

## Basic Information

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

**Title:** Important Areas for Cetaceans in West Coast Vancouver Island Ecoregion

**Dataset ID:** ia-cetacean-wcvi

**Quality Control:** Completed

**Summary:** This layer details Important Areas (IAs) relevant to key cetacean species 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, coral and sponges, fish, geographic features, invertebrates, 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.

**Maintainer Email:** Joanne.Lessard@dfo-mpo.gc.ca

**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

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Position: Original data creator is unknown  
Organization: Original data creator is unknown  
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**Co-Creators:** Chantal Levesque, Glen Jamieson, John Ford, Lisa Spaven, and Anna Hall

**Program Manager:**

Name: Joanne Lessard  
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**General**

*General metadata compatible with the Canada Open Data metadata standard.*

**Topic Category:** Oceans

**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, whales

**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 particular cetacean taxa drew polygons on paper map to denote Important Areas for species 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: John Ford (blue whale, fin whale, gray whale, harbour porpoise, humpback whale, resident killer whale, sei whale, sperm whale), Lisa Spaven (blue whale, fin whale, gray whale, humpback whale, sei whale, sperm whale), and Anna Hall (harbour porpoise).

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 John Ford, Lisa Spaven, and Anna Hall

**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. Some species may be missing valued rankings against the EBSA criterion – these data made available are as complete as this dataset will be, and have been quality-controlled to confirm null values.

**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:**

868 - ORCINUS ORCA (KILLER WHALE), Targeted

871 – PHOCOENA PHOCOENA (HARBOUR PORPOISE), Targeted

874 - PHYSETER MACROCEPHALUS (SPERM WHALE), Targeted  
 882 - ESCHRICHTIUS ROBUSTUS (GRAY WHALE), Targeted  
 885 - BALAENOPTERA BOREALIS (SEI WHALE), Targeted  
 886 - BALAENOPTERA PHYSALUS (FIN OR FIN-BACKED WHALE), Targeted  
 887 - BALAENOPTERA MUSCULUS (BLUE OR SULPHUR-BOTTOMED WHALE), Targeted  
 888 - MEGAPTERA NOVAEANGLIAE (HUMPBACK OR HUMP-BACKED WHALE), Targeted

**Species Data:**

Code and Name	Age Data	Obs Type
868 - ORCINUS ORCA (KILLER WHALE)		Targeted
871 - PHOCOENA PHOCOENA (HARBOUR PORPOISE)		Targeted
874 - PHYSETER MACROCEPHALUS (SPERM WHALE)		Targeted
882 - ESCHRICHTIUS ROBUSTUS (GRAY WHALE)		Targeted
885 - BALAENOPTERA BOREALIS (SEI WHALE)		Targeted
886 - BALAENOPTERA PHYSALUS (FIN OR FIN-BACKED WHALE)		Targeted
887 - BALAENOPTERA MUSCULUS (BLUE OR SULPHUR-BOTTOMED WHALE)		Targeted
888 - MEGAPTERA NOVAEANGLIAE (HUMPBACK OR HUMP-BACKED WHALE)		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:** Anna Hall was affiliated with the University of British Columbia’s Marine Mammal Research Unit.

**Confidentiality:** Not Protected