

Marine Plants – Dune Vegetation

description

Coastal sand dunes can be harsh, highly exposed and sparsely vegetated environments. Dune ecosystems can also be dynamic, as forces operating on them change over time, and so dune vegetation exhibits a variety of survival mechanisms. The fragile dune environment is shaped by the deposition and erosion of sediment through natural disturbance processes such as waves, tides and ocean current, winds, salt-spray, heat and changes to the water level. While species diversity is low in these ecosystems compared to others, dune ecosystems provide specialized habitat for a variety of wildlife, including a wide variety of migrating and wintering shorebirds. There are three major concentrations of dune ecosystems in British Columbia: along the West Coast of Vancouver Island; the eastern coast of Vancouver Island and the Gulf Islands; and along northeast Graham Island on Haida Gwaii.

This atlas page illustrates sand dunes from the Sensitive Ecosystem Inventory project, which maps rare and fragile ecosystems. Each separate inventory project has slight differences, and relevant data was extracted from the records for the Eastern Vancouver Island and the Gulf Islands project, the Bowen Island project and from the Sunshine Coast project as follows:

- Southern Vancouver Island and the Gulf Islands and Bowen Island – subclass SV:sd - sparsely vegetated - coastal sand dunes.
- Sunshine Coast – subclass HB:du – herbaceous – dunes - ridge or hill, or beach area created by windblown sand; may be more or less vegetated depending on depositional activity, beach dunes will have low cover of salt-tolerant grasses and herbs.



PHOTO: JACLYN MCPHADEN



PHOTO: ANNE FEARON WOOD

data sources

- Province of British Columbia and Environment Canada (Canadian Wildlife Service) – Sensitive Ecosystem Inventory

data resolution

- All dune features were captured and digitized at a scale of 1:20,000.

date collected

- 1993-2005

date compiled

- 2009

reviewers

- Cynthia Durance, Precision Identification

reviewer comments

- Due to the rarity of these systems in the area that has been mapped an attempt should be made to conserve all of them.

caveats of use

- Survey effort is not consistent across all planning units or across all areas of the coast, and some habitats tend to be underrepresented. Areas with no data may not have been surveyed and these data gaps are not necessarily indicative of an absence of dune vegetation. Some locations may still be important but currently lack associated data to confirm their value.
- Recommended date of expiry for use of these data in a marine planning context: None provided.

map, feature data and metadata access

- Visit www.bcmca.ca/data for more information.

references

- Habitat description contains material from: Province of British Columbia. Coastal Sand Dune Ecosystems In British Columbia. 2006. 29 June 2010. www.env.gov.bc.ca/wld/documents/sand_dunes_brchr06.pdf
- Sensitive Ecosystem Inventory information is available at: www.env.gov.bc.ca/sei

BCMCA Atlas
Marine Plants
Dune Vegetation

Legend

 Dune Vegetation

Data Sources:

Province of British Columbia
 and Environment Canada
 (Canadian Wildlife Service) -
 Sensitive Ecosystem Inventory

Base Data:

ESRI Base Data, GeoBase, GeoBC,
 NOAA, Natural Resources Canada,
 USGS, Washington State Government

Thematic Data:

For more information on data sources
 and methods please refer to the
 facing page to this map

Projection: BC Albers NAD83

0 25 50 75 100 125 150

Kilometres

0 25 50 75

Nautical Miles

1:4,250,000 *

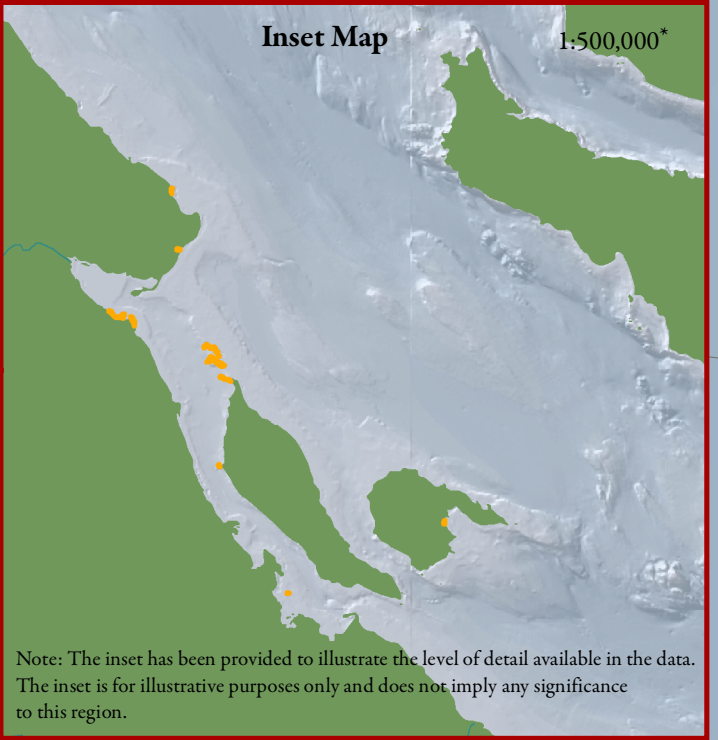
* Written scales are approximate and
 are based on a 11 x 17 inch paper size.

Prepared for:



Map template by Caslys Consulting Ltd.

June 2, 2010



Note: The inset has been provided to illustrate the level of detail available in the data. The inset is for illustrative purposes only and does not imply any significance to this region.