

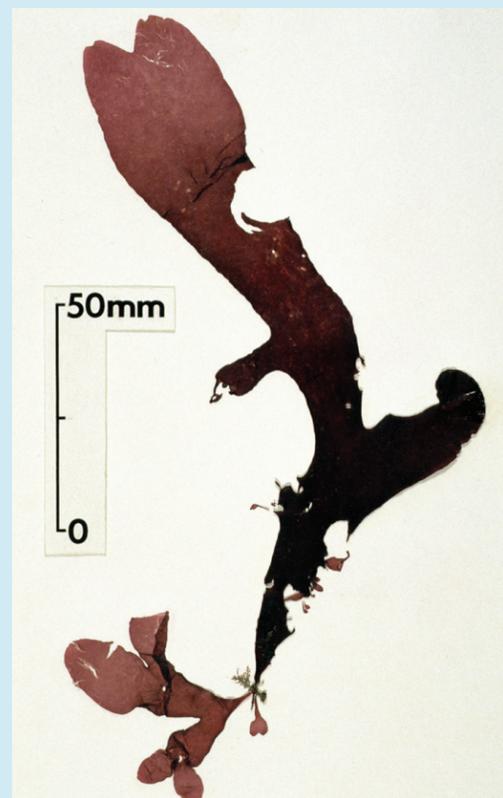
## Marine Plants – Rare Algae – Series 5

### description

Algae are a vast group of predominantly aquatic unicellular and multicellular organisms inhabiting fresh, brackish, and marine waters without respect to size or degree of permanence of the habitat. They may be planktonic (free-floating or motile) or benthic (attached). Benthic marine algae are commonly called seaweeds. Seaweeds are a macroscopic, marine subset of algae (as opposed to the microscopic subset known as marine phytoplankton). Substrates include rocks (outcrops, boulders, cobbles, pebbles), plants (including other algae), animals, boat bottoms, piers, debris and, less frequently, sand and mud.

This map illustrates the locations of various forms of algae that are considered rare in BC, most at their northern or southern limit. The data was obtained from the University of British Columbia (UBC) Herbarium and the Conservation Data Centre (CDC). The CDC uses a standard methodology to buffer collection observations by an uncertainty value, depending on precision of location. BC Marine Conservation Analysis (BCMCA) followed the same methodology for points obtained from the UBC Herbarium to allow the datasets to be combined. The result is that point locations with greater uncertainty (i.e. less precise coordinates) are buffered by a larger area.

The image below is an example of the alga, *Whidbeyella cartilaginea*.



### data sources

- British Columbia Conservation Data Centre – Algae element occurrences
- University of British Columbia Herbarium – Algae specimen records

### data resolution

- Data points with lower precision (i.e. those defined to the nearest degree or minute) are buffered by a larger area. More precise coordinates generally have GPS coordinates defined to the decimal minute or second.

### date collected

- *Lithothrix aspergillum* – 1908-1982
- *Phycodrys riggii* – 1976-2007
- *Tokidaea chilkatensis* – 1984
- *Whidbeyella cartilaginea* – 1968-1979

### date compiled

- 2009

### reviewers

- Robert DeWreede, University of British Columbia, Botany
- Sandra Lindstrom, University of British Columbia, Botany
- Michael Hawkes, University of British Columbia, Botany

### reviewer comments

- *Lithothrix spp.* – Found abundantly in Cowichan Bay some 10 years ago.
- *Phycodrys riggii* – This species is more common to the northwest. BC records are outlying southern populations.
- *Tokidaea chilkatensis* – This species is fairly uncommon throughout its range.
- *Whidbeyella cartilaginea* – These data need confirmation.

### caveats of use

- Survey effort is not consistent across all planning units or across all areas of the coast and some species tend to be under-represented by some survey methods. Areas with no data may not have been surveyed and these data gaps are not necessarily indicative of an absence of these algae species. Some locations may still be important but currently lack associated data to confirm their value.
- This feature is a compilation of data collected by many people, for different purposes, using different survey techniques with different methodologies within each technique and, therefore, considerable care must be taken when using the data. Please refer to the original metadata document for data limitations and usage.
- 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

- Species description contains material from: *McGraw-Hill Concise Encyclopedia of Bioscience*. 2002. Accessed: 29 June 2010. [www.encyclopedia2.thefreedictionary.com/algae](http://www.encyclopedia2.thefreedictionary.com/algae)
- For more information about Conservation Data Centre (CDC) methods please see: [www.env.gov.bc.ca/cdc/methods.html](http://www.env.gov.bc.ca/cdc/methods.html)
- Additional data sources found during feature review process:
  - Scagel RF, Gabrielson PW, Garbary DJ *et al.* *A Synopsis of the Benthic Marine Algae of British Columbia, Southeast Alaska, Washington and Oregon*. Department of Botany, The University of British Columbia, Vancouver. 1993
  - Hawkes, MW. Benthic Marine Algal Flora (Seaweeds) of British Columbia: Diversity and Conservation Status. Chap. 11 In: *Biodiversity in British Columbia: Our Changing Environment*, edited by E. McCullum & L. Harding. Environment Canada: Vancouver. 1994.

**BCMCA Atlas**

**Marine Plants**

**Rare Algae - Series 5**

**Legend**

- Species**
- Lithothrix aspergillum*
  - Phycodrys riggii*
  - Tokidaea chilkatensis*
  - Whidbeyella cartilaginea*

**Data Sources:**  
 British Columbia Conservation Data Center,  
 University of British Columbia Herbarium

**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 \*

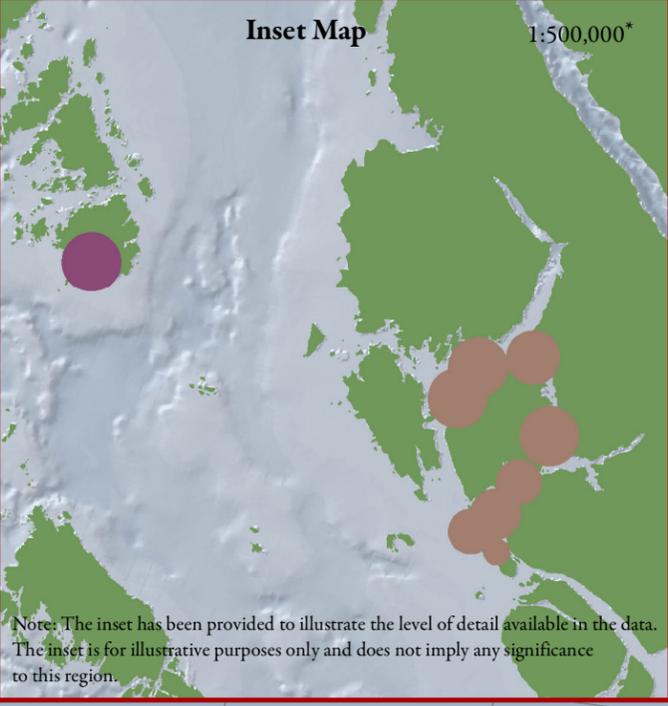
\* Written scales are approximate and  
 are based on a 11 x 17 inch paper size.

Prepared for:



Map template by Caslys Consulting Ltd.

April 17, 2013



Notes: 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.