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May 21, 2009

Biodiversity BC

BIODIVERSITY ATLAS OF BRITISH COLUMBIA

The Biodiversity Atlas of British Columbia is the third in a set of three reports prepared by Biodiversity BC to support the development of a science-based provincial biodiversity strategy. The two previously released reports are: *Ecological Concepts, Principles and Applications to Conservation* (July 2008) and *Taking Nature's Pulse: The Status of Biodiversity in British Columbia* (July 2008).

Ecological Concepts, Principles and Applications to Conservation is the foundation upon which *Taking Nature's Pulse* and the *Atlas* were developed. In addition to laying out the concepts and principles of biodiversity, the report also describes various approaches and methods that can be applied to achieve conservation goals.

Taking Nature's Pulse is a comprehensive, science-based assessment of biodiversity in British Columbia. It describes the current status of the province's biodiversity including the human-induced threats that are impacting it. The report concludes with 23 major findings highlighting the most important considerations for biodiversity conservation in the province.

With sixty descriptive maps and accompanying text, *The Biodiversity Atlas of British Columbia* gives a broad overview of the province's range of terrestrial and freshwater biological diversity and provides a window to B.C.'s diverse ecosystems, the species that live in them, and the elements of British Columbia's biodiversity that make it globally significant. The *Atlas* also presents a visual perspective of a number of human-induced threats, including climate change, that are impacting biodiversity in B.C. today.

The *Atlas* and *Taking Nature's Pulse* conclude that, compared to many other places in the world, biodiversity in British Columbia is in relatively good condition. However, a closer look reveals that all is not well in some areas and for some aspects of the province's biodiversity. For instance, the areas that people are attracted to with mild climate and productive land (southern valleys, the south coast and islands, and the central plateau region) are the same areas that provide prime habitat for most of the province's species. Human activities in many of these areas have had detrimental effects on the plants and animals that share the land base.

More than 6% of B.C.'s assessed native species are of global conservation concern, the highest in the country and almost half (43%) are of provincial conservation concern. Four of B.C.'s 16 biogeoclimatic zones and four of its nine major drainage areas are of conservation concern, as are a large percentage of ecological communities.

Ecosystem conversion, ecosystem degradation, and the introduction and spread of alien species have been identified as the most significant stresses on biodiversity in B.C. Other important stresses include direct mortality of species, species disturbance, and environmental

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contamination. Many human activities contribute to these stresses, and losses to biodiversity more often than not originate from more than one source. Multiple stresses can impact biodiversity at a magnitude greater than the sum of the individual threats, can be cumulative over time, and can incur cascading impacts on other components of biodiversity. Exceeding all of these stresses is climate change which is already seriously impacting British Columbia and is the foremost threat to biodiversity.

The Path Forward

The three science reports produced by Biodiversity BC (*Ecological Concepts and Principles*, *Taking Nature's Pulse* and the *Atlas*) tell us what is important about biodiversity in British Columbia and why we need to pay attention. The message is, that although biodiversity in British Columbia is in relatively good condition, all is not well, and many aspects of biodiversity have either deteriorated or are under increasing threat.

The challenges of conserving biodiversity are imposing but not insurmountable. These reports – and, most especially, the 23 major findings in *Taking Nature's Pulse* – will assist all levels of government, First Nations, industry, communities, non-governmental groups and concerned citizens in taking action to address current threats to biodiversity and ensuring its richness is maintained for the benefit of future generations.

Addressing the challenges identified in the *Atlas* and *Taking Nature's Pulse* is not something that can be done by any one organization alone. It will require sincere and energetic collaboration among everybody with a stake in biodiversity conservation.

To set direction and help define a path for addressing these challenges, Biodiversity BC has developed a vision and three goals aimed at preserving our rich ecological legacy.

Vision:

British Columbia is a spectacular place with healthy, natural and diverse ecosystems that sustain and enrich us all.

Goal 1: Conserving the Elements of Biodiversity

To maintain the diversity of genes, species and ecosystems, prevent elements of biodiversity from becoming at risk and contribute to global efforts for biodiversity conservation.

Goal 2: Increase Awareness of the Importance of Biodiversity and Respect for the Natural Environment

To increase awareness and understanding about the importance and value of biodiversity and encourage British Columbians to take action on conserving biodiversity.

Goal 3: Providing Tools and Incentives to Enable Biodiversity Conservation

To provide tools and incentives to enable governments (including First Nations), industry, conservation organizations and citizens to improve conservation of British Columbia's biodiversity.



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Biodiversity BC is a partnership of government and non-government conservation organizations formed in 2005 to develop a science-based biodiversity strategy. It includes independent scientists as well as scientific expertise from seven non-government conservation organizations and three levels of government.

- Ducks Unlimited Canada
- Environment Canada (Canadian Wildlife Service)
- Government of British Columbia (Ministry of Environment and Ministry of Agriculture and Lands)
- Habitat Conservation Trust Foundation
- The Land Conservancy of British Columbia
- Nature Conservancy Canada
- The Nature Trust of British Columbia
- Pacific Salmon Foundation
- Ecojustice - representing a number of environmental organizations
- Metro Vancouver representing Union of British Columbia Municipalities

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To view *The Biodiversity Atlas Of British Columbia* and related reports produced by Biodiversity BC please go to www.biodiversitybc.org.