

Basic Information

This section contains basic information about the dataset, suitable for a minimal metadata entry.

Title: Important Areas for Invertebrates in West Coast Vancouver Island Ecoregion

Dataset ID: ia-invert-wcvi

Quality Control: Completed

Summary: This layer details Important Areas (IAs) relevant to key invertebrate species (which are not corals or sponges) in the West Coast Vancouver Island (WCVI) ecoregion. This data was mapped to inform the selection of marine Ecologically and Biologically Significant Areas (EBSA). Experts have indicated that these areas are relevant based upon their high ranking in one or more of three criteria (Uniqueness, Aggregation, and Fitness Consequences). The distribution of IAs within ecoregions is used in the designation of EBSAs.

Canada's Oceans Act provides the legislative framework for an integrated ecosystem approach to management in Canadian oceans, particularly in areas considered ecologically or biologically significant. DFO has developed general guidance for the identification of ecologically or biologically significant areas. The criteria for defining such areas include uniqueness, aggregation, fitness consequences, resilience, and naturalness. This science advisory process identifies proposed EBSAs in Canadian Pacific marine waters, specifically in the Strait of Georgia (SOG), along the west coast of Vancouver Island (WCVI, southern shelf ecoregion), and in the Pacific North Coast Integrated Management Area (PNCIMA, northern shelf ecoregion).

Initial assessment of IAs in PNCIMA was carried out in September 2004 to March 2005 with spatial data collection coordinated by Cathryn Clarke. Subsequent efforts in WCVI and SOG were conducted in 2009, and may have used different scientific advisors, temporal extents, data, and assessment methods. WCVI and SOG IA assessment in some cases revisits data collected for PNCIMA, but should be treated as a separate effort.

Other datasets in this series detail IAs for birds, cetaceans, coral and sponges, fish, geographic features, and other vertebrates.

Though data collection is considered complete, the emergence of significant new data may merit revisiting of IAs on a case by case basis.

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Cite this data as: ERROR GENERATING CITATION. Please complete this field manually. Required field Data Creator name is missing.

Start Date: 2008-10-01

End Date: 2009-10-30

Contact Information

This section contains contact information for the data creator and program manager.

Data Creator:

Name: Original data creator is unknown

Email: cole.fields@dfo-mpo.gc.ca

Position: Original data creator is unknown
Organization: Original data creator is unknown
Address: Original data creator is unknown
Phone: Original data creator is unknown

Co-Creators: Chantal Levesque, Glen Jamieson, Antan Phillips, Claudia Hand, Dennis Rutherford, Graham Gillespie, and Ian Perry

Program Manager:

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General

General metadata compatible with the Canada Open Data metadata standard.

Topic Category: Biota

Date Completed: 2009-10-30

Date Published: 2020-01-07

Status: Completed

Update Frequency: Not Planned

Dataset Level: Series

Keywords (GoC Thesaurus): environmental quality, environmental planning, ecology, marine ecosystems, crabs, shellfish

Science

This section contains metadata specific to the Science branch at DFO.

Science Keywords: ebsa, british columbia, bc, west coast vancouver island, ia, important areas

Theme: Coastal Species or Ecosystem

Methods: Researchers with expertise for key invertebrate taxa drew polygons on paper map to denote Important Areas for invertebrates that met a priori criteria. The experts' hand-drawn polygons were heads-up digitized using ArcView 9.2 on the 50,000 Canadian Hydrographic Service (CHS) coastline watershed basemap. Hand-drawn polygons were clipped using the U.S.- Canadian border, the PNCIMA and Offshore Ecoregion boundary polygons provided by OHEB-GIS unit. The layers of individual experts were shared among all the experts for the species grouping. Experts were asked to provide confirmation and to check for accuracy and completeness. Any changes requested by the experts were performed and again returned to the experts for vetting.

The experts consulted were: Antan Phillips (dungeness crab, tanner crab), Claudia Hand (geoduck), Dennis Rutherford (shrimp spp.), Graham Gillespie (olympia oyster, Pacific oyster, razor clam), and Ian Perry (green sea urchin)

The dataset was updated in 2019 to conform to MSEA's GIS Hub publication standards. The WCVI IA data series was split into taxonomic themes (birds, cetaceans, coral and sponges, fish, geographic features, invertebrates, and other vertebrates). The Check Geometry tool was used to validate each layer.

Data Sources:

Source: Paper maps, October 2009, by Antan Phillips, Claudia Hand, Dennis Rutherford, Graham Gillespie, and Ian Perry

Scripts or Software Routines: Data was digitized from paper maps in ArcView 9.2, using polygons which were hand-drawn upon maps by experts.

Spatial Data Quality: Location data is typically digitized from paper charts and snapped to geographic features such as coast-lines. Accuracy of locations designated is limited by expert knowledge of available research at time of publication.

Positional Accuracy: Positional accuracy is dependent on the expert responsible for polygon creation. Polygons were clipped using the U.S.- Canadian border, the PNCIMA and Offshore Ecoregion boundary polygons provided by OHEB-GIS unit.

Attribute Accuracy: This information is a one-time summary of the available expert knowledge.

Logical Consistency: All features are rated by standard criteria across the WCVI IA's, though multiple experts are used for different IA's and ratings are selected based upon their knowledge. Some layers use differing scoring standards (ie 1 to 10 or low, medium, high), but no conversion method is provided between them. The experts themselves may have used a variety of study methods and literature to determine what areas are important to given taxa. Less information may have been available for particular taxa at time of publication. More easily studied taxa (eg those occurring in more accessible geography and water depth) may have better data.

Completeness: This information is a one-time summary of the available expert knowledge.

Absence Data: No absence data

Uncertainties: Criteria scores are subjective ratings assigned by experts based upon their understanding of their best available data.

Use Restrictions: This data was created to inform the selection of EBSAs. Not for navigational purposes. Criteria may be unsuitable for other forms of assessment.

Change History:

Date of Change	Description of Change
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Species Code List:

6BB - STRONGYLOCENTROTUS DROEBACHIENSIS (GREEN URCHIN), Targeted
69F – CRASSOSTREA GIGAS (PACIFIC OYSTER), Targeted
69H - OSTREA LURIDA (OLYMPIA OYSTER (aka NATIVE OYSTER)), Targeted

76I – SILIQUA PATULA (PACIFIC RAZOR CLAM), Targeted
 84C - PANOPEA GENEROSA (PACIFIC GEODUCK), Targeted
 SBA - PANDALIDAE (FAMILY) (PANDALID SHRIMP), Targeted
 SCD - PANDALUS BOREALIS (PINK SHRIMP), Targeted
 SCJ - PANDALUS HYPsinOTUS (HUMPBACK SHRIMP), Targeted
 SEE - PANDALOPSIS DISPAR (SIDESTRIPE SHRIMP), Targeted
 SDB - PANDALUS JORDANI (PINK SHRIMP (SMOOTH)), Targeted
 XKG - METACARCINUS MAGISTER (DUNGENESS CRAB), Targeted
 ZAD - CHIONOECETES SPP (TANNER CRABS), Targeted
 ZAF - CHIONOECETES BAIRDI (INSHORE TANNER CRAB), Targeted
 ZAG - CHIONOECETES TANNERI (GROOVED TANNER CRAB), Targeted

Species Data:

Code and Name	Age Data	Obs Type
6BB - STRONGYLOCENTROTUS DROEBACHIENSIS (GREEN URCHIN)		Targeted
69F - CRASSOSTREA GIGAS (PACIFIC OYSTER)		Targeted
69H - OSTREA LURIDA (OLYMPIA OYSTER (aka NATIVE OYSTER))		Targeted
76I - SILIQUA PATULA (PACIFIC RAZOR)		Targeted
84C - PANOPEA GENEROSA (PACIFIC GEODUCK)		Targeted
SBA - PANDALIDAE (FAMILY) (PANDALID SHRIMP)		Targeted
SCD - PANDALUS BOREALIS (PINK SHRIMP)		Targeted
SCJ - PANDALUS HYPsinOTUS (HUMPBACK SHRIMP)		Targeted
SEE - PANDALOPSIS DISPAR (SIDESTRIPE SHRIMP)		Targeted
SDB - PANDALUS JORDANI (PINK SHRIMP (SMOOTH))		Targeted
XKG - METACARCINUS MAGISTER (DUNGENESS CRAB)		Targeted
ZAD - CHIONOECETES SPP (TANNER CRABS)		Targeted
ZAF - CHIONOECETES BAIRDI (INSHORE TANNER CRAB)		Targeted
ZAG - CHIONOECETES TANNERI (GROOVED TANNER CRAB)		Targeted

References:

Reference: Clarke, C.L., and G. S. Jamieson. 2006a. Identification of Ecologically and Biologically Significant Areas in the Pacific North Coast Integrated Management Area: Phase I - Identification of Important Areas. 2678: 97 p.

Reference: Clarke, C.L., and G. S. Jamieson. 2006b. Identification of Ecologically and Biologically Significant Areas for the Pacific North Coast Integrated Management Area: Phase II - Final Report. 2686: 32 p.

Reference: DFO. 2004. Identification of Ecologically and Biologically Significant Areas. DFO Canadian Science Advisory Secretariat Ecosystem Status Report 2004/006: 15 p.

Reference: DFO. 2007. Guidance Document on Identifying Conservation Priorities and Phrasing Conservation Objectives for Large Ocean Management Areas. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2007/010.

Reference: Jamieson, G.S. and C. Levesque. 2014. Identification of Ecologically and Biologically Significant Areas on the West Coast of Vancouver Island and the Strait of Georgia, and in some nearshore areas on the North Coast: Phase II – Designation of EBSAs. DFO Can. Sci. Advis. Sec. Res. Doc. 2014/101: 36 p.

Collaboration: No collaboration outside of DFO.

Confidentiality: Not Protected