Marine Fish and Invertebrates – Groundfish Trawl Survey Species Richness - 2005

description

Groundfish bottom trawl surveys are jointly conducted and funded by the Canadian Groundfish Research and Conservation Society (CGRCS) and Fisheries and Oceans Canada (DFO). The objective of these surveys is to provide fishery independent abundance indices of all demersal fish species available to bottom trawling, as well as to collect biological samples of selected species. Surveys take place annually in the summer and all biota from each trawl are recorded.

In 2005, only the Queen Charlotte Sound and Hecate Strait survey areas were surveyed.

This series of maps illustrates the relative richness of biota among different years, and across each region within any given year. (One map is provided in the print atlas, and BC Marine Conservation Analysis (BCMCA) provides separate maps for each year from 2003 to 2009 on their data repository. See the link below, under 'Map, feature data and metadata access.') To tally 'species' for these maps, everything identified in the catch to any taxonomic level was included. In 2005, species observed totalled 259 in the Queen Charlotte Sound Synoptic Survey, and 229 in the Hecate Strait Synoptic Survey. Values displayed are a percent of these total species counts.

Data were provided by DFO as number of species observed in each BCMCA planning unit with a successful survey tow in this year. BCMCA calculated percentages based on total counts for each year and each survey region provided by DFO. Percentage values are displayed in equal interval classes determined by looking at the range of values from all years of data. Thus, data may not exist in all classes for every survey year, but colour classes are comparable among years.

PHOTO: JAN VAN BROEKHOVEN

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

- 2005

reviewers

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

reviewer comments

- None provided.

caveats of use

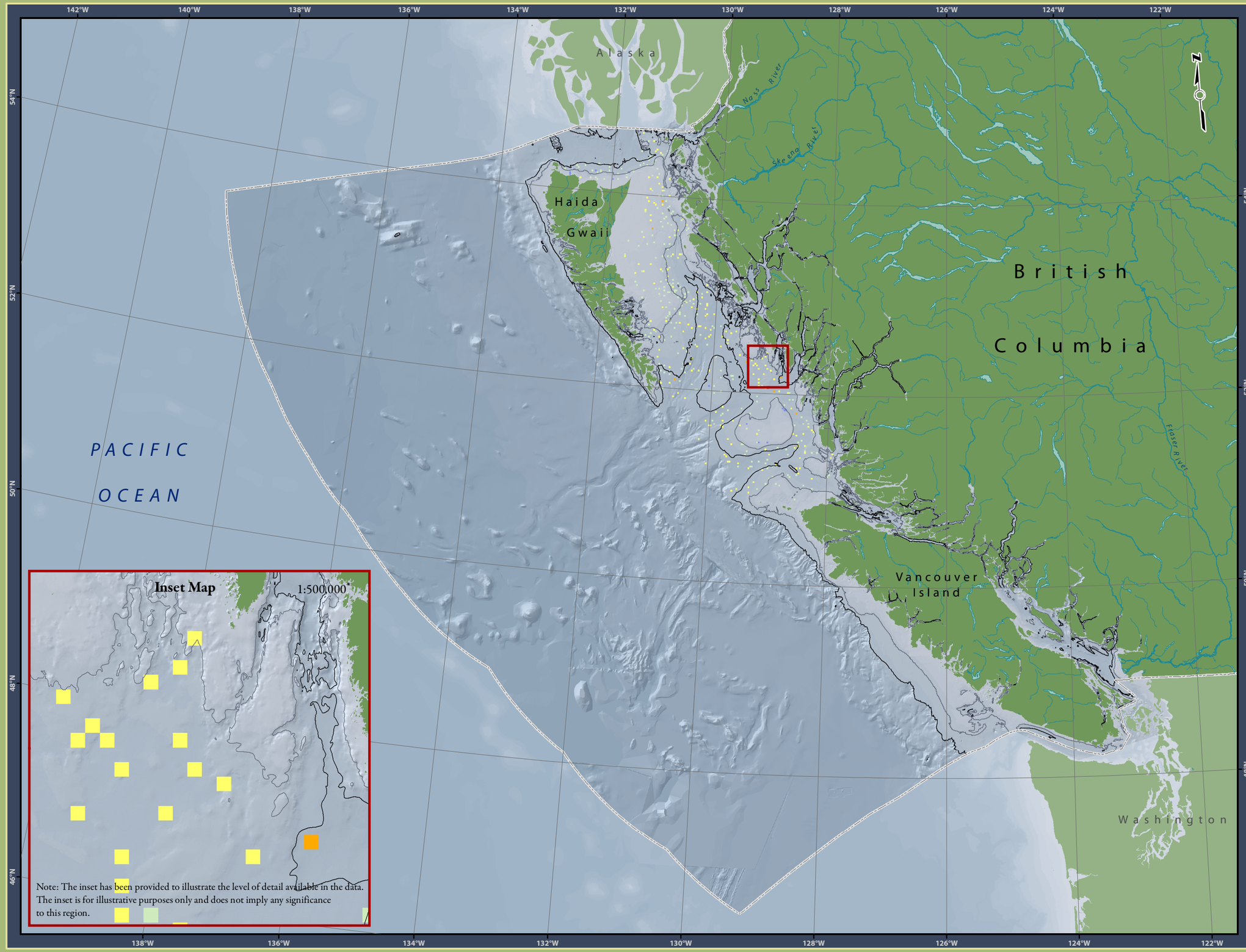
- Spatial extents of trawl surveys are limited (see atlas page titled, *Groundfish Trawl Survey Areas and Untrawlable Areas*). Lack of data outside these areas should not be interpreted as lack of fish and invertebrate biota. The Strait of Georgia, Strait of Juan de Fuca, Queen Charlotte Strait, Johnstone 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 standardized gear and tow duration.
- Survey data represents only the season when the data were collected (generally summer), and many species do migrate with season.
- 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

- Reports on Trawl Surveys are available for download here: *www.dfo-mpo.gc.ca/libraries-bibliotheques/manu-eng.htm*



BCMCA Atlas

Marine Fish and Invertebrates

Groundfish Trawl Survey Species Richness - 2005

Legend

Percent of total species observed per survey area

- 2 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- 21 - 25

Depth (m)

100 200

Notes:
- Data may not exist in all classes for this survey year.
- "Species" includes everything identified in the catch to any taxonomic level.
- Area surveyed (total species) - Hecate Strait (229), Queen Charlotte Sound (259).

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

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:

BC Marine Conservation Analysis

Map template by Caslys Consulting Ltd.

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