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Bogs

Bogs (sometimes called peatlands or mires) are perhaps one of the highst profile and increasingly rare ecological communtiies on the South Coast. Bogs represent 3% of land cover globally, but provide natural water flitration for 10% of the earths freshwater. One of the most well-known bogs on the South Coast, a globally rare, domed sphagnum system is Burns Bog, found near the Fraser Estuary. Typically bogs require a constant influx of water and saturated conditions to maintain the unique plant associations they support.

Burns Bog D. Blevins

Characteristics

Bog communities require a narrow range of water chemistry, soil and flow conditions to persist. Most typically they are the result of long-term accumulations of decomposing mosses ("peat") in highly saturated, anaerobic conditions. Bogs are characterized by a low pH environment which limits the diversity of plant associations that occur. However the low nutrient conditions have led to the evolution of adaptive plant species such as carnivorous plants like sundew and pitcher plants. The acidity and decomposing vegetation generates tannins which give surface and outlet flows a tea colour, The water levels in bogs are generally sustained via precipitation and they serve a signifcant role in holding and slowly releasing surface runoff and reducing flooding, while providing natural filtration. Aside from Burns Bog, there are a number of bog communities on the South Coast ranging in size and complexity such as Camosun Bog in Pacific Spirit Park, Blaney Bog in Maple Ridge, Lulu Island Bog in Richmond and small pocket bogs on the perimeter of Beaver Lake in Stanley Park or Whonnock Lake in Maple Ridge. Typical plant species include Labrador tea, western bog laurel, salal, lodgepole pine, sphagnum mosses, sundew and skunk cabbage. A number of blue-listed bog communities exist on the South Coast (lodgepole pine / water sedge / peat-mosses odgepole pine / peat-mosses Very Dry Maritime Labrador tea / western bog-laurel / peat-mosses : Labrador tea / western bog-laurel / peat-mosses) and one red-listed community associated with Coastal Douglas-fir - lodgepole pine / peat-mosses CDFmm. Most bog communities in BC and globally continue to be under threat of various land-use activities and a number of local and international efforts continue to work for their preservation and protection.

Resources

Biodiversity in Greater Vancouver: Wetland Ecosystems Marshes/Swamps Bogs and Vernal Pools
Wetlands - From Bogs to Swamps

For further information see

Burns Bog Conservation Society

Plant Biodiversity of the Richmond Nature Park Bog: Effects of Human Disturbance and Invasive Species
Dr Lori Daniels studied the effects of human disturbances and invasion of exotic species on biodiversity in the Richmond Nature

Park, within the Lulu Island Bog in Richmond BC. The objectives were to quantify variation in plant diversity and to determine the effects of human disturbances and invasion of exotic species on biodiversity by comparing four different plant communities at six unique sites.

International Peat Society

Camosun Blog - Reflections on an Urban Bog

BC Species and Ecosystems Explorer: Species and Ecosystems Search
A source for authoritative conservation information on thousands of plants and animals and hundreds of ecological communities in BC. From here connect to all provincial and federal recovery plans (including the SARA Registry), COSEWIC (Committee on the Status of Endangered Wildlife in Canada), Identified Wildlife guidance and conservation requirements for specific species and ecological communities of conservation concern impacted by forestry activities) and links to E-Flora and E-Fauna (the Electronic Atlas of the Plants and Wildlife of British Columbia).

British Columbia's Coast Region Species & Ecosystems of Conservation Concern
A joint venture resource providing comprehensive information on a range of species and ecological communities specific to the Coast Region of BC (including the South, Central and North Coast, Vancouver Island and Haida Gwaii).

Develop With Care Guidelines (see Lower Mainland Region section)
Environmental guidelines for urban and rural land development in BC.

Species at Risk & Local Governments a Primer for BC
Learn what species are at risk in your area, search by name, habitat type, regional district and forest district.

E-Flora the electronic atlas of the Flora of BC
A volunteer-driven GIS-based biogeoclimatic atlas of the vascular plants, fungi, algae, bryophytes and lichens of BC.

Links
[1] http://www.burnsbog.org/
[2] http://urban.forestry.ubc.ca/projects/plant-biodiversity-of-the-richmond-nature-park-bog-effects-of-human-disturbance-and-invasive-species/
[3] http://www.peatsociety.org/
[4] http://camosunblog.blogspot.ca/p/camosun-bog-history.html
[5] http://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/conservation-data-centre/explore-cdc-data/species-and-ecosystems-explorer
[6] http://www.geog.ubc.ca/biodiversity/factsheets/
[7] http://www.env.gov.bc.ca/wld/documents/bmp/devwithcare2006/develop_with_care_intro.html
[8] http://www.speciesatrisk.bc.ca/