

Marine Invertebrates – Sponge Reefs

description

This atlas page displays the distribution of the globally unique hexactinellid sponge reefs. The hexactinellid sponge reefs in the Canadian Pacific Ocean are over 9,000 years old but were not discovered until the late 1980s.

Sponges are sessile (immobile) animals that live their life in one place, obtaining food particles by filtering water. More than 7,000 species of sponges are alive today in both fresh and marine waters. The sponge reefs found in Canada's Pacific waters are comprised of one of three species of Hexactinosan (glass) sponges that grow upon a framework of the siliceous skeletons of dead sponges, usually found in deep waters along the continental shelf where there are nutrient-rich waters, cold temperatures and little to no sediment accumulation. Although the species of sponges can be found elsewhere, the bioherms, or reef complexes, are not, making these the only documented examples of living hexactinellid sponge reefs in the world.

Some of the largest and best-known reefs can be found in Hecate Strait and Queen Charlotte Sound, and smaller reefs have been discovered in the Strait of Georgia and off the coast of Washington. The approximate area of all reefs in British Columbia is over 1000 square kilometres, and they are known to rise up to 19 metres from the sea floor. The reefs provide habitat for a variety of marine species. Their role as rich and protective habitats for other organisms makes the sponge reefs hotspots of biodiversity and, therefore, ecologically important.

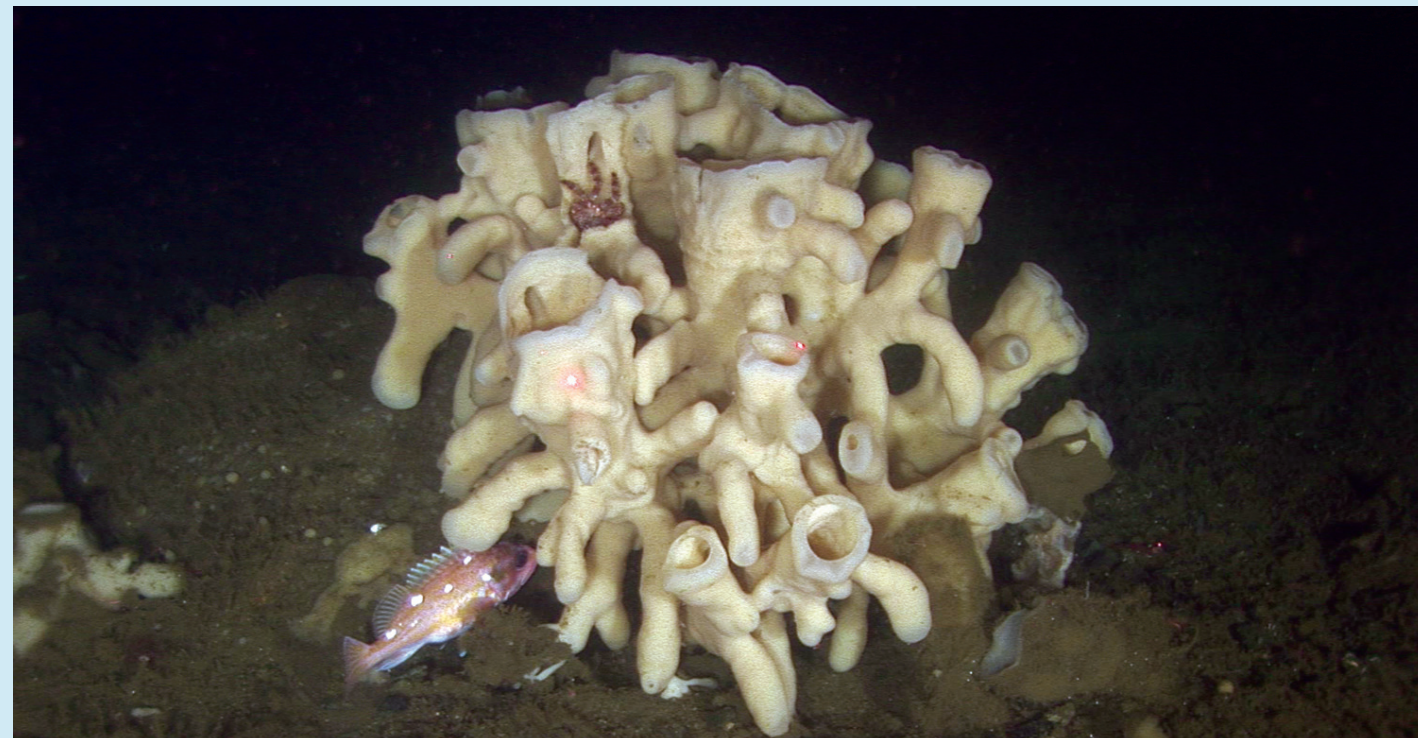


PHOTO: LIVING OCEANS SOCIETY

data sources

- Natural Resources Canada – Hexactinellid Sponge Reefs

data resolution

- The original multibeam bathymetry data that was used to create the sponge reef polygons has a resolution of five metres.

date collected

- 2005-2008

reviewers

- Not reviewed.

reviewer comments

- None provided.

caveats of use

- Survey effort is not consistent across all planning units or across all areas of the coast. Areas with no data may not have been surveyed and these data gaps are not necessarily indicative of an absence of sponge reefs.
- 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

More information on the sponge reefs can be found in:

- Conway, K. W., M. Krautter, J. V. Barrie, and M. Neuweiler. *Hexactinellid sponge reefs on the Canadian continental shelf: A unique "living fossil."* *Geoscience Canada* 28. 2001. 65–72.
- Krautter, M., K. W. Conway, J. V. Barrie, and M. Neuweiler. *Discovery of a "living Dinosaur": Globally unique modern hexactinellid sponge reefs off British Columbia, Canada.* *Facies* 44. 2001. 265–282.

BCMCA Atlas
Marine Invertebrates
Sponge Reefs

Legend

 Sponge Reef Distribution

Data Sources:
 Natural Resources Canada

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.

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