

Location



Introduction

Canada is a parliamentary democracy, functioning under a constitutional monarchy. The country occupies most of northern North America, extending from the Atlantic Ocean in the east to the Pacific Ocean in the west, and north into the Arctic Ocean. Canada is bounded on the north and northeast by the Arctic Ocean and Greenland, on the east by the Atlantic Ocean, on the south by the United States, on the west by the Pacific Ocean and on the northwest by the US state of Alaska.

Canada is composed of ten provinces and three territories, which may be grouped in regions: Western Canada, Central Canada, Atlantic Canada and Northern Canada, which is comprised of the three territories: Yukon, Northwest Territories and Nunavut. Central and Atlantic Canada may be referred to together as Eastern Canada. Climate in Canada ranges from temperate in the southern regions to Arctic in the north with equally variable habitats.

While Canada and the USA continue to manage some unsettled boundary issues, particularly in the Arctic, the two countries work together on surveying the Arctic continental shelf. Denmark and Canada dispute the sovereignty of Hans Island in the Kennedy Channel between Ellesmere Island and Greenland.

Regional Seas and Biogeography

Beaufort Sea
Labrador Sea
Atlantic Ocean
Pacific Ocean

Canada has the world's largest coastline at 202,080 km, most of which borders the North Pacific, North Atlantic and Arctic Oceans, with 9,500km surrounding the Great Lakes. The Atlantic and Pacific coasts have a number of offshore islands. Vancouver Island off of British Columbia and Newfoundland in the Atlantic Maritimes are among the largest.

The country borders seven Large Marine Ecosystems (LMEs):

- *Gulf of Alaska*: sub-Arctic climate that is subject to climate variations within and between years.
- *Beaufort Sea*: Arctic climate and extreme environment, driven by major seasonal and annual changes. It is ice-covered for most of the year.
- *Canadian High Arctic-North Greenland*: was not part of the original 64 LMEs drafted by NOAA but is part of the current version (as of January 13, 2016). Ice conditions here vary both intra- and inter-annually. Summer clearing is more common in southwestern and eastern areas.
- *Eastern Arctic Canada-West Greenland*: a subarctic climate and ice cover for parts of the year.
- *Hudson Bay Complex*: vast, shallow, and semi-enclosed body of water. Has an Arctic climate and variety of ecoclimatic zones, ranging from humid high boreal in the south to low Arctic. The largest body of water in the world that seasonally freezes over in the winter and becomes ice-free in the summer. It is significantly colder than other regions situated on the same latitude.
- *Labrador-Newfoundland*: is impacted by fluctuations in ocean climate. It includes areas of the Labrador Current and the Grand Banks and a structurally complex seabed.
- *Scotian Shelf*: a complex topography consisting of numerous offshore shallow banks and deep mid-shelf basins, which can be divided into eastern and western subsystems.
- *Northeast US Continental Shelf*: a complex region with marked temperature and climactic changes, varying tides and multiple water circulation regimes

Habitats

Coastal habitat in Canada is extremely varied, ranging from ice bound areas in the Arctic to steep fjords along the British Columbia coast, Labrador, Quebec, Newfoundland and Nunavut to narrow spits and barrier beaches, which often cross the mouths of estuaries in New Brunswick and Prince Edward Island.

- > **Tidal flats/Wetlands:** Extensively found on much of the Canadian coastline except in the far north.
- > **Rocky shores:** The Atlantic and Pacific coasts, and some areas within the Great Lakes, have areas of rocky coastline.
- > **Seagrasses:** Sea grasses are found along the west coast and southern Maritimes.
- > **Corals:** Some cold-water corals are found on the west coast and in areas around the Maritime Provinces.
- > **Glass sponge reefs:** The only known glass sponge reefs in the world (glass sponge reefs were thought to be extinct until the discovery of these reefs in 1987) are found on the British Columbia coast. The area is now protected as the Hecate Strait/Queen Charlotte Sound Glass Sponge Reefs Marine Protected Area.
- > **Saltmarshes:** Found extensively on the Atlantic and Pacific coasts, with sparse distribution in a few areas in the Arctic.

Biodiversity Hotspots

There are numerous protected areas along Canada's coasts. The following are important for wildlife. In this section, acronyms are used for some of the most common types of hotspots: Ramsar Wetland of International Importance (Ramsar), Island Bird Sanctuary (IBS), National Park (NP), National Conservation Area (NCA), National Marine Park (NMP), Marine Protected Area (MPA), National Wildlife Area (NWA), Western Hemisphere Shorebird Reserve (WHSR) and Migratory Bird Sanctuary (MBS).

-> Ramsar Sites

The Fraser River Delta (British Columbia), which is formed by Burns Bog, Sturgeon Bank, South Arm Marshes, Serpentine and the former Alaksen Ramsar site, within the Metro-Vancouver Region. The area is a critical stopover point for western sandpipers and provides feeding and roosting sites for approximately 250,000 migrating and wintering waterfowl and one million shorebirds.

Southern Bight-Minas Basin (Bay of Fundy, Nova Scotia) is also a WHSR and a NWA. It hosts large numbers of migratory waterbirds: ducks, geese, swans, sandpipers, also critical feeding and breeding site for North Atlantic right whales.

Mary's Point (New Brunswick) is also a WHSR and NWA. The peninsula known for high densities of crustaceans provides important food resources during fall migration. In addition to numerous other species, more than 2 million semipalmated sandpipers, a Near Threatened species, stop here.

Shepody Bay (New Brunswick), another WHSR which has high densities of crustaceans hosts millions of autumn migrating shorebirds, with more than 2 million semipalmated sandpipers passing through during August.

Tabusintac Lagoon and River Estuary (New Brunswick) is an important colony site for nesting terns in summer and a major spring and autumn stopover for migratory shore and waterbirds.

Malpeque Bay (Prince Edward Island) is a coastal lagoon hosts colonial nesting sites for seabirds in summer, and a primary food source for waterbirds on migration in autumn.

Gulf of Saint Lawrence is composed of a series of Ramsar sites of varying importance for migratory waterbirds, particularly ducks and geese scattered along the gulf.

McConnell River is a complex of coastal marshes and inland wet meadows around the estuary, which creates an important breeding area for species of goose, large numbers of nesting water birds (ducks, geese, swans, etc.) and shorebirds.

Baie de l'Isle-Verte is an important resting and feeding site for large numbers of migratory water birds (ducks, geese, swans, etc.).

Polar Bear Pass is NWA and represent an important resting and feeding area for migrating birds as well as a breeding area for shorebirds. It is also an important migratory route for polar bears crossing this wetland in spring and summer.

Dewey Soper MBS supports the largest goose colony in the world (30% of those breeding in Canada) and more than one million during the molting season, as well as abundant numbers of various other breeding species of bird.

-> National Parks, and Marine Conservation/Protected Areas

Auyuittuq NP (Baffin Island) supports narwhal, beluga whale, polar bear and ringed seals.

Sirmilik NP/Bylot IBS on Baffin Island hosts over forty species of migratory birds, as well as nesting seabirds of which thick-billed murre, black-legged kittiwakes and greater snow geese are most numerous.

Fathom Five NMP on the Bruce Peninsula in Ontario hosts a number of species of nesting gulls, waterbirds and shorebirds.

Gwaii Haanas NMP on the Queen Charlotte Islands, British Columbia, hosts bald eagles and seabirds, with migrating whales (grey and humpback) during spring, as well as other whale species (orca, minke, sei, fin) seen regularly. Other species include dolphins, porpoises harbour seals and sea lions found offshore. Black bears also forage along the shoreline.

Saguenay/Saint Lawrence NP is important for beluga whale calving between June and September, as well as hosting seals (year round) and seabirds (summer).

Tallurtiup NCA in northeast Nunavut has polynyas, or open water areas with significant upwelling, which is an important source of food for migratory birds, nesting seabirds. These waters also host large numbers of marine mammals, including 75% of Canada's narwhal population as well as polar bears, bowhead and beluga whales.

Laurentian Channel MPA in Newfoundland, is an offshore site critical feeding area for whales and seabirds.

Gulf Islands NP (British Columbia) constitutes an archipelago which is home to orcas, porpoises, sea lions, seals and otters, as well as hundreds of resident and migratory species of seabirds and shorebirds.

Pacific Rim NP (British Columbia) supports migration of grey whales during winter and shorebird species in spring and hosts colonies of seals and sea lions.

Wapusk NP is a breeding and resting area for polar bears in summer when the ice on Hudson Bay is melting. Polar bears will then hunt in Hudson Bay over winter when waters freeze again

At risk Wildlife

In this section, some individual wildlife species are mentioned followed by a letter in parentheses. These are species included in the IUCN Red List of Threatened Species within the top three categories of risk - Vulnerable to extinction (VU), Endangered (EN) or Critically Endangered (CR). A more complete list of IUCN listed species is found in Appendix 1.

→ At risk birds

At risk birds

Canada's extensive coastline, bordered by three oceans, provides habitat for numerous coastal species such as ducks, geese and shorebirds, with pelagic birds found offshore. Seabirds breed and nest on offshore islands and rocky prominences.

Of note, is the importance of the Grand Banks off Newfoundland, which is considered the most important wintering ground for seabirds in the North Atlantic and one of the most productive marine areas in the world.

→ At risk reptiles

At risk reptiles

Leatherback turtles (VU), which feed around shelf and offshore waters in Atlantic Canada, are infrequently observed in Pacific Canadian waters (off Vancouver Island and Haida Gwaii). However, this species does not nest on the country's beaches.

There are limited records of Green turtles (EN) on the Pacific coast, mostly likely off course from their regular migration route, Kemp's ridley (CR) around Nova Scotia (Nova Scotia) and Prince Edward Island and Loggerhead (VU) are routinely found offshore of Newfoundland and Nova Scotia, occasionally off British Columbia.

→ At risk mammals

Thirteen species of pinniped (seals, sea lions, sea otters, walrus and polar bear) and more than 25 species of whale, dolphin and porpoise are found throughout Canada's three oceans. Important nearshore species include Right whales Atlantic (CR) and Pacific (EN), Sei whale (EN), and Sea otter (EN). The Pacific coast has the greatest numbers and types of pinnipeds, while the Arctic hosts some species found only in that region, in addition to migratory species from the other oceans.

Past experience with oil spill and potential risks

Canadian waters have experienced a number of medium to large spills and a series of inland pipeline spills and tanker train wrecks.

- In 1970, the tanker *Arrow* ran aground on the rocks off Nova Scotia, spilling 9,000 tonnes of bunker oil, impacting at least 2,400 loons, grebes, diving ducks and other waterbirds, which came ashore on the mainland. A further 4,800 birds approximately, mostly dovebies and murrees were caught in slicks that drifted out to Sable Island, 180 km offshore.
- In the same year, the *Irving Whale* sank in the Gulf of Saint Lawrence, spilling 30 tonnes of bunker fuel between Prince Edward Island and the Iles-de-la-Madeleine in the Gulf. The slick drifted across an eider feeding area, affecting approximately 5,000 birds. The Canadian Wildlife Service of Eastern Canada and the Atlantic Veterinary College on Prince Edward Island, assisted by a local bird watch association, provided oiled wildlife rehabilitation training to several wildlife organisations.
- In 1979 the *Kurdistan* broke up off Nova Scotia, impacting somewhere between 12,000 and 25,000 birds, including gulls, ducks nearshore and dovebies and murrees offshore.
- In 1991, the *Tenyo Maru*, sank on the west coast, killing a large number of seabirds, however, the majority of the impacted birds were found in the US state of Washington.
- In 1998, the fuel barge *Nestucca*, collided with her tug off Washington, spilling 800 tonnes of Bunker C fuel, oiling approximately 56,000 birds which came ashore in southern British Columbia and Washington state.
- In 1999, the *Gordon C. Leitch* ran into a dock in the St. Lawrence River near Anticosti Island, releasing 49 tonnes of bunker fuel, and impacting approximately 1,100 birds.

Inland spills include the contamination of a marsh at Cap Tourmente in the lower St Lawrence Seaway which threatened 70,000 greater snow geese and a 1975 mystery spill in Lake Erie which killed 2,800 diving ducks. Between 2000-2011 there were 1,047 pipeline incidents in the country but information on wildlife impact is limited.

Major shipping routes between North America and Europe converge in Newfoundland, overlapping with more than 40 million pelagic birds and numerous marine mammals, estimated to reside or migrate through the area around the Grand Banks (a series of underwater plateaus on Canada's continental shelf), where upwelling provides a significant food source. Leaks from wrecks and illegal discharges offshore impact wildlife every year.

On the west coast, British Columbia also experiences significant coastal shipping traffic. Inland pipelines, many of which are aging, are the main source of inland spills.

International and Regional Treaties and Agreements**→ Oil spill and HNS Response**

- d CLC Convention 69
- CLC Protocol 76
- CLC Protocol 92
- FUND Protocol 76
- FUND Protocol 92
- FUND Protocol 2003
- LLMC Convention 76
- LLMC Protocol 96
- OPRC Convention 90
- HNS Convention 96
- HNS PROT 2010

- OPRC_HNS 2000
- BUNKERS CONVENTION 01

→ **Marine Biodiversity Protection**

- Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (MOSPA)
- Canada-Denmark Agreement
- Canada-USA Joint Marine Pollution Contingency Plan for Spills of Oil and other Noxious Substances

Oil Spill Response and HNS Spill Response

→ **National Contingency Plan?**

Canada has a national oil spill contingency plan in place, known as the Marine Spills Contingency Plan, the latest published version appeared in 2018, which includes a National Environmental Response Team.

→ **Role of Competent National Authorities**

The Canadian Coast Guard (CCG), under the Department of Fisheries and Oceans (DFO), is the lead agency for ship source and mystery spills. Within ports, the responsibility falls under the appropriate port authority, some of which have developed their own contingency plans.

Within the CCG, there are three regions, one each for the east and west coast, and two further units for specific areas of the eastern region. The CCG maintains response capacity in the Arctic, however, for known spillers in other areas, responsibility falls to the spiller to oversee the response.

The Department of the Environment (Environment Canada/EC) has responsibility for environmental issues and also maintains geographic regions within its Environmental Protection Branch (EPB). Regional Environmental Emergency Teams (REETs), which include representatives of various governmental agencies, industry specialists, environmental organisations, national parks, universities and local experts, provide advice to the CCG on environmental issues, however REETs are more commonly used in eastern Canada than on the west coast.

Oiled Wildlife Preparedness and Response

→ **Formal guidelines?**

The Canadian Wildlife Service (CWS) has finalised guidelines for wildlife response, with assistance from Focus Wildlife and Tri-State Bird Rescue and Research. These are currently undergoing legal review and are expected to be in force within 2021.

→ **Response objectives and strategy**

CWS and the relevant Provincial Ministry oversee response to wildlife, including oversight and initial approval of wildlife planning and response activities. Where the Wildlife Branch within the Marine Spills Contingency Plan format is utilised, it is frequently housed under the Environmental Unit. Where possible, rescue and rehabilitation are preferred, however, there is no specific legal requirement for the Responsible Party (RP) to respond to wildlife thus, while the CWS may recommend rescue and rehabilitation, the decision to do so rests with the RP. In case of a response, only organisations listed as Wildlife Responders (e.g. Focus Wildlife, Tri-State Bird Rescue and Research, Vancouver Aquarium etc.) are recognized by the government as trained responders and can be mobilised and will be in the employment of the lead agency, the response organization or its contractor.

→ **Euthanasia or rehabilitation?**

Where resources and climate permit, rescue and rehabilitation will be allowed, with euthanasia employed on humane grounds.

→ **Impact assessment**

The relevant REET may be activated by the CWS to oversee impact assessment. The Atlantic Veterinary College (Prince Edward Island), the Memorial University of Newfoundland, the University of Guelph (Ontario), the Institute of Ocean Sciences (under Fisheries and Oceans Canada) and the University of Victoria (British Columbia) have been involved in impact assessment projects during previous spills.

More recently, the CWS has been requesting the oiled wildlife organisation involved in the response to assist with impact assessment, in conjunction with, or under the guidance of, the CWS.

→ Notification and early response

CWS and relevant Provincial Ministries would notify authorised wildlife responders in cases where their services might be utilised.

→ Wildlife responders

Focus Wildlife and Tri-State Bird Rescue & Research (USA) have responded to many spills in Canada. The Alberta Institute for Wildlife Conservation (AIWC) works closely with Focus Wildlife. The National Wildlife Centre in Ontario and their veterinarian work with Focus Wildlife as well. The National Wildlife Centre does not have a facility at this point but cooperates with Hope for Wildlife in Nova Scotia. These two organisations are not considered response organisations at this time but are able to provide support during a response. Cobequid Wildlife Rehabilitation Centre (CWRC), in Nova Scotia, has some training, some experience and can also provide support during a response.

The Wildlife Rescue Association of British Columbia (WRA) and the British Columbia Society for the Prevention of Cruelty to Animals' Wild Animal Rehabilitation Centre (BC SPCA Wild ARC) also have some experience in supporting a wildlife response.

Under the Canadian Marine Animal Response Alliance (CMARA), chaired and coordinated by the Canadian Wildlife Federation, there are four groups that respond to marine animals. In the Maritime Provinces: the Maritime Marine Animal Response Network (MMARN), in Newfoundland and Labrador: the Whale Release and Strandings, in Quebec: the Quebec Marine Animal Emergency Response Network/Réseau québécois d'urgences pour les mammifères marins (RQUMM) and in the British Columbia Marine Mammal Response Network. Most of these networks, a combination of rescue groups, scientists and government representatives, are focused on disentangling and refloating of stranded cetaceans. Within CMARA, only the Vancouver Aquarium in BC, which responds to sea turtles, seals, sea lions, sea otters and small cetaceans, has a dedicated marine animal rehabilitation facility in the country.

→ Cooperation between stakeholders

The various wildlife responders noted above work cooperatively on oil spills and other wildlife responses. CMARA network members share expertise and resources as needed. Focus Wildlife and Vancouver Aquarium have a history of collaboration in British Columbia.

Canada is a signatory to three joint response plans: the Canada-US Joint Marine Pollution Contingency Plan, for Baffin Bay a joint response agreement with Denmark and with France a joint response agreement for St. Pierre and Miquelon.

→ Permanent facilities

Focus Wildlife maintains an inventory of fully mobile equipment and facilities for rescue and rehabilitation during an oil spill. Hope for Wildlife in Nova Scotia and CWRC maintain multispecies wildlife hospitals but are not set up for oil spill response. In British Columbia, the WRA and the BC SPCA Wild ARC have multispecies hospitals and some oil spill response experience but are not set up for oil spill response. The only rehabilitation facility for marine mammals and sea turtles in the country is at the Vancouver Aquarium in British Columbia.

→ Current processes

As noted above, the CWS is in the process of finalising wildlife response guidelines for oil spills. The Emergency Prevention, Preparedness and Response (EPPR) Working group of the Arctic Council and the Arctic Coast Guard Forum (ACGF) held an on-line exercise in April 2021, designed to improve collaboration between the Arctic Council and ACGF member states who have signed on to the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (MOSPA) and the Agreement on Aeronautical and Maritime Search and Rescue in the Arctic (Arctic SAR Agreement).

Documentation and references

- ITOPF Country Profile (2013): <https://www.itopf.org/knowledge-resources/countries-territories-regions/countries/canada/>
- IMO (2021): <https://www.imo.org/en/About/Conventions/Pages/StatusOfConventions.aspx>
- Marine Spills Contingency Plan-National Chapter: <https://www.ccg-gcc.gc.ca/publications/environmental-environnementale/marine-pollution-deversements-en-mer/docs/MSCP2018-eng.pdf>
- Birdlife International Datazone Profile: <http://datazone.birdlife.org/country/canada>
- Ramsar Country Profile: <https://www.ramsar.org/wetland/canada>

- Canada Environment and Natural Resources Species at Risk: <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html>
- Canada Marine Protected Areas: <https://www.dfo-mpo.gc.ca/oceans/mpa-zpm/index-eng.html>
- Canada National Parks: <https://www.pc.gc.ca/en/pn-np/recherche-parcs-parks-search>
- The Canadian Encyclopedia: <https://www.thecanadianencyclopedia.ca/en/article/coast>
- Large Marine Ecosystem Hub: <https://www.lmehub.net/>
- LME Factsheets: Canadian High Arctic and North Greenland: <https://pame.is/document-library/ecosystem-approach-to-management-documents/large-marine-ecosystems/400-15-canadian-high-arctic-north-greenland-lme/file>
- Glass Sponge Reef Conservation, Canadian Parks and Wilderness Society: <http://glasssspongereefs.com/conservation/>
- Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic: <https://oaarchive.arctic-council.org/handle/11374/529>

Terms and Conditions

These Country Wildlife Profiles are provided in good faith as a guide only and are based on information obtained from a variety of sources over a period of time. This information is subject to change and should, in each case, be independently verified before reliance is placed on it. Country Wildlife Profiles may have been issued solely to incorporate additional or revised information under one heading only. Each Profile has therefore not necessarily been completely verified or updated as at the stated Date of Issue.

Sea Alarm hereby excludes, to the fullest extent permitted by applicable law, any and all liability to any person, corporation or other entity for any loss, damage or expense resulting from reliance or use of these Country Wildlife Profiles.

© Sea Alarm Foundation, 2022

These Country Wildlife Profiles may be reproduced by any means for noncommercial distribution without addition, deletion or amendment, provided an acknowledgment of the source is given and these Terms & Conditions are reproduced in full.

These Country Wildlife Profiles may not be reproduced without the prior written permission of Sea Alarm Foundation either for commercial distribution or with addition, deletion or amendment.

Appendix 1

→ At risk birds

Common name / Latin name / IUCN Red List Category (CR,EN,VU) / Resident-Migratory (season) / Breeding-Nesting-Pupping (season)

Marbled murrelet / *Brachyramphus marmoratus* / EN / Resident west coast but breeds inland / Non-coastal
Long-tailed duck / *Clangula hyemalis* / VU / Both coasts / Non-breeding
Horned grebe / *Podiceps auratus* / VU / Mostly west coast / Non-breeding
Leach's storm-petrel / *Hydrobates leucorhous* / VU / Native, resident east and west coast / Offshore breeding/nesting spring/summer
Buller's shearwater / *Ardena bulleri* / VU / Native west coast / Offshore breeding/nesting spring/summer
Pink-footed shearwater / *Ardena creatopus* / VU / Native west coast / Non-breeding
Red-legged kittiwake / *Rissa brevirostris* / VU / West coast / Non-breeding
Black-legged kittiwake / *Rissa tridactyla* / VU / West coast / Limited breeding/nesting northern BC, summer
Aleutian tern / *Onychoprion aleuticus* / VU / West coast / Breeding/nesting northern BC summer
Atlantic puffin / *Fratercula arctica* / VU / Atlantic into Northwest Passage/Baffin Bay / Breeding/nesting summer
Snowy owl / *Bubo scandiacus* / VU / East and west coasts during non-breeding season / Breeds/nests in Arctic summer

-> At risk reptiles**Common name / Latin name / IUCN Red List Category (CR,EN,VU) / Resident-Migratory (season) / Breeding-Nesting-Pupping (season)**Kemp's ridley / *Lepidochelys kempii* / CR / Limited records / Non-nestingGreen turtle / *Chelonia mydas* / EN / Limited records / Non-nestingLeatherback turtle / *Dermochelys coriacea* / VU / Feeds offshore (seasonality not well studied. Between April and December in Atlantic Canada. Between July and September in Pacific Canada) / Non-nestingLoggerhead turtle / *Caretta caretta* / VU / Limited records / Non-nesting**→ At risk mammals****Common name / Latin name / IUCN Red List Category (CR,EN,VU) / Resident-Migratory (season) / Breeding-Nesting-Pupping (season)**North Atlantic right whale / *Eubalaena glacialis* / CR / Surface feeder nearshore / Major feeding ground in Bay of FundyBlue whale / *Balaenoptera musculus* / EN / Generally found offshore but may forage coastally / Non-breedingNorth Pacific right whale / *Eubalaena japonica* / EN / Surface feeder nearshore / UnknownSei whale / *Balaenoptera borealis* / EN / Forages nearshore / unknownSea Otter / *Enhydra lutris* / EN / Nearshore, including bays, estuaries and rocky coasts / Mating in autumn, pupping spring or early summerSperm whale / *Physeter macrocephalus* / VU / Generally found offshore / Non-breedingFin whale / *Balaenoptera physalus* / VU / May forage nearshore / Non-breedingAtlantic walrus / *Odobenus rosmarus* / VU / Forages nearshore / Breeding January to April, calving April to JuneHooded seal / *Cystophora cristata* / VU / Forages / Spring breeding (on pack ice), pupping 11 months later,Northern fur seal / *Callorhinus ursinus* / VU / Pacific coast, largely offshore / Breeding June to October along the British Columbia coastPolar bear / *Ursus maritimus* / VU / Both land and water based / Mating from March to June