



DFO – Pacific

Marine Mammal & Sea Turtle

Reference Manual:

A guide to sightings, strandings (incidents),
legislation, licencing and species identification

August 2006



Acknowledgements

This reference manual for the marine mammal program in the Pacific Region was produced through the collective efforts of the Marine Mammal Team (MMT). The Team wishes to express their appreciation to Lisa Spaven, for without her patience and dedication, this manual would not have been possible and, therefore, we would like to acknowledge her tremendous effort for its ultimate composition and production.

The MMT also wishes to thank all those staff who have taken the time to make a marine mammal report, track down answers and provide input on how we can best conserve and protect marine mammals in this Region. We hope that all DFO Pacific Region staff will benefit from the information contained herein.

Pacific Region Marine Mammal Team

Table of Contents

ACKNOWLEDGEMENTS	I
LIST OF FIGURES	III
LIST OF FREQUENTLY USED ABBREVIATIONS	III
1. OVERVIEW	1
1.1. OBJECTIVE.....	1
1.2. THE DEPARTMENT’S ROLE AND RESPONSIBILITY	1
1.3. THE LAW & LICENSING	1
1.4. VOLUNTEERS	1
1.5. MEDIA	2
2. SIGHTINGS: REPORTING PROCEDURES	3
2.1. WHALES, DOLPHINS AND PORPOISES (CETACEANS)	3
2.2. SEALS, SEA LIONS (PINNIPEDS)	3
2.3. SEA OTTERS	4
2.4. SEA TURTLES.....	4
3. INCIDENTS: REPORTING PROCEDURES	5
3.1. PROCEDURES FOR DFO AND CCG EMPLOYEES (NON RADIO ROOM STAFF).....	5
3.2. PROCEDURES FOR RADIO ROOM EMPLOYEES.....	8
3.4.1. DATA COLLECTING	8
3.4.2. DETERMINING ACTION URGENCY	8
3.4.3. RESPONSE INITIATION.....	8
3.3. PROCEDURES FOR MARINE MAMMAL INCIDENT COORDINATOR.....	12
3.4. ADVISING THE PUBLIC	13
3.5. OIL AND CHEMICAL SPILLS	15
4. DFO PRIMARY RESPONSE	16
4.1. ALL SPECIES	16
4.2. CETACEANS	17
4.3. PINNIPEDS	17
4.4. SEA TURTLES.....	18
5. SAMPLING AND SAFETY PRECAUTIONS	19
5.1. SAMPLE COLLECTION.....	19
5.2. PHOTOGRAPHY	20
5.3. SAFETY PRECAUTIONS.....	20
6. LEGISLATION	21
6.1. FISHERIES ACT AND REGULATIONS	21
6.2. SPECIES AT RISK ACT (SARA) – JUNE 2003	22
6.3. OCEANS ACT – JANUARY 1997	22
6.4. CONVENTION ON THE INTERNATIONAL TRADE OF ENDANGERED SPECIES (CITES) – JULY 1975.....	22

7. LICENSING INFORMATION AND CONTACTS	24
7.1. HARVEST LICENCES.....	24
7.2. NUISANCE SEAL LICENCE.....	24
7.3. SCIENTIFIC LICENSES.....	24
7.4. TRANSPORT LICENCE.....	25
7.5. IMPORT AND EXPORT PERMITS (CITES).....	25
7.6. SPECIES AT RISK ACT (SARA) LICENCES.....	25
APPENDIX A: IDENTIFICATION GUIDE TO MARINE MAMMAL AND SEA TURTLES OF BC.....	27
APPENDIX B: DICHOTOMOUS KEY TO MARINE MAMMAL AND SEA TURTLE SPECIES IN BC.....	47
APPENDIX C: CONTACT LISTINGS	51
PRIMARY DFO CONTACTS	51
COASTAL FIELD OFFICE LOCATIONS – C&P.....	52
APPENDIX D: INCIDENT DATA COLLECTION FORM.....	53

List of Figures

FIGURE 1 SCREEN SNAPSHOT OF FOS INCIDENT DATA ENTRY PAGE.....	7
FIGURE 2 INCIDENT DATA FLOW AND REPORTING METHODS	7
FIGURE 3 RADIO ROOM MARINE MAMMAL INCIDENT ACTIONS FLOWCHART.	11
FIGURE 4 MARINE MAMMAL INCIDENT COORDINATOR INCIDENT ACTIONS FLOWCHART.	12

List of Frequently Used Abbreviations

DFO	Department of Fisheries and Oceans
CCG	Canadian Coast Guard
C&P	Conservation and Protection / Enforcement
IOS	Institute of Ocean Science, Sidney BC
MCTS	Marine Communication and Traffic Services
MMC	Marine Mammal Co-ordinator (Marilyn Joyce)
MMIC	Marine Mammal Incident Co-ordinator (Lisa Spaven)
NGO	Non-government Organization
PBS	Pacific Biological Station, Nanaimo BC
SAR	Search and Rescue
Radio Room	DFO Observer Record Report Hotline

1. Overview

1.1. Objective

Fisheries and Oceans Canada (hereafter referred to as DFO or The Department) has a mandate for the conservation and protection of marine mammals and sea turtles. Marine mammals have a very public profile in the Pacific Region and calls to report sightings and incidents are common. This document will ensure that DFO employees:

- (a) know the steps to follow in case of a reported marine mammal or sea turtle sighting or incident;
- (b) are able to accurately gather the information required to assist the Marine Mammal Incident Co-ordinator (MMIC), management, science and enforcement staff to determine response requirements;
- (c) are aware of their role in delivering an efficient, effective and safe response; and
- (d) have access to general information related to the Pacific marine mammal program.

General procedures for reporting a sighting are found in Section 2 and procedures for reporting an incident in Section 3. As reporting procedures vary between species types (cetaceans, pinnipeds, sea otters, sea turtles), separate sections are provided that offer further identification and information on BC marine mammal and sea turtle species. There are also sections outlining Radio Room responsibilities, licensing, legislation, and sampling procedures.

1.2. The Department's Role and Responsibility

The Department monitors all incidents in order to take action in the case of inappropriate or illegal human activities, monitor disease in wild stocks and investigate trends in other natural occurrences that may impact species survival. In addition, the Department has a responsibility to ensure that marine mammals and sea turtles are not unnecessarily harmed by the well-intentioned actions of untrained persons trying to rescue or rehabilitate an animal. Marine mammal sightings (live, healthy, naturally occurring occurrences) are handled separately from incidents, as explained in this document (see Section 2).

Dead animals form part of the natural ecosystem. DFO does not have a responsibility to remove dead marine mammals or sea turtles; however, the removal is sometimes done in the public's interest or to achieve scientific goals. The decision to remove a large dead marine mammal or sea turtle will be directed by the MMIC.

1.3. The Law & Licensing

The *Marine Mammal Regulations* (MMR) of the *Fisheries Act* specifies prohibitions and legal authorities respecting marine mammals in Canada. The Act prohibits any person from disturbing marine mammals, except when the individual or organization is authorized to do so by a licence or aboriginal authority. Regulations respecting the hunting, transporting and possession of marine mammals can be found in the MMR. Section 7 of these guidelines details licensing requirements for hunting, research, filmmaking and other activities that may disturb marine mammals.

1.4. Volunteers

The Department may co-ordinate the efforts of volunteers and public servants in a marine mammal stranding incident; however, volunteers are not obliged to follow the directions of Departmental employees. The Crown's liability in cases of accidents to volunteers is reduced if the Department makes it clear to all volunteers that they are working with, not for the Department. A program to involve 3rd party volunteers is currently being developed.

The use of signed waivers of liability for volunteers is not advisable. The use of such waivers could be construed as an admission that the Crown has some legal duty to perform and is availing itself of the assistance of volunteers in performing this duty.

1.5. Media

Any questions regarding marine mammal and sea turtle incidents received from the media should be directed to the DFO Communications Officer or Marine Mammal Co-ordinator (MMC) unless you are advised otherwise.



Leatherback turtle entangled in gillnet in Skidegate Inlet 1982. Photo: L. Gordon

The Marine Mammal Team would like to thank you for your assistance in implementing these new reporting procedures and providing the public with timely and accurate marine mammal information.

Please note that this is the first version of this document to be distributed to staff and is considered a work in progress. For 2007, a revised version will be drafted based on an evaluation of the program and your feedback. If you have any comments or suggested revisions, please contact the Marine Mammal Co-ordinator.

2. Sightings: Reporting Procedures

“Sighting” means an encounter/observation with or of a marine mammal or sea turtle where the animal appears to be in good health and there are no associated unusual circumstances.

Sighting reports of marine mammals are encouraged by DFO. Often, information provided by keen observers helps DFO to track trends in animal distribution, seasonality and behaviour, assisting in research and management initiatives.

Reporting procedures for sightings vary by species type and are listed below in Sections 2.1 through 2.4. Please also review Appendix A to become aware of the important questions that should be asked to accurately identify species and become familiar with the marine mammals and sea turtles that can be seen in BC waters.

Please encourage anyone reporting a sighting to take photographs of their encounter.

2.1. Whales, Dolphins and Porpoises (Cetaceans)

The Vancouver Aquarium’s (VA) BC Cetacean Sighting Network (BCCSN) and DFO work in partnership to collect and track sightings of all cetaceans in BC waters. The BCCSN is a Habitat Stewardship Project, partly funded by Environment Canada, Parks Canada and Fisheries and Oceans Canada.

Please refer any person calling to report a sighting of a live, healthy cetacean to the ‘sighting hotline’ or the online reporting website.

Sighting Hotline: 1-866-I SAW ONE (1-866-472-9663)
 www.vanaqua.org/sightings

Nanaimo area exception:

Cetacean sightings (especially killer whales) near the Nanaimo (mid Vancouver Island) area should be forwarded directly to the Science staff to facilitate research efforts. If a whale is sighted in the vicinity of Nanaimo, please immediately call John Ford or Graeme Ellis of the Pacific Biological Station (PBS).

John Ford.....Office: (250) 729-8375
Cellular: (250) 714-5479
 Graeme Ellis.....Office: (250) 756-7245
Cellular: (250) 741-6463

IMPORTANT: If a researcher is sent to photo ID whales (especially in highly populated areas), please inform the DFO Radio Room so that any callers reporting a possible harassment issue can be made aware that the vessel in question may be a researcher operating under a valid Research Permit.

2.2. Seals, Sea Lions (Pinnipeds)

Sightings of live, healthy pinnipeds are not usually gathered unless the sighting is unusual (new haulout site) or the animal is tagged or branded. These reports are considered Unusual Sightings and should be treated the same as an Incident report (see Section 3). If you receive a call reporting a tagged or branded animal or significant sighting, please complete the Marine Mammal Incident/Occurrence Form (Appendix D) and fax it to the DFO Radio Room. If a tagged

animal is seen, please provide if possible the tag number, colour and body location (appendage the tag is attached to).

2.3. Sea Otters

Sea otters are currently abundant along the westcoast of Vancouver Island and near the Bella Bella area. Sightings of sea otters in these areas are not recorded. However, some sea otters in the central coast have been tagged for research purposes, and may be reported. Tags are usually attached to hind flippers, and colour and number coded.

Reports of tagged animals and sighting of large rafts of sea otters in areas other than the West Coast of Vancouver Island should be considered Unusual Sightings and treated the same as an Incident report (see Section 3). Please complete the Marine Mammal Incident/Occurrence Form (Appendix D) and fax it to the DFO Radio Room.

When a report of an otter sighting is received, please ensure that the animal is identifiable as a sea otter and not a river otter, as they are commonly confused. Please see Appendix A for details regarding the differentiation between river and sea otters.

2.4. Sea Turtles

Most species of sea turtle are endangered worldwide. The leatherback sea turtle is listed by the Species at Risk Act as critically endangered in Canada. Some sea turtle species regularly migrate into BC waters, although sightings are usually quite rare. Leatherback turtles are the most commonly seen sea turtle in coastal BC waters. Green sea turtles are also sighted in BC waters

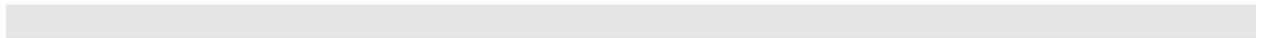
Please report sightings of all sea turtles in BC waters. The Vancouver Aquarium's BCCSN and the Sea Turtle Awareness Program (STAP) work in partnership with DFO to collect and track sightings of all sea turtles in BC waters.

Please refer any person calling to report a sighting of a live, healthy sea turtle to the online reporting website and the 'sighting hotline'. BCCSN will pass on any timely sightings to Lisa Spaven as soon as possible to ensure research opportunities can be maximized.

Sighting Hotline: 1-866-I SAW ONE (1-866-472-9663)
..... www.vanaqua.org/sightings

Reports of tagged sea turtles or sightings of a sea turtle on land should be considered Unusual Sightings and treated the same as an Incident report (see Section 3). Please complete the Marine Mammal Incident/Occurrence Form (Appendix D) and fax it to the DFO Radio Room.

Leatherback and green turtles only haul-out on land when nesting, which does not occur in BC waters. Sea turtles may also be tagged. Tags are colour and number coded to projects throughout the world. If possible, please collect information regarding tag colour, number and location on animal (i.e. which flipper).



3. Incidents: Reporting Procedures

“Sighting” means an encounter/observation with or of a marine mammal or sea turtle where the animal appears to be in good health and there are no associated unusual circumstances.

“Incident” means an event or occurrence that involves a marine mammal or sea turtles where that animal may be dead, injured, sick or disturbed in some way. This would include strandings, entanglements, disturbances, shootings, unusual sightings (unusual location), and tagged/branded animals. FOR PRACTICAL PURPOSES ABANDONED SEAL PUPS ARE NOT CONSIDERED AN INCIDENT. Refer to section 3.4.4 for further information.

“Reporting Public” refers to the person who witnessed the incident occur or observed the end result (i.e. dead animal on beach). If the initial witness (observer) is unknown, the reporting public may be the person relaying information on behalf of a witness (observer).

Incidents are often reported to various DFO offices, including Conservation and Protection offices (C&P), PBS, and the Institute of Ocean Sciences (IOS), as well as Canadian Coast Guard (CCG) offices including CCG radio stations, Search and Rescue (SAR) stations, and CCG bases throughout the Region. In general, when a marine mammal or sea turtle incident report is received, personnel are asked to collect the required information and report the details to the DFO Radio Room as soon as possible. The following provides instructions for DFO and CCG employees to follow when receiving an incident report.

If a sighting of a marine mammal or sea turtle is reported, see Section 2 for instructions.

3.1. Procedures for DFO and CCG employees (non Radio Room Staff)

3.1.1 Data Collection

With the exception of abandoned seal pups (see section 3.4.4) for all other incident types and for all species involved, the Marine Mammal Incident/Occurrence Form (Appendix D) should be completed and the following data should be gathered from the reporting public. The more details that can be collected regarding the incident and the appearance of an animal, the more likely DFO will be able to initiate an appropriate and timely response, and be able to accurately identify the species involved.

- a) date and time (*details of how to find the location, when the incident occurred, when it was reported*)
- b) geographical location (*especially latitude and longitude if still floating*)
- c) type of incident (see definitions on back of Marine Mammal Incident/Occurrence Form in Appendix D)
- d) other details of the incident (*what happened*)
- e) species (*if known – see Appendix A and B for species descriptions and images*)
- f) description of animal (*length, colour, behaviour, markings*)
- g) number of animals
- h) condition (*sick / injured / dead, wound description, state of decomposition*)
- i) name and contact information of person reporting
- j) evidence collected (*samples, photos, video, other witnesses*)

Photographs can be very valuable tools in identifying marine mammals and sea turtles, and documenting evidence. Please encourage persons reporting incidents to take photos (especially digital images) of their encounters. Be sure to obtain an email address for the reporting public or offer the email address of the MMIC (usually spavenl@pac.dfo-mpo.gc.ca) so that digital images can be exchanged.

3.1.2 Reporting

Once all data has been accurately collected from the reporting public, fax the complete Marine Mammal Incident/Occurrence Form to the DFO Radio Room as soon as possible (or if unable to do so, encourage the reporting public to contact the DFO Radio Room directly).

IF A MARINE MAMMAL OR SEA TURTLE IS REPORTED TO BE IN DISTRESS, OR THERE IS EVIDENCE OF HUMAN INTERFERENCE CAUSING THE DEATH OR INJURY OF A MARINE MAMMAL OR SEA TURTLE, PLEASE CALL AND FAX THE INCIDENT/OCCURRENCE FORM TO THE DFO RADIO ROOM IMMEDIATELY.

The DFO Radio Room will be the central contact for reporting marine mammal and sea turtle incidents (for reporting normal sightings of these animals, please see Section 2). Advise callers that in future, please report any incidents directly to the Radio Room as they operate 24 hrs/day and 7 days/week. The Radio Room can be reached at:

Observe Record Report	1-800-465-4336
(lower Mainland)	604-666-3500

DFO Radio Room staff will compile the information provided by callers and contact the appropriate personnel (C&P Field Staff and/or MMIC). If warranted, a response will be initiated based on the urgency of the reported incident (Table 1). Once a report is received by the Marine Mammal Incident Coordinator, the information will be entered to the Fisheries Operations System (FOS) (Figure 1). For marine mammal and sea turtle incident purposes, FOS is used as a central data repository to assist in ensuring accurate data collection and efficient incident response, as well as to help track incidents over time. The overall process of information collection and tracking from public reports to initiating a response is detailed in Figure 2.

The MMIC will be responsible for following up with the reporting public to obtain further information pertaining to the incident and/or to inform them of any actions that were or will be taken as a result of their report.

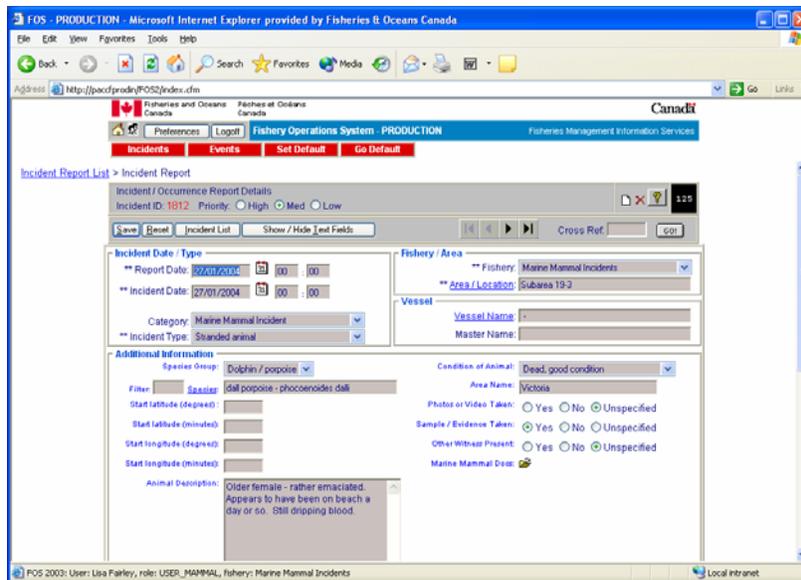


Figure 1 Screen snapshot of FOS incident data entry page

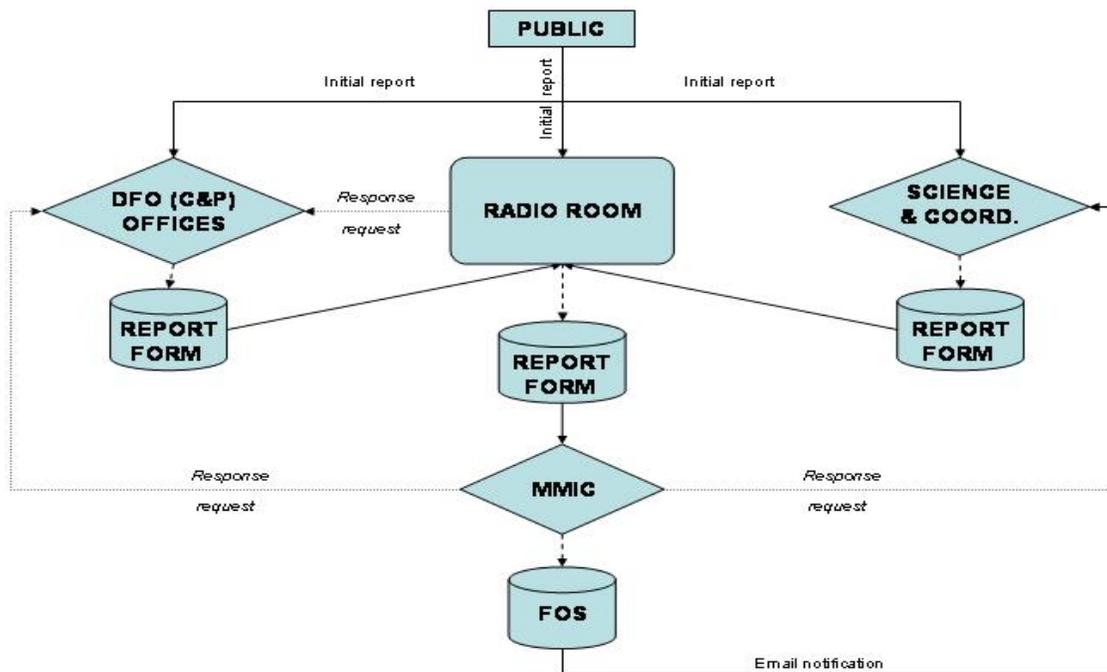


Figure 2 Incident data flow and reporting methods

3.2. Procedures for Radio Room Employees

The following provides detailed instructions for DFO Radio Room staff to follow when collecting and reporting marine mammal and sea turtle incidents (except abandoned seal pups, see section 3.4.4). Figure 3 offers a summarized version of these steps in the form of a flowchart.

If a sighting of a marine mammal or a sea turtle is reported, see Section 2 for instructions.

3.4.1. Data Collecting

When the Radio Room receives a phone report of a marine mammal or sea turtle incident, Radio Room staff should enter the information into a Marine Mammal Incident/Occurrence Reporting Form (Appendix D). To ensure all necessary information is collected the following data should be gathered from the reporting public. To help determine the species type involved in the incident, refer to Appendix A.

- a) date and time (*details of how to find the location, when and where the incident occurred, when it was reported*)
- b) geographical location (*especially latitude and longitude if still floating*)
- c) type of incident (see definitions on back of Marine Mammal Incident/Occurrence Form in Appendix D)
- d) other details of the incident (*what happened*)
- e) species (*if known – see Appendix A and B for species descriptions and images*)
- f) description of animal (*length, colour, behaviour, markings*)
- g) number of animals
- h) condition (*sick / injured / dead, wound description, state of decomposition*)
- i) name and contact information of person reporting
- j) evidence collected (*samples, photos, video, other witnesses*)

Photographs can be very valuable tools in identifying marine mammals and sea turtles, and documenting evidence. Please encourage persons reporting incidents to take photos (especially digital images) of their encounters. Be sure to obtain an email address for the reporting public or offer the email address of the MMIC (usually spavenl@pac.dfo-mpo.gc.ca) so that digital images can be exchanged.

When the Radio Room receives a faxed Marine Mammal Incident/Occurrence Report Form from a DFO or CCG office, Radio Room staff will review the information provided and a follow-up call may be necessary to acquire the information necessary to determine the Level of Priority.

3.4.2. Determining Action Urgency

Once all information is recorded, the incident's Action Level shall be determined by Radio Room Staff. The Action Level designation is the key to alerting Science and/or Enforcement (C&P) staff in a timely fashion and to initiate the appropriate incident response, if necessary. The Action Level designation table (Table 1) is based on the incident and species type involved and includes both science/management and enforcement components.

3.4.3. Response Initiation

Once the Priority Level is determined, Radio Room Staff are responsible for taking the following actions, based upon the designated Priority Levels for Science and Enforcement.

1. Immediate Action:
 - a. Science/Management:

Please immediately call the MMIC at (250) 713-3924. If unable to contact someone in person, refer to Appendix C and call the MMC or a Science Staff member responsible for that species group. Fax a copy of the incident report form to the MMIC at (250) 756-7053.
 - b. Enforcement:

Please immediately call or radio the local field office (or supervisor if after-hours) to request an investigation and notify the MMIC. Fax a copy of the incident report form to both the local C&P office and the MMIC.
2. Message & Fax:
 - a. Science/Management:

Please call the MMIC at (250) 713-3924 as soon as possible and leave a message if no answer. Fax a copy of the incident report form to the MMIC at (250) 756-7053.
 - b. Enforcement:

Please call the local C&P office during office hours, or leave voice mail message (after hours). Fax a copy of the incident report to both the local C&P office and the MMIC.
3. Fax Only:
 - a. Science/Management:

Collect information on Incident/Occurrence form. No additional action is required. Fax a copy of incident report to the MMIC at (250) 756-7053.
 - b. Enforcement:

Fax incident/occurrence report to both the local C&P office and the MMIC.

Table 1. Radio Room Action Level designation guide. Action Levels may be altered from the table listings based on the individual circumstances of an incident. This decision is at the discretion of the Radio Room Staff, who may consult a Fishery Officer or the Marine Mammal Incident Coordinator to better assess the Priority Level required on a case by case basis.

SPECIES TYPE	Who to call	Immediate Action <i>(immediate field response necessary)</i>	Message & Fax <i>(poss. investigation / science interest)</i>	Fax Only <i>(data tracking only)</i>
VIOLATION RELATED INCIDENTS				
All Species	<i>Local C&P Office</i>	<ul style="list-style-type: none"> - Enforcement incidents occurring or on same day - (Disturb/harass/Shooting – MMR S7 or SARA violation) - Shooting or shot animal found alive 	Enforcement incidents within last 24 hours (Disturb/harass/Shooting – MMR S7 or SARA violation)	Enforcement incidents more than 24hours (Disturb/harass - poss. S7 or SARA violation)
SCIENCE OR MANAGMENT RELATED INCIDENTS				
WHALE DOLPHIN PORPOISE	<i>MM Incident Coordinator</i>	<ul style="list-style-type: none"> - Alive but injured or sick (incl. collision, entanglement) - Live stranding - Dead animal in any condition 		<ul style="list-style-type: none"> - Unusual sightings
SEAL & SEALIONS	<i>MM Incident Coordinator</i>	<ul style="list-style-type: none"> - Alive but injured or sick (incl. collision, entanglement, oil spill contamination) - Dead (oil contaminated or near oil spill) 		<ul style="list-style-type: none"> - Tagged or branded animal - Dead animal (any condition) - Unusual sightings
	<i>Licensed Rehab.</i>	<ul style="list-style-type: none"> - Orphaned seal pups (Refer caller to rehab facility) 		
SEA OTTERS	<i>MM Incident Coordinator</i>	<ul style="list-style-type: none"> - Alive but injured or sick (incl. collision, entanglement, oil spill contamination) - Dead animal (good condition or oiled) 	<ul style="list-style-type: none"> - Dead (any condition except good) 	<ul style="list-style-type: none"> - Tagged or branded animal - Unusual sighting
SEA TURTLE	<i>MM Incident Coordinator</i>	<ul style="list-style-type: none"> - All turtles dead or alive (any condition) 	<ul style="list-style-type: none"> - Sightings 	

"Good condition" is loosely defined as an animal that is freshly dead, not bloated or smelling too badly - perhaps dead only a few days

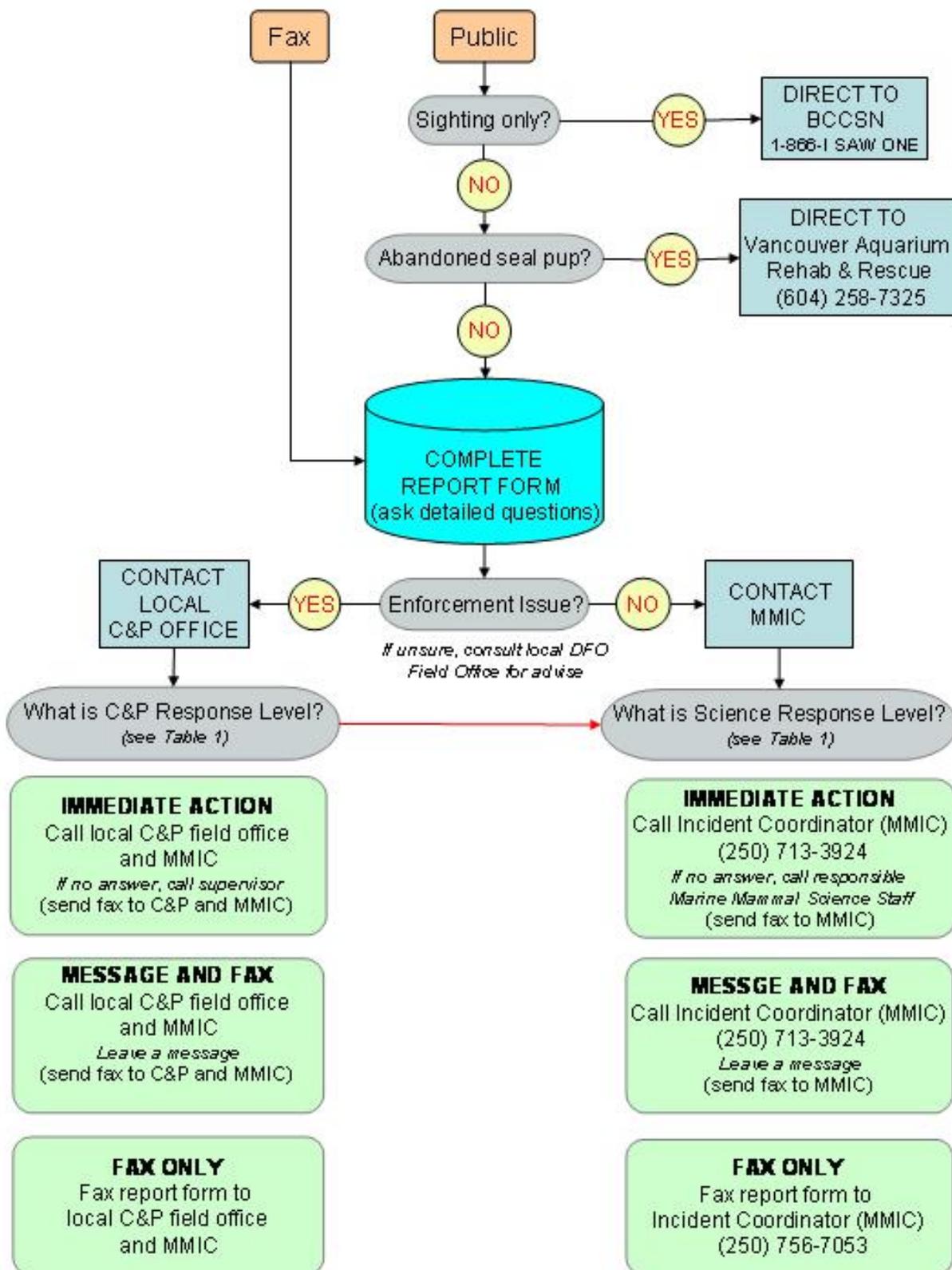


Figure 3 Radio Room marine mammal incident actions flowchart.

3.3. Procedures for Marine Mammal Incident Coordinator

The MMIC is responsible to:

- Receive incident reports, and follow up with callers;
- Consult on Priority decisions with C&P officers and the Radio Room;
- Consult with and obtain advise from Science staff regarding response options
- Decide whether a response is necessary and feasible based on logistic support, # of animals involved, environmental conditions, animal condition, risk to human safety;
- Initiate a timely and effective response, as necessary;
- Request assistance from various resources (C&P, CCG, researchers, rescue/rehab facilities, NGO's, etc.);
- Delegate tasks to others on response team;
- Inform Communications personnel and MMC of an ongoing event, if necessary;
- Advise Canadian Coast Guard Marine Communications and Traffic Services (MCTS) at 604-666-6012 if an incident poses a possible marine traffic obstruction/hazard, especially when floating near a shipping lane or busy marine traffic areas; and
- Inform the DFO Radio Room if a researcher is sent out to investigate/respond to an incident (e.g., sampling, rescue) or sighting (e.g., photo ID) so that if any further reports are fielded the Radio Room is aware that the incident is being dealt with and so that if a report is received regarding a harassment issue the Radio Room is aware that the vessel/person in question may be a researcher operating under a valid Research Permit.

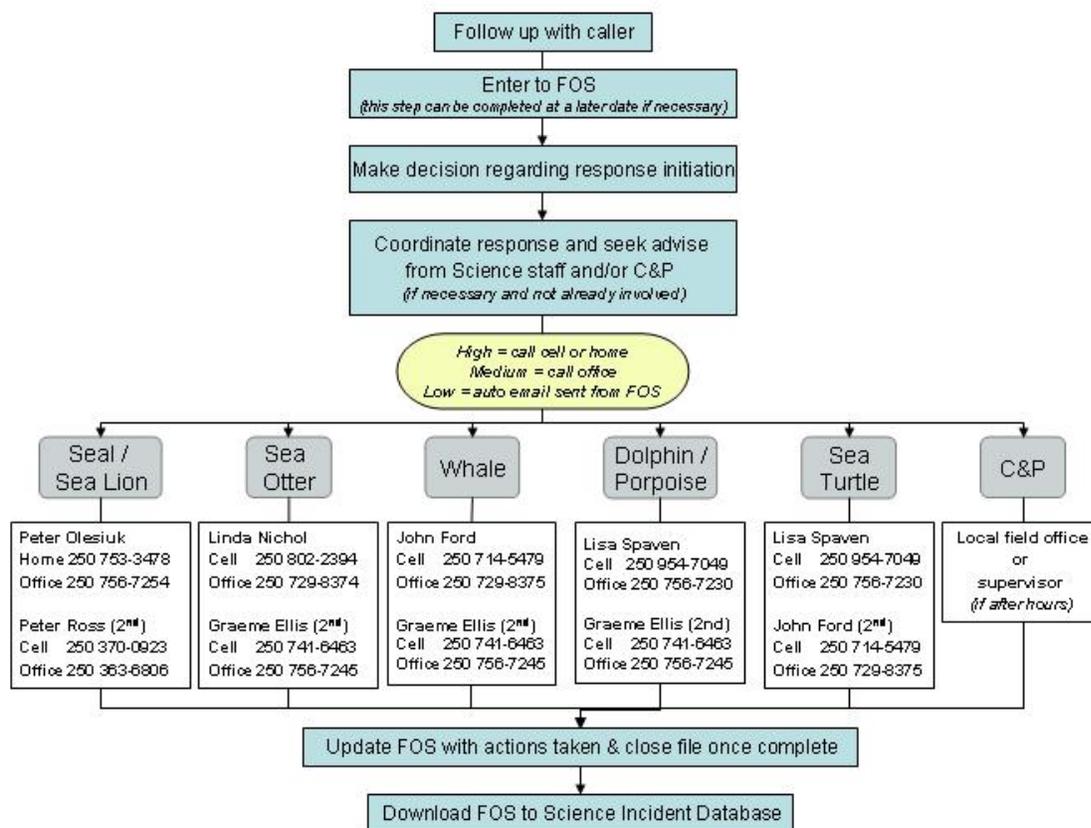


Figure 4 Marine Mammal Incident Coordinator incident actions flowchart.

3.4. Advising the Public

3.4.1. General Feedback

It is important that the caller is acknowledged for having taken the time to collect information and contact the Department. However, it is essential to set appropriate expectations. Please advise the caller that all reported incidents are compiled in a DFO database which assists Science Staff in assessing the health of marine mammal populations and better understand the threats that they may be facing. And, for incidents where there is a suspected violation (i.e. disturbance or harm) advise the caller that their report will be forwarded to the Enforcement Staff for the area where the incident occurred.

Further, advise the caller that another DFO staff may call them for additional information, but that the nature of any further action by DFO will be determined by the Incident Coordinator or Enforcement Staff based on the priorities established for each species and the logistics of the situation. A DFO staff or designated responder will not necessarily attend every report. Below, you will find additional information to provide to public callers on specific types of reports that occur most frequently.

3.4.2. Further Assistance of Public

If the public wishes to remain involved in incident monitoring or the ensuing response, please advise them to remain at a safe distance and to not touch, move or feed any marine mammal or sea turtle. If the animal is sick or injured, they may remain in the area and monitor the animal's movements and behaviour until response staff arrive, keeping disturbance to a minimum. Any further public assistance will be requested by the MMIC or Science Staff along with the appropriate safety precautions.

DO NOT TOUCH A DEAD OR ALIVE MARINE MAMMAL OR SEA TURTLE, OR ATTEMPT ANY RESCUE EFFORTS WITHOUT PRIOR APPROVAL AND ADVICE FROM DFO MARINE MAMMAL INCIDENT COORDINATOR OR SCIENCE STAFF

Marine mammals and sea turtles can contain and attract diseases and scavengers that may be harmful to human health, without taking adequate safety precautions.

3.4.3. Photographs

Photographic evidence is one of the most important tools to identify species and record evidence (especially if the animal is alive or a carcass is unable to be kept for further analysis). Please encourage public to take photos (especially digital) of all identifying marks, wounds, and each section of the body (especially the head and tail) from as many sides and angles as possible. Please send photos by email to the MMIC (usually spavenl@pac.dfo-mpo.gc.ca).

3.4.4. Orphaned or Abandoned Seal Pups

Reports of abandoned or stranded seal pups are common from June through September during the harbour seal pupping season. Seal pups stay with their mothers for 4 to 6 weeks after birth. Pups whose mothers are away foraging are often believed abandoned or orphaned resulting in unnecessary intervention. A Seal and Seal Pups Fact Sheet that can be provided to the public is included in Appendix E of this document. No incident/occurrence form is required.

Unless the seal is being harassed or harmed, in which case the call becomes an incident report, the following information should be provided to callers.

- Do stay a safe distance away from the seal.
- Do not touch, move disturb, harass or attempt to feed or pour water on the seal.
- Do observe the condition, size, location and circumstances of the seal.
- Do prevent harm to the pup, by keeping children, dogs and other pets away.
- Do keep any activity around the pup to a minimum as a mother is less likely to attempt to return to its pup in the presence of much human activity.
- Advise that pup may not be abandoned and to observe at a distance for signs of mother and make observations animal size, condition, signs of injury, etc.
- If they remain concerned or want more information they can call the Vancouver Aquarium Marine Mammal Rescue and Rehabilitation at 604-258-SEAL (7325).

Harbour seal populations in British Columbia are at historic high levels. It is natural that a proportion of pups will not survive the first year of life due to premature birth, predation, disease, dehydration or starvation. While the Department endorses rehabilitation to meet public expectations and contribute to ongoing research, rehabilitation is not seen as necessary to the survival of natural seal populations. Rehabilitation can pose risks related to disease transfer which are managed carefully at licensed facilities. Rehabilitation at non-licensed facilities is prohibited. Rescue and rehabilitation of other marine mammal species, particularly for SARA listed species, is considered on a case by case basis.

Licensed Rehabilitation Facilities:

Vancouver Aquarium Marine Mammal Rescue and Rehabilitation
604-258-SEAL (7325)

Island Wildlife Natural Care Centre (Saltspring Island) 250-537-0777

3.4.5. Moulting Elephant seals

- Keep any activity around the animal to a minimum.
- To prevent harm to the animal, try to keep dogs and birds away.

Moulting is a natural 3 to 4 week process which occurs annually: adult females and juveniles (March to May); adult males (June to August); and juveniles and yearlings (September to November). During this period, elephant seals lose almost all their attached skin and fur. Because of their dishevelled and sometimes emaciated appearance during this time, moulting elephant seals (especially pups) are often mis-identified as sick animals and are unnecessarily taken to a wildlife rescue and rehabilitation facility. Unless the animal shows signs of other injuries, it should be left alone.

3.4.6. Carcass Removal

The Department does, occasionally, collect dead marine mammals for necropsy or other scientific purposes. However, DFO does not have a mandate or responsibility to remove dead marine mammals. Generally, we advise the public that the decay of a animal is a natural process that supports the ecosystem. However, for public health and safety reasons, it is sometimes necessary to remove remains from very public areas. If this is the case, please advise the caller that some local municipalities will dispose of carcasses and that the MMIC will contact the caller regarding disposal options once it has been determined whether samples will be collected.

3.4.7. Follow Up Calls

If the reporting public calls the DFO Radio Room after their initial incident report to check on its status and DFO's resulting actions, please refer them to the MMIC, or DFO Communications Staff for follow up requests.

3.5. Oil and Chemical Spills

When oiled marine mammals are discovered, please ensure they are reported to the DFO Radio Room as marine mammal incidents (dead, injured or sick). Marine mammals that are found oiled (alive or dead) or found dead near a recent spill event are likely to be examined and/or collected for both necropsy and legal purposes. It is critical that these animals are reported to the Radio Room in a timely manner to initiate the appropriate response (see Section 3.1).

However, when multiple animals are found oiled and/or a significant marine oil slick is discovered, it should ALSO be reported to Environment Canada or the BC Ministry of Environment (co-chairs of Regional Environmental Emergency Response Team), as the spill will be addressed in various oil spill response plans that exist for the BC coast (e.g., CANDIX, CANUSPAC), in conjunction with oil spill response plans designed from particular species (e.g., Sea Otter Oil Spill Response Plan for Canada's Pacific Coast).

To report a marine oil spill, please call 1-800-OILS-911 to reach the Pacific States/British Columbia Oil Spill Task Force (currently routed to the BC 24-hour emergency reporting system). This program includes the US states of Washington, Oregon, California, Alaska and Hawaii, as well as British Columbia and is also part of spill prevention program.

4. DFO Primary Response

Where it has been determined that DFO staff can attend the site of a marine mammal non-violation incident the role of the primary response personnel is to ensure that the data reported is accurate. They may be asked to monitor and assist in the data and sampling collection, rescue, or treatment of the marine mammal(s) in question. Public safety must remain the primary consideration in any incident involving a marine mammal. All safety precautions must be adhered to throughout any interactions with marine mammals or sea turtles (see Section 5).

Decisions to investigate violation related marine mammal incidents will be made according to Conservation and Protection Branch protocols. The lead officer will provide a summary of the information collected and actions taken to the MMIC for database purposes.

When investigating an incident, please follow-up with the Radio Room and Marine Mammal Incident Coordinator (MMIC) of any decisions or actions taken so they can better inform any further callers. Once an investigation is complete, please provide a summary of the observations, actions taken or any other relevant information the MMIC for inclusion into the database.

In the case of high profile incidents, the lead officer or respondent will inform the Marine Mammal Coordinator and the Marine Mammal Communications Officer (MMCO) of the incident. Where necessary, a spokesperson may be assigned to address all media and public enquiries.

DO NOT TOUCH A DEAD OR ALIVE MARINE MAMMAL OR SEA TURTLE, OR ATTEMPT ANY RESCUE EFFORTS WITHOUT PRIOR APPROVAL AND ADVICE FROM DFO MARINE MAMMAL INCIDENT COORDINATOR OR SCIENCE STAFF

4.1. All species

Response personnel will assess the situation including the actual condition of the animal and report the following to the MMIC before taking action.

- The number, species and description of the marine mammals affected;
- the exact location and its proximity to populated areas;
- the condition and behaviour of the animal(s), i.e. injured, appears sick, etc.; and
- collect photos where possible.

The MMIC should be contacted to obtain advice and expertise prior to any action being taken. Often untrained attempts to disentangle, re-float, or aid a marine mammal or sea turtle can result in additional injuries to the animal or the person attempting to provide assistance.

Injured or sick animals (alive):

- Attempt to locate the animal and monitor it's movements and condition,
- Maintain a 'safe' distance from the animal
- Avoid attempts to move the animal
- Crowd control may be necessary

Entangled animals (alive):

- Attempt to locate the animal and monitor it's movement and condition

- Maintain a 'safe' distance from the animal
- Do not attempt to move the animal or remove the gear.
- Crowd control may be necessary

Dead animals:

- Do not touch, unless safety precautions taken (see Section 5)
- If requested, secure carcass for future collection

The Department does not have a mandate to remove dead marine mammals; however, this is sometimes done in the interest of public health and safety. Please contact the MMIC for advice.

4.2. Cetaceans

Stranded cetaceans (alive):

- Maintain a 'safe' distance from the animal
- Avoid any attempts to move the cetacean
- If intervention is necessary, keep the cetaceans skin wet (if possible), keep the blowhole clear of any debris and keep the animal in an upright position
- Crowd control may be necessary

4.3. Pinnipeds

Seals and sea lions should not be approached as they may be aggressive, especially when sick or injured and may even charge if disturbed.

Orphaned and Abandoned seal pups

Seal pups stay with their mothers for 4 to 6 weeks after birth. The mother often leaves the pup temporarily unattended while in search of food. To determine if a seal pup is actually abandoned and may be in need of intervention in order to survive, please:

- Leave seal pup alone for 24 hours to establish if the pup is an orphan or if the mother has only left temporarily
- Keep any activity around the pup to a minimum as a mother is less likely to attempt to return to its pup in the presence of much human activity
- To prevent harm to the pup, try to keep dogs and birds away

Prior to, or after the above actions have taken place (and the seal pup is thought to be abandoned), it should be reported to the the Vancouver Aquarium Rescue and Rehabilitation Program to determine if intervention is required.

However, if C&P is requested to assist in capture (in the absence of a licensed transport organization) with the intention to rehabilitate, please ensure the use a net and heavy leather gloves to collect the animal and transport in a well ventilated plastic pet carrier lined with absorbent towels.

Moulting Elephant seals

Moulting is a natural 3 to 4 week process which occurs annually: adult females and juveniles (March to May); adult males (June to August); and juveniles and yearlings (September to November). During this period, elephant seals lose almost all their attached skin and fur. Because of their dishevelled and sometimes emaciated appearance during this time, moulting elephant seals (especially pups) are often mis-identified as sick animals and are unnecessarily taken to a wildlife rescue and rehabilitation facility.

- Keep any activity around the animal to a minimum
- To prevent harm to the animal, try to keep dogs and birds away
- Report the location of the animal to the DFO Radio Room (although a response intervention is unlikely in these cases, DFO would like to track to location of these animals in case of further reports or harm.

Euthanization

Where necessary, the MMC, MMIC, Science Staff or the Area Chief of C&P may approve a request for assistance from or advice from a licensed veterinarian. If a veterinarian determines that the animal cannot benefit from further intervention, euthanization may be considered. C&P officers shall consult their Special Operating Procedures for instructions on how to euthanize a pinniped.

4.4. Sea Turtles

Cold-shocked turtle

As most sea turtles occur in temperate climates, they are sometimes susceptible to cold shock due to BC's colder water temperatures. Leatherback turtles are able to regulate their body temperature several degrees above surrounding water temperature. Green turtles and other sea turtles species do not have this ability and can become lethargic and unresponsive when in a cold-shocked condition. There are methods to test for and reverse this condition, but should only be performed by trained professionals.

- Monitor the turtle's location
- Maintain a safe distance
- Minimize disturbances
- If an attempt to intervene is necessary, remove the turtle from cold water and allow reheating in the sun or under a blanket.

5. Sampling and Safety Precautions

5.1. Sample Collection

If DFO Science Staff determine that the remains of a marine mammal or sea turtle are of use to research efforts and that samples should be collected, they may request that Field Staff assist by gathering samples such as photographs and/or tissue. Tissue samples are used for DNA, disease, and toxicological analysis. All sampling will require DFO Marine Mammal Science Staff approval and instruction. The following is a list of possible samples that may be requested.



Cetaceans

- Skin / Blubber
- Teeth (if applicable)
- Bones (if carcass is in a state of decomposition)

Marine Turtles

- Skin samples (from back of neck)

Pinnipeds

- Whiskers
- Skin / Blubber

Sea Otters

- Fur (including skin, if possible)
- Teeth

In some cases the entire carcass will be collected and submitted for post mortem analysis (especially in the case of smaller animals such as sea otters, porpoise and dolphin species). If a carcass is collected, please attach a tag or label securely to the animal including date, location, species and FOS incident # (call the MMIC is FOS # is not known).

5.2. Photography

Photographic evidence is one of the most important tools for Science Staff if the animal is alive or a carcass is unable to be kept for further analysis. Please encourage response personnel to take photos (especially digital) of all identifying marks, wounds, and each section of the body (especially the head and tail) from as many sides and angles as possible. Some species are readily identified by certain distinguishing patterns, for these animals a photo can determine the species and perhaps the individual whale as well.

- Killer whales are identified from photos of the left side of the dorsal fin and the saddle patch (lighter pigmentation just behind the dorsal fin).
- Humpback and grey whales are identified by their underside of the tail flukes. The patterns formed by the pigmentation, shape, scarring and nicks combine to distinguish each animal.
- Blue and fin whales are identified by pigmentation and scarring patterns found on the right side of the body in front and behind the dorsal fin.

5.3. Safety Precautions

Wild animals often carry numerous diseases and infections (viral, fungal, bacterial and pathogenic) and may be transmittable to humans. Avoid contact with the blood or other bodily fluids of any marine mammal or sea turtle. This includes both alive and dead animals. Always wear gloves and/or any other protective clothing as advised by Marine Mammal Science Staff. Contact a physician if anyone is bitten by a marine mammal or sea turtle or if there is any concern due to inadvertent contact with an animal's bodily fluids.

- Always wear protective gloves (medical or plastic gloves)
- Wash any exposed areas of skin thoroughly with anti-bacterial soap as soon as possible.

6. Legislation

The following sections provide a general overview of the various Acts, Regulations and Conventions that direct the protection, management and control of activities affecting marine mammals. These are summarized in Table 1. Please consult the specific Acts and Regulations for accurate information.

6.1. Fisheries Act and Regulations

Marine mammals and sea turtles are included in the definition of fish in the *Fisheries Act*. The *Fisheries Act* and several regulations under the *Fisheries Act* apply to marine mammals and sea turtles. These include the *Fishery (General) Regulations* and the *Marine Mammal Regulations*. The full text of the Marine Mammal Regulations can be found at <http://laws.justice.gc.ca/en/F-14/SOR-93-56/>. A short summary of the most relevant regulations for marine mammals is provided below.

Section 52 of the Fishery (General) Regulations provides the authority for the issuance of licences for experimental, scientific, educational or public display purposes. Section 56 provides the authority to release or transfer fish. Policy and procedures on how and when these licences may be issued for marine mammals have been developed. For more detailed information see the DFO Marine Mammal site at http://www.pac.dfo-mpo.gc.ca/species/marinemammals/default_e.htm and Section 7 of this document for licensing contacts.

Section 7 of the *Marine Mammal Regulations* prohibits the disturbance of marine mammals except when fishing for marine mammals under the authority of a licence. The word disturb is not specifically defined but could be interpreted as any activity that alters, disrupts or prevents a marine mammal from carrying out its normal life processes. Normal life processes include resting, feeding, foraging, communicating, socializing, mating and caring for young.

A regulatory amendment process is in the final stages of completions to amend the *Marine Mammal Regulations* to include more specific regulations to protect marine mammals. The proposed amendments set out the specific manner in which vessels and people can interact with marine mammals. The *Be Whale Wise: Marine Wildlife Guidelines for Viewers, Boaters and Paddlers* have been developed by DFO and the US, National Oceanic and Atmospheric Administration (NOAA) to provide direction on how boaters and viewers in particular can carry out their activities without “disturbing” marine mammals. The BWW Guidelines are available on the Internet at www.comm.pac.dfo-mpo.gc.ca/pages/MarineMammals/default_e.htm

Section 15 of the *Marine Mammal Regulations* covers the transportation of live and dead marine mammals and marine mammal parts, including artwork, biological specimens or any other materials. This section applies to the movement of these materials across provincial or territorial boundaries and species that are not listed in *CITES* appendices that move across an international boundary. First Nations are exempted from this requirement. See Section 7.4 for more information on issuance of these licenses.

In 2003, the *Marine Mammal Regulations* were amended to include licensing the killing of nuisance seals under the authority of a Nuisance Seal Licence (NSL). The term nuisance seal is defined in the Marine Mammal Regulations as:

"nuisance seal" means a seal that represents a danger

- (a) to fishing equipment despite deterrence efforts, or
- (b) based on a scientific recommendation, to the conservation of anadromous or catadromous fish stocks because it inflicts great damage to them along estuaries and in rivers and lakes during the migration of those species; (*phoque nuisible*)”

The primary application of this regulation is for the protection of aquaculture activities. However, in some instances, issuance of a NSL has been necessary under the conservation aspect (b) of the definition. A general policy on the application of this regulation has been developed nationally and Pacific Region implementation guidelines are currently being developed. For more information contact see Section 7.2.

While there are many additional sections in the *Marine Mammal Regulations*, these primarily pertain to the control and management of marine mammal harvest. In the Pacific Region there are no licences that permit the capture or killing of marine mammals, except for nuisance seals licences, scientific licences or First Nations Communal licences for pinnipeds.

6.2. Species at Risk Act (SARA) – June 2003

The *Species at Risk Act* ensures that all listed species and their critical habitat are protected at a level necessary for their survival and recovery. Some marine mammals and sea turtles are listed in the *Species at Risk Act*.

The Act includes prohibitions on the killing, harming, harassing and possession of species listed as threatened and endangered and the protection of their critical habitat. The Act requires the licensing of any activity that may harm, harass or kill a listed species where (a) the activity is scientific research relating to the conservation of the species and conducted by qualified persons; (b) the activity benefits the species or is required to enhance its chance of survival in the wild; or (c) affecting the species is incidental to the carrying out of the activity.

For efficiency, a streamlined process has been developed to combine Marine Mammal Licensing with SARA Licensing. For more information see the DFO Marine Mammal Website at see the DFO Marine Mammal site at http://www.pac.dfompo.gc.ca/species/marinemammals/default_e.htm

6.3. Oceans Act – January 1997

Under Canada's Ocean's Strategy for the management of marine ecosystems, certain activities may be limited within a Marine Protected Area (MPA) in order to mitigate the level of disturbance to marine animals or the impact to their habitat within the MPA boundaries.

6.4. Convention on the International Trade of Endangered Species (CITES) – July 1975

Most marine mammals and all sea turtles are listed in the Appendices to the Convention for the International Trade of Endangered Species for the purposes of stopping the illegal trade in endangered species. The convention requires that a permit be issued when live or dead, whole or parts (including artwork) are to cross an international boundary. See Section 7.5.

Table 3. Summary of Acts, Regulations and Conventions that direct the control and management of activities affecting marine mammals.

Act or Convention	Section or Regulation	Application
Fisheries Act	General Regulations, S52	Licensing for research, educational or display purposes
	General Regulations, S57	Transplant authority (including capture and captive placement)
	Marine Mammal Regulations, S7	Prohibition on the disturbance of marine mammals
	Marine Mammal Regulations, S15	Authority for the Transport of Marine Mammal or Marine Mammal Parts
Species At Risk Act	Section 32 & 33	S 32 & 33 Prohibition on the harming of a listed species or destruction of their residence.
	Section 83	Permitting of incidental harm or recovery activities that may cause harm, harassment or death.
Oceans Act		Marine protected areas may limit types of activities that may be conducted in a MPA.
Convention on the International Trade of Endangered Species (CITES)		Permits of the transport of listed species (or their parts) across international boundaries.

7. Licensing Information and Contacts

Licences are required for:

- Fishing/Harvest of marine mammals
- Killing of nuisance seals
- Conducting research that involves a disturbance to a marine mammal
- Transplanting live marine mammals from one habitat to another or to a rearing facility
- Transporting marine mammals or marine mammal parts between provinces or territories, or countries

7.1. Harvest Licences

There are no commercial licences to hunt marine mammals or sea turtles in the Pacific Region. Some First Nations have the authority under a communal licence to harvest seals for Section 35 purposes or under an individual First Nations authority. Area Resource Managers with responsibilities for First Nations programs can provide further information on communal licenses. For more information please contact:

Marilyn Joyce, Marine Mammal Coordinator
Tel: (604) 666-9965
Joycema@pac.dfo-mpo.gc.ca

7.2. Nuisance Seal Licence

A nuisance seal is defined under the Marine Mammal Regulations of the Fisheries Act as:

“a seal that represents a danger

(a) to fishing equipment despite deterrence efforts, or

(b) based on a scientific recommendation, to the conservation of anadromous or catadromous fish stocks because it inflicts great damage to them along estuaries and in rivers and lakes during the migration of those species; (phoque nuisible)”

Nuisance seal licenses are issued in the Pacific Region under provision (a), primarily for aquaculture facilities and test fisheries, and (b) in limited cases where a conservation concern has been demonstrated for a spawning salmon stock and seals have the potential to undermine conservation objectives.

For information related to nuisance seal licensing, please contact:

Monica Walker
Aquaculture Division of Fisheries and Aquaculture Management
Tel: (604) 666-3152
Walkerm@pac.dfo-mpp.gc.ca

All other inquires should be directed to:

Marilyn Joyce, Marine Mammal Coordinator
Tel: (604) 666-9965
Joycema@pac.dfo-mpo.gc.ca

7.3. Scientific Licenses

All scientific licences for the tagging, sampling, and close approach of marine mammals are issued by the Marine Mammal Co-ordinator. Information on applying for a licence can be found on the DFO, Pacific Region Marine Mammal Web site at www.pac.dfo-mpo.gc.ca. A database

of current year licences issued can be found on the Region Drive at [\\Marine Mammals\Licenses\2006 MML.xls](#).

Please contact the Marine Mammal Program Manager if you require further information or a copy of a licence that has been issued.

Annelly Greene, Marine Mammal Program Manager
Tel: (604) 666-0071
Greenea@pac.dfo-mpo.gc.ca

7.4. Transport Licence

By authority of the *Marine Mammal Regulations* of the *Fisheries Act*, a marine mammal transportation licence (MMTL) is required for the transport within Canada of marine mammals, live or dead, whole or parts, worked bone/ivory, skin and tissue samples, blood samples, etc. *This requirement applies only to marine mammals of Canadian origin*, i.e., whales, seals, sea otters, sea lions and walrus. There may be additional territorial or provincial requirements for transport of marine mammals.

If the request to transport is a component of a Marine Mammal Scientific Licence, it will be handled through the Scientific Licence process (see Section 7.3). For general information, or to refer parties for licence application the following, contacts are available to assist:

Wanda Saunby in Vancouver, BC
Tel: (604) 666-1796
Fax: (604) 666-9136

Jacques Jobin in Whitehorse, YT
Tel: (867) 393-6718
Fax: (867) 393-6738

Note: A minimum of five business-day's lead-time is required to obtain a licence.

7.5. Import and Export Permits (CITES)

Most marine mammals and all sea turtles are listed in one of the Appendices of the Convention on International Trade of Endangered Species (CITES).

CITES permits may be required when exporting or importing any listed marine mammals or sea turtles (live or dead, whole or parts, worked bone/ivory, skin and tissue samples, blood samples, etc.). This requirement applies regardless of the origin of the marine mammal or sea turtle. For more information and an application:

Wanda Saunby, Program Officer Enforcement Operations
Tel: (604) 666-1796
Fax: (604) 666-9136
Saunbyw@pac.dfo-mpo.gc.ca

7.6. Species at Risk Act (SARA) Licences

Some marine mammals and leatherback turtles are protected and/or identified as species of concern under the *Species at Risk Act*. Under Section 73 of SARA the Minister may enter into an agreement with a person, or issue a permit to a person, authorizing the person to engage in an activity affecting a listed wildlife species, any part of its critical habitat or the residences of its individuals only if the competent minister is of the opinion that:

- (a) the activity is scientific research relating to the conservation of the species and conducted by qualified persons;

(b) the activity benefits the species or is required to enhance its chance of survival in the wild; or

(c) affecting the species is incidental to the carrying out of the activity.

Generally, for marine mammals, these types of permits are issues to permit research, carcass collection and possession, photography or videography. For information on SARA protected species and SARA Permits, please contact:

Annely Greene, Marine Mammal Program Manager

Tel: (604) 666-0071

Greenea@pac.dfo-mpo.gc.ca

APPENDIX A: Identification Guide to Marine Mammal and Sea Turtles of BC

If the animal type (cetacean, pinniped, otter or sea turtle) involved in the reported incident is unknown, the following questions are designed to help in that determination. Try to ask questions to help better describe certain body parts or colour patterns (but without prompting the caller - e.g. was the animal black and white in colour, or did it have any gunshot wounds). A detailed description as told by the caller is often more useful than a series of yes and no answers. A single characteristic alone is rarely sufficient for a positive identification of the animal. The more information an observer can provide, the better chance there is for a positive identification.

Please ask the reporting public the following:

- a) Does the animal have fur and 4 flippers?
If YES, it's likely a pinniped or a sea otter.
- b) Does the animal have a shell, 4 flippers and a beak?
If YES, it's likely a sea turtle.
- c) Does the animal have skin, a blowhole, 2 flippers, a tail and maybe a dorsal fin?
If YES, it's a cetacean.
- d) How big is the animal (estimate of length)? *Suggest comparing to size of a known object as reference.*
- e) What colour is the animal (describe the back, belly, underside of tail, head, throat)?
- f) What type of tail, fin(s), flippers does it have? *Describe the shape and size in proportion to overall body.*
- g) Does the animal have any markings (stripes, scars, pigmentation/colour patterns)?
- h) Does the animal have teeth or baleen (combs hanging from upper jaw like a filter)?

For further determination of species identification, please refer to Appendix A and B or direct callers to the "DFO Whale Dolphin and Porpoise" handbook (http://www-comm.pac.dfo-mpo.gc.ca/publications/whalesdpbook/default_e.htm).

Whales, Dolphins & Porpoises (Cetaceans)

Cetaceans belong to the Order Cetacea and can be broken out into 2 Sub-Orders Mysticeti (baleen whales) and Odontoceti (toothed whales, dolphins and porpoise). There are 26 species of cetaceans known to occur in BC waters - 7 species of baleen whales and 16 species of toothed whales.

Baleen whales are generally larger than toothed whales and feed on the smallest marine organisms by filtering large mouthfuls of water and prey through their comb-like baleen that hangs from their upper jaw. Some baleen whales feed by skimming the surface of the water, while others lunge feed or bottom feed.

Toothed whales include all dolphin, porpoise and beaked whale species, as well as sperm whales (and narwhals and belugas – not found in BC). Although generally smaller than baleen whales, toothed whales feed on larger prey than baleen whales such as fish, giant squid (in the case of sperm whales) and other marine mammals (in the case of transient killer whales).

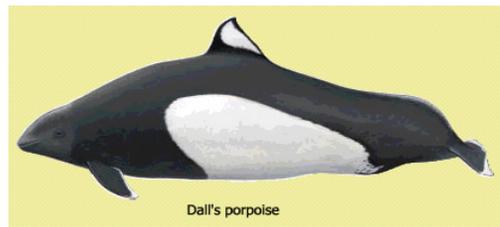
Cetaceans in BC face numerous threats to their survival. Several BC species are listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) due to their population

abundance in the Pacific Ocean and their vulnerability to threats. Most large whale species in BC were exploited by historical whaling efforts and have not yet rebounded to pre-whaling levels. Others are currently facing depletion in their food supply due to overfishing. However, the following threats may directly result in a cetacean incident occurrence in BC waters.

Eight species of cetaceans are common to BC and are described in this section. These include Dall's porpoise, harbour porpoise, Pacific white-sided dolphin, killer whale, minke whale, grey whale, humpback whale, and fin whales. Others species also described in detail are the false killer whale, sperm whale, sei whale, blue whale, North Pacific right whale, Northern right whale dolphin, and Risso's dolphin.

Ten species that are known to occur in BC but are more rarely encountered are not included in this identification section. These are short-beaked common dolphin, long-beaked common dolphin, striped dolphin, short-finned pilot whale, dwarf sperm whale, pygmy sperm whale, Baird's beaked whale, Hubb's beaked whale, Stejneger's beaked whale, and Cuvier's beaked whale.

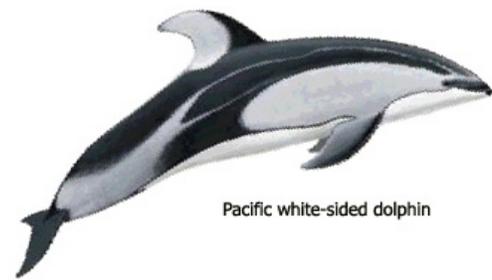
- Entanglement: Many whales are often victim to entanglement in discarded fishing gear adrift at sea. The net gets wrapped around flippers and tails and is dragged by the whale, digging deep into tissue and resulting in life threatening injuries and/or preventing the animal from feeding effectively.
- By-catch: Dolphins and porpoise are susceptible to incidental catch or entanglement (and subsequent drowning) in active fishing gear as well as in marine debris.
- Toxicity: Some cetaceans tissues have shown high contaminant loads due to accumulation of pollutants (e.g. PCBs and DDT) resulting in suppressed immune systems, and often death.
- Disease: Recently, numerous stranded dolphins and porpoises have been found carrying serious and contagious bacterial infections (previously rare in any marine species) that, combined with other ailments, have resulted in death.
- Disturbance: Some cetacean species are potentially negatively affected by increased vessel traffic – specifically disturbance from boat noise, ship strikes or collisions.
- Live Stranding: In parts of the world, there is evidence that sonar and other underwater military testing is causing detrimental harm to some cetacean species who become disoriented, and as a result, live strand.

Dall's Porpoise*Phocoenoides dalli***Status:** Not At Risk**Size:** Adults - slightly longer than 2 m (6.5 ft), and weigh about 220 kg (485 lbs)**Colour:** Shiny black except for a large white patch on the flanks and belly**Body shape:** Stocky, powerful, torpedo-like build**Head:** Small head with small, narrow mouth, but without much of a snout, or beak**Tail & fin:** Outer edges of tail look like they've been dipped in white or grey paint. Dorsal fin is triangular, and is often frosted with white or grey on the tip.**Behaviour:** Known for riding the bow waves of boats and make a v-shaped splash (rooster tail) with its dorsal fin as it rockets through the water. They almost never leap clear of the water.**Group size:** Most often travel in groups of five or less, but can be in group of up to 20 animals**BC range:** They can be seen year-round in coastal and offshore waters all along the BC coast, particularly where there are deep underwater channels and canyons.**Diet:** Small schooling fish - hake, mackerel, squid

Dall's porpoise

*Dall's porpoises are often described as "baby killer whales".***Harbour Porpoise***Phocoena phocoena***Status:** Special Concern**Size:** Adults - about 1.8 m (6 ft) long and weigh about 90 kg (198 lbs)**Colour:** Dark brown or grey in colour on its back, paler on its belly**Body shape:** Chunky**Head:** Small, rounded head with a short, straight mouthline that tilts slightly upwards. Does not have much of a snout, or beak**Flipper & fins:** Tiny flippers and a low, triangular dorsal fin**Behaviour:** Elusive, shy animals that rarely interact with boat.**Group size:** Usually seen alone or in pairs but, may gather in groups of up to 20 (rare)**BC range:** Prefer shallow coastal areas. Probably the most commonly seen cetacean in BC**Diet:** Eats squid and a wide variety of small fish, such as herring. It uses its small, spade-shaped teeth to capture its prey, which it usually swallows whole.

Harbour porpoise

Pacific White-sided Dolphin*Lagenorhynchus obliquidens***Status:** Not At Risk**Size:** Adults - 2.5 m (8 ft) long and weigh up to 180 kg (397 lbs)**Colour:** Black on the back, with striking light grey flanks, a pearl-white belly, and two grey stripes along the entire length of the back**Body Shape:** Sleek, tapered**Head:** Short snout, or beak, and long curved pectoral flippers**Dorsal fin:** Black and grey dorsal fin is tall and curved**Behaviour:** As they race through the water, their dorsal fins kick up a splash (rooster tail)**Group size:** Very social, normally travelling in groups of 20 to several hundred to more than 1000**BC range:** Seen year-round throughout BC waters, prefer offshore areas**Diet:** Small fish – hake, anchovy, squid

Pacific white-sided dolphin

Northern Right Whale Dolphin*Lissodelphis borealis***Status:** Not At Risk**Size:** Adults - 3 m (10 ft) long and weigh up to 110 kg (250 lbs)**Colour:** Predominantly black with some white between flipper and on belly**Body Shape:** Torpedo shaped, small flippers, no dorsal fin**Head:** Narrow head, pointed beak, protruding lower jaw**Dorsal fin:** None**Behaviour:** Shy, but often seen leaping, breaching, tail lobbying out of water. Often seen with Pacific white-sided dolphin.**Group size:** Very social, normally travelling in groups 5 to 200 animals**BC range:** Seen year-round throughout BC waters**Diet:** Mid-sized fish and squid

A. Denbigh

Risso's Dolphin

Grampus griseus

Status: Not At Risk

Size: Adults - 4 m (13 ft) long and weigh up to 500 kg (1100 lbs)

Colour: Grey/brown to white depending on age and scarring on back (common)

Body Shape: Similar to killer whale (robust) with long sickle shaped flippers, narrow tailstock

Head: Blunt head

Dorsal fin: Tall, slender, falcate

Behaviour: Not very acrobatic, but have been seen spy-hopping, tail-lobbing, etc.

Group size: Seen in groups of 3 to 50 animals

BC range: Prefer deep waters

Diet: Squid



A. Denbigh

False Killer Whale

Pseudorca crassidens

Status: Not At Risk

Size: Up to 6 m (20 ft) long and weighs up to 2.2 tonnes

Colour: All black

Body shape: Slender body

Head: Small, rounded head

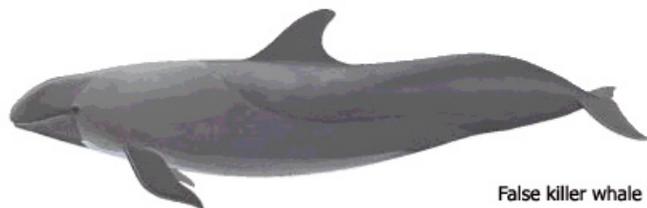
Fin & flippers: Curved dorsal fin with long, slightly bent flippers (almost 'S' shaped)

Behaviour: "Porpoising" leaps through the water, often breach and bow ride

Group size: May travel in groups of more than 500 animals, but a lone False Killer Whale has been inhabiting mainly the Southern BC waters for many years.

BC range: Not common in BC, but a few individuals have been seen near the coast in recent years. Many of these sightings could in fact be the same whale, because it has a strange habit of entering harbours and following boats.

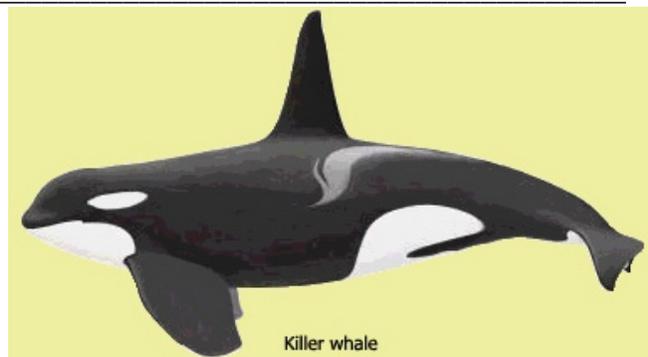
Diet: Squid and large fish (tuna)



False killer whale

Killer Whale*Orcinus orca***Status:**

Northern Residents: Threatened
 Southern Residents: Endangered
 Transients: Threatened
 Offshores: Special Concern

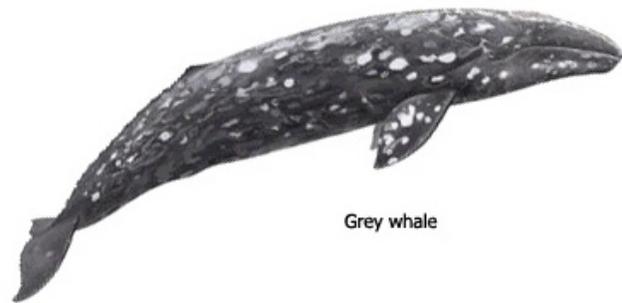


Size: Adult males - up to 9 m (29.5 ft) long and weigh up to 5 tonnes
 Adult females - up to 7 m (23 ft) long and weigh up to 4 tonnes
Colour: Mainly black above and white below, with an oval white patch behind each eye
Dorsal fin: Adult males - the fin sticks straight up, often as high as 1.8 m (6 ft)
 Females and juveniles - the fin is curved and < 1 m (3.3 ft) high
 behind the dorsal fin is a grey area, called the saddle patch.

Resident dorsal fins tend to be rounded at the top, with open saddle patch
Transient dorsal fins are more pointed, with closed saddle patch
Offshores possess slight differences from both residents and transients

Flippers: Adult males - paddle-shaped flippers are very large and the tips
Tail: Adult males - tips of flukes curl down.
Behaviour: Social, curious animals. Often seen spy-hopping, breaching, tail slapping.
Group size: Residents live in tight matrilineal family groups (pods) of 5 to 50 whales
 Transients usually travel in small groups of 2 to 4 animals
 Offshores usually travel in groups of 25 or more whales
BC range: Transients are not predictable; they can be seen anywhere, anytime.
 Offshores are often seen near the Queen Charlotte Islands, but they can turn up anywhere. They are seldom seen in protected coastal waters (except around S Vancouver Island in spring months over the last few years).
 Residents are sometimes seen in winter, but can vanish for months at a time.
 Northern residents live off N Vancouver Island and the mainland often visiting Johnstone Strait from mid summer to early winter. Southern residents are found off S Vancouver Island and Puget Sound during mid spring to late fall.
Diet: Northern and southern residents eat mainly fish, specializing on salmon species
 Transients prey on marine mammals such as seals and porpoises

The shape of the dorsal fin and the saddle patch, as well as natural nicks and scars on them, are unique to each killer whale. By photographing the dorsal fin and saddle patch of killer whales, researchers can tell individual whales apart.

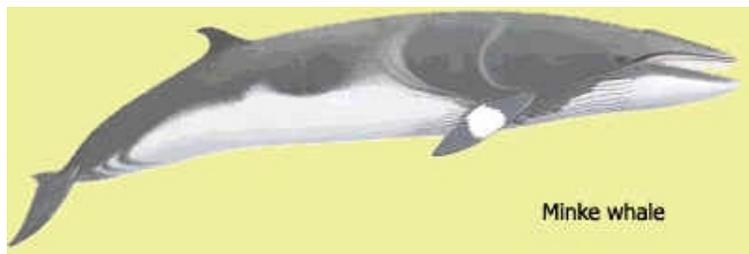
Grey Whale*Eschrichtius robustus***Status:** Special Concern**Size:** Up to 14 m (45.9 ft) long and weighs up to 35 tonnes**Colour:** Grey with whitish blotches**Body Shape:** Chunky upperbody**Head:** Narrow and triangular with a slight arch on the top and a long mouthline that curves downward. No ventral pleats, only short furrows.**Dorsal fin:** No dorsal fins but low hump followed by a series of small knobs along back**Flippers:** Broad and paddle-like**Blow:** Low and bushy; some people describe it as heart-shaped**Behaviour:** Can be very slow-moving bottom feeder, sometimes curious and friendly to boats**Group size:** Usually only in groups of 1-3 animals**BC range:** Some take up summer residency in nearshore waters and others pass by on their southern migration (Nov – Jan)**Diet:** Preys on benthic invertebrates (tube-dwelling amphipods, crab larvae, swarming mycids)

Grey whale

Humpback Whale*Megaptera novaeangliae***Status:** Threatened**Size:** Up to 16 m (52.5 ft) long and weighs up to 40 tonnes**Colour:** Dark grey to black**Body Shape:** Robust**Head:** Large mouthline, dropping sharply below the eyes. Fleshy bump on the tip of the lower jaw, often covered with barnacles. Ventral pleats.**Dorsal fin:** Rounded hump underneath its short, nubby dorsal fin**Tail:** Huge flukes with black and white patterns and scars, unique to humpbacks.**Flippers:** Enormous, white and black pectoral flippers (up to 1/3 body length)**Blow:** Low and bushy for a baleen whale and only up to 3 m (9.8 ft) high**Behaviour:** Can be very acrobatic and work in cooperation to herd and capture prey**Group size:** Up to 15 individuals**BC range:** Seen throughout BC waters during summer months. Migrate to breeding grounds in Hawaii and Japan in winter.**Diet:** Krill and schooling fish (herring, capelin)

Humpback whale

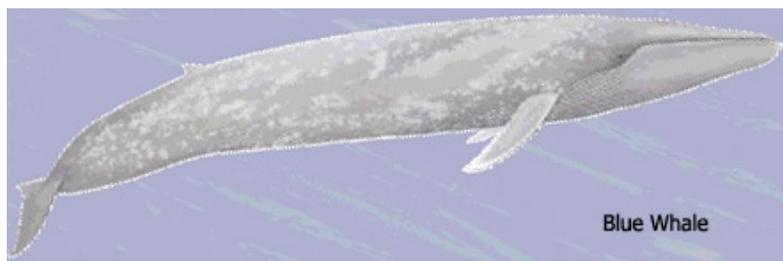
Researchers use the pigmentations and scarring on the underside of the tail flukes to identify individual whales. Like human fingerprints, no two humpback tails are the same.

Minke Whale*Balaenoptera acutorostrata***Status:** Not assessed

Size: Up to 10 m (33 ft) long and weighs up to 8 tonnes
Colour: Dark grey on top and white on underbelly, with occasional faint grey swirls on their flanks, just behind the flippers
Body shape: Smooth body is shaped like a torpedo, and tapers at both ends
Head: Very pointed and throat is lined with ventral pleats extending just past flippers
Dorsal fin: Small and sharply curved, about 2/3 of the way along the back
Flippers: Distinct white band on each fin, unlike any other whale this size
Blow: Low and very hard to see.
Behaviour: Does not fluke when dives. Skim or gulp feeds along surface
Group size: Usually alone, or in groups of 2-4 animals
BC range: Throughout BC; regularly seen around Southern Vancouver Island
Diet: Swarms of krill and small schooling fish. Often seen feeding amongst noisy flocks of seabirds.

Fin Whale*Balaenoptera physalus***Status:** Threatened

Size: Up to 24 m (78.7 ft) long and weighs up to 140 tonnes
Colour: Ventral side of body is white to light grey to white and dorsal side is dark grey. Asymmetrical head colour – lower right side of its head is white, while the entire left side is dark grey. Several distinctive pale grey V-shaped marking (chevrons) behind head.
Body shape: Sleek and torpedo like
Head: Ventral pleats with distinctive colouration
Dorsal fin: Curved dorsal fin is about 2/3 of the way along its back that rises to shallow angle (taller and more falcate than that of a blue whale)
Blow: Narrow and dense at 4-6 m (13-20 ft) high making it easy to see from a distance
Behaviour: Rarely raises flukes on a dive; often lunge feeds on its right side
Group size: Normally travel alone or in small groups of 3 to 10 individuals
BC range: Most likely found in offshore waters, but are rarely seen
Diet: Schooling fish, krill, squid, copepods

Sei Whale*Balaenoptera borealis***Status:** Endangered**Size:** Up to 18 m (59 ft) long and weighs an average of 35 tonnes**Colour:** Darker grey, than a fin whale; with mostly dark lower jaw. Often has very small grey or white scars.**Body shape:** Sleek and torpedo-like; very similar to fin whale**Head:** Ventral pleats with no chevrons behind blowhole**Dorsal fin:** Slightly taller and steeper than a fin whale's; 2/3 of the way along back**Blow:** Narrow, but not dense at up to 3 m (10 ft) high. Smaller than fin whale blow.**Behaviour:** Fast swimmers**Group size:** Usually found alone or in small groups of up to 5 individuals**BC range:** Deep, temperate waters; rarely come near the coast, but can be found well offshore**Diet:** Swarms of small fish or invertebrates; skim feeder**Blue Whale***Balaenoptera musculus***Status:** Endangered**Size:** Up to 30 m (98.4 ft) long and weighs up to 200 tonnes**Colour:** Deep slate blue or grey with variable pale grey mottling on side; underside may range from pale blue-grey to white or yellow (due to film of diatoms)**Body shape:** Slim, mottled, blue-grey**Head:** Broad, flattened, U-shaped head with ventral pleats**Dorsal fin:** Small and curved, placed $\frac{3}{4}$ of the way along its back**Blow:** Narrow column can rise up to 11 m (35 ft) high**Behaviour:** Often lunge-feeds upside down or on its side**Group size:** Usually travel alone or in small groups**BC range:** Prefer the open ocean and are unlikely to be seen close to the coast**Diet:** Almost exclusively feeds on krill

Northern Right Whale*Eubalaena japonica***Status:** Endangered

Size: Up to 18 m (59 ft) long, and weighs up to 100 tonnes. Females are larger than males

Colour: Black with white patches of thickened, keratinized tissue (callosities) on head and various sized whitish patches on belly

Body shape: Large, robust

Head: Large rostrum (about ¼ of the body length) with strongly bowed lower jaw, No ventral pleats unlike other baleen whales.

Dorsal fin: No dorsal fin

Tail: Very broad, deeply notched, and all black with a smooth trailing edge

Flippers: Fan-shaped

Blow: Distinct V shaped, widely separated blow as high as 5 m (16 ft)

Behaviour: Dives can last for 10-20 minutes

Group size: Small groups of 2 to 3 individuals (never more than 12 animals)

BC range: Favour offshore areas rather than the open ocean

Diet: Almost exclusively copepods, and some other small invertebrates

**Sperm Whale***Eubalaena glacialis***Status:** Not At Risk

Size: Up to 18 m (59 ft) long and weighs up to 58 tonnes

Colour: Skin is dark brownish grey in colour, and appears wrinkled like a prune

Body Shape: Body appears laterally compressed

Head: Huge, square head, making up 1/3 of body length

Dorsal fin: None. Instead, has a rounded hump, followed by a row of knuckle-like bumps

Tail: Broad and triangular with rounded tips and a deep notch

Flippers: Wide and spatulate

Blow: Single blowhole offset to the left side so blow shoots forward

Behaviour: Very deep divers, often underwater for extended periods of time, so are elusive

Group size: Very social and may be seen in groups of 15 to 30 animals

BC range: Prefer deep water ocean, and are sometimes seen off the west coast of the Queen Charlotte Islands.

Diet: *Cephalopods* (giant squid, octopus) and wide variety of fish



References:

Fisheries and Oceans Canada. 1999. *Whales Dolphins and Porpoises of British Columbia, Canada*. 36pp.

Jefferson, T. A., S. Leatherwood, and M. A. Webber. 1993. *FAO Species Identification Guide. Marine Mammals of the World*. United Nations Environment Programme, Rome, FAO.

O, M. and J. Ford. 2003. *National Recovery Strategy for the North Pacific Right Whale (Eubalaena japonica) in Pacific Canadian Waters*. Fisheries and Oceans Canada.

All cetacean illustrations by Pieter Folkens and were published in Fisheries and Oceans Canada (1999).

Seals, Sea Lions (Pinnipeds)

There are five species of pinnipeds in BC waters, belonging to two pinniped families – the true seals and the eared seals. They can be distinguished based on a few physical characteristics.

	True Seals		Eared Seals		
	<i>Elephant Seal</i>	<i>Harbour Seal</i>	<i>Steller Sea Lion</i>	<i>California Sea Lion</i>	<i>Northern Fur Seal</i>
Ear Flaps	no external ear flaps		small external ear flaps		
Flipper description	short/small fur-covered flippers		large hairless flippers		
Walking style (land)	rear flipper cannot be rotated forward (move like caterpillar)		front flipper can be rotated forward to support body and to assist in "walking"		
Swimming style	alternate side to side strokes with rear flippers, and use front flipper for steering		use front flipper like wings in water and to steer		

Some species of pinnipeds, like Steller sea lions and Harbour seals, are resident to BC waters year-round and can be found throughout the Region. Other species, like Northern fur seals, Northern elephant seals and California sea lions, migrate to our through BC waters annually on their way to and from breeding grounds further south.

Pinnipeds in BC face numerous threats to their survival. The Steller sea lion is listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as a Species of Concern and are facing a dwindling population in the North Pacific Ocean, likely due to depletion in their food supply. The following threats may directly result in a seal or sea lion incident occurrence in BC waters.

- Disturbance: Pinnipeds rest out of the water (haul out) on beaches, rocks, log booms and floats. Many are easily disturbed when approached too close or too quickly. Disturbance can lead to a disruption of normal life processes (foraging, resting, mating, etc).
- Entanglement and by-catch: Many pinnipeds are victim to entanglement in active and discarded fishing gear. The animal can be trapped in a net and drown, or the net becomes wrapped around its head or flippers and is dragged around, digging deep into tissue resulting in life threatening injuries and/or preventing the animal from feeding effectively.
- Toxicity: Some pinniped tissues have shown very high contaminant loads due to accumulation of pollutants (e.g. PCBs and DDT) leading to suppressed immune systems, contraction of diseases and infections that can result in death.
- Oil and chemical spills: In the event of an oil or chemical spill, seals and sea lions are very vulnerable to adverse effects caused from ingestion of toxic chemicals and contamination of their food supply.
- Shooting: Pinnipeds have long been despised for their apparent consumption of large quantities of commercially targeted fish. Even today with increased understanding of their important role in the ecosystem, seals and sea lions continue to be illegally shot and killed. Note however, that some aquaculture facilities are issued licenses to kill nuisance seals in BC.

Harbour Seal
Phoca vitulina

Status: Not At Risk

Size: 1.2 to 1.6 m (4-5 ft) long and weigh 60 to 80 kg (130-180 lbs)

Colour: Varies - black with light spots to nearly white with dark spots

Group size: Small groups on reefs but large groups at mouths of major rivers

BC range: Entire region, year round (no migration); births occur throughout the summer

Habitat: Near shore areas - tidal reefs, low lying boulders and sandbars

Pupping: Breeding and pupping season varies geographically

Diet: Rockfish, cod, herring, flounder, salmon

Behaviour: Often sleep underwater or hauled out. Cannot sleep at surface like sea lions



Seal pups stay with their mothers for 4 to 6 weeks after birth. The mother often leaves the pup temporarily unattended while in search of food. Only if the mother does not return after 24 hours should a seal pup be considered abandoned. Despite intervention, a large proportion of pups will not survive the first year of life due to premature birth, predation, disease, dehydration or starvation.

Northern Elephant Seal
Mirounga angustirostris

Status: Not At Risk

Size: Adult males – up to 5 m (16 ft) long and weigh up to 2 tonnes (4400 lbs)
Adult females – up to 3 m (10 ft) long and weigh up to 1 tonne (2200 lbs)

Colour: Uniform light brown

Head: Adult males – pendulous, inflatable, foot-long snout

BC range: Migrate twice a year between mating and moulting seasons. In the spring and fall, they travel from California and Mexico to BC and Alaska to feed

Habitat: Beaches & islets, often mixed with sea lions on haulouts

Diet: Squid, octopus, large fish

Behaviour: Males make loud rattling snorts; females make deep belching noise



Moulting is a natural 3 to 4 week process for these seals, during which they lose almost all their attached skin and fur. Because of their dishevelled and sometimes emaciated appearance during this time, moulting elephant seal pups are often mis-identified as sick animals.

Northern Fur Seal

Callorhinus ursinus

Status: Not At Risk

Size: Adult males – up to 1.9 m (6 ft) long and weigh up to 200 kg (450 lbs)
Adult females – up to 1.3 m (4 ft) long and weigh up to 35 kg (80 lbs)

Colour: Adult males – dark greyish black
Adult females – brownish throat with silvery-grey undercoat

Head: Small head with pointed nose and long whiskers.
Adult males have thick neck

Flippers: Extremely long front flippers

BC range: Pass south through BC, on the way to California, in early winter and to the Bering Sea in late spring; some remain off BC coast during winter and spring, but few closer than 10 miles from shore

Habitat: Pelagic animal - rests at sea and only comes ashore to breed

Diet: Small schooling fish (salmon & herring in BC); mainly a nocturnal predator



Fur seals seen in BC waters never come ashore.

California Sea Lion

Zalophus californianus

Status: Not At Risk

Size: Adult males – 2.25 m (6.5 - 8 ft) long and weigh 200 to 400 kg (450-900 lbs)
Adult females – 1.4 to 1.7 m (4.5 – 5.5 ft) long and weigh 70 to 110 kg (150-250 lbs)

Colour: Usually dark brown and almost black when wet

Head: Adult males - patch of light coloured fur on crest of head

BC range: Only adult and sub-adult males occur in BC, during winter months (Sep - May)

Habitat: Rocky outcrops and islets, often mixed with Steller sea lions

Diet: Schooling fish (herring, hake, Pollock, dogfish)

Behaviour: Honking bark; often float with flippers in the air (minimize heat loss)



In British Columbia, only male California sea lions can be found. No females or yearlings visit BC waters.

Steller Sea Lion
Eumetopia jubatus

Status: Special Concern

Size: Adult males – up to 3 m (10 ft) long and weigh 450-1000 kg (1000-2000 lbs)

Colour: Tan to reddish brown when dry and brown to black when wet.

Body shape: Adult males – thick neck
Adult females - sleek

BC range: Rookeries to breed in summer and disperse locally to wintering sites in fall

Habitat: Rocky outcrops and islets; often mixed with California sea lions

Pupping: Early summer pupping; pups wean for at least 1 year

Diet: During breeding season - octopus and variety of fish (mainly rockfish); during non-breeding season – schooling fish (herring, hake, pollock, dogfish, salmon)

Behaviour: Deep growling noises; fierce battles between males to establish territory



References:

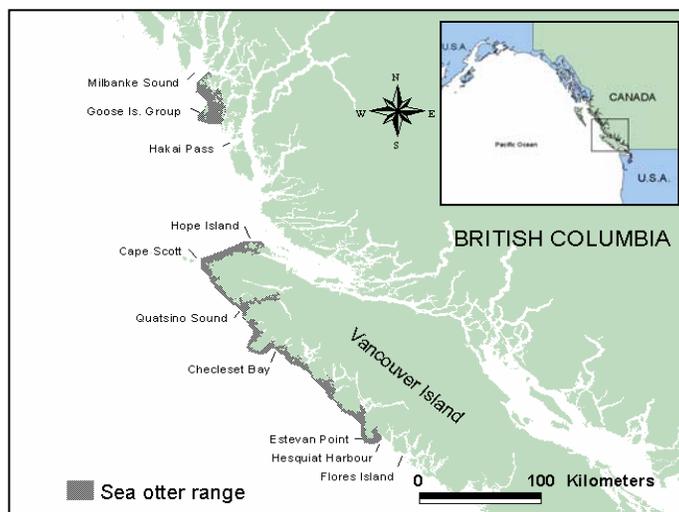
Olesiuk, P. E. and M. A. Bigg. 1988. *Seals and Sea Lions on the British Columbia Coast*. Department of Fisheries and Oceans Canada. 12 pp.

All photographs are the property of Fisheries and Oceans Canada and were published in the booklet referenced above.

Sea Otters

Sea otters are the second smallest marine mammals, and the second largest member of the Mustelidae or weasel family. The sea otter carries out all aspects of its life in the marine environment. They are voracious eaters that play a very important role in coastal marine ecosystems.

Sea otters once ranged from Northern Japan to central Baja California, but were hunted almost to extinction during the European fur trade in the 1700s and 1800s. Between 1969 and 1972, 89 sea otters from Amchitka and Prince William Sound Alaska were released in Checleset Bay on the west coast of Vancouver Island in hopes of re-establishing the BC sea otter population. The British Columbia sea otter population is presently estimated to include a minimum of 2000 animals along the west coast of Vancouver Island and 500 animals on the central British Columbia coast (Figure 3).



BC sea otter range.

Sea otters are listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as an Endangered Species. The following threats may directly result in a sea otter incident occurrence in BC waters.

- Entanglement: Sea otters can fall victim to entanglement in active and discarded fishing gear. Often the animal is trapped in a net and drowns.
- Shooting: Sea otters are frequently despised for their consumption of large quantities of commercially harvested shellfish. Even today with increased understanding of their important role in the ecosystem, sea otters continue to be illegally shot and killed.
- Oil Spills: Due to its small population size, localized distribution and inherent vulnerability to oil, an oil spill could easily decimate BC's sea otter population at any time.

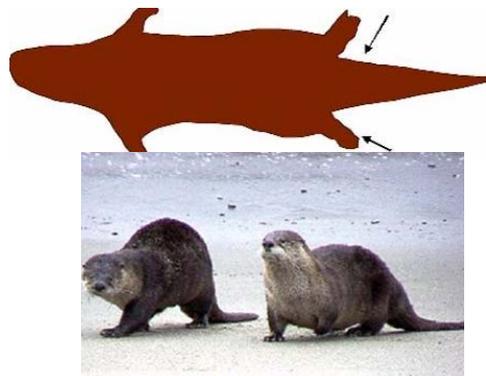
To learn more about sea otters and their status in BC, please refer to the Recovery Strategy by visiting http://www-comm.pac.dfo-mpo.gc.ca/pages/consultations/sea-otters/recovery_e.htm

Sea otters are commonly confused with river otters. RIVER OTTERS ARE UNDER THE JURISDICTION OF THE PROVINCE OF BRITISH COLUMBIA – please refer callers to the BC Ministry of Environment – Fish and Wildlife Branch. Photographs, as well as the following clues, will help to determine the species sighted.

River Otter

Lontra canadensis

Size: 1.4 m long and weigh 5 to 10 kg
Body shape: Sleek with broad flattened head
Flippers: Small, webbed hind feet
Tail: Thick, muscular tail
Teeth: Sharp, pointed
Behaviour: Swim on their front; agile on land
BC range: Throughout BC
Habitat: Live in river and ocean environments
Diet: Fish, crab



Sea Otter

Enhydra lutris

Status: Threatened

Size: Adult males – up to 1.5 m long and weigh up to 50 kg
Males are larger than females.

Colour: Combinations of brown, grey, red, yellow colouring; head is lighted than body

Body shape: Stout yet streamlined with round head with little or no body fat.

Fur: Thick fur - layer of protective guard hairs with fine dense under fur (approx 100,000 hairs/cm²)

Flippers: Large, webbed hind flippers with long 5th digit

Tail: Long, slightly flattened tail (less than 1/3 body length)

Teeth: Flattened premolars

Behaviour: Awkward on land (rarely seen), swim mostly on back

BC range: Westcoast Vancouver Is. - from Hesquiat Harbour to Cape Scott and Hope Is
Central Coast - from the Goose Group to the edge of Milbanke Sound

Habitat: Exposed, rocky shoreline with small islets reefs; shallow coastal waters; kelp beds (rafting sites and foraging areas)

Diet: Hard shelled invertebrates/shellfish (clams, urchins, abalone, mussels)



References:

Nichol, L. et. al. 2003. *Draft National Recovery Strategy for the Sea Otter (Enhydra lutris) in British Columbia*. Fisheries and Oceans Canada.

Sea Turtles

There are four sea turtle species that occur in and around BC waters – the leatherback turtle, green turtle, loggerhead turtle and olive ridley turtle. Leatherback turtles are the most common sea turtle seen in BC, followed by the green turtle. Although loggerhead and olive ridley turtles have not yet been reported in BC, they have been spotted in Washington and Alaskan waters.

Green, loggerhead and olive ridley turtles are all hard-shelled turtles, while the leatherback is quite different in appearance with thick leathery skin and ridges instead of plates on its back. The leatherback turtle is the largest most migratory of all sea turtles. They are capable of annual journeys of more than 15,000 km and dives of up to 1200m in depth. Leatherbacks migrate here from nesting beaches across the Pacific Ocean, likely from Malaysia or Indonesia.

Leatherback turtles only come ashore on land when nesting. As nesting does not occur in BC waters, it would be unusual for a leatherback to be seen on land in BC and should therefore be reported. Green turtles, however, are known to crawl up on land to bask in the sun (for thermoregulation) in other parts of the world, but this behaviour has not yet been identified in BC waters.

All BC sea turtle species are listed by the International Union for the Conservation of Nature (IUCN) as Endangered Species, as they are declining in numbers on a global level. However, only the leatherback turtle is listed by COSEWIC as an Endangered Species in Canada. At nesting beaches, sea turtles and their eggs continue to be threatened by illegal and subsistence hunting, as well by the effects of rampant habitat loss. In BC, and throughout their pelagic range, sea turtles face additional threats to their survival. The following threats may directly result in a sea turtle incident occurrence in BC waters.

- By-catch: Turtles are very vulnerable to incidental catch or entanglement (and subsequent drowning) in active fishing gear.
- Entanglement: Many sea turtles fall victim to entanglement in discarded fishing gear adrift at sea. The net gets wrapped around flippers and is dragged by the turtle, digging deep into tissue and resulting in life threatening injuries and/or preventing the animal from feeding effectively.
- Ingestion of debris: Sea turtles can confuse plastic bags and other marine debris for their preferred soft-bodied prey, jellyfish. Debris can block or damage their digestive tracts, minimizing their ability to digest food, cause infection and lead to suffocation.
- Cold shock: Some sea turtles are unable to adapt to cold waters they may encounter in BC. They can become lethargic and unresponsive when in this cold-shocked condition and may die of heat loss.
- Disease: Green turtles are vulnerable to infection from fibropapilloma tumours that spread throughout the body leading to depressed immune systems and making them vulnerable to predation.

To learn more about sea turtles in BC, please visit www.vanaqua.org/sightings and consult the Recovery Strategy and Action Plan for the Pacific Leatherback Turtle, visit www-comm.pac.dfo-mpo.gc.ca/pages/consultations/leatherback-turtles/default_e.htm

Leatherback Turtle

Dermochelys coriacea

Status: Endangered

Size: Adults – as long as 3 m and weigh as much as 900 kg

No major size difference between mature males and females

Colour: Back - brownish-black colour with speckled white spots. Underside is usually whitish

Body shape: Tear-dropped (tapered at rear)

Shell: No hard shell – tough, leathery, oily carapace with 7 ridges run along back

Head: Unique, patterned pink spot on the top of head - used to help identify individuals

Mouth: 2 tooth-like projections on the upper jaw and a single “tooth” on the lower jaw

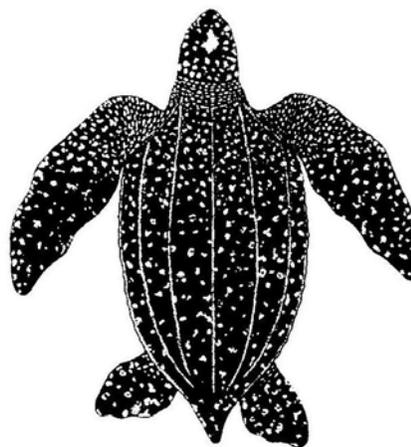
Flippers: very large flippers - half the carapace length and up to 270 cm (3x the length of the rear flippers)

Tail: Adult male – tail extends past the end of the rear flippers (female’s tail does not)

BC range: Throughout BC waters – mainly off the westcoast of Vancouver Island and around the Queen Charlotte Islands

Habitat: Coastal waters and areas of high ocean productivity

Diet: Soft bodied pelagic invertebrates – jellyfish, salps



Loggerhead Turtle

Caretta caretta

Status: Not yet assessed

Size: Adults – 0.3 to 1 m (1-3 ft) long

Colour: Reddish brown

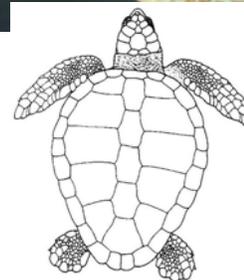
Body shape: Heart-shaped

Shell: Bony carapace without ridges; with 5 costal scutes

Head: Large head and heavy, strong jaws

BC range: Unknown

Diet: Bottom-dwelling shellfish – crabs, clams, mussels



Green Turtle
Chelonia mydas

Status: Not yet assessed

Size: Adults - Up to 1.5 m (5 ft) long

Colour: Shell colour varies from pale to dark green and from plain colour to vivid combinations of yellow, brown and green

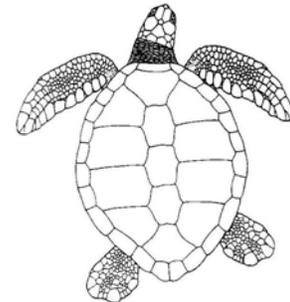
Body shape: Oval shaped

Shell: Smooth with 4 costal scutes

Head: Rounded facial features

BC range: Unknown

Diet: Jellyfish, molluscs, crustaceans and algae (diet varies depending on age of turtle)



Olive Ridley Turtle
Lepidochelys olivacea

Status: Not yet assessed

Size: Adults - Up to 1 m (3 ft) long

Colour: Olive / grey

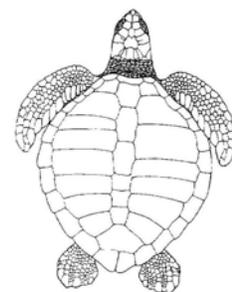
Body shape: Almost circular

Shell: Highly domed and smooth with 6 to 9 costal scutes

Head: Small

BC range: Unknown

Diet: Shellfish, crabs, fish, squid, jellyfish



References:

- Pacific Leatherback Turtle Recovery Team (PLTRT). 2003. *Draft National Recovery Strategy for the Leatherback Turtle (Dermochelys coriacea) in Pacific Canadian Waters*. Fisheries and Oceans Canada. 42 pp.
- Eckert, K. L., K. A. Bjorndal, F. A. Abreu-Grobois, and M. Donnelly (Editors). 1999. *Research and Management Techniques for the Conservation of Sea Turtles*. IUCN/SSC Marine Turtle Specialist Group Publication No. 4.(Illustrations)

APPENDIX B: Dichotomous Key to Marine Mammal and Sea Turtle Species in BC

The following dichotomous keys comprise a series of descriptive statements that will lead to a possible species. If a statement is TRUE, continue on to the statement number listed in the “Go To” column. If a statement is FALSE, continue on to the statement immediately below.

Key for identification of marine mammals in Pacific Canadian waters.
(M = marine mammal, C = cetacean, S = seal or sea lion)

	Description	Go to
M1a	No fur; two forward limbs; single tail; possibly fin on back. <i>CETACEAN</i>	C1
M1b	Fur or hair; four limbs (2 forward, 2 back); back limbs modified into flippers	M2
M2a	Foot pads on feet; forward feet not modified to flippers; long tail; coarse hair with thick underfur; medium brown to greyish black; may be whitish around muzzle	SEA OTTER
M2b	All feet modified to flippers (no foot pads); little or no tail. <i>PINNIPED</i>	P1
C1a	Baleen (no teeth); possibly long grooves on underside of lower jaw (ventral pleats); blowhole with 2 openings. <i>BALEEN WHALES</i>	C2
C1b	Teeth (no baleen); single blowhole opening. <i>TOOTHED WHALES</i>	C8
C2a	No ventral pleats; no dorsal fin, only possible a series of “knuckles” leading to tail	C3
C2b	Ventral pleats; dorsal fin or hump; large jaw with slightly flat to arched mouthline. <i>RORQUALS</i>	C4
C3a	Head approximately ¼ of total length; S-shaped mouth slit; black in colour; body length up to 17m	NORTHERN RIGHT WHALE
C3b	No dorsal fin but small bump 2/3 of way back from head, followed by series of “knuckles” leading to tail; mottled grey in colour; covered in whitish patches of whale lice or barnacles; body length up to 15m	GREY WHALE
C4a	Very long flippers (up to 1/3 body length) with knobs on leading edge; small dorsal hump followed by oddly shaped dorsal fin, located on rear 1/3 of body; knobs on nose; body length up to 16m	HUMPBACK WHALE
C4b	Flippers much less than 1/5 body length; large body size; slender dorsal fin positioned 2/3 (or more) back from head; one prominent ridge on head	C5
C5a	Ventral pleats end before navel	C6
C5b	Ventral pleats extend up to or past navel	C7
C6a	Less than 10 m long; tall, very curved dorsal fin; dorsal colour dark, ventral colour white; often white stripe across each flipper; body length up to 9m	MINKE WHALE
C6b	Ventral grooves end past flippers; grey colouring throughout, lighter grey on throat; flippers all dark; body length up to 16m	SEI WHALE

C7a	Sharp ridge along spine; white jaw and throat on right side, grey on left side; body length up to 24m	FIN WHALE
C7b	Bluish grey colour; very small dorsal fin; body length up to 26m	BLUE WHALE
C8a	Upper jaw extends past lower jaw; blunt head with small, thin, narrow jaw; blow projects sideways; dark grey to black in colour; body length up to 15m. <i>SPERM WHALES</i>	C9
C8b	Mouth at front of head; lower jaw extends as far or farther than front of head; blow projects rearward	C11
C9a	Large head (1/4 to 1/3 of body length); squared off rostrum; S shaped blowhole at front of head; "wrinkly" skin; rounded dorsal hump	SPERM WHALE
C9b	Small head, horseshoe shaped blowhole set back from front of head; white crescent shaped "false gill" that resembles gill slit of resembles gill slit of a fish; body length less than 3.5m	C10
C10a	Blunt head; small dorsal fin located behind midpoint of total body length; body length up to 3.4m	PYGMY SPERM WHALE
C10b	Tall, narrow dorsal fin along mid-back; body length up to 2.7m	DWARF SPERM WHALE
C11a	Normally tall dorsal fin located in middle of back (may be finless); distinctive notch between tail flukes; teeth on both upper and lower jaw (always in lower jaw)	C12
C11b	Short dorsal fin set far back towards tail; no notch between tail flukes; very few teeth. <i>BEAKED WHALES</i>	C21
C12a	Short beak; rotund body shape; small blunt teeth. <i>PORPOISE</i>	C13
C12b	Long beak usually present; stream-lined body shape; cone-shaped and sharp teeth. <i>DOLPHIN</i>	C14
C13a	Dark grey dorsally blending to white underneath; short, triangular and wide-based dorsal fin; thin white strip from mouth to flipper; body length up to 2m	HARBOUR PORPOISE
C13b	Black and white colouration; large white patch on sides, white on tip of dorsal fin; triangular dorsal fin with re-curved tip; body length up to 2.5m	DALL'S PORPOISE
C14a	No dorsal fin; sleek and slender body; dark in colour except for white stripe on belly; body length up to 3.1m	NORTHERN RIGHT WHALE DOLPHIN
C14b	Dorsal fin present	C15
C15a	Head blunt with no prominent beak	C16
C15b	Prominent beak	C19
C16a	Distinct black and white colouration; white spot on side of black head and white underbelly; tall dorsal fin (higher than long) with greyish "saddle patch" (colour swirl) behind; large wide flippers; body length up to 9m	KILLER WHALE
C16b	Dorsal fin not higher than it is long; body length up to 6.5m	C17
C17a	Almost vertical forehead; varied greyish white in colour; dark tall dorsal fin body covered in scratches and scars	RISSO'S DOLPHIN
C17b		C18

C18a	INCOMPLETE	FALSE KILLER WHALE
C18b		SHORT-FINNED PILOT WHALE
C19a		PACIFIC WHITE-SIDED DOLPHIN
C19b		C20
C20a		COMMON DOLPHIN
C20b		STRIPED DOLPHIN
P1a	External ears absent; fur covered flippers; hind flippers have limited forward movement; 5 claws at ends of hind flippers or sticking out beyond; whiskers bumpy <i>EARLESS SEAL (PHOCID)</i>	P2
P1b	External ears present; top of flippers fur-less; hind flippers can rotate forward and support body weight; distinct claws set back from ends of hind flippers and only on 3 middle digits; whiskers smooth <i>EARED SEAL OR SEA LION (OTARIDS)</i>	P3
P2	Variable colour (light with dark spots, or dark with light spots or rings)	HARBOUR SEAL
P3a	Pointed nose; ears long and thin; underfur present; fur on fore-limbs stops at wrists; long hind flippers (3/4 length from base of hind flipper to armpit); all digits on hind flipper same length; 5 post canine teeth	NORTHERN FUR SEAL
P3b	Nose not too pointed; no underfur; pelage made up of short, stiff hairs; short hind flippers (less than half the distance from base of hind flippers to armpit) <i>SEA LION</i>	P4
P4a	No gap between upper molar (last tooth) and premolars <i>Male:</i> Sagittal crest (ridge of bone) on top of skull, mostly prominent in older animals; fur colour dark brown to light tan; never more than 240 cm total length <i>Female:</i> Fur colour dark brown; never more than 190 cm total length	CALIFORNIA SEA LION
P4b	Obvious gap between upper molar and premolars; adult fur colour brown to yellowish <i>Male:</i> No noticeable ridge of bone on top of skull; total length can be longer than 240 cm <i>Female:</i> total length can be longer than 190 cm	STELLER SEA LION

Key for the identification of sea turtles in Pacific Canadian waters.

	Description	Go to
T1A	Hard shell composed of interlocking scutes (plates) with smooth edges; large scales on head and flippers.	T2
T1B	Shell lacks plates; 7 ridges lengthwise along back and sides, narrowing to a tip at the back; shell made of oily, leathery tissue that is dark grey to black in colour and may be covered in light spots.	LEATHERBACK
T2A	Shell has 4-5 lateral scutes (plates on one side of shell)	T3
T2B	Shell has 6-9 lateral scutes; colour is greyish to olive	OLIVE RIDLEY

	brown; shell is oval in shape and is higher and wider near the front; 2 pairs of scales on top of head between the eyes.	
T3A	Shell has 4 lateral scutes; colour is greyish to black; shell is oval in shape and is slightly domed (mostly flat); scutes on side of shell are relatively smooth; blunt head with 2 large scales on top between eyes.	GREENE
T3B	Shell has 5 lateral scutes; reddish-brown in colour; tear-dropped shell shape that is high and wide in front with blunt serrated edges along sides; small scales on top of head between eyes	LOGGERHEAD

References:

- Ainley, D. G., R. E. Jones, R. Stallup, D. J. Long, G. W. Page, L. T. Jones, L. E. Stenzel, R. L. LeValley, and L. B. Spear. 1994. *Beached Marine Birds and Mammals of the North American West Coast: A Revised Guide to their Census and Identification, with Supplemental Keys to Beached Sea Turtles and Sharks*. National Oceanic and Atmospheric Administration - Gulf of Farallones National Marine Sanctuary.
- Jefferson, T. A., S. Leatherwood, and M. A. Webber. 1993. *FAO Species Identification Guide. Marine Mammals of the World*. United Nations Environment Programme, Rome, FAO.

APPENDIX C: Contact Listings

Primary DFO Contacts

Observe, Record and Report (DFO Radio Room) 1-800-465-4336
 (in Greater Vancouver) (604) 666-3500

Marine Mammal Incident Co-ordinator (usually Lisa Spaven) (250) 713-3924
spavenl@pac.dfo-mpo.gc.ca

Marilyn Joyce - Marine Mammal Co-ordinator Office: (604) 666-9965
 Cellular: (604)813-5314
joycem@pac.dfo-mpo.gc.ca

Lara Sloan – Marine Mammal Communication Officer(604) 666-0903

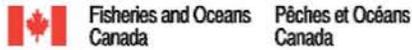
Marine Mammal Science Staff
 (listed according to species of responsibility, as well as primary and secondary contacts)

	HOME / CELL	OFFICE	EMAIL
WHALES			
John Ford	(250) 714-5479	(250) 729-8375	fordjo@pac.dfo-mpo.gc.ca
Graeme Ellis	(250) 741-6463	(250) 756-7245	ellisg@pac.dfo-mpo.gc.ca
DOLPHINS / PORPOISES			
Lisa Spaven	(250) 954-7049	(250) 756-7230	spavenl@pac.dfo-mpo.gc.ca
Graeme Ellis	(250) 741-6463	(250) 756-7245	ellisg@pac.dfo-mpo.gc.ca
SEALS / SEA LIONS			
Peter Olesiuk	(250) 753-3478 (h)	(250) 756-7254	olesiukp@pac.dfo-mpo.gc.ca
Peter Ross	(250) 370-0923 (h) (250) 812-6103 (c)	(250) 363-6806	rosspe@pac.dfo-mpo.gc.ca
SEA OTTERS			
Linda Nichol	(250) 802-2394	(250) 729-8374	nicholl@pac.dfo-mpo.gc.ca
Graeme Ellis	(250) 741-6463	(250) 756-7245	ellisg@pac.dfo-mpo.gc.ca
SEA TURTLES			
Lisa Spaven	(250) 954-7049	(250) 756-7230	spavenl@pac.dfo-mpo.gc.ca
John Ford	(250) 714-5479	(250) 729-8375	fordjo@pac.dfo-mpo.gc.ca

Coastal Field Office Locations – C&P

Bella Bella	(250) 957-2363
.....	Fax (250) 957-2767
Bella Coola.....	(250) 799-5345
.....	Fax (250) 799-5540
Campbell River	(250) 850-5701
.....	Fax (250) 286-5852
Comox.....	(250) 339-2031
.....	Fax (250) 339-4612
Delta.....	(604) 666-8266
.....	Fax (604) 666-7112
Duncan.....	(250) 746-6221
.....	Fax (250) 746-8397
Gold River	(250) 283-9075
.....	Fax (250) 283-9058
Langley	(604) 607-4150
Masset (not currently staffed)	(250) 626-3316
.....	Fax (250) 626-3253
Mission.....	(604) 814-1055
.....	Fax (604) 814-1064
Nanaimo.....	(250) 754-0230
.....	Fax (250) 754-0309
Parksville – Lee Rd (no admin staff)	(250) 954-1354
.....	Fax (250) 954-0173
Parksville – Stanford Rd (no admin staff)	(250) 954-2675
.....	Fax (250) 248-6776
Pender Harbour	(604) 883-2313
.....	Fax (604) 883-2152
Port Alberni	(250) 720-4440
.....	Fax (250) 724-2555
Port Hardy.....	(250) 949-6422
.....	Fax (250) 949-6755
Powell River	(250) 485-7963
.....	Fax (604) 485-7439
Prince Rupert	(250) 627-3499
.....	Fax (250) 627-3427
Queen Charlotte City	(250) 559-4413
.....	Fax (250) 559-4678
Steveston	(604) 664-9250
.....	Fax (604) 664-9255
Tofino	(250) 725-3500
.....	Fax (250) 725-3944
Upper Nass - New Aiyansh (no admin staff)	(250) 633-2408
.....	Fax (250) 633-2439
Victoria	(250) 363-3252
.....	Fax (250) 363-0191

APPENDIX D: Incident Data Collection Form



MARINE MAMMAL INCIDENT/OCCURENCE FORM

<p>Report Date: _____ Time: _____</p> <p>Incident Date: _____ Time: _____</p> <p>Location: _____</p> <p>_____</p> <p>Latitude: _____ <small>Deg Min</small></p> <p>Longitude: _____ <small>Deg Min</small></p>	<p>Observer Information</p> <p>Name: _____</p> <p>Address: _____</p> <p>_____</p> <p>Phone: _____</p> <p>Email: _____</p> <p>Vessel: _____</p> <p>Fishery/gear: _____</p>	<p>File numbers</p> <p>RR#: 06- _____</p> <p>FOS: _____</p> <p>DVS: _____</p> <hr/> <p>Radio Room Action</p> <p><input type="checkbox"/> Immediate Call</p> <p><input type="checkbox"/> Fax + Message</p> <p><input type="checkbox"/> Fax</p>
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Report Taken by: _____ **Phone #:** _____ **Email:** _____

<p>Species (check one)</p> <p>DOLPHIN / PORPOISE</p> <p><input type="checkbox"/> Species: _____</p> <p><input type="checkbox"/> Unidentified</p> <p>WHALE</p> <p><input type="checkbox"/> Species: _____</p> <p><input type="checkbox"/> Unidentified</p> <p>SEAL / SEA LION</p> <p><input type="checkbox"/> Species: _____</p> <p><input type="checkbox"/> Unidentified</p> <p>SEA OTTER (not river otters)</p> <p><input type="checkbox"/> Species: _____</p> <p><input type="checkbox"/> Unidentified</p> <p>SEA TURTLE</p> <p><input type="checkbox"/> Species: _____</p> <p><input type="checkbox"/> Unidentified</p>	<p>Incident type:</p> <p><input type="checkbox"/> Dead animal</p> <p><input type="checkbox"/> Entanglement</p> <p><input type="checkbox"/> Collision</p> <p><input type="checkbox"/> Harassment</p> <p><input type="checkbox"/> Sighting</p> <p><input type="checkbox"/> Live Stranding</p> <p><input type="checkbox"/> Shooting</p> <p><input type="checkbox"/> Sick or injured</p> <p><input type="checkbox"/> Other</p>	<p>Evidence</p> <p><input type="checkbox"/> Photos</p> <p><input type="checkbox"/> Video</p> <p><input type="checkbox"/> Sample</p> <p><input type="checkbox"/> Other</p>
<p>ID Confidence</p> <p><input type="checkbox"/> Certain</p> <p><input type="checkbox"/> Probable</p> <p><input type="checkbox"/> Possible</p> <p><input type="checkbox"/> Uncertain</p>	<p>Group Size</p> <p>Min # _____</p> <p>Max # _____</p> <p>Best # _____</p>	<p>Animal Condition</p> <p><input type="checkbox"/> Alive</p> <p><input type="checkbox"/> Freshly dead</p> <p><input type="checkbox"/> Mod-adv decomp</p> <p><input type="checkbox"/> Unknown</p>
<p>Body Length</p> <p><input type="checkbox"/> <1 m (<3 ft)</p> <p><input type="checkbox"/> 1-1.5 m (3-5 ft)</p> <p><input type="checkbox"/> 1.5-2 m (5-7 ft)</p> <p><input type="checkbox"/> 2-3 m (7-10 ft)</p> <p><input type="checkbox"/> 3-8 m (10-25 ft)</p> <p><input type="checkbox"/> 8-16 m (25-50 ft)</p> <p><input type="checkbox"/> 16-26 m (50-80 ft)</p> <p><input type="checkbox"/> >26 m (>80 ft)</p> <p><input type="checkbox"/> Other: _____ (m/ft)</p>		

Description : *(actions, shape, colour, markings, behaviour, condition)*

COMMENTS & ACTIONS: *(response initiated, people, timelines, planning, recommendations, etc - if response is initiated directly by area staff, complete this section prior to faxing to radio room)*

DFO Area: _____ **Assignment** C&P **Staff Assigned:** _____

Response Actioned: Y N Science

FAX To Fisheries & Oceans Canada Reporting Hotline (ORR) at 604-666-9666 or call 1-800-465-4336 for immediate assistance.

TO HELP DETERMINE THE TYPE OF ANIMAL AND SPECIES, ASK THE FOLLOWING:

- 1) Does the animal have fur and 4 flippers?
If YES, it's likely a pinniped or a sea otter.
- 2) Does the animal have a shell, 4 flippers and a beak?
If YES, it's likely a sea turtle.
- 3) Does the animal have skin, a blowhole, 2 flippers, a tail and maybe a dorsal fin?
If YES, it's a cetacean.
- 4) Does the animal have teeth or baleen (combs hanging from upper jaw like a filter)?
- 5) How big is the animal (estimate of length)? *Suggest comparing to size of a known object as reference.*
- 6) What colour is the animal (describe the back, belly, underside of tail, head, throat)?
- 7) What type of appendages (tail, fin, flippers) does it have? *Describe the shape and size in proportion to overall body.*
- 8) Does the animal have any markings (stripes, scars, pigmentation/colour patterns)?

Encourage callers to **collect photographs** to identify species, and document evidence. Send to the Marine Mammal Incident Coordinator (spavenl@pac.dfo-mpo.gc.ca) or Cetacean Research Program, Pacific Biological Station, 3190 Hammond Bay Road, Nanaimo BC V9T 6N7

INCIDENT TYPES:

Unusual sighting:	Animal sighted in an unusual location/situation, or is tagged or branded
Dead animal:	Animal found dead (floating or on shore) in water (no evidence of entanglement or shooting)
Entanglement:	Animal found dead or alive (floating or on shore) and entangled in debris, likely fishing gear
Shooting:	Animal found dead or alive (floating or on shore) that has been shot
Live Stranding:	Animal found on shore that is in distress (alive)
Injured or Sick:	Animal found alive but appears sick or injured
Collision:	Animal found dead, alive or injured where there is evidence that it was struck by a vessel
Harassment:	An expressed concern regarding possible marine mammal harassment
Other:	Any other report that does not fit the above categories

ANIMAL CONDITION:

Alive:	Animal is alive, but may be sick or injured
Freshly Dead:	Fresh carcass, no skin peeling, possibly dead only a few days
Moderate-Advanced Decomposition:	Moderate to major bloating, skin peeling or missing, smelly, evidence of some disturbance by scavengers to bones exposed due to decomposition
Unknown:	Observer not able to determine the condition of the carcass

DO NOT TOUCH A DEAD OR ALIVE MARINE MAMMAL OR SEA TURTLE, OR ATTEMPT ANY RESCUE EFFORTS WITHOUT PRIOR APPROVAL AND ADVICE FROM DFO MARINE MAMMAL INCIDENT COORDINATOR OR SCIENCE STAFF

STRANDED SEAL PUPS

- Advise that pup may not be abandoned and to observe at a distance for signs of mother and make observations animal size, condition, signs of injury, etc.
- Advise to keep any activity (humans, dogs, birds) around the pup to a minimum as a mother is less likely to attempt to return to its pup in the presence of much activity.
- If they remain concerned or want more information they can call the Vancouver Aquarium Marine Mammal Rescue and Rehabilitation at 604-258-SEAL (7325) or Island Wildlife Natural Care Centre 250-537-0777.

MOULTING ELEPHANT SEALS (annual moult makes seal look very sick, but just a natural 3-4 week process)

- Keep any activity around the animal to a minimum.
- To prevent harm to the animal, try to keep dogs and birds away.

CARCASS REMOVAL

DFO does not have a mandate to remove dead marine mammals, however, this is sometimes done in the interest of public health and safety. Typically, unless there is a desire to collect the carcass for scientific purposes, DFO often allows nature to take its course. The Marine Mammal Incident Coordinator will advise the caller regarding carcasses.

PERSONAL INFORMATION: Any personal information is protected under the Privacy Act and held solely by DFO. The information will not be used for any purpose other than for verification of this report and follow-up communications. The public has the right to access non personal information.

APPENDIX E: Seal pup fact sheet

To be added at a later date.

APPENDIX F: Moulting Elephant Seal Fact Sheet



Fisheries and Oceans
Canada

Pêches et Océans
Canada



Please keep your distance:



Moulting Elephant Seals

>> an intimidating sight?

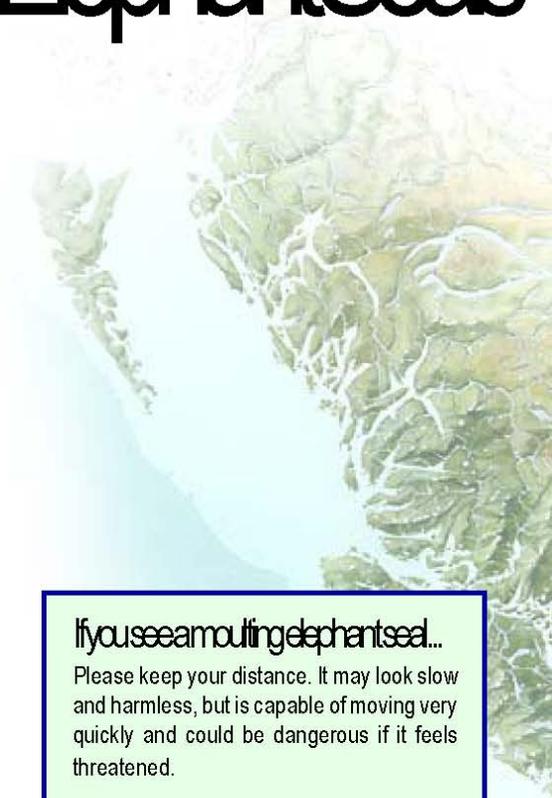
A moulting Elephant Seal can be an intimidating sight. Weighing up to 2,300 kg and as long as 5 metres, when this animal moults it may appear to be very sick and may develop “elephant seal skin disease”. However, moulting is a natural process and should not be interfered with.

>> visits our shores

Elephant seals are regular visitors to the B.C. coast, especially in the spring and summer months. Most elephant seals seen off B.C. shores are adult males or juveniles, whereas females tend to remain further offshore. They can be spotted off Vancouver Island’s West Coast, in the Strait of Juan de Fuca, and off the Queen Charlotte Islands.

>> stuck on land

If you spot a sickly looking elephant seal on land, it is probably moulting. All elephant seals spend one month a year on land to moult; they undergo what is called a “catastrophic moult” in which they shed all of their fur along with the underlying layer of skin. For just over a month, the seal is confined to land and spends most of its time dozing and lazily flipping sand onto itself to stay cool. It doesn’t eat and may lose up to 25% of its body weight.



If you see a moulting elephant seal...

Please keep your distance. It may look slow and harmless, but is capable of moving very quickly and could be dangerous if it feels threatened.

Please contact the nearest Fisheries and Oceans Canada office for more information.

