

## Marine Plants – Surfgrass Bioband

### description

There are three species of surfgrass found in British Columbia: Scouler's surfgrass (*Phyllospadix scouleri*), toothed surfgrass (*Phyllospadix serrulatus*) and Torrey's surfgrass (*Phyllospadix torreyi*). Surfgrass is common on the coast of British Columbia and can be found mainly in the lower intertidal zone where it attaches to coarse sediment or bedrock substrates. (Substrates include rocks, plants, animals, boat bottoms, piers, debris and, less frequently, sand and mud.) It grows in large clumps or beds and can act shelter for fish and invertebrate species. As surfgrass grows, its beds protect the rocky substrate from erosion, and by accumulating sand in and between the beds, it can transform the rocky substrate into sandy beaches or subtidal sand flats. This transformation reduces the rejuvenation of surfgrass, however, as the plants eventually die, the sand-covered rocks are exposed to wave action, which results in erosion of the sand, again exposing the rocks.

This atlas page illustrates the surfgrass bioband information from the BC Shorezone Mapping System, a systematic methodology for mapping the biophysical character of the Shorezone by way of aerial low tide oblique surveys for the entire BC coastline. The system involves the subdivision of the Shorezone into along-shore units and across-shore components. The marine flora and fauna visible within a shore unit are described in terms of common species assemblages known as biobands. The biobands are defined by the dominant cover species. This feature displays the shoreline units where surfgrass was observed and coverage was rated as either 'patchy' (visible in less than 50% of the shore unit) or 'continuous' (visible in greater than 50% of the shore unit).



PHOTO: MICHAEL HAWKES



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### data sources

- Province of British Columbia - Shorezone Mapping System - Bioband

### data resolution

- Data from the BC Shorezone Mapping System is linked to shoreline segments that average approximately 400 metres in length. There are a total of 90,027 shoreline segments with some attribute information.

### date collected

- 1979-2008

### date compiled

- 2009

### reviewers

- Cynthia Durance, Precision Identification
- Brad Mason, Fisheries and Oceans Canada, Community Mapping Network
- Mary Morris, Archipelago Marine Research Ltd.

### reviewer comments

- There are data gaps in the Strait of Georgia, for bioband mapping outside of the newly completed Gulf Islands area. In particular, the east side of the Strait south of Lund is conspicuously blank of bands. This data gap needs to be accounted for in the analyses.
- Data gaps in the display of the surfgrass bioband are present in the older biological mapping on the west coast of Vancouver Island in the Tofino/Mearns Island area, as well as in the Broken Islands area.

### caveats of use

- Portions of Pacific Rim area and Barclay Sound are data gaps in ShoreZone mapping as are the areas in the Strait of Georgia outside of the Gulf Island. Bioband mapping was not done in those regions.
- 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](http://www.bcmca.ca/data) for more information.


### map, feature data and metadata access

- For more detailed information on the biological component of the BC Shorezone Mapping System (March 1995) see: [www.ilmb.gov.bc.ca/risc/pubs/coastal/bioshore/index.htm](http://www.ilmb.gov.bc.ca/risc/pubs/coastal/bioshore/index.htm).
- Species description contains material from: University of British Columbia, Lab for Advanced Spatial Analysis, Department of Geography. E-Flora BC: Electronic Atlas of the Plants of British Columbia. 18 August 18, 2010. [www.eflora.bc.ca](http://www.eflora.bc.ca)



**BCMCA Atlas**  
**Marine Plants**  
**Surfgrass Bioband**

**Legend**

 Surfgrass Bioband

**Data Sources:**

Province of British Columbia - Shorezone Mapping System

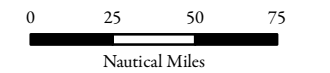
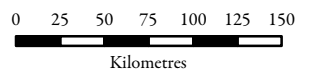
**Base Data:**

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



1:4,250,000 \*

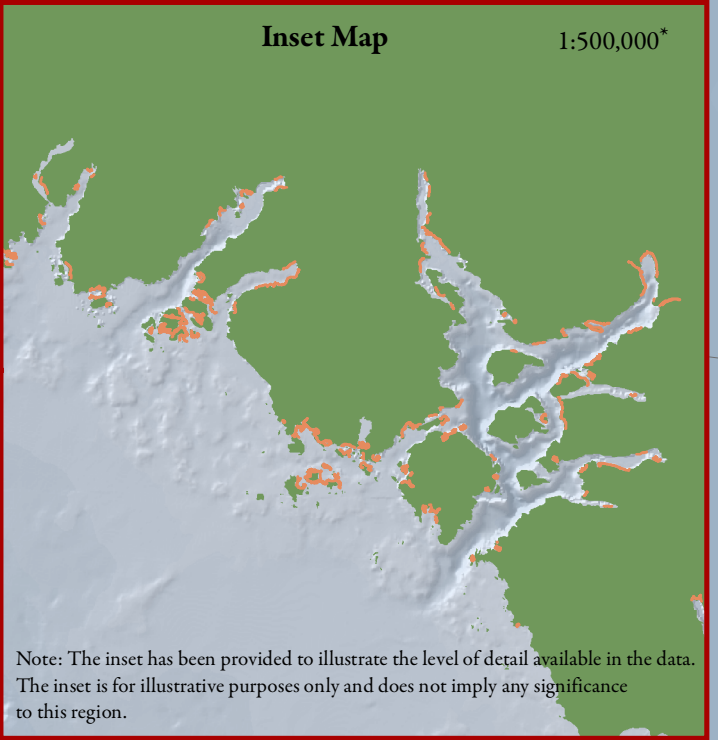
\* Written scales are approximate and are based on a 11 x 17 inch paper size.

Prepared for:



Map template by Caslys Consulting Ltd.

August 3, 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.