

Marine Invertebrates – Sponge Occurrences I - Groundfish Trawl Surveys

description

Sponges are sessile (immobile) aquatic animals that can be found in a range of habitats from shallow subtidal waters to the deep abyss. Sponges tend to form diverse habitat structures used by many other marine species and are sometimes referred to as foundation species for this reason. Their role as rich and protective habitats for other organisms makes them hotspots of biodiversity and, therefore, ecologically important. There are more than 250 species of sponges in the Canadian Pacific (Gardner, 2009) but relatively few data available to map the full extents of their habitat.

Sponge presence and absence are illustrated here representing cumulative observations from groundfish bottom trawl surveys, 2004 to 2009, which are jointly conducted and funded by the Canadian Groundfish Research and Conservation Society (CGRCS) and Fisheries and Oceans Canada (DFO). Each planning unit identified as either presence or absence was surveyed at least once during those five years. Although all biota from each survey trawl is recorded, sponges are generally not identified to species level and thus all sponges are lumped together here for illustration. The extents of the synoptic survey areas are also illustrated. Please see the atlas page titled “Groundfish Trawl Survey Areas and Untrawable Areas” for added information on the surveys.

Data were provided by DFO as tallied observations for BC Marine Conservation Analysis (BCMCA) planning units with successful survey tows. Note that the maximum possible number of tows in any one planning unit ranges from three to five and the retrieval of sponge in any one of those tows would indicate presence on the adjacent map.



PHOTO: LIVING OCEANS SOCIETY

data sources

- Fisheries and Oceans Canada, Pacific Region, Science Branch, Groundfish Section

data resolution

- Source data is collected by tow and GPS locations are recorded. DFO summarized the data illustrated here into 2 kilometre by 2 kilometre planning units.

date collected

- 2004 - 2009

reviewers

- Reviewed for accuracy and presentation by data providers and industry representative.

reviewer comments

- None provided.

caveats of use

- Survey design allows the skipper to choose the tow location within an area. Therefore, sponge may not have been observed in some planning units because the entire planning unit was not surveyed.
- Spatial extents of trawl surveys are limited. Lack of data outside these areas should not be interpreted as lack of fish and invertebrate biota. The Strait of Georgia, Strait of Juan de Fuca, Queen Charlotte Strait, Johnstone Strait and offshore areas have not been surveyed.
- All surveys are a limited view of reality. Species caught and recorded are partly a function of the fishing gear used. Each survey has unique gear limitations and therefore the size of individuals caught varies and the net efficiency varies. However, groundfish trawl surveys do use standardised gear and tow duration.
- 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

- Gardner, J. *Coldwater corals and sponge conservation on Canada's Pacific coast: Perspectives on issues and options*. Background paper to support discussions toward a conservation strategy. Submitted to the Organizing Committee for the Workshop, Developing a Conservation Strategy for Coldwater Corals and Sponges on the Pacific Coast. DFO, Vancouver, BC. 2009. 49pp.
- Reports on Trawl Surveys are available for download here: www.dfo-mpo.gc.ca/libraries-bibliotheques/manu-eng.htm

BCMCA Atlas
Marine Invertebrates
Sponge Occurrences I

Legend

Groundfish Trawl Surveys
 2004-2009

- Sponge Presence
- Sponge Absence
- Synoptic Survey Areas

Data Sources:

Fisheries and Oceans Canada

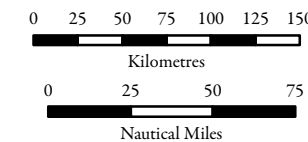
Base Data:

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



1:4,250,000 *

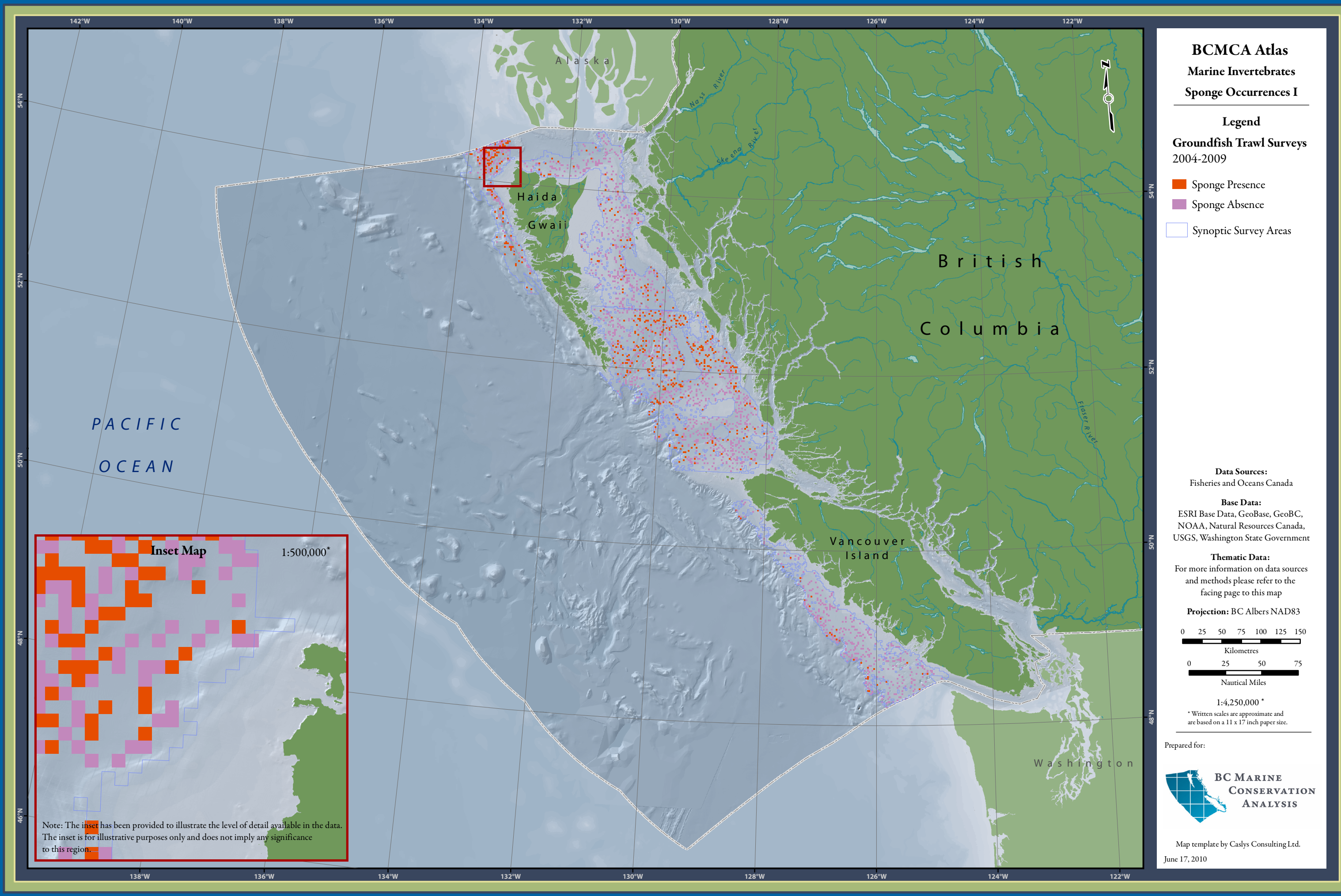
* Written scales are approximate and
 are based on a 11 x 17 inch paper size.

Prepared for:



Map template by Caslys Consulting Ltd.

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PACIFIC
 OCEAN

Alaska

Haida
 Gwaii

British
 Columbia

Vancouver
 Island

Washington

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.