

## Marine Plants – Important Algae Habitat 1 – Boulder/Cobble floor

### description

The algae that form on the benthos are plant-like organisms, very diverse and very different in size, shape and colour; they are typically designated with the term seaweeds. Seaweeds occur on shores with a hard bottom or other type of stable surface. Boulders act as a stable substrate where seaweed growth occurs whereas cobble substrates are mobile, as they are affected by wave action, and seaweed growth is limited. At the BC Marine Conservation Analysis (BCMCA) Marine Plant Experts Workshop in March 2007, boulder and cobble floors were identified as a highly productive and important habitat for marine algae, often with high diversity.

This atlas page illustrates a summary of shore morphology and substrate in terms of 36 different coastal classes. Coastal Classes are derived 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. Coastal Classes are an overall indicator of repeatable collections of across-shore components contained within the unit defined by a systematic consideration of substrate, sediment, width and slope. This surrogate feature for algae habitat has been created by querying the coastal classes where boulders or cobble are described as a major substrate feature. The coastal classes included are as follows:

Rock Ramp with Gravel Beach Wide	Rock Ramp with Sand and Gravel Beach Narrow
Rock Platform with Gravel Beach Wide	Rock Platform with Sand and Gravel Beach Narrow
Rock Cliff with Gravel Beach Narrow	Gravel Flat Wide
Rock Ramp with Gravel Beach Narrow	Gravel Beach Narrow
Rock Platform with Gravel Beach Narrow	Gravel Flat or Fan Narrow
Rock Ramp with Sand and Gravel Beach Wide	Sand and Gravel Flat or Fan Wide
Rock Platform with Sand and Gravel Beach Wide	Sand and Gravel Beach Narrow
Rock Cliff with Sand and Gravel Beach Narrow	Sand and Gravel Flat or Fan Narrow



PHOTO: 2009 FOTO FRIENDS



PHOTO: MICHAEL HAWKES

### data sources

- Province of British Columbia - Shorezone Mapping System

### 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

- Robert DeWreede, University of British Columbia

### reviewer comments

- None provided.

### caveats of use

- 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.

### references

- For more detailed information on the Coastal Classes of British Columbia as described in the BC Shorezone Mapping System (March 1995) see: [www.ilmb.gov.bc.ca/risc/pubs/coastal/pysshore/index.htm](http://www.ilmb.gov.bc.ca/risc/pubs/coastal/pysshore/index.htm)

**BCMCA Atlas**  
**Marine Plants**  
**Important Algae Habitat 1**

**Legend**

~ Boulder/Cobble floor

Note:  
 - This dataset consists of coastal classes recommended as a surrogate for algae habitat including:

- Rock Ramp with Gravel Beach Wide
- Rock Platform with Gravel Beach Wide
- Rock Cliff with Gravel Beach Narrow
- Rock Ramp with Gravel Beach Narrow
- Rock Platform with Gravel Beach Narrow
- Rock Ramp with Sand and Gravel Beach Wide
- Rock Platform with Sand and Gravel Beach Wide
- Rock Cliff with Sand and Gravel Beach Narrow
- Rock Ramp with Sand and Gravel Beach Narrow
- Rock Platform with Sand and Gravel Beach Narrow
- Gravel Flat Wide
- Gravel Beach Narrow
- Gravel Flat or Fan Narrow
- Sand and Gravel Flat or Fan Wide
- Sand and Gravel Beach Narrow
- Sand and Gravel Flat or Fan Narrow

**Data Sources:**

Province of British Columbia - Shorezone Mapping System

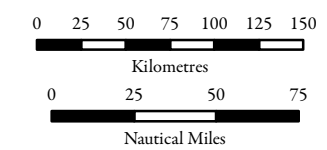
**Base Data:**

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



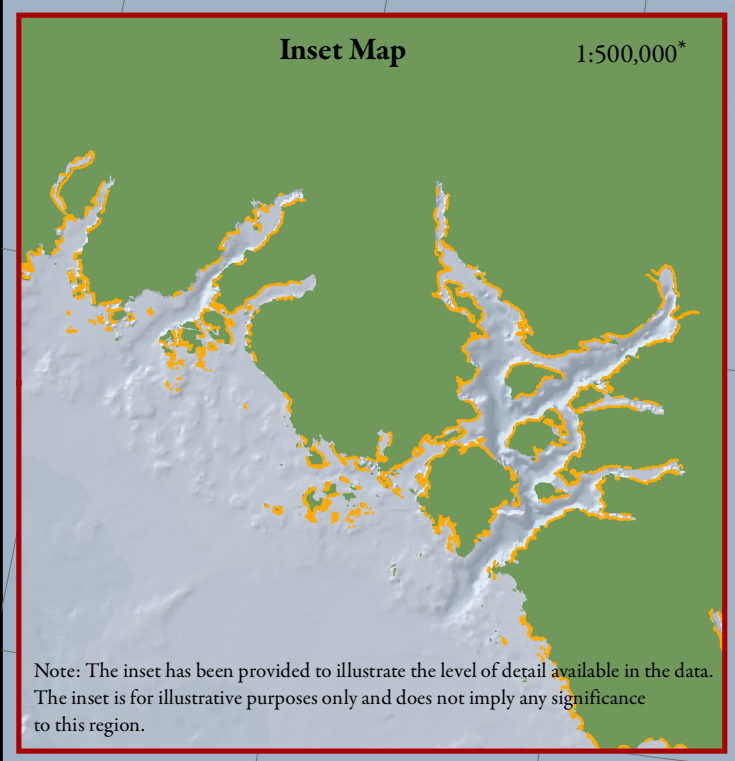
1:4,250,000 \*

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

Prepared for:



Map template by Caslys Consulting Ltd.  
 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.