



Important Cetacean Area Project

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There are over 80 species of whales and dolphins, inhabiting every ocean (and some rivers) of the world. They all have one thing in common: each species has specific areas that are especially important to their wellbeing – including feeding grounds, breeding areas and migratory corridors.



Important Cetacean Area Project

The Important Cetacean Area (ICA) program aims to identify and map these areas.

The example ICAs presented here are the result of a review of a wide array of studies and mapping projects in BC and Southeast Alaska, as well as discussion with the Rob Butler, Graeme Ellis, John Ford, Linda Nichol, Jan Straley and Rob Williams.

Suggested citation

Darling, J.D. and R.W. Butler. 2013. Important Cetacean Areas. Pacific Wildlife Foundation, Technical Report Number 3. Port Moody, BC.

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Pacific Wildlife Foundation 2013

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ICA6: Flip Nicklin, Jan Straley



WHAT are ICAs and WHY designate them?

[Important Cetacean Area Project \(https://pwlfc.ca/ica/\)](https://pwlfc.ca/ica/)

[WHAT are ICAs and WHY designate them? \(https://pwlfc.ca/ica_what_why/\)](https://pwlfc.ca/ica_what_why/)

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Important Cetacean Areas (ICAs) are discrete areas of ocean that are of importance to cetaceans for feeding, breeding and migration activities.

ICAs are not species distribution maps, as whales are highly mobile and far ranging, rather they are definable areas of

Important Cetacean Areas are

Sites of importance to international, national and regional populations of whales and dolphins.

A result – a product – of scientific research and/or accumulated local knowledge that indicates the site meets or exceeds internationally accepted criteria.

Assigned by biologists, naturalists or others with specialized knowledge.

A reflection of current knowledge – designation or boundaries may change as our knowledge becomes more complete, or whale abundance and behavior changes.

Not a marine protected area, park, reserve or sanctuary – although they could be any of these. There are no regulations or restrictions attached to an ICA designation, although an increased awareness of the whales and their needs is presumed.

Why Designate an ICA?

They are proactive – they are not a reaction to a specific activity or development proposal.

ICA designation provides, at a glance, where human activity overlaps with areas important to whales. They provide immediate access to information that is the basis for this assessment.

ICAs provide a source of baseline information for land-use and marine planning, pollution response, and self-management of industry.

They help direct research, suggesting study sites where gaps exist in our knowledge.



ICA 1: South Vancouver Island

[Important Cetacean Area Project \(https://pwlf.ca/ica/\)](https://pwlf.ca/ica/)

[WHAT are ICAs and WHY designate them? \(https://pwlf.ca/ica_what_why/\)](https://pwlf.ca/ica_what_why/)

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South Vancouver Island



(<https://g5z.e05.myftpupload.com/wp-content/uploads/2019/10/ica-1-southern-vancouver-island-15dec12.jpg>)

-  Gray whale feeding
-  Gray whale migration
-  Humpback whale range

Location

Coast of Southern Vancouver Island, Gulf Islands, southern Georgia Strait (and extending into US Puget Sound).

ICA Criteria

- #1) Endangered, threatened or vulnerable species
- #2) Feeding concentration
- #5) Species diversity

Synopsis

This area is the home territory and prime feeding ground of Southern Resident killer whales that range between Canadian and US (Puget Sound) waters.

Portions of this ICA, particularly Boundary Bay, are important as seasonal feeding grounds to small but consistent (over decades) numbers of gray whales. This location is adjacent to the large urban area of lower mainland.

The presence of humpback whales feeding in this area has increased over the last decade. This area is also regularly used by minke whales, harbor porpoise and Dall's porpoise.

Key Species

Status

	Canada (SARA)	USA (ESA)
Southern Resident killer whales	Endangered	Endangered

Gray whales	Special Concern	None
Humpback whales	Threatened	Endangered

(<https://pwlf.ca>)



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[Humpback Whale information \(http://www.Clayquotwhales.ca\)](http://www.Clayquotwhales.ca)

[Resident Killer Whale Catalog \(http://www.dfo-mpo.gc.ca/Library/343923.pdf\)](http://www.dfo-mpo.gc.ca/Library/343923.pdf)



ICA 2: West Vancouver Island

Important Cetacean Area Project (<https://pwlf.ca/ica/>).

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ICA 4: Hecate Strait (<https://pwlf.ca/ica-4-hecate-strait/>).

ICA 5: Dixon Entrance (<https://pwlf.ca/ica-5/>).

ICA 6: Southeast Alaska North (<https://pwlf.ca/ica-6/>).

Criteria (<https://pwlf.ca/criteria/>).

Examples (<https://pwlf.ca/examples/>).

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West Vancouver Island



(<https://g5z.e05.myftpupload.com/wp-content/uploads/2019/10/ica-2-western-vancouver-island-15dec12.jpg>).



Location

Location: Central- south west coast of Vancouver Island including entrance to Strait of Juan de Fuca, and Swiftsure and La Perouse Banks.

ICA Criteria

- #1) Endangered, threatened or vulnerable species
- #2) Feeding concentration
- #4) Migration corridor
- #5) Species Diversity

Synopsis

Each winter and spring the population of North Pacific gray whales migrates along the shores of Vancouver Island between breeding grounds in Mexico and feeding grounds in northern seas.

A distinct group of several hundred of these whales leaves the migration and feeds along Vancouver Island coast through the summer season. This is known as the southern feeding group that ranges from northern California to southeast Alaska during summer.

Large concentrations of feeding humpback whales are found in this area, with highest densities shifting with their pilchard or herring prey. They are found from Vancouver Island inlets, to offshore banks, to the edge of continental shelf and southward into US waters.

This has been an important cetacean area for millennia as indicated by the unique whaling culture of the Nuuchah Nulth of central-southern Vancouver Island and Cape Flattery. They hunted gray whales, humpback whales, right whales and others. Also, the whaling industry, based at Sechart in Barkley Sound, took thousands of whales from this area from 1905 to 1917.

Key Species	Status	
	Canada (SARA)	USA (ESA)
Gray whales	Special Concern	None
Humpback whales	Threatened	Endangered



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Humpback Whale information (<http://www.Clayoquotwhales.ca>)



ICA 3: North Vancouver Island

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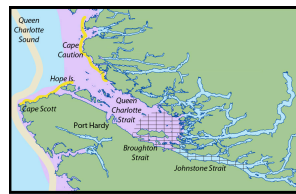
[ICA 6: Southeast Alaska North \(https://pwlf.ca/ica-6/\)](https://pwlf.ca/ica-6/)

[Criteria \(https://pwlf.ca/criteria/\)](https://pwlf.ca/criteria/)

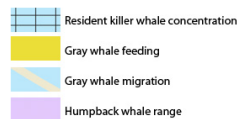
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North Vancouver Island



(<https://g5z.e05.myftpupload.com/wp-content/uploads/2019/10/ica-3-northern-vancouver-island-15dec12.jpg>)



Location

North Vancouver Island shore, Johnstone Strait, Queen Charlotte Strait, Cape Caution.

ICA Criteria

- #1) Endangered, threatened or vulnerable species
- #2) Feeding concentration
- #4) Migration corridor
- #5) Species diversity

Synopsis

This area includes the primary summer feeding ground of the Northern Resident killer whales, centered in northern Johnstone Strait-Blackfish Sound area. The whales hunt Chinook salmon whenever present in the region.

This ICA includes a feeding range of the southern feeding group of gray whales (that range from southeast Alaska to northern California in summer). Gray whales feed along the top of Vancouver Island from Cape Scott to Nawhitti Bar, across to Roller Bay on Hope Island, and along the shores of the Cape Caution region. The migrations of the full herd of gray whales pass through these waters in spring, and probably winter.

Humpbacks are also common in this area, with concentrations shifting with their prey.

Several other species on of whales and dolphins are also common in this area, including Pacific White-sided Dolphins, Dall's Porpoise, and Minke whales.

Key Species	Status	
	Canada (SARA)	USA (ESA)
Northern Resident Killer Whales (Whales/pwlf.ca)	Threatened	N/A
Gray Whales	Special Concern	None
Humpback whales	Threatened	Endangered

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[Resident Killer Whale Catalog \(http://www.dfo-mpo.gc.ca/Library/343923.pdf\)](http://www.dfo-mpo.gc.ca/Library/343923.pdf)

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[Pacific North Coast Integrated Management Area Atlas \(http://pncima.org/site/atlas.html\)](http://pncima.org/site/atlas.html)



ICA 4: Hecate Strait

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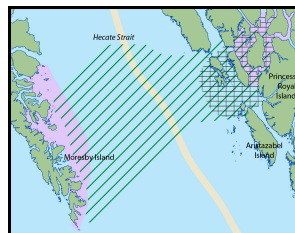
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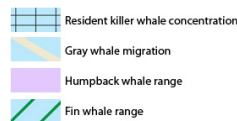
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Hecate Strait



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Location

A band of water, roughly over the Moresby Trough, extending from the southern end of Moresby Island across Hecate Strait, and into Camano Sound and Douglas Channel.

ICA Criteria

- #1) Endangered, threatened or vulnerable species
- #2) Feeding concentration
- #4) Migration corridor
- #5) Species diversity

Synopsis

This area is consistently used by concentrations of humpback whales, especially along the southeastern Moresby Island coast including Juan Peres Sound, and at the mainland coast inlets such as Douglas Channel.

In recent years fin whales have also been documented throughout in this area, with regular occurrence in Camano Sound. Fin whales are considered rare in BC, recovering from whaling in 1900s.

The Camano Sound region is an important feeding area for Northern Resident killer whales.

Hecate Strait in general is part of the gray whale migration corridor with, at times, thousands of gray whales transiting the area.

This area is close to Rose Harbor, at southern end of Moresby Island, a base of whaling operations from 1910-1943.

Key Species

Status

	Canada (SARA)	USA (ESA)
Northern Resident killer whales	Threatened	N/A
Fin whales (https://www2.gov.bc.ca)	Threatened	Endangered
Gray whales	Special Concern	None



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(<http://www.bcmca.ca>)

[Pacific North Coast Integrated Management Area Atlas](http://pncima.org/site/atlas.html)
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ICA 5: Dixon Entrance

Important Cetacean Area Project (<https://pwlf.ca/ica/>)

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ICA 4: Hecate Strait (<https://pwlf.ca/ica-4-hecate-strait/>)

✓ ICA 5: Dixon Entrance (<https://pwlf.ca/ica-5/>)

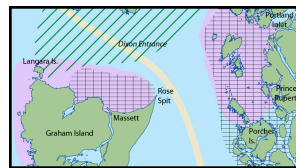
ICA 6: Southeast Alaska North (<https://pwlf.ca/ica-6/>)

Criteria (<https://pwlf.ca/criteria/>)

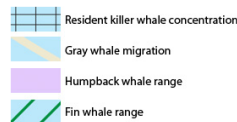
Examples (<https://pwlf.ca/examples/>)

Next Steps (<https://pwlf.ca/next-steps/>)

Dixon Entrance



(<https://g5z.e05.myftpupload.com/wp-content/uploads/2019/10/ica-5-dixon-entrance-15dec12.jpg>)



Location

The top of Graham Island from Langara Island to Rose Spit, extending across the confluence of Hecate Strait to the mainland coast from Porcher Island to Portland Inlet and Dixon entrance towards the Alaskan islands.

ICA Criteria

- #1) Endangered, threatened or vulnerable species
- #2) Feeding concentration
- #4) Migration corridor
- #5) Species diversity

Synopsis

The area consistently hosts significant concentrations of humpback whales, especially off Langara Island and along the mainland coast near Portland Inlet. In addition it has been shown to be landfall location for humpbacks migrating northwards from breeding grounds in Hawaii.

Killer whales feed in this area annually, especially along the northern shores of Graham Island, and ranging over to the adjacent mainland coast.

Fin whales also feed in this area, with most sightings ranging from Langara Island northeast out into Dixon Entrance and across to Alaskan islands.

This is also part of the spring gray whale migratory corridor, with whales moving up Hecate Strait and swerving westward to reach the outer southeast Alaska coast. (Recently, southbound gray whales satellite tagged in Russia made landfall at Graham Island after crossing the Gulf of Alaska) Also, several pockets of small numbers of feeding gray whales may be found off Rose Spit, and along shores of islands off Prince Rupert in summer.

This area includes Naden Harbor on Graham Island, the base of whaling operations from 1911 to 1941.

Key Species	Status	
	Canada (SARA)	USA (ESA)
Northern Resident Killer Whales	Threatened	N/A
Fin Whales	Threatened	Endangered
Gray Whales	Special Concern	None
Humpback whales	Threatened	Endangered

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ICA 6: Southeast Alaska North

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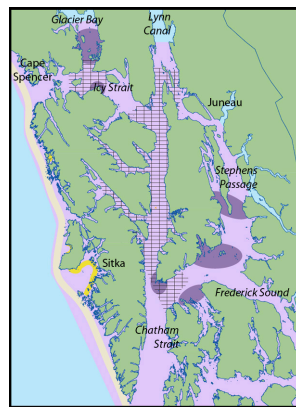
ICA 6: Southeast Alaska
✓ North (<https://pwlf.ca/ica-6/>)

Criteria (<https://pwlf.ca/criteria/>)

Examples (<https://pwlf.ca/examples/>)

Next Steps (<https://pwlf.ca/next-steps/>)

Southeast Alaska North



(<https://g5z.e05.myftpupload.com/wp-content/uploads/2019/10/ica-6-southeast-alaska-15dec12.jpg>)

Location

All southeast Alaska inside waters from southern Chatham Strait to Cape Spencer. It includes Chatham Strait, Frederick Sound, Stephens Passage, Lynn Canal, Icy Strait and Glacier Bay, Peril Strait, Sitka Sound and adjacent outside waters especially Davison Bay on the outside of Chichagof Island, Shelikof Bay on the west side of Kruzof Island, and the curve of reefs extending from the southern shore of Kruzof Island 'around' the shores of Sitka Sound.

ICA Criteria

- #1) Endangered, threatened or vulnerable species
- #2) Feeding concentration
- #5) Species diversity

Synopsis

This area is one of the prime humpback whale feeding grounds in the North Pacific with hundreds of whales utilizing the region each summer. Whales feed on both herring and zooplankton, shifting specific locations with their prey. The confluences of the various sounds, straits and passages typically host the highest concentrations of whales.

This area is also a key feeding ground of the Alaska resident killer whales particularly at the mouths of salmon rivers and streams.

This area designates feeding grounds of the distinct 'southern feeding group' of gray whales that ranges from northern California to southeast Alaska in summer (rather than migrate to northern seas). These are the only known habitual feeding grounds of this population in southeast Alaska. This ICA also includes a portion of the migration corridor of gray whales making their way from Mexico to the Arctic.

This is a remarkably rich area for marine mammals, with other commonly sighted cetaceans including transient (Bigg's) killer whales and Dall's porpoise.

Key Species	Status	
	Canada (SARA)	USA (ESA)
Northern Resident Killer Whales	Threatened	N/A
Humpback whales	Threatened	Endangered
Resident killer whales	N/A	None
Gray whales	Special Concern	None



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(<http://www.alaskahumpbacks.org>).

[Gray whale migration](http://mmi.oregonstate.edu/Sakhalin2011) (<http://mmi.oregonstate.edu/Sakhalin2011>)

Other – Special Local Knowledge

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(<mailto:Jan.Straley@uas.alaska.edu>))



Criteria

[Important Cetacean Area Project \(https://pwlf.ca/ica/\)](https://pwlf.ca/ica/)

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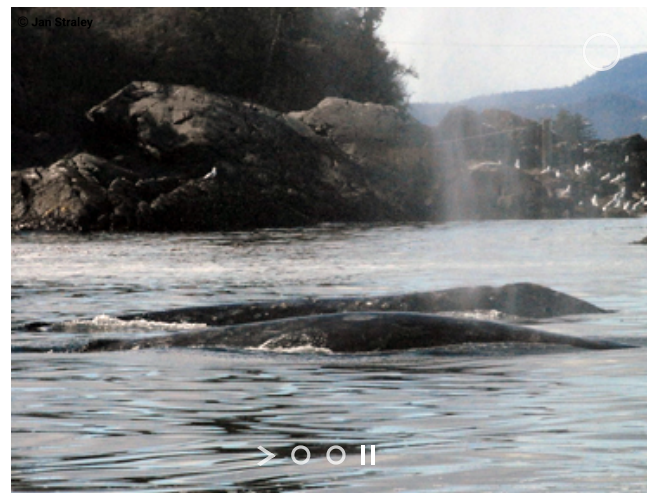
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[Next Steps \(https://pwlf.ca/next-steps/\)](https://pwlf.ca/next-steps/)

Important Cetacean Areas are discrete sites that fulfill one or more of the following criteria. For ICA purposes habitual use is defined as used by cetaceans for a minimum of 3 years. A site may qualify if it supports:



1. Endangered, Threatened or Vulnerable Species*

In general, the habitual presence of a 'listed' species, irrespective of population size, may be sufficient for a site to qualify as an ICA. This could be applied to species, subspecies or populations.

* As categorized by: 1) the IUCN Red List, 2) any national designation as Endangered, Threatened, or of Special Concern (eg. Endangered Species Act – US, Species at Risk Act and COSEWIC – Canada), or 3) studies that indicate a basis for special management.

3. Breeding Area or Nursery

A site habitually used by cetaceans for breeding, calving or a nursery.

4. Migration Corridors

A traditional route between feeding and breeding locations, or between separate feeding grounds

2. Feeding Concentrations

A site habitually used by 10 or more large cetaceans, or 100 or more small cetaceans or, regardless of number of animals a site habitually used by specific individuals that may be vulnerable due to its proximity to a large population center or industry.

5. Species Diversity

A site with a small or large number of individuals, but that habitually supports a representation of the species diversity of a biogeographic region.



Examples

[Important Cetacean Area Project \(https://pwlf.ca/ica/\)](https://pwlf.ca/ica/)

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(<https://g5z.e05.myftpupload.com/wp-content/uploads/2019/10/ica-region2.jpg>)

Examples of Important Cetacean Areas in British Columbia and Southeast Alaska

We emphasize this is a pilot project to present examples of ICAs.

We focus only on three species of mysticetes (gray, humpback and fin) and a subgroup of one odontocete (Resident killer whales).

The ICAs were identified using readily available information only.

There may well be other locations besides those presented here that meet Important Cetacean Areas Criteria within this BC-SEA region.



Next Steps

[Important Cetacean Area Project \(https://pwlf.ca/ica/\)](https://pwlf.ca/ica/)

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[Next Steps ✓ \(https://pwlf.ca/next-steps/\)](https://pwlf.ca/next-steps/)

Comment Freely

The ICA examples presented in this Primer will be reviewed and revised if necessary in 2013. The first objective is to move these initial ICAs from a draft version to final version within a year.

Comment to [info@pwlf.ca \(mailto:info@pwlf.ca\)](mailto:info@pwlf.ca)

A Process Towards ICAs

A process and the operational capacity for the nomination and designation of new ICAs will be developed. This will mirror the process used to designate Important Bird Areas.

Anyone will be able to nominate an ICA. ICA proposals will be reviewed by a ICA technical committee. If ICA criteria are met with adequate scientific and/or historic supporting materials, and if no outstanding differences of opinion arise that require further investigation, the area will be designated.

The establishment and membership of the ICA review committee's is up to the biologists or naturalists of a particular region or country.

British Columbia and Southeast Alaska

Our next steps include the 'sharpening' of the example ICAs presented here as well as definition of further ICAs for all cetacean species in British Columbia and Southeast Alaska. There are other cetacean species using the areas already designated not listed in this primer, as well as other ICAs in this region not yet defined. For example, two more ICAs have been nominated in Southeast Alaska – the Fairweather Grounds and Yakutat Bay, and there are trans-border extensions of southern BC ICAs that should be addressed with Washington researchers.

A Network of ICAs

The key to a functional network of ICAs is the independent, local initiation and governance of the program. We will be pleased to see the adoption of this program in any region or country, and will be happy to assist if we can.
