural ecosystems (e.g. Rocky Mountain Trench Ecosystem Restoration Program, prescribed fire for grassland ecosystems <http://columbiavalleynews.com/2010/03/30/prescribed-burns-to-restore-grassland/>).

I know that some local governments have tree cutting by-laws and Development Permit Areas that identify Sensitive Ecosystem polygons in their area (e.g. Saanich municipality ([http://www.saanich.ca/living/pdf/DPAGuidelines\\_November2006WEB.pdf](http://www.saanich.ca/living/pdf/DPAGuidelines_November2006WEB.pdf)) has a DPA category "protection of the natural environment, its eco-systems, and biological diversity.

Please don't hesitate to contact me again for clarification or sources.

Sincerely

Carmen Cadrin, R.P.Bio, P.Ag.  
CDC Program Ecologist

cc: Jan Kirkby, Canadian Wildlife Service

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