



NOAA Technical Memorandum NMFS-AFSC-274

# **Human-caused Injury and Mortality of NMFS-Managed Alaska Marine Mammal Stocks, 2007-2011**

by  
B. M. Allen, V. T. Helker, and L. A. Jemison

**U.S. DEPARTMENT OF COMMERCE**  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
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## **Abstract**

The National Marine Fisheries Service (NMFS) is required under the Marine Mammal Protection Act (MMPA) to estimate the annual human-caused mortality and serious injury of marine mammal stocks by source. Revisions to the guidelines and process the NMFS uses for distinguishing serious from non-serious injuries pursuant to the MMPA were implemented in 2013 and applied to the most recent 5 years (2007-2011) of human-caused injury and mortality data. Data from human-caused injury and mortality of Alaska pinnipeds and cetaceans under the jurisdiction of the NMFS were compiled for the 5-year period from 2007 through 2011. Details regarding each human-caused injury and mortality were reviewed, and the new injury criteria were applied in order to assign injuries to categories and determine severity of injuries (serious or non-serious). A total of 495 human-caused mortality and injury records for the 5-year period (2007-2011) were reviewed, sorted by stock and date, and included within this report. Details regarding the injury source, type, and severity are presented, along with the injury category and criteria supporting the determination. Mortality and injury values were assigned (0, 1, or prorated) to each event for comparison with the calculated Potential Biological Removal levels for each stock.



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## Introduction

The Marine Mammal Protection Act (MMPA, 1972) requires the National Marine Fisheries Service (NMFS) to estimate the annual human-caused mortality and serious injury of marine mammal stocks by source (Section 117) and to monitor the incidental mortality and serious injury of marine mammals during the course of commercial fishing operations (Section 118). In assessing each marine mammal stock, NMFS evaluates the mean annual level of human-caused mortality and serious injury from all sources, as well as from specific commercial fishing operations, relative to the Potential Biological Removal (PBR) levels calculated under the MMPA (Wade 1998). Section 118 of the MMPA mandates commercial fisheries to reduce the incidental mortality and serious injury of marine mammals from commercial fishing operations to insignificant levels, approaching a zero mortality and serious injury rate, and to continually strive for a zero mortality rate goal. Commercial fisheries are classified under the annual NMFS List of Fisheries (LOF) based on their level of incidental mortality and serious injury of marine mammals.

Estimating human-caused mortality rates for marine mammal stocks is relatively straightforward; events of confirmed human-caused deaths can be summed and mean annual mortality estimates calculated. However, the severity of human-caused injuries can be more challenging to assess and quantify. Information about the biology of the animal (e.g., species, age, size, anatomy), the severity of the injury (e.g., wound size, depth, location; overall body condition of animal), and the injury source (e.g., vessel size, speed; gear type; configuration of entanglement) all need to be considered during injury assessments. Thorough examination of injuries may not be possible in some cases, or detailed information may be lacking.

In order to accurately estimate the number of serious injuries occurring to each stock, NMFS developed a regulatory definition of “serious injury” and established a process for distinguishing non-serious from serious injuries. A serious injury is defined in regulations as “*any injury that will likely result in mortality*” (50 CFR 229.2). In 2012, NMFS clarified its interpretation of the definition of “likely” as any injury that is “*more likely than not*” (i.e., greater than a 50% chance) to result in death (77 Federal Register 3233, 23 January 2012; NMFS 2012a). NMFS also revised the process for distinguishing serious from non-serious injuries pursuant to the MMPA to establish a consistent and transparent process within NMFS for making injury determinations, applying these criteria to injury cases, and documenting pertinent information considered in making injury determinations (77 Federal Register 3233, 23 January 2012; NMFS 2012a,b).

This report consists of records of human-caused mortality and injury for cetaceans and pinnipeds occurring in Alaska and assessed within the Alaska Marine Mammal Stock Assessment Reports (SARs). If deaths or injuries to marine mammals assessed in the U.S. Pacific Marine Mammal SARs are reported in Alaska waters, the records are sent to the Southwest Fisheries Science Center (SWFSC) for inclusion in the report summarizing mortality

and injury for U.S. Pacific west coast marine mammal stocks (Carretta et al. 2013). Sources of marine mammal injury and mortality data include, but are not limited to, marine mammal stranding network responders, fishery observer programs, disentanglement network teams, opportunistic observations, and self-reporting of entanglements and vessel collisions. Most human-caused marine mammal deaths and injuries result from entanglements in commercial and recreational fishing gear, entanglements in marine debris, and vessel collision. Additionally, other incidental or intentional injuries are also reported. Deaths and injuries resulting from subsistence hunts and harvests are not reported in this document but are available in the SARs (Allen and Angliss in prep). Human-caused mortality and injury data for the 5-year period from 2007 to 2011 were compiled, and each injury record assessed to determine whether it was a non-serious injury (NSI) or serious injury (SI). All information pertinent to decisions of NSI and SI is presented in this report and tabulated for each stock. Mortality and serious injury data were summarized by stock, source, and year for estimates reported in the 2013 SARs (Allen and Angliss in prep.).

## Methods

Data from all sources of confirmed marine mammal human-caused mortality and injury records from 2007 to 2011 were acquired primarily from databases and archives maintained by the NMFS Alaska Regional Office, Northwest Regional Office, and Alaska Fisheries Science Center, as well as the Alaska Department of Fish and Game (ADFG). Data were entered and compiled into a single Microsoft Access database for review. All available documentation (e.g., written and verbal reports, images, re-sight information) was considered to assess human interactions, make injury determinations, and attribute injuries to a source. Duplicate records were identified, and the relevant information from each source was consolidated into a single record. Follow-up information for a previously documented event, from additional sightings of an injured animal, or reports from carefully coordinated intervention attempts (e.g., disentanglement teams) of an injured animal, was added to the existing record. A separate record was added for any calves or pups of injured animals, and the offspring were assessed as unique, but associated, events.

Only cases of confirmed human interaction were included in this summary of human-caused deaths and injuries. Each injury event was evaluated under NMFS' new injury determination criteria (NMFS 2012b). Different sets of criteria, specific to three taxonomic groups (large cetaceans: mysticetes and sperm whales; small cetaceans: all odontocetes except sperm whales; and pinnipeds), were used to evaluate each injury event and assign it to the most appropriate injury category (NMFS 2012b; Appendix Tables 2-1 to 2-3). Some events fit more than one injury category; in these cases, the most severe injury category and associated value was used in the injury determination.

For each injury event, an initial and final injury determination was made. The initial and final determinations were the same for events in which the animal was only observed over a brief period of time and no intervention effort was made. Initial and final determinations may differ in cases where the animal was observed over an extended period of time or sighted on multiple occasions—during which subsequent assessments of injuries (e.g., change in configuration of gear, or animal self-released) or body condition (e.g., obvious health decline, or animal later found dead) could be made—or in cases where human intervention resulted in a change of injury assessment (e.g., disentanglement attempts, or animal rehabilitated and released without serious injuries). The reason for both initial and final determinations is two-fold: 1) cases in which there was no human intervention and yet the determination changed over time may be informative for further development of injury categories in future reviews measuring the effectiveness of this policy; and 2) cases where a change from initial to final determination occurred due to human intervention efforts may be treated differently in SAR reporting versus their use for the purposes of marine mammal conservation management regimes. For example, a large whale with a constricting wrap in a commercial gillnet would initially be considered SI. However, if an experienced disentanglement team responded and successfully removed all gear from the animal, the final determination would be NSI. This injury would not be counted in the mortality and serious injury estimates reported in the SAR for the fishery, since the human intervention activities mitigated the likely removal of the animal from the population. However, for the purposes of categorizing commercial fisheries for the NMFS LOF, based on levels of mortality and serious injury resulting from fishery interactions, the whale would be considered SI and included in estimates of mortality and serious injury for that specific commercial fishery. For management purposes, NMFS assesses the impact of commercial fisheries on marine mammal populations; without intervention, the impact of that fishery on that large whale stock would have resulted in a serious injury.

## Results

A total of 495 marine mammal mortality and injury records for 2007-2011 were reviewed. Entanglements (fishing gear and marine debris) and vessel collisions comprise the majority of confirmed cases of human-caused mortality and injury of marine mammals in Alaska, although other causes were also reported (e.g., gunshot). Human-related injury and mortality events reported to the NMFS Alaska Regional Office involved the following species: Steller sea lion (*Eumetopias jubatus*), northern fur seal (*Callorhinus ursinus*), harbor seal (*Phoca vitulina richardii*), ringed seal (*Phoca hispida hispida*), beluga whale (*Delphinapterus leucas*), harbor porpoise (*Phocoena phocoena*), Dall's porpoise (*Phocoenoides dalli*), humpback whale (*Megaptera novaeangliae*), fin whale (*Balaenoptera physalus*), minke whale (*Balaenoptera acutorostrata*), and bowhead whale (*Balaena mysticetus*). Fishery observer reports of incidental mortality and injury occurring in the federal commercial groundfish fisheries included: Steller sea lions (*Eumetopias jubatus*), northern fur seals (*Callorhinus ursinus*), harbor seals (*Phoca*

*vitulina richardii*), spotted seals (*Phoca largha*), bearded seals (*Erignathus barbatus nauticus*), ringed seals (*Phoca hispida hispida*), ribbon seals (*Histiophoca fasciata*), killer whales (*Orcinus orca*), harbor porpoises (*Phocoena phocoena*), Dall's porpoises (*Phocoenoides dalli*), sperm whales (*Physeter macrocephalus*), and humpback whales (*Megaptera novaeangliae*; Breiwick 2014). In most cases of marine mammal serious injury and mortality occurring in the federal groundfish fisheries and reported by the fisheries observers, the animal was observed dead, not injured (Appendix Tables 1-1, 1-4 through 1-9, 1-13, 1-14, 1-17 through 1-19, 1-21, and 1-25). Additional opportunistic observations of Steller sea lion entanglements (in fishery and marine debris) and fishery interactions (primarily gear ingestion) were provided by the ADFG. These records of Steller sea lion injuries were evaluated and assigned to the appropriate injury category; all information from confirmed resights of individuals was compiled into a single record for each animal in Appendix Tables 1-1 and 1-2. Entanglements, vessel collisions, and other confirmed human-caused injury or mortality events reported to the NMFS Alaska Regional Office are found in the following tables of Appendix Tables 1-1 through 1-5, 1-8, 1-10 through 1-12, 1-15 through 1-18, 1-20 through 1-24, 1-25, and 1-26.

## Pinnipeds

Steller sea lions were the predominant pinniped species in reports of human-related injuries and deaths between 2007 and 2011. Within the range of the eastern Steller sea lion stock, most cases of serious injuries involved ingestion of gear from the commercial and recreational salmon troll fisheries as well as circumferential neck entanglements in various marine debris (e.g., packing bands, rubber bands, fishing gear). Steller sea lion interactions with troll fishery gear, sometimes referred to as “flashers”, often result in ingestion of the hook. For the approximately 150 cases reported during this 5-year period, differentiation between commercial and recreational troll gear has not been made. In some cases where individuals with ingested gear were resighted multiple times over a long time period, the animals showed a noticeable decline in health, often presenting emaciated and lethargic. There have also been some cases where known (marked) individuals with flashers present at the edge of the mouth one year were observed in subsequent years without the flasher, appearing to be in good health. The Alaska Department of Fish and Game will attempt to estimate survival of Steller sea lions that have ingested trolling gear, once the sample of marked, entangled individuals is large enough. Internal exams of dead animals typically revealed a hook lodged in the esophagus, penetrating the pleural cavity or pericardium.

Most documented records of serious injury and mortality involving the western U.S. stock of Steller sea lion were due to interactions with the groundfish fisheries, primarily trawl fisheries and some longline fisheries. These interactions, reported by fisheries observers, typically result in death, not injuries (Appendix Table 1-1; Breiwick 2013). The majority of serious injuries and deaths involving northern fur seals were due to entanglements associated with trawl fisheries as well as with marine debris (Appendix Table 1-4). Carretta et al. (2013)

also found that most incidents of serious injury reported for northern fur seals resulted from circumferential neck entanglement in various types of marine debris. Of the phocids, most cases of serious injury and mortality involved ringed and bearded seals, with some reports of ribbon and spotted seals; there were few records of harbor seal injuries and deaths (Appendix Tables 1-5 through 1-9). Some pinniped injury and mortality events could not be identified to species and were reported as unidentified pinnipeds (Appendix Table 1-25).

### Small Cetaceans

Very few instances of human-caused injury or mortality of small cetaceans were reported by fishery observers or stranding responders in Alaska. Between 2007 and 2011, there were reports of serious injuries and deaths occurring incidental to commercial and subsistence gillnet fisheries for all three stocks of harbor porpoise, as well as reports of occasional takes of Bering Sea harbor porpoises in trawl fisheries (Appendix Tables 1-15 through 1-17). Injuries and deaths of belugas (Bristol Bay and Bering Sea stocks) were primarily due to interactions with subsistence gillnets (Appendix Tables 1-10 and 1-11). Deaths of Dall's porpoises occurred in gillnet, trawl, and longline fisheries (Appendix Table 1-18).

A single report of an injured Cook Inlet beluga is listed in Appendix Table 1-12. This animal was first sighted in 2010 entangled with a constricting wrap of line of unknown origin. Several resights of this animal occurred between 2010 and 2012, and the animal appeared to be in good body condition. NMFS is continuing to monitor this animal over time based on opportunistic sightings reported to the Alaska Regional Office. NMFS serious injury guidelines (NMFS 2012b) suggest that a constricting wrap observed on a small cetacean would be considered a serious injury. However, this animal is currently considered to have a non-serious injury due to its apparently normal behavior and no obvious signs that it has declined in health during more than 2 years of observations. NMFS will continue to monitor reports concerning this animal and will update its assessment of injury severity if changes in the animal's body condition or health are observed.

### Large Cetaceans

Human-caused injury and mortality was reported during the 5-year period from 2007 to 2011 for humpback whales, sperm whales, fin whales, minke whales, and bowhead whales; gray whale records were sent to the SWFSC and reported in Carretta et al. (2013). Entanglements in fishing gear were reported for humpback, sperm, and bowhead whales, while vessel strikes were documented for humpback, fin, and minke whales (Appendix Tables 1-19 through 1-24). Entanglements and vessel strikes were also reported for four unidentified large whales (Appendix Table 1-26).

Entanglements and vessel collisions of humpback whales comprised the majority of the large whale injuries and deaths reported between 2007 and 2011. Humpbacks tend to occur in nearshore waters, where there is a higher occurrence of human activities (e.g., vessel traffic, deployed fishing gear), and the whales' feeding behaviors, as well as their anatomy (e.g., long flippers), may make them more susceptible to interactions with these activities. Humpback whales in Alaska and Hawaii are more often struck by smaller-sized vessels compared to vessel strikes of large whales in other regions of the U.S. Exclusive Economic Zone (EEZ), such as the northeast United States (Bradford and Lyman 2013, Carretta et al. 2013, Cole and Henry 2013, Henry et al. 2013). Data on vessel size, speed, and occurrence of whale strikes tends to be more complete in Alaska and Hawaii than along the U.S. Atlantic and Pacific coasts, although the northeast United States tends to have more complete follow-up information on individual whales than other regions (A. Henry, pers. comm., Northeast Fisheries Science Center, 11 March 2013). Researchers conducting photo-identification of individual whales in Alaska and/or Hawaii are encouraged to report resights and body conditions of previously-injured whales. There were six reports of multiple humpback whales involved in a single event (most involving females and calves): in five events, two whales were entangled in the same fishing gear, and in one event, a vessel struck a female and calf (Appendix Tables 1-20 and 1-21). In these cases, each whale was assessed for injuries individually and entered as a separate record. Several reports of large whale entanglements and vessel collisions also noted human safety concerns (e.g., entangled whales dragging a gillnet and associated vessel towards rocks; a vessel operator immersed in water or injured after colliding with a whale); this was also reported in Nielson et al. (2012).

In cases lacking details necessary for assignment to a more specific injury category (L6b,c; L7a,b; L10-L12), a "prorate" value was assigned which is described in detail in NMFS (2012b). Many of the records of large whale entanglements were assigned to injury category L10, in which an entanglement was known to have occurred, but not enough information was available on the configuration of the entanglement to determine whether the gear was constricting the body. Better details on the configuration of entanglements (such as written descriptions from observations or aerial, underwater, and surface images), as well as follow-up information from resights of injured or disentangled whales, are needed to make accurate injury determinations.

## **Discussion**

Most reports of human-caused marine mammal injury and mortality in Alaska are obtained either through commercial fisheries observer programs or opportunistic reports from stranding networks, researchers, or at-sea sightings from vessel and aircraft operators. Given that not all injured or dead animals are detected or wash ashore, opportunistic reports likely represent minimum values for human-caused injury and mortality of marine mammals in Alaska. Actual levels of anthropogenic impact to Alaska pinniped and cetacean stocks are most likely greater than the minimum values reported in this summary, although the amount greater is uncertain.

Various types of information aid in distinguishing serious from non-serious injuries, and the quality and quantity of data available for each injury and mortality record were highly variable. Some records (e.g., live whale entanglement events) consisted of images of the configuration of entanglement from multiple perspectives (e.g., underwater, aerial, and surface images). Records that included images from multiple perspectives reinforced the importance of reviewing all data available before making an assessment in order to fully examine the configuration of the entanglement. Different perspectives can confirm or rule out the presence of any constricting wraps of line or fishing gear, reducing the number of L10 (evidence of entanglement) classifications, where not enough information is known about the configuration of the entanglement to differentiate between L2 (SI) and L3 (NSI) injury categories. Stranding responders, disentanglement teams, and fisheries observers should be encouraged to provide as many details as possible regarding entanglement configurations when documenting injured marine mammals. NMFS should also ensure that those typically responding to or reporting on injured marine mammals are informed of key information that needs to be assessed and recorded (e.g., constricting wrap vs. loose wrap, bridled or draped gear) in order to distinguish serious from non-serious injuries. For management purposes, individuals reporting fishery interactions should also be encouraged to include details, if known, that can aid in assigning injuries and deaths to specific fisheries, as well as differentiate between commercial, recreational, and subsistence fishing gear.



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## Citations

- Allen, B. M., and R. P. Angliss. In prep. Alaska marine mammal stock assessments, 2013. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-xxx, 261 p.
- Bradford, A. L., and E. Lyman. 2013. Injury determinations for humpback whales and other cetaceans reported to the Pacific Islands Region Marine Mammal Response Network during 2007-2011. Working paper submitted to the Pacific Scientific Review Group, PSRG-2013-12. 15 p. (Available at: [http://swfsc.noaa.gov/uploadedFiles/Divisions/PRD/Programs/EEZ\\_Mammals\\_and\\_Acoustic\\_Scientific\\_Review\\_Group/PSRG-2013-12%20Bradford%20and%20Lyman%20Pacific%20Islands%20Serious%20Injuries%20PISC%20WP-13-005.pdf](http://swfsc.noaa.gov/uploadedFiles/Divisions/PRD/Programs/EEZ_Mammals_and_Acoustic_Scientific_Review_Group/PSRG-2013-12%20Bradford%20and%20Lyman%20Pacific%20Islands%20Serious%20Injuries%20PISC%20WP-13-005.pdf))
- Breiwick, J. M. 2013. North Pacific marine mammal bycatch estimation methodology and results, 2007-2011. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-260, 40 p. (Available at: <http://www.afsc.noaa.gov/Publications/AFSC-TM/NOAA-TM-AFSC-260.pdf>)
- Carretta, J. V., S. M. Wilkin, M. M. Muto, and K. Wilkinson. 2013. Sources of human-related injury and mortality for U.S. Pacific west coast marine mammal stock assessments, 2007-2011. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-SWFSC-514, 86 p.
- 50 CFR 229.2. Code of Federal Regulations. Title 50: Wildlife and Fisheries. (Available at: [http://cfr.regstoday.com/50CFR229.aspx#50\\_CFR\\_229p2](http://cfr.regstoday.com/50CFR229.aspx#50_CFR_229p2))
- Cole, T. V. N., and A. G. Henry. 2013. Serious injury determinations for baleen whale stocks along the Gulf of Mexico, United States east coast and Atlantic Canadian provinces, 2007-2011. U.S. Dep. Commer., Northeast Fish. Sci. Cent. Ref. Doc. 13-24, 14 p. (Available at: <http://nefsc.noaa.gov/publications/>)
- Henry, A. G., T. V. N. Cole, L. Hall, W. Ledwell, and A. Reid. 2013. Mortality determinations for baleen whale stocks along the Gulf of Mexico, United States east coast and Atlantic Canadian provinces, 2007-2011. U.S. Dep. Commer., Northeast Fish. Sci. Cent. Ref. Doc. 13-18, 15 p. (Available at: <http://nefsc.noaa.gov/publications/>)
- The Marine Mammal Protection Act of 1972 As Amended. 1972. As amended 2007. (Available at: <http://www.nmfs.noaa.gov/pr/pdfs/laws/mmpa.pdf>)
- National Marine Fisheries Service. 2012a. National Marine Fisheries Service Policy Directive 02-238. Process for Distinguishing Serious from Non-Serious Injury of Marine Mammals. 4 p. (Available at: <http://www.nmfs.noaa.gov/op/pds/documents/02/02-238.pdf>)

- National Marine Fisheries Service. 2012b. National Marine Fisheries Service Instruction 02-238-01. Process for Distinguishing Serious from Non-Serious Injury of Marine Mammals. 42 p. (Available at: <http://www.nmfs.noaa.gov/op/pds/documents/02/238/02-238-01.pdf>)
- Neilson, J. L., C. M. Gabriele, A. S. Jensen, K. Jackson, and J. M. Straley. 2012. Summary of reported whale-vessel collisions in Alaskan waters. *J. Mar. Biol.*, Article ID 106282, 18 p. doi:10.1155/2012/106282.
- Wade, P. R. 1998. Calculating limits to the allowable human-caused mortality of cetaceans and pinnipeds. *Mar. Mammal Sci.* 14:1-37.

## Guide to Acronyms and Abbreviations Found in Appendix 1

*The following acronyms and abbreviations are used in Appendix 1.*

### **Areas:**

WAK: Western Alaska  
SCAK: South Central Alaska  
SEAK: Southeast Alaska  
BC: British Columbia  
AK: Alaska  
BSAI: Bering Sea – Aleutian Islands  
GOA: Gulf of Alaska

### **Ages:**

U: Unknown  
A: Adult  
J: Juvenile  
J/A: Juvenile or Adult

### **Sex:**

U: Unknown  
F: Female  
M: Male

### **Source of Information:**

AKRO: NOAA, National Marine Fisheries, Alaska Regional Office  
Observer: Fisheries Observer Program  
ADFG: Alaska Department of Fish and Game

### **Initial Assessment and Final Determination:**

SI: Serious Injury  
NSI: Non-Serious Injury  
CBD: Cannot be Determined  
COD: Cause of Death

### **Other:**

LOF: List of Fisheries  
ID: Species Identity  
SSL: Steller Sea Lion  
ASLC: Alaska Sea Life Center  
XXX: Identifies redacted information; used to protect names of people, businesses, or vessels.  
YYY: Identifies redacted information; used to protect names of people, businesses, or vessels.  
ZZZ: Identifies redacted information; used to protect names of people, businesses, or vessels.



## Appendix 1

Human-caused injury and mortality records of NMFS-managed Alaska marine mammal stocks reported for 2007-2011. Reports are sorted by stock in Appendix Tables 1-1 through 1-26. Records are listed chronologically within each table. A guide to the acronyms and abbreviations found in the tables of Appendix 1 is included on p.13. Note: many comments were entered verbatim from observer reports. Some terminology may be specific to a particular industry or practice (e.g., “flasher” and “hootchie” are types of lures used in recreational and commercial troll fisheries; “cod end” is the narrow end of a tapered trawl net, etc.) For any questions regarding specific terminology, contact the authors for assistance in clarification.

Appendix Table 1-1: Steller sea lion (Western U.S.)

Appendix Table 1-2: Steller sea lion (Eastern U.S.)

Appendix Table 1-3: Steller sea lion (Unknown Stock)

Appendix Table 1-4: Northern fur seal (Eastern Pacific Stock)

Appendix Table 1-5: Harbor seal (All Stocks)

Appendix Table 1-6: Spotted seal (Alaska Stock)

Appendix Table 1-7: Bearded seal (Alaska Stock)

Appendix Table 1-8: Ringed seal (Alaska Stock)

Appendix Table 1-9: Ribbon seal (Alaska Stock)

Appendix Table 1-10: Beluga whale (Eastern Bering Sea Stock)

Appendix Table 1-11: Beluga whale (Bristol Bay Stock)

Appendix Table 1-12: Beluga whale (Cook Inlet Stock)

Appendix Table 1-13: Killer whale (Eastern North Pacific Alaska resident or Eastern North Pacific Gulf of Alaska (GOA), Aleutian Islands, and Bering Sea (BSAI) transient)

Appendix Table 1-14: Killer whale (Eastern North Pacific Alaska resident)

Appendix Table 1-15: Harbor Porpoise (Southeast Alaska Stock)

Appendix Table 1-16: Harbor Porpoise (Gulf of Alaska Stock)

Appendix Table 1-17: Harbor Porpoise (Bering Sea Stock)

Appendix Table 1-18: Dall's Porpoise (Alaska Stock)

Appendix Table 1-19: Sperm whale (North Pacific Stock)

Appendix Table 1-20: Humpback whale (Central North Pacific Stock)

Appendix Table 1-21: Humpback whale (Central North Pacific or Western North Pacific Stock)

Appendix Table 1-22: Fin whale (Northeast Pacific Stock)

Appendix Table 1-23: Minke whale (Alaska Stock)

Appendix Table 1-24: Bowhead whale (Western Arctic Stock)

Appendix Table 1-25: Unidentified pinniped

Appendix Table 1-26: Unidentified whale

**Appendix Table 1-1. Steller sea lion (Western US) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
19	1/26/2007	2007	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL killed in trawl. Fresh dead, blood was warm when snout was removed. ID verified.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
17	2/5/2007	2007	BSAI (central)	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in net. Freshly killed, presumably by gear. Still warm. ID confirmed by J Thomason.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pacific Cod Trawl Fishery
2007002	2/14/2007	2007	Unalaska	WAK	Steller Sea Lion	Western US	J	F	AKRO	Captured in pollock trawl - found dead in fish hold when offloading. Necropsy revealed this was a healthy well conditioned animal that drowned in net.	DEAD	DEAD	N/A	1	1	Caught in pollock trawl	BSAI Pollock Trawl - Commerical
14	3/13/2007	2007	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul 52. Photos & snout taken, ID confirmed by J Thomason.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
15	3/14/2007	2007	BSAI (central)	WAK	Steller Sea Lion	Western US	U	U	Observer	Fresh dead SSL found in net. SSL was warm, had blood coming from nose. Photos taken and snout collected. ID confirmed by J Thomason.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pacific Cod Trawl Fishery
18	3/18/2007	2007	BSAI (central)	WAK	Steller Sea Lion	Western US	U	U	Observer	Dead SSL killed by gear, blood flowed freely during collection of snout. Photos taken. ID verified by J Thomason.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pacific Cod Trawl Fishery
21	3/30/2007	2007	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in net and dumped into live-tank. Fresh dead, bleeding from nose. ID verified via snout by J Thomason	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
16	4/9/2007	2007	Central Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul XXX. Photos taken, snout removed for samples. ID verified.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
20	5/27/2007	2007	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL found in live tank. Animal was dead, no signs of decomp. Species confirmed with samples.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
2007021	5/27/2007	2007	Kachemak Bay	SCAK	Steller Sea Lion	Western US	A	F	AKRO	Sea lion has two separate wounds consistent with blunt trauma. No prop marks. No necropsy. Not possible to say COD was vessel collision with scant information, may have been hit post-mortem	DEAD	DEAD	P15	N/A	N/A	Possible ship strike	
2007093	8/8/2007	2007	Ressurrection Bay	SCAK	Steller Sea Lion	Western US	J	F	AKRO	Animal obsvd alive and injured near Fox Island. ASLC recovered on 8/8. Died on 8/9. Necropsy revealed depressed healing fracture of the skull, pinpoint damage to the underlying cerebrum consistent with traumatic injury to the skull. Cause of injury thought to be a gaff puncture wound.	SI	DEAD	P12	1	1	Gaff puncture wound	
22	10/9/2007	2007	Central Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul. Looked healthy and recently dead. Species confirmed by J Thomason	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
363	1/21/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL killed by gear.	DEAD	DEAD	N/A	1	1	Killed by gear	AK BSAI Pollock Trawl Fishery
360	1/24/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL was found in bin of haul X. Fresh carcass with no visible injuries.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
361	1/28/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	Female SSL caught in haul. Photos taken, snout removed and saved.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
366	1/29/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL was pulled out of the bin from haul XXX. Photos taken and head removed and frozen.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery

**Appendix Table 1-1. Steller sea lion (Western US) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
362	1/30/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul. Branded A122. No cuts or damage to body. Regurgitating pollock, blood still warm.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
364	1/30/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in net & drowned. Snout was collected. Snout was removed & frozen.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
367	1/30/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL was discovered when cod end was dumped into the tank. Appeared to be a fresh kill. The SSL was hoisted out of the tank, the snout was removed and delivered to Dutch Harbor.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
365	2/7/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul 12. Appeared to have recently died. No signs of rotting or deterioration. SSL exhibited 5 stab like wounds. J Thomason determined COD was gear	DEAD	DEAD	N/A	1	1	Caught in haul	Unknown
358	3/1/2008	2008	GOA (western)	SCAK	Steller Sea Lion	Western US	U	U	Observer	SSL tangled up in longline groundline. It was fresh dead. Could not retrieve from water.	DEAD	DEAD	N/A	1	1	Caught on longline	AK GOA Pacific Cod Longline Fishery
368	3/2/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul, animal was dead. Net was towed at surface all night before animal was found.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
359	3/3/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul XXX. Animal was fresh dead and otherwise appeared healthy.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
371	5/16/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL found in intermediate portion of net. Confirmed ID with mammal guide. Collected head.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
369	5/17/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL dumped from cod end of net. Fresh dead with foam coming out of mouth. The captain observed a SSL swimming around the net while it was short-wired.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
373	5/17/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL found in net. Verified as fresh dead.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
372	6/5/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul and found in live tank. Fresh dead.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
370	6/17/2008	2008	Central Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	Animal was brought aboard in net. ID'd as SSL.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
376	7/4/2008	2008	Central Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul. Animal was foaming at mouth and in rigor mortis. J Thomason determined ID.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
375	7/6/2008	2008	Central Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul. Fresh dead, snout and photos taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
374	8/25/2008	2008	Central Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
377	10/12/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL found in cod end. The animal was freshly drowned. The snout was removed, frozen, and delivered to Dutch Harbor field office	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
378	11/23/2008	2008	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	Fresh dead SSL found in live-tank. Photos taken and snout removed.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
780	1/27/2009	2009	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul. Snout and canines were removed. Pictures were taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
782	2/14/2009	2009	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul. Snout collected and photos taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery

**Appendix Table 1-1. Steller sea lion (Western US) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
781.1	2/16/2009	2009	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	Two SSLs pulled up in net on haul XXX freshly killed. Pictures and head taken. 1/2	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
781.2	2/16/2009	2009	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	Two SSLs pulled up in net on haul XXX freshly killed. Pictures and head taken. 2/2	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
784	2/17/2009	2009	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in net. Photos & sampling conducted.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
783	3/18/2009	2009	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul and drowned - foam coming out of nose and mouth.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
785	5/6/2009	2009	Central Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	Dead SSL emptied from cod end following haul 300. Pictures taken, samples taken, carcass was in good condition and had warm blood.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
786	6/10/2009	2009	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught and drowned in trawl net. Came up in great shape, foaming at mouth. Picture of snout were taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
787	6/11/2009	2009	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul 420. Noted to be fresh dead, no decomposition.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
A00445	7/30/2009	2009	Chiswell Is	PWS	Steller Sea Lion	Western US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing from left side of mouth. Silver & white flasher. @ Chiswell Island. Seen in subsequent years without flasher. Seems animal is fine.	SI	NSI	P2	1	0	Swallowed troll gear - gear later shed	
1106	2/22/2010	2010	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL found dead, entangled in halibut excluder. Foam coming from snout. No other information, animal discarded before additional data could be collected.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1107	2/23/2010	2010	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL was caught in haul. Snout collected, photos taken. SSL had briefly been dead, was setting into rigor.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1111	2/28/2010	2010	GOA (central)	SCAK	Steller Sea Lion	Western US	U	U	Observer	SSL was hooked to longline gear, line broke as gear was hauled in. Appeared to be dead.	DEAD	DEAD	N/A	1	1	Caught on longline	AK GOA Pacific Cod Longline Fishery
1109	3/3/2010	2010	Central Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul XXX. No visible signs of trauma, aside for frothing at the mouth. ID determined by J Thomason.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1108	3/6/2010	2010	Central Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul. Head was removed and frozen.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1110	3/19/2010	2010	BSAI (central)	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul XXX. Snout was removed. Photos taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pacific Cod Trawl Fishery
1113	4/6/2010	2010	Central Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul. Photos taken, head removed. Appeared animal drowned in net.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1114	4/20/2010	2010	Central Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL was caught in haul. It was dead with foam coming from its mouth. Snout collected.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1112	5/29/2010	2010	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL was lodged in live tank. Skin and head samples were collected, carcass thrown overboard. The animal was killed by the vessel during fishing activity.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1115	6/21/2010	2010	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul, fresh killed, no apparent injuries, drowned	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery

**Appendix Table 1-1. Steller sea lion (Western US) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
1116	8/12/2010	2010	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul XXX. Photos taken, snout removed and frozen, species ID confirmed by J Thomason.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1117	9/2/2010	2010	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL was stuck in cod end. Foaming at mouth. Removed snout for samples.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1118	9/6/2010	2010	BSAI (western)	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL killed in Atka mackerel trawl gear. Western BSAI region.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Atka Mackerel Trawl
1466	1/30/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	Dead SSL caught in haul XXX. Photos taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1465	2/24/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	Dead SSL was in net cod end. Snout removed and frozen.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1468	2/24/2011	2011	BSAI (central)	WAK	Steller Sea Lion	Western US	U	U	Observer	Dead SSL in cod end of haul. Good body condition, foaming at nose. Snout removed, photos taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pacific Cod Trawl Fishery
1467	2/26/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul. Foam coming out of mouth. Animal was fresh, snout removed.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1469	4/19/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught and killed by bottom trawl gear during haul XXX. Collected whole head.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1472	5/28/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1471	6/9/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	A dead SSL was found in haul. White foam was coming from its snout. Removed snout with saw, pictures were taken. Animal was fresh dead, and still warm.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1473	6/9/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	Fresh dead, warm, foaming at the mouth SSL caught in haul. Head collected.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1470	6/11/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL found dead in live tank. Took photos, foam around nose and mouth, blood around eyes.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1476	6/24/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught during haul XXX. Animal was dead, frothing at the mouth, and in rigor mortis. Took photos and snout sample.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1474	6/27/2011	2011	Central Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught during haul XXX. Animal appeared to be recently dead. Snout was removed, but little bleeding was observed.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
2011073	7/6/2011	2011	Seward	SCAK	Steller Sea Lion	Western US	U	U	AKRO	Ingested hook; 9 in. flasher hanging from mouth	SI	SI	P2	1	1	Swallowed troll gear	
1478	8/4/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul. Photos taken, head removed.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1477	8/23/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	Male SSL caught in haul. Fresh dead.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1475	8/31/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL caught in haul XXX. Animal was dead. Snout sample was taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1480	10/11/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL drowned in net. Evident during bag dump. Foaming from mouth.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1481	10/16/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	SSL was found in live tank following haul XXX.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1479	11/6/2011	2011	Eastern Bering Sea	WAK	Steller Sea Lion	Western US	U	U	Observer	Fresh dead SSL found on the belt following haul XXX. Collected snout.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery

**Appendix Table 1-2. Steller sea lion (Eastern US) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
AEF00026	5/31/2007	2007	Forrester - Cape Horn Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing. @ Forrester - Cape Horn Rocks	SI	SI	P2	1	1	Swallowed troll gear	
2007051	6/6/2007	2007	Bartlett Cove	SEAK	Steller Sea Lion	Eastern US	J	M	AKRO	Animal obsvd dead - found floating in Bartlett Cove. Gross Diagnoses: Trauma, gunshot to head, mild parasitism	DEAD	DEAD	P9	1	1	Shot	
2007033	6/14/2007	2007	Marble Island	SCAK	Steller Sea Lion	Eastern US	U	U	AKRO	Entangled SSL hauled out on W. side of Marble Island in Glacier Bay. Animal had ring neck entanglement. Raised its head once, but otherwise did not move during the approximately 6-8 minutes of observation.	SI	SI	P8a	1	1	Ring neck entanglement (unknown marine debris / gear)	
2007034	6/20/2007	2007	St. Lazaria Island	SEAK	Steller Sea Lion	Eastern US	A	U	AKRO	Flasher around head of SSL- head was wrapped in gear. (Orange & silver flasher). 2 days later the SSL was not there. It is unclear whether gear was ingested.	SI	SI	P8a	1	1	Entangled in troll gear	
AEF_SM_07	6/21/2007	2007	Forrester - Northeast Rk	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing. @ Forrester - Northeast Rocks	SI	SI	P2	1	1	Swallowed troll gear	
2007049	7/3/2007	2007	Biorka Island	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Hauled out SSL in Sitka Sound photographed with flasher hanging from mouth.	SI	SI	P2	1	1	Swallowed troll gear	
AEF00027	7/3/2007	2007	Forrester - Lowrie Is: El Cap Shore	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing. White/Silver flasher. @ Forrester-Lowrie Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_01	7/4/2007	2007	White Sisters	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AB001432	7/4/2007	2007	Biali Rks	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing. Silver flasher with blue rim. @ Biali Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AB000948	7/5/2007	2007	White Sisters	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing. Silver flasher with green rim. @ White Sisters. Do not count this as SI - this animal is already accounted for under accession number 2007067	SI	SI	P2	N/A	N/A	Swallowed troll gear	
AEF00022	7/6/2007	2007	White Sisters	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AEF_AF_08	7/6/2007	2007	Forrester - Sea Lion Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing. Silver flasher with green rim. @ Forrester - Sea Lion Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00023	7/7/2007	2007	Graves Rks	SEAK	Steller Sea Lion	Eastern US	A	M	ADFG	Adult male swallowed troll gear, flasher trailing. Silver & blue flasher. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00024	7/7/2007	2007	Graves Rks	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF_JU_02	7/11/2007	2007	Chearnley Inlet	BC	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed troll gear, flasher trailing. @ Chearnley Inlet	SI	SI	P2	1	1	Swallowed troll gear	
AEF_JU_03	7/12/2007	2007	Grindall Is	BC	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed troll gear, flasher trailing. @ Grindall Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_NU_04	7/12/2007	2007	Grindall Is	BC	Steller Sea Lion	Eastern US	J/A	U	ADFG	SSL swallowed troll gear, flasher trailing. @ Grindall Island	SI	SI	P2	1	1	Swallowed troll gear	

**Appendix Table 1-2. Steller sea lion (Eastern US) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
AEF00028	7/13/2007	2007	Forrester - Lowrie Is: Linda's Roost	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing. @ Forrester-Lowrie Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_AF_05	7/14/2007	2007	Southwest Brothers Is	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing. @ SW Brothers Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_JU_06	7/14/2007	2007	Southwest Brothers Is	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed troll gear, flasher trailing. @ SW Brothers Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_AF_09	7/20/2007	2007	Forrester - Lowrie Is: Linda's Roost	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing. Green flasher. @ Forrester-Lowrie Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF00029	7/20/2007	2007	Forrester - Lowrie Is: Linda's Roost	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing from left side of mouth. Silver flasher with red rim. @ S. Marble Island.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_UU_10	7/22/2007	2007	Joseph Rks, West Side Queen Charlottes	BC	Steller Sea Lion	Eastern US	U	U	ADFG	SSL swallowed troll gear, flasher trailing from mouth. @ Joseph Rocks, Queen Charlotte Island.	SI	SI	P2	1	1	Swallowed troll gear	
2007067	7/24/2007	2007	Glacier Bay	SEAK	Steller Sea Lion	Eastern US	A	U	AKRO	SSL hauled out at S Marble Island - white & green flasher coming out of mouth. Emaciated condition. SSL branded F1135	SI	SI	P2	1	1	Swallowed troll gear	
2007069	7/27/2007	2007	Gustavus	SEAK	Steller Sea Lion	Eastern US	J	U	AKRO	SSL obsvd swimming erratically and hauled out in odd location. Flasher (blue, silver, red) hanging out of mouth.	SI	SI	P2	1	1	Swallowed troll gear	
2007123	7/28/2007	2007	Sitka	SEAK	Steller Sea Lion	Eastern US	A	F	AKRO	SSL was found dead on beach in Sitka. Necropsy conducted.. 4+ yr old female, swallowed J-Hook with hoochie, causing major lung infection	DEAD	DEAD	P2	1	1	Swallowed troll gear	
AEF00025	8/16/2007	2007	S. Marble Is	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed troll gear, 2 flashers trailing from mouth. @ S. Marble Island	SI	SI	P2	1	1	Swallowed troll gear	
2008006	4/26/2008	2008	Gran Point	SEAK	Steller Sea Lion	Eastern US	J	U	AKRO	SSL at Gran Point, entangled with rubber band around neck associated with pot fisheries. 10-11 month old. Level A reports a planned disentanglement attempt - no follow up information on disentanglement.	SI	SI	P8a	1	1	Entangled in pot fishery gear	
2008007	4/30/2008	2008	Gran Point	SEAK	Steller Sea Lion	Eastern US	J	M	AKRO	SSL with unknown marine debris around neck at Gran Point. 6 year old male, branded H8O.	SI	SI	P8a	1	1	Ring neck entanglement (unknown marine debris / gear)	
2008024	6/9/2008	2008	South Marble Island	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Animal with ringneck entanglement hauled out with other sea lions on N. Point of South Marble Island.	SI	SI	P8a	1	1	Ring neck entanglement (unknown marine debris / gear)	

**Appendix Table 1-2. Steller sea lion (Eastern US) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2008022	6/10/2008	2008	Biorika Island	SEAK	Steller Sea Lion	Eastern US	A	M	AKRO	Hauled out SSL at Biorika Island with neck entanglement. This animal has been observed with this entanglement since 2007. The neck wrap is clearly visible in photos and appears constricting, may lead to future injury.	SI	SI	P8a	1	1	Ring neck entanglement (unknown marine debris / gear)	
2008027	6/16/2008	2008	Sitka	SEAK	Steller Sea Lion	Eastern US	J	M	AKRO	SSL obsvd floating dead in Sitka, washed up on beach and secured for necropsy. Necropsy revealed flasher hanging from mouth, hook in esophagus, and a .22 bullet found wound in the right dorsal lumbar area. In time between the SSL being tied off and necropsied the cheeks and whiskers were cut out. Primary COD: Swallowing trolling gear. Gunshot wound considered secondary injury.	DEAD	DEAD	P2	1	1	Swallowed troll gear	
AEF00041	6/29/2008	2008	Forrester - North Rks	SEAK	Steller Sea Lion	Eastern US	U	U	ADFG	SSL with large fungal patch on right side swallowed troll gear. @ Forrester - North Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00031	6/29/2008	2008	Cape Addington	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Subadult SSL swallowed troll gear, flasher trailing. @ Cape Addington	SI	SI	P2	1	1	Swallowed troll gear	
AEF_AF_28	6/30/2008	2008	Forrester - North Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher & hoochie hanging from left side of mouth. Silver flasher with green rim. @ Forrester - North Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00035	7/3/2008	2008	Graves Rks	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher tight to lips, left side. Green flasher. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00036	7/3/2008	2008	Graves Rks	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult Male SSL swallowed troll gear, flasher tight to lips. Red flasher. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF_JU_16	7/3/2008	2008	Graves Rks	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed troll gear, flasher trailing from right side of mouth. Red flasher. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF_NM_17	7/3/2008	2008	Graves Rks	SEAK	Steller Sea Lion	Eastern US	J/A	M	ADFG	Male SSL swallowed troll gear, flasher trailing from right side of mouth. Red flasher. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF_JU_18	7/4/2008	2008	Graves Rks	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed troll gear, flasher tight to left corner of mouth. Red flasher. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00032	7/4/2008	2008	Biali Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing. Multi-colored flasher. @ Biali Rocks.	SI	SI	P2	1	1	Swallowed troll gear	
AEF00033	7/4/2008	2008	Biali Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing. Silver flasher with blue & green edge. @ Biali Rocks.	SI	SI	P2	1	1	Swallowed troll gear	
AEF00034	7/4/2008	2008	Biali Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing from left lip. Silver flasher with blue edge. @ Biali Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF_NU_11	7/4/2008	2008	Kaiuchali Is	SEAK	Steller Sea Lion	Eastern US	J/A	U	ADFG	SSL swallowed troll gear, flasher trailing from left lip. Silver flasher with blue center stripe. @ Kaiuchali Island	SI	SI	P2	1	1	Swallowed troll gear	

**Appendix Table 1-2. Steller sea lion (Eastern US) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
AEF_SU_12	7/4/2008	2008	Kaiuchali Is	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Subadult SSL swallowed troll gear, flasher trailing. Silver flasher with orange edges. @ Kaiuchali Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_19	7/5/2008	2008	Graves Rks	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult Male SSL swallowed troll gear, flasher tight to left side of mouth. Red flasher. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF_UU_20	7/5/2008	2008	Graves Rks	SEAK	Steller Sea Lion	Eastern US	U	U	ADFG	SSL swallowed troll gear, flasher trailing. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF_UU_21	7/5/2008	2008	Graves Rks	SEAK	Steller Sea Lion	Eastern US	U	U	ADFG	SSL swallowed troll gear, flasher trailing. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00042	7/5/2008	2008	Forrester - Lowrie Is: Linda's Roost	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing. Silver flasher with red rim. @ Forrester - Lowrie Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_AM_13	7/5/2008	2008	Biali Rks	SEAK	Steller Sea Lion	Eastern US	A	M	ADFG	Adult male swallowed troll gear, flasher trailing from left lip. Silver flasher with blue edge. @ Biali Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AB001901	7/5/2008	2008	Sea Lion Is	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher hanging from left side of mouth. Silver flasher with orange rim. @ Sea Lion Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_NM_14	7/5/2008	2008	Sea Lion Is	SEAK	Steller Sea Lion	Eastern US	J/A	M	ADFG	Male SSL swallowed troll gear, flasher trailing from right lip. Green flasher. @ Sea Lion Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_15	7/5/2008	2008	Sea Lion Is	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing from right side of mouth. Silver flasher with orange edge. @ Sea Lion Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_29	7/5/2008	2008	Forrester - Lowrie Is: Walts View	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL, swallowed troll gear, flasher hanging below right lip. Silver flasher with red rim. @ Forrester - Lowrie Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_NU_22	7/6/2008	2008	Inian Islands: NW Inian Island	SEAK	Steller Sea Lion	Eastern US	J/A	U	ADFG	SSL swallowed troll gear, flasher trailing from right side of mouth. Silver flasher. @ NW Inian Islands.	SI	SI	P2	1	1	Swallowed troll gear	
AEF00043.1	7/6/2008	2008	Forrester - Lowrie Is: Shore 11 South	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed trolling gear, flasher trailing. Flasher is blue / green. @ Forrester - Lowrie Island, Shore 11 south. SSL appears to have a pup.	SI	SI	P2	1	1	Swallowed troll gear	
AEF00043.2	7/6/2008	2008	Forrester - Lowrie Is: Shore 11 South	SEAK	Steller Sea Lion	Eastern US	pup/calf	U	ADFG	SSL pup with mother that swallowed trolling gear, flasher trailing from mother. Flasher is blue / green. @ Forrester - Lowrie Island, Shore 11 south.	SI	SI	P14	1	1	Dependent animal with SI mother	
AEF_AM_23	7/7/2008	2008	White Sisters	SEAK	Steller Sea Lion	Eastern US	A	M	ADFG	SSL swallowed troll gear, flasher partially inside mouth. Green flasher. @ White Sisters.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_24	7/7/2008	2008	White Sisters	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	SSL swallowed troll gear, flasher tight to left side of mouth. Red flasher.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_25	7/7/2008	2008	White Sisters	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing from mouth. Red flasher. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AEF_UU_31	7/8/2008	2008	Bonilla Rks	BC	Steller Sea Lion	Eastern US	U	U	ADFG	SSL swallowed troll gear, flasher hanging from mouth. @ Bonilla Rocks, BC	SI	SI	P2	1	1	Swallowed troll gear	

**Appendix Table 1-2. Steller sea lion (Eastern US) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
AEF00038.1	7/8/2008	2008	White Sisters	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed trolling gear, flasher trailing. Flasher is silver with light green rim. @ White Sisters. This SSL appears to have a pup.	SI	SI	P2	1	1	Swallowed troll gear	
AEF00038.2	7/8/2008	2008	White Sisters	SEAK	Steller Sea Lion	Eastern US	pup/calf	U	ADFG	SSL pup with mother that swallowed trolling gear, flasher trailing from mother. Flasher is silver with light green rim. @ White Sisters	SI	SI	P14	1	1	Dependent animal with SI mother	
AEF00039	7/8/2008	2008	White Sisters	SEAK	Steller Sea Lion	Eastern US	A	M	ADFG	Adult male SSL swallowed troll gear, flasher trailing. Silver & white flasher with white hoochie. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AEF00040	7/9/2008	2008	White Sisters	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing. Silver & white flasher with green edge. @ NW Inian Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_UU_32	7/10/2008	2008	West Rk, Dixon Entrance	SEAK	Steller Sea Lion	Eastern US	U	U	ADFG	SSL swallowed troll gear, flasher hanging from mouth. @ West Rock, Dixon Entrance.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_NM_26	7/11/2008	2008	Inian Islands: NW Inian Island	SEAK	Steller Sea Lion	Eastern US	J/A	M	ADFG	Male SSL swimming with flasher lying on animals back. Unable to determine where SSL is hooked. Silver & red flasher. @ NW Inian Island	SI	SI	P6	1	1	Entangled in troll gear	
AEF00037	7/11/2008	2008	Inian Islands: NW Inian Island	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher tight to mouth. Silver flasher. @ NW Inian Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_AF_27	7/11/2008	2008	Inian Islands: NW Inian Island	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher and hoochie hanging from right side of mouth. Red flasher. @ NW Inian Island.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_UU_33	7/13/2008	2008	Rose Spit	BC	Steller Sea Lion	Eastern US	U	U	ADFG	SSL swallowed troll gear, flasher hanging from mouth. @ Rose Spit, BC.	SI	SI	P2	1	1	Swallowed troll gear	
2008113	8/5/2008	2008	Marble Island	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	SSL obsvd at S. Marble Island entangled with something plastic coming out of mouth.	SI	SI	P2	1	1	Swallowed unknown marine debris / gear	
2008037	8/6/2008	2008	Frederick Sound	SEAK	Steller Sea Lion	Eastern US	A	F	AKRO	Entangled SSL on rookery at Brothers Islands. SSL had a ringneck entanglement consisting of 1/2" line and was acting lethargic.	SI	SI	P8a	1	1	Ring neck entanglement (unknown marine debris / gear)	
2008102	8/12/2008	2008	Long Island	SCAK	Steller Sea Lion	Eastern US	J	U	AKRO	SSL at Long Island Rookery -entangled in red rope (ringneck). Noted that this SSL was entangled in 2007 as well. The wound appears worse.	SI	SI	P8a	1	1	Ring neck entanglement (unknown marine debris / gear)	
AEF_UU_30	8/20/2008	2008	Little Is	SEAK	Steller Sea Lion	Eastern US	U	U	ADFG	SSL, swallowed troll gear, flasher at right side of mouth. Green flasher. @ Little Island	SI	SI	P2	1	1	Swallowed troll gear	
2008128	8/26/2008	2008	Juneau	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	SSL sighted at Little Island near Juneau with a flasher in mouth. Flasher was silver and re/orange. SSL looked healthy and was hauled out with other SSLs.	SI	SI	P2	1	1	Swallowed troll gear	

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Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2008017	10/27/2008	2008	Yakutat	SEAK	Steller Sea Lion	Eastern US	U	M	AKRO	SSL found dead floating in front of Bill's house with rope tied to tail. The skull was taken with a permit, and a bear took the carcass at night.	DEAD	DEAD	P6	1	1	Entangled in unknown marine debris / gear	
2009010	4/7/2009	2009	Sitka	SEAK	Steller Sea Lion	Eastern US	A	M	AKRO	SSL found with what appeared to be hull paint on it floating inside Sitka channel. Necropsy reviewed bruising consistent with ship-strike.	DEAD	DEAD	P15	1	1	Ship strike (unknown vessel)	
2009131	6/16/2009	2009	Glacier Bay	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	A NPS Ranger reported seeing a live SSL with a flasher coming out of its mouth hauled out on S. Marble Island. Looked to be a young male. Animal was not seen again.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_34	7/1/2009	2009	Graves Rks	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher hanging from right side of mouth. Orange flasher. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF_NU_43	7/3/2009	2009	Cape Addington	SEAK	Steller Sea Lion	Eastern US	J/A	U	ADFG	SSL swallowed troll gear, flasher trailing. @ Cape Addington	SI	SI	P2	1	1	Swallowed troll gear	
AB001604	7/5/2009	2009	White Sisters	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL, flasher trailing from left side of mouth. Silver flasher with orange rim. @ White Sisters. Seen in subsequent years without flasher. Seems animal is fine.	SI	NSI	P2	1	0	Swallowed troll gear - gear later shed	
AEF_AF_35	7/5/2009	2009	White Sisters	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing. Silver flasher with orange edge. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AEF_NM_36	7/5/2009	2009	White Sisters	SEAK	Steller Sea Lion	Eastern US	J/A	M	ADFG	Male SSL swallowed troll gear, flasher trailing. Lime green flasher. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AEF_JU_37	7/6/2009	2009	White Sisters	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	SSL swallowed troll gear, flasher trailing from right side of mouth. Silver flasher with orange trim. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AEF_NM_38	7/6/2009	2009	White Sisters	SEAK	Steller Sea Lion	Eastern US	J/A	M	ADFG	Male SSL swallowed troll gear, flasher trailing from right side of mouth. Silver flasher with red rim. @ White Sisters.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_39	7/6/2009	2009	White Sisters	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing from right side of mouth. Silver flasher with red. @ White Sisters.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_AM_40	7/7/2009	2009	White Sisters	SEAK	Steller Sea Lion	Eastern US	A	M	ADFG	Adult male SSL swallowed troll gear, flasher trailing from left side of mouth. Silver and red flasher. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
2009044	7/8/2009	2009	North Pass	SEAK	Steller Sea Lion	Eastern US	J	M	AKRO	OLE vessel obsvd a carcass floating in North Pass out of Juneau. When hauled aboard they noted a bloody hole. Necropsy performed and it was confirmed that the bloody hole was a bullet wound. This SSL was shot.	DEAD	DEAD	P9	1	1	Shot	
AEF_SM_41	7/8/2009	2009	Inian Islands	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing. Orange and white flasher. @ Inian Islands	SI	SI	P2	1	1	Swallowed troll gear	
AEF00030	7/8/2009	2009	Inian Islands	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing. Flasher is silver/blue or silver/green. @ Inian Islands	SI	SI	P2	1	1	Swallowed troll gear	

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Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
AEF_SM_42	7/9/2009	2009	Inian Islands	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing. Flasher is silver with orange trim. @ Inian Islands	SI	SI	P2	1	1	Swallowed troll gear	
AB002412	7/10/2009	2009	S. Marble Is	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing from left side of mouth. Silver flasher with bright green rim. @ S. Marble Island. Seen in subsequent year without flasher. Seems animal is fine.	SI	NSI	P2	1	0	Swallowed troll gear - gear later shed	
2009110	8/27/2009	2009	Glacier Bay	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Park biologist reported seeing a SSL with a silver flasher hanging from mouth at Lituya Bay outside Gustavus.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_44	8/27/2009	2009	Harbor Pt	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing. @ Harbor Point. Do not count this as SI - this animal is already accounted for under accession number 2009110	SI	SI	P2	N/A	N/A	Swallowed troll gear	
2009122	9/4/2009	2009	Glacier Bay	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Park biologist reported a SSL hauled out on S. Marble Island with a flasher hanging from its mouth.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_NM_45	9/4/2009	2009	S. Marble Is	SEAK	Steller Sea Lion	Eastern US	J/A	M	ADFG	Male SSL swallowed troll gear, flasher trailing. @ S. Marble Island. Do not count this as SI - this animal is already accounted for under accession number 2009122	SI	SI	P2	N/A	N/A	Swallowed troll gear	
2010014	5/11/2010	2010	Funter Bay	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Large mass of ghost driftnet obsvd, ADFG towed net to shore, enclosed was a bloated, decomposed SSL. No necropsy performed	DEAD	DEAD	P7a	1	1	Entangled in foreign high seas gillnet	
2010023	5/27/2010	2010	Ketchikan	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	SSL =514 reported to be entangled. Photos reveal mono line wrapped around neck. SSL was not relocated	SI	SI	P8a	1	1	Ringneck entanglement (fishing line)	
AEF00066	5/31/2010	2010	Forrester - Lowrie Is: Sunset Point	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed trolling gear, trailing flasher from left side of mouth. Flasher is white with green/blue rim. SSL looks sick. @ Forrester - Sunset Point	SI	SI	P2	1	1	Swallowed troll gear	
AEF00065	6/8/2010	2010	Inian Islands	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed trolling gear, trailing flasher. Flasher is silver with blue stripe on one side and XX pattern on opposite. @ Inian Islands	SI	SI	P2	1	1	Swallowed troll gear	
AEF_JU_49	6/27/2010	2010	Southwest Brothers Is	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL with fungal patch on neck swallowed troll gear, flasher trailing from left side of mouth. Orange flasher. Blood drain obsvd on flasher. @ SW Brothers Island.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_50	6/27/2010	2010	Southwest Brothers Is	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL with fungal patch on left hip swallowed troll gear, flasher trailing from left side of mouth. Silver flasher with green rim. Stomach juices draining onto flasher, SSL looks sick. @ SW Brothers Island.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_JU_46	6/30/2010	2010	S. Marble Is	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed troll gear, flasher trailing. @ S. Marble Island	SI	SI	P2	1	1	Swallowed troll gear	

**Appendix Table 1-2. Steller sea lion (Eastern US) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
AEF_AF_58	7/1/2010	2010	Forrester - Sea Lion Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed trolling gear, trailing flasher & hoochie. Flasher is silver with a green rim - hoochie is green. @ Forrester - Sea Lion Rocks	SI	SI	P2	1	1	Swallowed troll gear	
2010058	7/2/2010	2010	Stephens Passage	SEAK	Steller Sea Lion	Eastern US	A	F	AKRO	Obsvd alive 2July on Sail Island w/ neck entanglement, severe wound with flesh exposed. Animal appears thin. Obsvd again in same location on 26July. Animal wasn't moving but was surrounded by other sleeping SSLs so it may have been sleeping. Wound and body condition seemed similar to earlier sighting.	SI	SI	P8a	1	1	Ring neck entanglement (unknown marine debris / gear)	
AEF00064	7/2/2010	2010	Graves Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing from left side of mouth. Silver flasher with neon green vertical stripe. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00054	7/2/2010	2010	Biali Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher tight to left side of mouth. Flasher has a dark blue rim. @ Biali Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00055	7/2/2010	2010	Biali Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing. Flasher is silver with green and white XX pattern. @ Biali Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00056	7/2/2010	2010	Biali Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing. Flasher is silver and white and smaller than most. @ Biali Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00057	7/2/2010	2010	Biali Rks	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL with fungal patch on back swallowed troll gear, flasher trailing from left side of mouth. Flasher is silver with orange rim. @ Biali Rocks.	SI	SI	P2	1	1	Swallowed troll gear	
AEF00058	7/2/2010	2010	Jacob Rk	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher trailing from left side of mouth. Flasher is silver with blue rim. @ Jacob Rock	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_59	7/3/2010	2010	Forrester - Lowrie Is: El Cap Shore	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, trailing flasher, hoochie in left lip. Flasher is silver with a red rim. @ Forrester - Lowrie Island - El Cap Shore	SI	SI	P2	1	1	Swallowed troll gear	
AEF00067	7/3/2010	2010	Forrester - Lowrie Is: Walts View	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed trolling gear, trailing flasher from right side of mouth. Flasher is silver with orange rim. @ Forrester - Lowrie Island - Walts View	SI	SI	P2	1	1	Swallowed troll gear	
AEF_AF_51	7/3/2010	2010	Biali Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher tight to mouth. Red flasher with 4' of mono line. @ Biali Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00068	7/4/2010	2010	Forrester - Lowrie Is: Boyd 5	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed trolling gear, trailing flasher. Flasher is silver with orange edge, flasher is trailing line. @ Forrester - Lowrie Island - Boyd 5	SI	SI	P2	1	1	Swallowed troll gear	

**Appendix Table 1-2. Steller sea lion (Eastern US) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
AEF_AM_47	7/4/2010	2010	Graves Rks	SEAK	Steller Sea Lion	Eastern US	A	M	ADFG	Adult female SSL swallowed troll gear, flasher trailing from left side of mouth. Silver flasher with neon green vertical stripe on one side, solid green on opposite. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_48	7/4/2010	2010	Graves Rks	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed troll gear, flasher trailing from left side of mouth. Silver flasher with neon green vertical stripe on one side and solid green on the opposite. @ Graves Rocks.	SI	SI	P2	1	1	Swallowed troll gear	
AEF00069	7/4/2010	2010	Forrester - Lowrie Is: El Cap Shore	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed trolling gear, trailing flasher. Flasher is silver with orange edge, and not trailing a line. @ Forrester - Lowrie Island: El Cap Shore	SI	SI	P2	1	1	Swallowed troll gear	
AEF_AF_60	7/5/2010	2010	Forrester - Lowrie Is: Shore 11 Peregrine Rocks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed trolling gear, trailing flasher. @ Forrester - Lowrie Island - Peregrine Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00059	7/5/2010	2010	Sea Lion Is	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, flasher tight to mouth. Flasher was silver with blue edge. @ Sea Lion Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_AM_52	7/6/2010	2010	White Sisters	SEAK	Steller Sea Lion	Eastern US	A	M	ADFG	Adult male SSL swallowed troll gear, flasher trailing from right side of mouth. Flasher is silver with a blue vertical stripe. @ White Sisters.	SI	SI	P2	1	1	Swallowed troll gear	
AEF00060	7/6/2010	2010	White Sisters	SEAK	Steller Sea Lion	Eastern US	J/A	M	ADFG	Male SSL swallowed troll gear, flasher tight to mouth. Flasher silver with orange rim. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AEF_AF_61	7/6/2010	2010	Forrester - Lowrie Is: Boyd 5	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed trolling gear, trailing flasher from left side of mouth. Flasher is Silver with orange rim. @ Forrester - Lowrie Island - Boyd 5.	SI	SI	P2	1	1	Swallowed troll gear	
AEF00061	7/7/2010	2010	White Sisters	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed troll gear, trailing flasher from left side of mouth. Flasher is silver with green rim. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_53	7/8/2010	2010	White Sisters	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flasher trailing. Flasher is silver with orange with line trailing from flasher. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_54	7/9/2010	2010	White Sisters	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flasher trailing. Flasher is silver with orange with line trailing from flasher. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AEF00062	7/9/2010	2010	White Sisters	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed troll gear, trailing flasher from left side of mouth. Flasher has orange rim. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AEF00063	7/9/2010	2010	White Sisters	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed troll gear, trailing flasher from left side of mouth. Flasher is silver and white. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	

**Appendix Table 1-2. Steller sea lion (Eastern US) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2010075	7/11/2010	2010	Glacier Bay	SEAK	Steller Sea Lion	Eastern US	J	F	AKRO	Dead SSL reported with red rope wrapped around animal. NPS rangers responded, found kelp draped over animal, and suspected bullet hole. Necropsy conducted. COD found to be suspect bullet wound in neck & hemothorax / shock.	DEAD	DEAD	N/A	1	1	Shot	
2010088	7/11/2010	2010	Glacier Bay	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Animal obsvd south in Glacier Bay with a big silver flasher hanging along its throat.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_JU_55	7/11/2010	2010	Southwest Brothers Is	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed trolling gear, trailing flasher from left side. Flasher is silver with an orange rim. @ SW Brothers Island	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_56	7/11/2010	2010	Southwest Brothers Is	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, trailing flasher from left side of mouth. Silver flasher with a green rim. SSL looks sickly. @ SW Brothers Island.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_JU_57	7/12/2010	2010	Yasha Is	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed trolling gear, trailing flasher from left side of mouth. Flasher is silver with orange rim. @ Yasha Island	SI	SI	P2	1	1	Swallowed troll gear	
2010057	7/13/2010	2010	Rocky Island	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Obsvd 7/13, 7/15, 7/16 on Rocky Island with 2 flashers hanging from mouth. Pictures taken. No further sightings.	SI	SI	P2	1	1	Swallowed troll gear	
AB001693	7/13/2010	2010	Rocky Is, near Pt. Couverden	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flashers trailing from right side of mouth. One green, one white & yellow. @ Rocky Island - Pt. Couverden. Do not count this as SI - this animal is already accounted for under accession number 2010057.	SI	SI	P2	N/A	N/A	Swallowed troll gear	
AEF_SM_62	7/20/2010	2010	S. Marble Is	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flasher trailing from left side of mouth. Silver flasher with orange rim. @ S. Marble Island	SI	SI	P2	1	1	Swallowed troll gear	
2010090	7/29/2010	2010	Tenakee	SEAK	Steller Sea Lion	Eastern US	J	M	AKRO	Found dead on beach with orange flasher tight to corner of mouth. Necropsy: COD sepsis / hemorrhage caused by fish hook induced esophageal perforation.	DEAD	DEAD	P2	1	1	Swallowed troll gear	
2010115	8/3/2010	2010	Juneau	SEAK	Steller Sea Lion	Eastern US	J	M	AKRO	Alive, thin, and lethargic on Aug 3 and 4. Found dead on Aug 6. Necropsy: two bullet wounds on either side of shoulder blades. Death most likely from starvation / inability to forage.	SI	DEAD	P9	1	1	Shot	
2010186	8/14/2010	2010	Glacier Bay	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Animal obsvd with a flasher hanging from mouth at South Marble Island. Definitely a different animal than 2010088.	SI	SI	P2	1	1	Swallowed troll gear	
2010161	8/15/2010	2010	Juneau	SEAK	Steller Sea Lion	Eastern US	A	M	AKRO	Report made by recreational boater. SSL with purple flasher hanging from mouth. SSL described as large, male & thin.	SI	SI	P2	1	1	Swallowed troll gear	

**Appendix Table 1-2. Steller sea lion (Eastern US) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
AEF_UU_63	8/16/2010	2010	S. Marble Is	SEAK	Steller Sea Lion	Eastern US	U	U	ADFG	SSL swallowed trolling gear, flasher trailing. @ S. Marble Island. Do not count this as SI - this animal is already accounted for under accession number 2010186.	SI	SI	P2	N/A	N/A	Swallowed troll gear	
2010187	8/28/2010	2010	Glacier Bay	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Tour boat reported a SSL hauled out on S. Marble Island entangled with orange flasher. Obsvd on 8/28 & 8/29. Do not count this as SI - this animal is already accounted for under accession number 2010176 & AEF_SM_64.	SI	SI	P2	N/A	N/A	Swallowed troll gear	
AEF_SM_64	9/6/2010	2010	Little Is	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flasher trailing from right side of mouth. Flasher is silver and orange. @ Little Island. Do not count this as SI - this animal is already accounted for under accession number 2010176 & 2010187.	SI	SI	P2	N/A	N/A	Swallowed troll gear	
2010176	9/9/2010	2010	Juneau	SEAK	Steller Sea Lion	Eastern US	J	U	AKRO	Animal obsvd from Sep 9 - 15 at Little Island. Young adult SSL with red and silver flasher in mouth. Appears to be the same animal as 2010187 & AEF_SM_64.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_65	9/14/2010	2010	Little Is	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flasher trailing from right side of mouth. Flasher is bright orange. @ Little Island.	SI	SI	P2	1	1	Swallowed troll gear	
2010189	9/17/2010	2010	Juneau	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	SSL reported entangled in flasher. One observer reported SSL to be thin and drooling blood & mucous with silver and red flasher. The other observed stated the flasher was gold and silver.	SI	SI	P2	1	1	Swallowed troll gear	
2010204	10/11/2010	2010	Yakutat	SEAK	Steller Sea Lion	Eastern US	A	M	AKRO	SSL in advanced decomp. Flasher protruding from mouth, trolling gear embedded in mouth.	DEAD	DEAD	P2	1	1	Swallowed troll gear	
2011011	4/25/2011	2011	Yakutat	SEAK	Steller Sea Lion	Eastern US	J	U	AKRO	Entangled severely in gillnet; able to keep nose out of water; responder cut net from neck area, then from hind flippers to shoulders; animal slipped out when net lifted; dove immediately, high energy movements; unable to confirm any existing injuries	SI	NSI	P7b	1	0	Entangled in unspecified gillnet gear	
2011018	5/14/2011	2011	Juneau	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Entangled with halibut gangion and hook wrapped around neck	SI	SI	P8a	1	1	Entangled in halibut gangion gear	
AEF_AF_75	6/6/2011	2011	Forrester - Lowrie Is: Walts View	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed trolling gear, flasher trailing from left side of mouth. @ Forrester - Lowrie Island -Walts View	SI	SI	P2	1	1	Swallowed troll gear	
AEF_AF_74	6/10/2011	2011	Graves Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed trolling gear, flasher in mouth. @ Graves Rocks.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_UU_76	6/14/2011	2011	Forrester - Lowrie Is: Linda's Roost	SEAK	Steller Sea Lion	Eastern US	U	U	ADFG	SSL swallowed troll gear, flasher trailing. @ Forrester - Lowrie Island	SI	SI	P2	1	1	Swallowed troll gear	

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Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2011047	6/15/2011	2011	Glacier Bay	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Ingested hook; white flasher hanging from mouth; animal lying down	SI	SI	P2	1	1	Swallowed troll gear	
AEF00051	6/16/2011	2011	Forrester - Sea Lion Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed trolling gear, flasher trailing. @ Forrester - Sea Lion Rocks	SI	SI	P2	1	1	Swallowed troll gear	
2011044	6/18/2011	2011	Tenakee	SEAK	Steller Sea Lion	Eastern US	A	M	AKRO	Ingested hook; silver flasher w/ blue & purple stripes tight against right side of mouth; lethargic; brand "W373"	SI	SI	P2	1	1	Swallowed troll gear	
AB002775	6/18/2011	2011	Tenakee Inlet	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL (brand W373) swallowed trolling gear, flasher trailing. Flasher is silver with a purple vertical strip down center. @ Tenakee Inlet Do not count this as SI - this animal is already accounted for under accession number 2011044	SI	SI	P2	N/A	N/A	Swallowed troll gear	
AEF00052	6/23/2011	2011	Forrester - North Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed trolling gear, flasher hanging from right side of mouth. @ Forrester - Lowrie Island - Boyd 7	SI	SI	P2	1	1	Swallowed troll gear	
2011065	6/25/2011	2011	West Brother Island	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Entangled with line or band tight around neck; emaciated, ribs apparent	SI	SI	P8a	1	1	Ring neck entanglement (unknown marine debris / gear)	
2011048	6/26/2011	2011	Sitka	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Ingested hook; orange flasher hanging from mouth; emaciated and lethargic	SI	SI	P2	1	1	Swallowed troll gear	
AEF_JU_78	6/26/2011	2011	Bieli Rocks, near Sitka	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed trolling gear, flasher trailing from right side of mouth. Flasher is bright orange. @ Biali Rocks, near Sitka. Do not count this as SI - this animal is already accounted for under accession number 2011048.	SI	SI	P2	N/A	N/A	Swallowed troll gear	
AEF00046	6/29/2011	2011	Biali Rks	SEAK	Steller Sea Lion	Eastern US	A	F	ADFG	Adult female SSL swallowed trolling gear, flasher trailing from right side of mouth. Flasher is silver with vertical purple/blue stripe. @ Biali Rocks. Animal is being followed by a juvenile.	SI	SI	P2	1	1	Swallowed troll gear	
AEF00044	6/29/2011	2011	Graves Rks	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flasher trailing from right side of mouth. Silver flasher with blue rim. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF_JU_66	6/30/2011	2011	S. Marble Is	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed trolling gear, flasher trailing from left side of mouth. Flasher is silver with dark blue rim. @ S. Marble Island.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_JU_67	6/30/2011	2011	S. Marble Is	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed trolling gear, flasher trailing from left side of mouth. Flasher is silver with light blue rim. @ S. Marble Island.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_68	6/30/2011	2011	S. Marble Is	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flasher trailing from left side of mouth. Flasher silver or white, with red rim. @ S. Marble Island	SI	SI	P2	1	1	Swallowed troll gear	

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Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
AEF_SM_69	7/1/2011	2011	Graves Rks	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flasher hanging from mouth. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
2011077	7/2/2011	2011	Haines	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Ingested hook; flasher and blood near mouth	DEAD	DEAD	P2	1	1	Swallowed troll gear	
AEF_SM_70	7/2/2011	2011	Graves Rks	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flasher trailing from left side of mouth. Flasher is silver and red. @ Graves Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00045	7/2/2011	2011	Graves Rks	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed trolling gear, trailing flasher from right side of mouth. Flasher is silver with a red rim, blue hoochie also visible. @ Graves Rocks.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_NU_71	7/3/2011	2011	Inian Islands	SEAK	Steller Sea Lion	Eastern US	J/A	U	ADFG	SSL swallowed trolling gear, flasher trailing from left side of mouth. Flasher is silver. @ Inian Islands	SI	SI	P2	1	1	Swallowed troll gear	
AEF00047	7/3/2011	2011	White Sisters	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flasher trailing from left lip. Flasher is silver on one side and has a lime green border on opposite. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_77	7/3/2011	2011	Forrester - Lowrie Is: Boyd 7	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flasher tight to lips. @ Forrester- Lowrie Island - Boyd 7.	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_72	7/4/2011	2011	White Sisters	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flasher half in mouth. Flasher has a green & blue rim on one side and a blue rim on the other. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AEF_SM_73	7/4/2011	2011	White Sisters	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flasher tight to left lip. Flasher is small and white, with a red rim. @ White Sisters	SI	SI	P2	1	1	Swallowed troll gear	
AEF00049	7/7/2011	2011	Forrester - North Rks	SEAK	Steller Sea Lion	Eastern US	J	M	ADFG	Subadult male SSL swallowed trolling gear, flasher trailing. @ Forrester - North Rocks	SI	SI	P2	1	1	Swallowed troll gear	
AEF00050	7/7/2011	2011	Forrester - Cape Horn Rks	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed trolling gear, flasher trailing. @ Forrester - Cape Horn Rocks	SI	SI	P2	1	1	Swallowed troll gear	
2011078	7/8/2011	2011	Glacier Bay	SEAK	Steller Sea Lion	Eastern US	J	F	AKRO	Ingested hook; troll flasher hanging from mouth; hook lodged in esophagus	DEAD	DEAD	P2	1	1	Swallowed troll gear	
AEF00048	7/8/2011	2011	Hazy Is - Rocky Is	SEAK	Steller Sea Lion	Eastern US	A	M	ADFG	Adult male SSL swallowed trolling gear, flasher trailing from mouth. Flasher is silver on both sides. @ Hazy Island - Rocky Island.	SI	SI	P2	1	1	Swallowed troll gear	
AEF00053	7/9/2011	2011	Forrester - 11S or 11PR From Boat	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed trolling gear, flasher trailing from left side of mouth. Flasher is silver with orange rim with pink hoochie. @ Forrester - 11s or 11PR	SI	SI	P2	1	1	Swallowed troll gear	
2011096	7/26/2011	2011	Glacier Bay	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Ingested hook; flasher hanging from right side of mouth	SI	SI	P2	1	1	Swallowed troll gear	
2011114	8/7/2011	2011	Juneau	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Ingested hook; flasher hanging from mouth; lethargic, open mouth breathing, laying down, hauled out away from group	SI	SI	P2	1	1	Swallowed troll gear	
2011120	8/16/2011	2011	Tenakee	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Ingested hook; blue flasher hanging from left side of mouth; appeared weak and emaciated	SI	SI	P2	1	1	Swallowed troll gear	

**Appendix Table 1-2. Steller sea lion (Eastern US) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOP
AEF_JU_79	8/16/2011	2011	Tenakee Inlet	SEAK	Steller Sea Lion	Eastern US	J	U	ADFG	Juvenile SSL swallowed trolling gear, flasher trailing from left side of mouth. Flasher is silver with a blue rim. Animal is sickly and thin. @ Tenakee Inlet. Do not count this as SI - this animal is already accounted for under accession number 2011120.	SI	SI	P2	N/A	N/A	Swallowed troll gear	
2011154	9/7/2011	2011	Rocky Island	SEAK	Steller Sea Lion	Eastern US	A	M	AKRO	Neck entanglement	SI	SI	P8a	1	1	Ring neck entanglement (unknown marine debris / gear)	
2011166	9/12/2011	2011	Petersburg	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Entangled in tight band around neck	SI	SI	P8a	1	1	Ring neck entanglement (unknown marine debris / gear)	
2011148	9/15/2011	2011	Juneau	SEAK	Steller Sea Lion	Eastern US	U	U	AKRO	Entangled in fishing line around neck	SI	SI	P8a	1	1	Ringneck entanglement (fishing line)	

**Appendix Table 1-3. Steller sea lion (Unknown Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2009088	8/17/2009	2009	Valdez	SCAK	Steller Sea Lion	Western US / Eastern US	U	U	AKRO	SSL outside of Valdez obsvd with flasher hanging from mouth. The reported said the SSL is big and in bad shape. Mouth possible stuck closed due to treble hooks. Brown mucus coming from mouth. Observer said the SSL would not leave the buoy he was hauled out on, even after observer was within 5 feet of buoy.	SI	SI	P2	1	1	Swallowed troll gear	
2010082	6/10/2010	2010	Kayak Island	SCAK	Steller Sea Lion	Western US / Eastern US	J	M	AKRO	Animal obsvd with plastic band around neck, creating a large laceration on the ventral surface. June 10 @ Kayak Island	SI	SI	P8a	1	1	Ring neck entanglement (unknown marine debris / gear)	
2010085	6/10/2010	2010	Kayak Island	SCAK	Steller Sea Lion	Western US / Eastern US	J	M	AKRO	Animal obsvd with string leader attached to gangion hanging out of mouth. Hook apparently inside mouth or throat. June 10 @ Kayak Island	SI	SI	P2	1	1	Swallowed unspecified fishing gear	

**Appendix Table 1-4. Northern fur seal (Eastern Pacific Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
11	8/7/2007	2007	Eastern Bering Sea	WAK	Northern Fur Seal	Eastern Pacific	U	U	Observer	N. fur seal caught in trawl. Photos & tissue samples taken. ID and COD confirmed by J Thomason	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
10	8/21/2007	2007	Eastern Bering Sea	WAK	Northern Fur Seal	Eastern Pacific	U	U	Observer	Northern fur seal caught in haul. Animal was fresh dead and believed to have been killed in the net. Snout and teeth removed.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
12	9/26/2007	2007	Central Bering Sea	WAK	Northern Fur Seal	Eastern Pacific	U	U	Observer	N. fur seal caught in haul. Fresh dead. No samples were taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
350	6/7/2008	2008	Eastern Bering Sea	WAK	Northern Fur Seal	Eastern Pacific	U	U	Observer	Dead northern fur seal worked its way onto the sorting belt. No abrasions, cuts, bleeding, sign of injury. Samples taken. Positive ID.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
351	6/20/2008	2008	Eastern Bering Sea	WAK	Northern Fur Seal	Eastern Pacific	U	U	Observer	A freshly killed northern fur seal was caught in a haul. Biological data was collected and the mammal was discarded.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
2008072	7/9/2008	2008	St. George Island	WAK	Northern Fur Seal	Eastern Pacific	J	M	AKRO	Monofilament fishing line or gillnet wrapped around fur seal's neck at St. George. Entanglement caused a 360° wound.	SI	SI	P8a	1	1	Ringneck (unknown fishing gear)	
2008077	7/9/2008	2008	St. George Island	WAK	Northern Fur Seal	Eastern Pacific	J	M	AKRO	Fur seal disentangled at St. George Island. It was entangled in fishery gear that caused a 180° wound around neck, disentangled.	SI	NSI	P8a	1	0	Unknown marine debris / gear entanglement - Disentangled	
2008073	7/10/2008	2008	St. George Island	WAK	Northern Fur Seal	Eastern Pacific	J	M	AKRO	Fur seal disentangled at St. George Island. It was entangled with a rubber band around its neck, there was no wound associated with the entanglement, disentangled.	SI	NSI	P8a	1	0	Unknown marine debris / gear entanglement - disentangled	
352	9/9/2008	2008	Central Bering Sea	WAK	Northern Fur Seal	Eastern Pacific	U	U	Observer	N. fur seal caught in haul. Animal showed no sign of rigor and may have been killed by gear.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
778	10/14/2009	2009	Eastern Bering Sea	WAK	Northern Fur Seal	Eastern Pacific	U	U	Observer	Northern fur seal drowned in AK BSAI Flatfish trawl net in eastern Bering Sea.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1104	7/30/2010	2010	Central Bering Sea	WAK	Northern Fur Seal	Eastern Pacific	U	U	Observer	N. fur seal entangled in longline. Stiff - but not decomposed. Roller man could not retrieve it.	DEAD	DEAD	N/A	1	1	Caught on longline	AK BSAI Pacific Cod Longline Fishery
1103	8/4/2010	2010	Eastern Bering Sea	WAK	Northern Fur Seal	Eastern Pacific	U	U	Observer	N. fur seal caught in haul. Animal was frothing at the mouth. Photos taken - snout removed and frozen.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1101	8/5/2010	2010	Eastern Bering Sea	WAK	Northern Fur Seal	Eastern Pacific	U	U	Observer	N. fur seal in haul. Foaming at mouth, removed head / snout and blood flowed freely.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1102	8/10/2010	2010	Central Bering Sea	WAK	Northern Fur Seal	Eastern Pacific	U	U	Observer	N. fur seal caught in haul. Animal was dead, not rotting. When the head was removed blood flowed freely. Head frozen.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
2011277	7/3/2011	2011	St. George	WAK	Northern Fur Seal	Eastern Pacific	J	M	AKRO	Line entangled around neck; subadult male	SI	SI	P8a	1	1	Ringneck entanglement	
2011278	7/9/2011	2011	St. George	WAK	Northern Fur Seal	Eastern Pacific	J	M	AKRO	Packing band entanglement; 360 degree open wound deep through blubber to muscle, disentangled.	SI	NSI	P8a	1	0	Ringneck entanglement - disentangled	
2011280	7/9/2011	2011	St. George	WAK	Northern Fur Seal	Eastern Pacific	J	M	AKRO	Rubber band entanglement high up on head, not around neck; high potential for self-release, disentangled.	NSI	NSI	P8b	0	0	Rubber band around head	

**Appendix Table 1-4. Northern fur seal (Eastern Pacific Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2011279	7/13/2011	2011	St. George	WAK	Northern Fur Seal	Eastern Pacific	J	M	AKRO	Packing band entanglement; no photos; no description of entanglement, disentangled.	SI	NSI	P8a	1	0	Ringneck entanglement - disentangled	
2011281	7/14/2011	2011	St. George	WAK	Northern Fur Seal	Eastern Pacific	A	M	AKRO	Entangled in fishing line; wrapped around neck multiple times; 360 degree wound	SI	SI	P8a	1	1	Ringneck entanglement (fishing line)	
2011283	8/1/2011	2011	St. George	WAK	Northern Fur Seal	Eastern Pacific	J	M	AKRO	Constricting circumferential neck entanglement in packing band; juvenile male	SI	SI	P8a	1	1	Ringneck entanglement (packing band)	
2011284	8/6/2011	2011	St. George	WAK	Northern Fur Seal	Eastern Pacific	A	F	AKRO	Circumferential neck entanglement in large rubber band; does not appear constricting, not likely to cause much drag, minimum risk of snagging; adult female - unlikely to cause injury? Full grown, prob minimal drag	SI	SI	P8a	1	1	Ringneck entanglement	
2011268	8/8/2011	2011	Bogoslof	WAK	Northern Fur Seal	Eastern Pacific	A	F	AKRO	Circumferential neck entanglement	SI	SI	P8a	1	1	Ringneck entanglement	
2011269	8/8/2011	2011	Bogoslof	WAK	Northern Fur Seal	Eastern Pacific	J	M	AKRO	Circumferential neck entanglement; 360 degree open wound around neck	SI	SI	P8a	1	1	Ringneck entanglement	
2011270	8/8/2011	2011	Bogoslof	WAK	Northern Fur Seal	Eastern Pacific	J	M	AKRO	Circumferential neck entanglement; entangled in crab pot door rubber	SI	SI	P8a	1	1	Ringneck entanglement (pot gear)	
2011271	8/8/2011	2011	Bogoslof	WAK	Northern Fur Seal	Eastern Pacific	A	F	AKRO	Circumferential neck entanglement	SI	SI	P8a	1	1	Ringneck entanglement	
2011272	8/8/2011	2011	Bogoslof	WAK	Northern Fur Seal	Eastern Pacific	A	M	AKRO	Circumferential neck entanglement; 360 degree wound around neck	SI	SI	P8a	1	1	Ringneck entanglement	
2011273	8/8/2011	2011	Bogoslof	WAK	Northern Fur Seal	Eastern Pacific	A	F	AKRO	Circumferential neck entanglement in trawl net; wraps around upper thorax; trailing line has potential to snag and create drag	SI	SI	P6	1	1	Ringneck (trawl gear)	
2011274	8/8/2011	2011	Bogoslof	WAK	Northern Fur Seal	Eastern Pacific	A	M	AKRO	Circumferential neck entanglement	SI	SI	P8a	1	1	Ringneck entanglement	
2011275	8/8/2011	2011	Bogoslof	WAK	Northern Fur Seal	Eastern Pacific	J	M	AKRO	Circumferential neck entanglement	SI	SI	P8a	1	1	Ringneck entanglement	
2011285	8/10/2011	2011	St. George	WAK	Northern Fur Seal	Eastern Pacific	J	M	AKRO	Circumferential neck entanglement in packing band; juvenile male	SI	SI	P8a	1	1	Ringneck entanglement (packing band)	
2011282	8/28/2011	2011	St. George	WAK	Northern Fur Seal	Eastern Pacific	J	F	AKRO	Entangled in gray twisted-strand trawl net; net wrapped around neck and head multiple times; 360 degree open neck wound	SI	SI	P8a	1	1	Ringneck entanglement (trawl net)	
2011286	9/29/2011	2011	St. George	WAK	Northern Fur Seal	Eastern Pacific	A	M	AKRO	Entangled in mixed color braided trawl and line; entanglement caused 180 degree wound on neck, disentangled.	SI	NSI	P8a	1	0	Ringneck (trawl gear) - disentangled	
2011287	9/29/2011	2011	St. George	WAK	Northern Fur Seal	Eastern Pacific	J	M	AKRO	Entangled in gray twisted strand net; no wound; debris is derelict fishing gear not used in current fisheries, disentangled.	SI	NSI	P8a	1	0	Entangled in gray twisted strand net - disentangled	
2011288	10/7/2011	2011	St. Paul	WAK	Northern Fur Seal	Eastern Pacific	J	M	AKRO	Entangled in clear plastic loop resembling top of oatmeal container; entanglement caused 180 degree wound; disentangled	SI	NSI	P8a	1	0	Entangled in plastic debris - disentangled	
2011289	10/7/2011	2011	St. Paul	WAK	Northern Fur Seal	Eastern Pacific	pup/calf	F	AKRO	Entangled in orange braided fishing net; no wound; disentangled	SI	NSI	P8a	1	0	Entangled in orange braided fishing net - disentangled	

**Appendix Table 1-5. Harbor seal (All Stocks) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
29	4/8/2007	2007	Central Bering Sea	WAK	Harbor Seal	N/A	U	U	Observer	Harbor seal was caught in codend & dumped into live tank. Seal appeared fresh dead. Blood was coming from mouth and eye sockets.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
2007035	6/21/2007	2007	Ismailof Island	SCAK	Harbor Seal	N/A	U	U	AKRO	Dead harbor seal reported caught in commercial set-net. Was a 90 pound juvenile. Saved for necropsy at ASLC.	DEAD	DEAD	P7a	1	1	Entangled in commercial set-net	Cook Inlet Salmon Set Gillnet - Commercial
2007079	8/29/2007	2007	Yakutat	SEAK	Harbor Seal	N/A	J	U	AKRO	Seal found on beach, decomposing, appeared to be shot with a .30 cal or greater. Seal decapitated. Likely struck and lost as this is an Active Harvest Area	DEAD	DEAD	P9	1	1	Shot	
2007092	9/2/2007	2007	Sand Point	WAK	Harbor Seal	N/A	U	U	AKRO	Harbor seal shot for subsistence.	DEAD	DEAD	P9	N/A	N/A	Shot	
2007091	9/25/2007	2007	Juneau	SEAK	Harbor Seal	N/A	A	M	AKRO	Harbor seal shot. Entrance wound on dorsal right lumbar region at level of 3rd lumbar vertebrae.	DEAD	DEAD	P9	1	1	Shot	
387	1/31/2008	2008	Eastern Bering Sea	WAK	Harbor Seal	N/A	U	U	Observer	Harbor seal was caught during haul XXX. Animal was fresh dead, samples and photos were taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
2008021	5/8/2008	2008	Port Valdez	SCAK	Harbor Seal	N/A	pup/calf	M	AKRO	Mother harvested by subsistence hunter in Valdez. Pup delivered by hunter and taken to ASLC. ASLC rehabbed and released the seal pup.	SI	NSI	P14	1	N/A	Subsistence	
2008048	5/29/2008	2008	Point Possession	SCAK	Harbor Seal	N/A	J	F	AKRO	This animal was found fresh dead near Point Possession in Cook Inlet. Necropsy at ASLC indicates this animal was shot. Puncture wound found draining blood behind ear and metal densities were found in skull by radiograph.	DEAD	DEAD	P9	1	1	Shot	
2008039	6/10/2008	2008	Dillingham	WAK	Harbor Seal	N/A	U	U	AKRO	Harbor seal caught in net at Kakananak beach in Dillingham. It was removed from the net dead and the carcass was used for subsistence purposes.	DEAD	DEAD	P7a	1	1	Entangled in set subsistence gillnet	Bristol Bay Salmon Set Gillnet - Subsistence
2008100	8/4/2008	2008	Ketchikan	SEAK	Harbor Seal	N/A	U	U	AKRO	Harbor seal found dead near Ketchikan, moderately decomposed. According to reporter it "looked like it had damage to the head" However, no photos, no necropsy, difficult to say this seal was shot without documentation. Cause of injury listed as CBD.	DEAD	DEAD	N/A	N/A	N/A	CBD	
2008151	8/25/2008	2008	Homer	SCAK	Harbor Seal	N/A	A	F	AKRO	Harbor seal reported dead on beach, shot with .45 - Examiner arrived to make initial assessment. Animal necropsied at ASLC. Necropsy revealed the animal had been shot.	DEAD	DEAD	P9	1	1	Shot	
2009038	6/23/2009	2009	Ketchikan	SEAK	Harbor Seal	N/A	pup/calf	U	AKRO	Baby harbor seal recovered in Herring Cove, Ketchikan. Seal was dead with severe damage to its head - otherwise the animal looked healthy. Necropsy conducted. Review of photos, necropsy, and back story indicate recreational ship strike.	DEAD	DEAD	N/A	1	1	Ship strike (recreational)	

**Appendix Table 1-5. Harbor seal (All Stocks) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2009162	7/4/2009	2009	Valdez	SCAK	Harbor Seal	N/A	U	U	AKRO	Fisherman was fishing at Allison Point with a lure and treble hook (no bait). Took a long time to haul in 'fish,' when he got it to the surface he realized he caught a harbor seal. The fisherman cut the line. Hook location unknown, but the animal was trailing line, thus, this is categorized as a P6 injury.	SI	SI	P6	1	1	Trailing recreational fishing gear	Hook & Line - recreational
2009128	9/8/2009	2009	Cook Inlet	SCAK	Harbor Seal	N/A	A	M	AKRO	Harbor seal was recovered by OLE after a report of vessels shooting into the water in Cook Inlet. Necropsy conducted, animal was shot with a .22 or .223.	DEAD	DEAD	P9	1	1	Shot	
2010006	4/5/2010	2010	Tanunak	WAK	Harbor Seal	N/A	pup/calf	M	AKRO	Mother seal was subsistence harvested, hunter delivered seal pup and pup sent to ASLC. The pup was rehabilitated and sent to UC Santa Cruz (final prorate value of 1 - due to removal from population).	SI	SI	N/A	1	1	Subsistence	
2010025	5/21/2010	2010	Cordova	SCAK	Harbor Seal	N/A	pup/calf	M	AKRO	Harbor seal pup entangled in fishing net, brought aboard, delivered to ASLC. Rehabbed and released.	SI	NSI	P7b	1	0	Entangled in fishing net - rehabbed & released	
2010053	6/17/2010	2010	Endicott	SEAK	Harbor Seal	N/A	U	U	AKRO	Seal surfaced under boat, operator obsvd a 2" by 5" long cut above seal's tail fin. Seal appeared disoriented, swam in a couple of circles, and then dove. Animal not seen again. Consulted with Tom Gellatt, Peter Boveng, both agree this is SI.	SI	SI	P3	1	1	Laceration from prop	
2010148	7/26/2010	2010	Ketchikan	SEAK	Harbor Seal	N/A	U	U	AKRO	OLE officer received a report of a harbor seal with a hook in its mouth attached to a weight.	SI	SI	P5a	1	1	Swallowed unspecified fishing gear	
2010168	8/15/2010	2010	Juneau	SEAK	Harbor Seal	N/A	J	M	AKRO	Floating carcass of harbor seal found by captain. Brought to town and necropsied. Necropsy revealed animal had been shot in head	DEAD	DEAD	P9	1	1	Shot	
1125	9/13/2010	2010	GOA (central)	SCAK	Harbor Seal	N/A	U	U	Observer	Harbor seal caught in haul. Animal was fresh dead.	DEAD	DEAD	N/A	1	1	Caught in haul	AK GOA Pacific Cod Fishery
2011009	3/16/2011	2011	Skagway	SEAK	Harbor Seal	N/A	A	F	AKRO	Gunshot; bullet recovered from head	DEAD	DEAD	P9	1	1	Shot	
2011140	7/20/2011	2011	Prince William Sound	SCAK	Harbor Seal	N/A	U	U	AKRO	Entangled in net of a sunken seine fishing vessel in ~180 ft. of water; carcass observed in underwater video from ROV	DEAD	DEAD	P7a	1	1	Entangled in unspecified seine net	
2011133	8/17/2011	2011	Homer	SCAK	Harbor Seal	N/A	U	U	AKRO	Entangled in a set net and died	DEAD	DEAD	P7a	1	1	Entangled in unspecified set net	
2011146	9/11/2011	2011	Ketchikan	SEAK	Harbor Seal	N/A	A	U	AKRO	Towing buoy about 6 feet behind animal; observed multiple times able to swim and dive; sighted 1 yr. later appearing weak	SI	SI	P6	1	1	Unknown marine debris / gear entanglement	
1495	9/24/2011	2011	Eastern Bering Sea	WAK	Harbor Seal	N/A	U	U	Observer	Fresh dead harbor seal caught in gear. Took photos, collected head.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
2011176	10/2/2011	2011	Kodiak	Kodiak	Harbor Seal	N/A	A	M	AKRO	Gunshot wound to head	DEAD	DEAD	P9	1	1	Shot	
1496	11/1/2011	2011	GOA (western)	SCAK	Harbor Seal	N/A	U	U	Observer	Harbor seal caught in haul. Animal was fresh dead.	DEAD	DEAD	N/A	1	1	Caught in haul	AK GOA Flatfish Trawl Fishery

**Appendix Table 1-6. Spotted seal (Alaska Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
385	1/25/2008	2008	Eastern Bering Sea	WAK	Spotted Seal (Larga)	Alaska	U	U	Observer	Dead spotted seal found in bin. Head collected and photos taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
386	5/19/2008	2008	Eastern Bering Sea	WAK	Spotted Seal (Larga)	Alaska	U	U	Observer	Spotted seal (larga) was in the haul.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
793	5/4/2009	2009	Central Bering Sea	WAK	Spotted Seal (Larga)	Alaska	U	U	Observer	Spotted seal caught in haul. Head was removed for a sample, freshly killed. Bled after head was severed.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1124	3/20/2010	2010	Central Bering Sea	WAK	Spotted Seal (Larga)	Alaska	U	U	Observer	Spotted seal caught in haul. Animal was found cut in half, with blood still running. Photos taken, samples taken. ID confirmed by J Thomason. According to observer the animal may have been sliced in half by vessel or orcas in the area.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1494	3/4/2011	2011	Central Bering Sea	WAK	Spotted Seal (Larga)	Alaska	U	U	Observer	Spotted seal appeared to be hooked by longline. The body broke away at the surface and the crew was unable to bring it aboard.	DEAD	DEAD	N/A	1	1	Caught on longline	AK BSAI Pacific Cod Longline Fishery

**Appendix Table 1-7. Bearded seal (Alaska Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
13	9/11/2007	2007	Central Bering Sea	WAK	Bearded Seal	Alaska	U	U	Observer	Bearded seal caught in haul XXX. Fresh dead. Samples taken, J Thomason confirmed ID and COD (killed by gear)	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
353	7/8/2008	2008	Eastern Bering Sea	WAK	Bearded Seal	Alaska	U	U	Observer	Bearded seal caught in haul XXX. Snout collected, ID determined by J Thomason	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
354	8/17/2008	2008	Central Bering Sea	WAK	Bearded Seal	Alaska	U	U	Observer	Bearded seal was caught in haul. Animal drowned in gear, otherwise looked healthy.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
356	8/19/2008	2008	Eastern Bering Sea	WAK	Bearded Seal	Alaska	U	U	Observer	Dead bearded seal was discovered on the belt of a flatfish trawl vessel - apparently killed by gear	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
355	9/5/2008	2008	Central Bering Sea	WAK	Bearded Seal	Alaska	U	U	Observer	Bearded seal caught in haul. Samples taken. J Thomason determined species ID and cause of death.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
357	9/21/2008	2008	Central Bering Sea	WAK	Bearded Seal	Alaska	U	U	Observer	Bearded seal was caught in haul. The seal was in rigor and displayed no evidence of decomposition, apparent that the seal was fresh dead. Head was removed and blood flowed freely.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
779	7/30/2009	2009	Eastern Bering Sea	WAK	Bearded Seal	Alaska	U	U	Observer	During haul XXX a dead bearded seal was brought up. It was fresh dead. 3 pictures were taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1105	7/6/2010	2010	Eastern Bering Sea	WAK	Bearded Seal	Alaska	U	U	Observer	Bearded seal was brought up in codend. ID verified by J Thomason	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1464	8/26/2011	2011	Eastern Bering Sea	WAK	Bearded Seal	Alaska	U	U	Observer	Bearded seal caught in tow XXX. Took photos and samples.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery

**Appendix Table 1-8. Ringed seal (Alaska Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
382	4/3/2008	2008	Eastern Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Baby ringed seal went over the flow scale. Pictures and video taken. Confirmed ringed seal with tissue analysis.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
383	7/16/2008	2008	Central Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Animal originally ID'd as a Harbor seal was caught in haul. Samples taken. Species determined to be Ringed Seal by J Thomason.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
384	8/18/2008	2008	Eastern Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Animal originally ID'd as a harbor seal was dumped from the codend to the live tank. Animal was fresh dead. NMML analysis concluded this was a Ringed seal.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
2008204	10/19/2008	2008	Kotzebue Sound	Arctic	Ringed Seal	Alaska	J	M	AKRO	Relatively scant info on Level A. Appears this ringed seal was disentangled (packing band around neck), tagged, and released. The seal had a wound from the band, but only to the blubber level. The seal seemed fat and healthy.	SI	NSI	P8a	1	0	Ringneck entanglement	
791	5/28/2009	2009	Central Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Ringed seal was caught in haul. Species confirmed with tissue sample.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
792	8/6/2009	2009	Central Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Ringed seal was caught in haul. No evident signs of trauma. Samples were taken. ID determined by J Thomason.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
2010026	4/14/2010	2010	Beaufort Sea	Arctic	Ringed Seal	Alaska	pup/calf	U	AKRO	2 Pioneer employees obsved a ringed seal pup with a bleeding flipper that appeared lost. They transported the pup back to it's breathing hole by following the blood trail.	NSI	NSI	N/A	N/A	N/A	Injured seal pup returned to breathing hole	
2010134	8/1/2010	2010	Nome	WAK	Ringed Seal	Alaska	J	U	AKRO	Ringed seal caught in subsistence salmon net, disentangled, deemed releasable, and released by ADFG personnel.	SI	NSI	P7b	1	0	Caught in subsistence salmon net, disentangled, released	
1483	1/24/2011	2011	Central Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Dead ringed seal found in haul XXX.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1485	1/24/2011	2011	Central Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Ringed seal caught in haul, found in live tank. Samples taken, skull collected & photos taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1482	3/24/2011	2011	Central Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Ringed seal caught in haul.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1486	3/26/2011	2011	Central Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Ringed seal was entangled in longline gear. Animal was dead. Head and photos were taken.	DEAD	DEAD	N/A	1	1	Caught on longline	AK BSAI Pacific Cod Longline Fishery
1484	4/1/2011	2011	Central Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Ringed seal caught in haul. Head was removed, samples taken. Animal looked to be very healthy. Bright red blood oozed from its nostrils.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1489	4/26/2011	2011	Eastern Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Ringed seal caught in haul.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1488	5/1/2011	2011	Eastern Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Animal was dumped from net into tanks. No apparent sign of injury, rigor mortis had set in. Photos taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1491	5/1/2011	2011	Eastern Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Ringed sea was fresh dead with two holes in body, bleeding from both. Body in relatively fine condition.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery

**Appendix Table 1-8. Ringed seal (Alaska Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
1490	5/14/2011	2011	Central Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Ringed seal killed during fishing operations.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
1487	7/2/2011	2011	Eastern Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Ringed seal caught in haul, dumped in tanks, wound up on belt. Seal appeared fresh dead. Very flexible and blood flowed freely.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pacific Cod Trawl Fishery
1493	8/7/2011	2011	Central Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Ringed seal was caught in haul. No indication of damage to body.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1492	8/11/2011	2011	Central Bering Sea	WAK	Ringed Seal	Alaska	U	U	Observer	Ringed seal was caught in trawl gear. Animal was in great condition and was freshly deceased.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
2011141	8/23/2011	2011	Barrow	Arctic	Ringed Seal	Alaska	A	M	AKRO	Gunshot wound to head; probably struck and loss from subsistence hunt	DEAD	DEAD	P9	1	1	Shot	

**Appendix Table 1-9. Ribbon seal (Alaska Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
26	10/6/2007	2007	BSAI (western)	WAK	Ribbon Seal	Alaska	U	U	Observer	Ribbon seal was caught in in Atka mackerel trawl. Seal was discovered in fish bin and had bright red, gushing blood when the head was removed for samples.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Atka Mackerel Trawl
381	8/4/2008	2008	Central Bering Sea	WAK	Ribbon Seal	Alaska	U	U	Observer	Ribbon seal caught on haul XXX. Samples taken. ID determined by J Thomason. Condition was fresh dead.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
380	9/5/2008	2008	Eastern Bering Sea	WAK	Ribbon Seal	Alaska	U	U	Observer	A dead ribbon seal was found in the live tank. ID determined by J Thomason.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
789	7/19/2009	2009	Central Bering Sea	WAK	Ribbon Seal	Alaska	U	U	Observer	Ribbon seal was caught in haul XXX. Pictures were taken, skull was removed and frozen. Appeared to be fresh dead. Blood was hot. Species determined by J Thomason.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
790	10/7/2009	2009	BSAI (western)	WAK	Ribbon Seal	Alaska	U	U	Observer	Ribbon seal caught in Atka Mackerel trawl net, western BSAI region. Appeared to be fresh dead.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Atka Mackerel Trawl

**Appendix Table 1-10.** Beluga whale (Eastern Bering Sea Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2010214	8/21/2010	2010	Nome	WAK	Beluga Whale	Eastern Bering	A	U	AKRO	Beluga entangled in subsistence salmon net and drowned.	DEAD	DEAD	S7a	1	1	Entangled in unspecified subsistence salmon net	
2011190	6/10/2011	2011	Hooper Bay	WAK	Beluga Whale	Eastern Bering	U	U	AKRO	Caught in king salmon subsistence fishing net; fisher released animal alive and it swam away	SI	NSI	S7b	1	0	Entangled in king salmon subsistence gear	

**Appendix Table 1-11. Beluga whale (Bristol Bay Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2007087	6/1/2007	2007	Dillingham	WAK	Beluga Whale	Bristol Bay	U	U	AKRO	XXX of FWS, contacted NMFS about an interesting radio announcement. Dillingham radio station announced a beluga had been caught in a fishing net at Squaw Creek Beach. Individual was looking for someone to salvage the animal.	DEAD	DEAD	S7a	1	1	Entangled in unspecified salmon net	
2007089	6/13/2007	2007	Dillingham	WAK	Beluga Whale	Bristol Bay	U	U	AKRO	Small beluga caught in subsistence king salmon net by Mr. XXX. YYY salvaged beluga. ZZZ reported this beluga entanglement.	DEAD	DEAD	S7a	1	1	Entangled in king salmon subsistence net	Bristol Bay King Salmon Set Gillnet - subsistence
2009026	6/8/2009	2009	Dillingham	WAK	Beluga Whale	Bristol Bay	J	M	AKRO	Beluga whale caught in subsistence king salmon set net at Kakanak Beach, Dillingham. Animal died and was cut up and distributed to 30+ Dillingham residents (subsistence purposes).	DEAD	DEAD	S7a	1	1	Entangled in subsistence king salmon gillnet gear	Bristol Bay King Salmon Set Gillnet - Subsistence
2010100	7/23/2010	2010	Dillingham	WAK	Beluga Whale	Bristol Bay	A	U	AKRO	Reporter was unable to reach carcass due to deep soft mud. Rotten odor from 10 yards away. Knife cuts, some skin and flukes removed prior to stranding at this location. Although there is evidence of subsistence scavenging the COD cannot be determined.	DEAD	DEAD	N/A	N/A	N/A	N/A	

**Appendix Table 1-12.** Beluga whale (Cook Inlet Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2010030	5/26/2010	2010	Cook Inlet	SCAK	Beluga Whale	Cook Inlet	A	U	AKRO	Beluga with constricting wrapped line around body sighted numerous times over 2010/2011. Photos taken, does not appear to be trailing gear. Line does not appear to be cutting into body. Deemed to be NSI due to observations of apparently normal behavior and no obvious health decline over more than 2 years. The final injury determination deviates from defined injury determination guidelines. NMML will continue to monitor this animal in future years.	SI	NSI	S6	1	0	Constricting line wrapped around beluga, observed repeatedly over subsequent years with no obvious health decline	

**Appendix Table 1-13. Killer whale (Eastern North Pacific Alaska resident or Eastern North Pacific GOA, BSAI transient) human-related injury and mortality records, 2007-2011.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
388	6/24/2008	2008	Eastern Bering Sea	WAK	Killer Whale	Alaska Resident / BSAI, GOA Transient	U	U	Observer	This report coincides with a fisher self report stating "visible blood flow, laceration, killer whale of unknown sex hit propeller while towing."	DEAD	DEAD	N/A	1	1	Ship strike	AK BSAI Flatfish trawl fishery
796	6/8/2009	2009	Eastern Bering Sea	WAK	Killer Whale	Alaska Resident / BSAI, GOA Transient	U	U	Observer	Boat shuddered, red stained water appeared in wake. Orcas had been following vessel the whole trip.	DEAD	DEAD	N/A	1	1	Ship strike	AK BSAI Flatfish trawl fishery
797	6/15/2009	2009	Eastern Bering Sea	WAK	Killer Whale	Alaska Resident / BSAI, GOA Transient	U	U	Observer	Unconfirmed report of vessel striking killer whale.	DEAD	DEAD	N/A	0	0	Possible ship strike	AK BSAI Flatfish trawl fishery
1127	7/31/2010	2010	Eastern Bering Sea	WAK	Killer Whale	Alaska Resident / BSAI, GOA Transient	U	U	Observer	Killer whale was killed by propeller.	DEAD	DEAD	N/A	1	1	Ship Strike	AK BSAI Rockfish Trawl Fishery

**Appendix Table 1-14.** Killer whale (Eastern North Pacific Alaska resident) human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
23	6/24/2007	2007	Central Bering Sea	WAK	Killer Whale	Alaska Resident	U	U	Observer	Killer whale came up entangled in the ground haul line of haul 116. Animal was bleeding from its blow hole and mouth, the blood was bright red. The animal did not move, believed to be dead. Animal was cut away from gear. Stock ID confirmed by M. Dahlheim	DEAD	DEAD	N/A	1	1	Caught on longline	AK BSAI Greenland Turbot Longline Fishery

**Appendix Table 1-15. Harbor Porpoise (Southeast Alaska Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2008030	6/17/2008	2008	Yakutat	SEAK	Harbor Porpoise	SE Alaska	U	U	AKRO	Harbor porpoise was pulled aboard by a NMFS enforcement officer. It was still bleeding from 91 stab wounds. In addition the animals fins were chafed, consistent with being caught in a net. The skin and blubber were collected. COD: Probable entanglement; multiple incisions. Also s4 and s7a.	DEAD	DEAD	S12	1	1	Entangled; incisions	Yakutat Salmon Set Gillnet - Commercial
2009008	4/20/2009	2009	Yakutat	SEAK	Harbor Porpoise	SE Alaska	U	U	AKRO	XXX found a dead porpoise in his setnet. He attached the porpoise by line to a stone weight and sank it in 5 fathoms.	DEAD	DEAD	S7a	1	1	Entangled in set gillnet gear	Yakutat Set Gillnet - commercial
2009017	5/8/2009	2009	Yakutat	SEAK	Harbor Porpoise	SE Alaska	A	M	AKRO	Harbor Porpoise caught in a subsistence king salmon gillnet at Yakutat. The porpoise was reported and surrendered by the fisherman for future necropsy.	DEAD	DEAD	S7a	1	1	Entangled in king salmon subsistence gillnet gear	Yakutat King Salmon Set Gillnet - subsistence
2010016	5/13/2010	2010	Yakutat	SEAK	Harbor Porpoise	SE Alaska	A	M	AKRO	Harbor porpoise became entangled in gillnet, witness tried to free the animal, but it died.	SI	DEAD	s7a	1	1	Entangled in unspecified gillnet	

**Appendix Table 1-16. Harbor Porpoise (Gulf of Alaska Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2008126	8/4/2008	2008	Cook Inlet	SCAK	Harbor Porpoise	Gulf of Alaska	U	U	AKRO	Harbor porpoise caught in silver salmon net at Redoubt Bay, Cook Inlet. Porpoise frozen and delivered to NMFS warehouse for necropsy.	DEAD	DEAD	S7a	1	1	Entangled in salmon gillnet	Cook Inlet salmon set or drift gillnet - commercial
2009059	7/14/2009	2009	Chignik	WAK	Harbor Porpoise	Gulf of Alaska	pup/calf	U	AKRO	Caller found lone porpoise in the surf and picked it up and put it in a tote. Multiple attempts to transfer to ASLC but all unsuccessful. Released in bay near where other harbor porpoises had been observed.	NSI	NSI	N/A	N/A	N/A	Temporarily removed from surf	

**Appendix Table 1-17. Harbor Porpoise (Bering Sea Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
28	7/17/2007	2007	Eastern Bering Sea	WAK	Harbor Porpoise	Bering Sea	U	U	Observer	Haul XXX was dumped into live tank. During processing the crew found a harbor porpoise. No sign of decay. Samples collected and confirmed harbor porpoise.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
2007116.1	11/16/2007	2007	Nome	WAK	Harbor Porpoise	Bering Sea	U	U	AKRO	1 mother and calf harbor porpoise caught in a subsistence net in Nome, AK. Porpoise sent to ASLC for future necropsy. Entangled mother (PP0701)	DEAD	DEAD	S7a	1	1	Entangled in subsistence net	Norton Sound Salmon Set Gillnet - Subsistence
2007116.2	11/16/2007	2007	Nome	WAK	Harbor Porpoise	Bering Sea	pup/calf	U	AKRO	1 mother and calf harbor porpoise caught in a subsistence net in Nome, AK. Porpoise sent to ASLC for future necropsy. Entangled calf (PP0702)	DEAD	DEAD	S7a	1	1	Entangled in subsistence net	Norton Sound Salmon Set Gillnet - Subsistence

**Appendix Table 1-18.** Dall's Porpoise (Alaska Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2008044.1	7/8/2008	2008	Venk Island	SEAK	Dall's Porpoise	Alaska	U	U	AKRO	2 Dall's porpoise entangled in a sockeye gillnet near Wrangell. 1 was able to break free from net and the other drowned. The drowned animal was released from the net to sink/float away. This entry is for the escaped porpoise.	NSI	NSI	S7b	0	0	Entangled in drift gillnet fishery gear	SE AK Salmon Drift Gillnet - Commercial
2008044.2	7/8/2008	2008	Venk Island	SEAK	Dall's Porpoise	Alaska	U	U	AKRO	2 Dall's porpoise entangled in a sockeye gillnet near Wrangell. 1 was able to break free from net and the other drowned. The drowned animal was released from the net to sink/float away. This entry is for the drowned porpoise.	DEAD	DEAD	S7a	1	1	Entangled in drift gillnet fishery gear	SE AK Salmon Drift Gillnet - Commercial
794	2/23/2009	2009	Eastern Bering Sea	WAK	Dall's Porpoise	Alaska	U	U	Observer	Dall's porpoise head was dangling from the first part of the net. The haul back was paused and the head was collected. Head was retained for ID confirmation.	DEAD	DEAD	N/A	1	1	Killed by gear	AK BSAI Pollock Trawl Fishery
795	8/30/2009	2009	Eastern Bering Sea	WAK	Dall's Porpoise	Alaska	U	U	Observer	Dall's porpoise was hooked by the tail during an observer's off haul. It was apparently dead but fell from the line before being brought aboard	DEAD	DEAD	N/A	1	1	Caught on Longline	AK BSAI Pacific Cod Longline Fishery

**Appendix Table 1-19.** Sperm whale (North Pacific Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
27	5/13/2007	2007	GOA (eastern)	SEAK	Sperm Whale	North Pacific	U	U	Observer	Sperm whale became entangled in longline gear. Line was very tangled and slowly brought in. Whale was dead.	DEAD	DEAD	N/A	1	1	Caught on longline	AK GOA Sablefish Longline Fishery
338	5/13/2007	2007	GOA (eastern)	SEAK	Sperm Whale	North Pacific	U	U	Observer	Sperm whale was feeding on longline. At some point it swam along vessel at a distance of 30 meters, submerged, and then rammed the vessel causing the ship to lurch significantly.	NSI	NSI	L6c	0	0	Ship strike	AK GOA Sablefish Longline Fishery

**Appendix Table 1-20.** Humpback whale (Central North Pacific Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2007048	6/1/2007	2007	Chamberlain Island	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Humpback surfaced ahead of recreational vessel cruising at 26 mph. Captain killed engine and spun wheel - unfortunately a second whale surfaced and the boat hit the hump of the whale and went airborne. Vessel's lower unit damaged, no indication whale was injured. No details on length, thus prorate at L12.	Prorate	Prorate	L12	0.36	0.36	Ship strike (recreational)	
2007030	6/10/2007	2007	Sitka	SEAK	Humpback Whale	Central North Pacific	A	U	AKRO	Mobile animal dragging several hundred feet of heavy gauge line with 2ft orange polyball at end. Gear was not entangled on flukes or peduncle, therefore entanglement must be further forward. Animal described as in good condition, with possible line scar on peduncle. Animal not relocated. Possibly life threatening according to stranding database.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2007043	6/15/2007	2007	Tenakee	SEAK	Humpback Whale	Central North Pacific	pup/calf	U	AKRO	Humpback calf entangled in possible shrimp pot gear set in cove. Believed animal threw gear before leaving inlet. Entanglement report indicates no threat to animal.	NSI	NSI	L3	0	0	Unknown marine debris / gear entanglement	
2007044	6/19/2007	2007	Spasski Island	SEAK	Humpback Whale	Central North Pacific	J	U	AKRO	Entangled humpback trailing about 50' of gillnet, WNW of Spasski Island. Possibly life-threatening according to entanglement reports. Not re-sighted.	Prorate	Prorate	L10	0.75	0.75	Entangled unknown gillnet	
2007045	6/22/2007	2007	Hoonah	SEAK	Humpback Whale	Central North Pacific	pup/calf	U	AKRO	Humpback calf trailing 2 orange buoys. Report received several days after observation. No response mounted, entanglement not confirmed.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2007046	7/1/2007	2007	St. Lazaria Island	SEAK	Humpback Whale	Central North Pacific	A	U	AKRO	Humpback whale blew in front of 27 ft fishing boat going 15 knots. Operator disengaged engine prior to collision. Knocked outdrive up, threw child from mother's lap. No blood or indication of injury to whale obsvd. Whale not resighted.	Prorate	Prorate	L6b	0.2	0.2	Ship strike (charter)	
2007047	7/1/2007	2007	Juneau	SEAK	Humpback Whale	Central North Pacific	pup/calf	U	AKRO	Mother and calf together. Calf had netting over back and was moving slowly. Appeared to get caught on shallow bottom and then possibly broke free of gear. Observer later saw them fluking in deeper water. Entanglement report notes possible self-release and no re-sight.	Prorate	Prorate	L10	0.75	0.75	Entangled in unknown gillnet	
2007061	7/4/2007	2007	Port Snettisham	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	26 ft skiff hit humpback at 20 knots. Skiff skipped over animals back. No indication whale was propped, no blood in water or indication of injury to whale.	Prorate	Prorate	L6b	0.2	0.2	Ship strike (unknown)	

**Appendix Table 1-20.** Humpback whale (Central North Pacific Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2007126	7/27/2007	2007	Gustavus	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	XXX (13m jet boat) was traveling at 28 knots when a whale surfaced directly next to the boat. Conflicting reports on whether the boat actually hit the whale or not. All three crew members report they did not hit the whale, though they did take drastic evasive action. The passenger reports hitting the whale.	NSI	NSI	N/A	0	0	Report of possible ship strike	
2007081	8/9/2007	2007	South Marble Island	SEAK	Humpback Whale	Central North Pacific	A	U	AKRO	Small amount of monofilament line snagged on right fluke tip of adult humpback in Glacier Bay near S. Marble Island	NSI	NSI	L3	0	0	Unknown marine debris / gear entanglement	
2007119	8/14/2007	2007	Spasski Island	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	32 foot heavily loaded landing craft going 17 knots struck a humpback 5 miles off Spasski. Boat shuttered, forced to turn off engines. Whale came up behind boat after strike. No further information.	Prorate	Prorate	L6b	0.2	0.2	Ship strike (unknown)	
2007118	11/13/2007	2007	Petersburg	SEAK	Humpback Whale	Central North Pacific	J	U	AKRO	Whale obsvd w/ 3 wraps of lines tight around tailstock with multiple lines running down to anchored pot gear and another line runs forward to rostrum. This line is so tight the animal is slightly bowed. An oblong pink barrel buoy is held tightly to the wraps at the tail. Disentanglement team responded and cut lines at tail, likely freeing lines running forward.	SI	NSI	L2	1	0	Entangled in pot gear - disentangled	
2008002	2/10/2008	2008	Sitka	SEAK	Humpback Whale	Central North Pacific	A	U	AKRO	28 ft personal craft hit a whale at 19.2 knots in 400 ft of water. Kicked up starboard engine from impact. Whale was sighted 50 ft astern of vessel in wake. Observed to be breathing.	Prorate	Prorate	L6b	0.2	0.2	Ship strike (recreational)	
2008004	3/25/2008	2008	Sitka	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Animal reported entangled in herring purse seine. Whale believed to have been entangled from the outside of the net after the close. Whale was entangled between 20 minutes and two hours. Fisherman were able to disentangle the whale using seine skiffs. The net was damaged but the whale was released.	NSI	NSI	L3	0	0	Caught in purse seine	ADFG Purse Seine Test Net
2008031	6/23/2008	2008	Juneau	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	34' vessel hit whale at 25 knots immediately after the humpback came up to breathe, whale was hit on the dorsal side. No damage to vessel. Enforcement vessel surveyed the whale believed to be struck. The whale appeared to be behaving normally and was engaged in lunge feeding.	Prorate	Prorate	L6b	0.2	0.2	Ship strike (charter)	

**Appendix Table 1-20.** Humpback whale (Central North Pacific Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2008043	7/7/2008	2008	Lynn Canal	SEAK	Humpback Whale	Central North Pacific	J	U	AKRO	Animal reported entangled in gillnet near Juneau. Fisherman assisted whale and the animal was able to free itself of the main net and is likely free of all gear. Not deemed life threatening according to entanglement report.	NSI	NSI	L3	0	0	Entangled in salmon drift gillnet - commercial	SE AK Salmon Drift Gillnet - Commercial
2008069.1	7/15/2008	2008	Peril Strait	SEAK	Humpback Whale	Central North Pacific	A	F	AKRO	Charter vessel transiting Peril Strait noted an entangled adult humpback with a calf. The mother was trailing a 2-3 foot yellow polyball along the left side at the level of the pectoral flipper. Animals resighted next two days, but no response could be mounted. Possibly life threatening. This entry is for the entangled sow.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2008069.2	7/15/2008	2008	Peril Strait	SEAK	Humpback Whale	Central North Pacific	pup/calf	U	AKRO	Charter vessel transiting Peril Strait noted an entangled adult humpback with a calf. The mother was trailing a 2-3 foot yellow polyball along the left side at the level of the pectoral flipper. Animals resighted next two days, but no response could be mounted. Possibly life threatening. This entry is for the associated calf (not entangled).	Prorate	Prorate	L8	0.75	0.75	Unknown marine debris / gear entanglement	
2008068	7/20/2008	2008	Icy Strait	SEAK	Humpback Whale	Central North Pacific	A	U	AKRO	Animal described as trailing a "red and white" basketball sized crabpot buoy east of Lemesurier Island in Icy Strait. Animal not relocated. Possibly life threatening according to entanglement report.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2008191	7/26/2008	2008	Point Adolphus	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	58 ft fishing vessel travelling at 10 knots struck a humpback whale west of Pt. Adolphus. The animal lifted the bow several feet out of the water. The operator pulled the engine out of gear and turned hard to port. The whale surface about 100 feet away with no apparent sign of injury or blood in the water.	NSI	NSI	L6c	0	0	Ship strike (fishing)	
2008093	7/27/2008	2008	North Pass	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Vessel transiting North Pass hit a humpback while doing about 15 knots. Vessel operator thrown from boat and rescued. Whale surfaced astern with no indication of external injuries. Examination of the vessel revealed prop blades were straightened and motor mount (nut/bolt) was pulled through the transom. Observation of whales by numerous vessels the next day in the same area revealed no apparent injuries to whales. According to AKRO vessel was 23 ft.	Prorate	Prorate	L6b	0.2	0.2	Ship strike (research)	

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Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2008112	8/14/2008	2008	Peril Strait	SEAK	Humpback Whale	Central North Pacific	A	U	AKRO	Reported by XXX, naturalist aboard YYY tour boat. Humpback was obsvd entangled in a clump of plastic fishing gear, which was trailing from the right flipper or possibly its mouth. Entanglement database states this entanglement is possibly life-threatening.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2008135	8/28/2008	2008	Metlakatla	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Humpback entangled in gillnet in Metlanka. Whale was completely wrapped in web and lead line. Response mounted, and whale was cut free from gear. 99% of net cut from animal. Some line may have remained, but nothing inhibiting movement. Whale swam off at high speed. Not life-threatening according to entanglement report.	SI	NSI	N/A	1	0	Entangled in salmon drift gillnet - disentangled	Metlakatla salmon drift gillnet - commercial
2008145.1	9/12/2008	2008	Craig	SEAK	Humpback Whale	Central North Pacific	A	F	AKRO	Vessel operator drove vessel towards humpback sow and calf at 37 knots in a 32 ft jet boat. The vessel definitely hit the mother, unknown whether the vessel hit the calf. The vessel became airborne and the boat shut down. Crew were thrown. This incident is reportedly under investigation. Information on any injuries sustained by the whales is unknown. This entry is the sow.	Prorate	Prorate	L6b	0.2	0.2	Ship strike (unknown)	
2008145.2	9/12/2008	2008	Craig	SEAK	Humpback Whale	Central North Pacific	pup/calf	U	AKRO	Vessel operator drove vessel towards humpback mother and calf at 37 knots in a 32 ft jet boat. The vessel definitely hit the mother, unknown whether the vessel hit the calf. The vessel became airborne and the boat shut down. Crew were thrown. This incident is reportedly under investigation. Information on any injuries sustained by the whales is unknown. This entry is the calf.	Prorate	Prorate	L6b	0.2	0.2	Ship strike (unknown)	
2009015	5/13/2009	2009	Wrangell	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Humpback in Zimovia Strait, 10 miles south of Wrangell seen trailing 15-20ft of line and buoy behind fluke. The whale was close to shore shaking its tail, perhaps trying to shake gear off. Possibly life-threatening according to entanglement report.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2009040	6/5/2009	2009	Gustavus	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	A humpback whale surfaced underneath an anchored Zodiac that was sport fishing for halibut. The whale lifted the boat 3 feet out of the water. The engines were off but three fishing lines began to whizz out. The boat operator quickly cut the lines. The whale surfaced 200 yards away, too far away to see if any gear was hooked in the whale. Also L3 (fishing gear), possibly L4.	NSI	NSI	L6c	0	0	Ship strike (recreational)	SE AK Halibut Hook & Line - recreational

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2009170	7/3/2009	2009	Cross Sound	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	32 ft vessel underway at 7 knots. The operator felt a thump, thought he hit a log, shut down the engine to investigate, and heard a whale breathing astern, heading away from the boat. He found a gob of whale tissue on his anchor 4' above the water. The captain thinks the whale surfaced ahead of the boat and immediately dove hitting the boat and anchor with its fluke.	NSI	NSI	L6c	0	0	Ship strike (fishing)	
2009046	7/5/2009	2009	Valdez	SCAK	Humpback Whale	Central North Pacific	J	U	AKRO	Humpback whale, outside of Valdez was hit by a 56' tour boat while underway at 18.5 knots. There was a bump on the port side that sounded like a log and about 20 seconds later a humpback whale surfaced behind the boat. The crew obsvd 4 complete dive-cycles and did not notice any injuries or unusual behavior. Observation of whales in the same area on subsequent days revealed no apparent injuries.	Prorate	Prorate	L6b	0.2	0.2	Ship strike (charter)	
2009048	7/14/2009	2009	Juneau	SEAK	Humpback Whale	Central North Pacific	pup/calf	U	AKRO	Humpback whale calf outside of Juneau was obsvd entangled in gillnet on July 14. The next day a response was mounted and the animal was assessed. Little gear remained, entanglement was likely not life-threatening, no disentanglement was deemed necessary.	Prorate	Prorate	L10	0.75	0.75	Entangled in unknown gillnet	
2009063	7/20/2009	2009	Skagway	SEAK	Humpback Whale	Central North Pacific	J	U	AKRO	Humpback whale entangled in locally set pot gear. A red polyball trails 50-60 feet behind animal. Over next few days the whale shed gear and two weeks later was obsvd to be free of all gear.	Prorate	NSI	L10	0.75	0	Entangled in unspecified pot gear	
2009080	8/4/2009	2009	Pt. Adolphus	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	17 ft skiff going 35 mph likely hit humpback whale. Numerous humpbacks in area. Subsequent surveys revealed no injured or dead animals.	Prorate	Prorate	L6b	0.2	0.2	Ship strike (charter)	
2009098	8/9/2009	2009	Angoon	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Operator of a charter fishing vessel out of Angoon, AK reported striking a humpback whale in Chatham Strait. Reportedly the whale surfaced underneath the vessel while the vessel was underway. No apparent injuries to the whale and the whale seemed to behave normally. No info available regarding speed and size, thus prorate of L12.	Prorate	Prorate	L12	0.36	0.36	Ship strike (charter)	
2009143	9/1/2009	2009	Icy Strait	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Vessel strike reported in confidence to NPS creel clerk, no details included	Prorate	Prorate	L12	0.36	0.36	Ship strike (unknown)	

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2009130	9/21/2009	2009	Glacier Bay	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Humpback whale in Glacier Bay was seen dragging an orange buoy (recreational shrimp pot gear). A telemetry buoy was deployed to track animal and it became apparent animal had shed gear. Responders located the telemetry buoy along with 75-85 fathoms of line, believed to be all gear. Likely not life-threatening according to entanglement report, though gear may remain.	Prorate	Prorate	L10	0.75	0.75	Entangled in recreational shrimp pot gear	SEAK Shrimp Pot - recreational
2009141	9/22/2009	2009	Tenakee	SEAK	Humpback Whale	Central North Pacific	A	U	AKRO	Humpback whale entangled in recreational shrimp gear in Tenakee Inlet. Responder was able to assess the situation. The whale was reported to be entangled in 600' of buoy line with two floats, a small recreational shrimp pot, 35-50# weight bag, and 150'-200' of ground line. Whale was not resighted. Possibly life threatening according to entanglement report.	SI	SI	L2	1	1	Entangled in recreational shrimp pot gear	SEAK Shrimp Pot - recreational
2009166	11/7/2009	2009	Haines	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	An entangled humpback whale was spotted from the Fairweather. The animal was entangled with 1-2 floating buoys and some attached line. It was headed in a southerly direction very slowly and appeared fatigued or resting. The whale was not seen again.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2010017	5/22/2010	2010	Haines	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	78 ft catamaran travelling at 24 knots. Thump heard/felt, humpback surfaced astern. Vessel stood by for 2 surfaces (10 minutes) to observe whale.	SI	SI	L6a	1	1	Ship strike (unknown)	
2010044	6/9/2010	2010	Juneau	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	78 ft catamaran travelling at 24 knots. Whale surfaced, Capt. threw engines into reverse, hit whale at 14 knots. Obsvd whale for 20 minutes (2 breathing cycles), no sign of injury or blood obsvd	SI	SI	L6a	1	1	Ship strike (unknown)	
2010039	6/16/2010	2010	Juneau	SEAK	Humpback Whale	Central North Pacific	A	U	AKRO	Humpback entangled in locally set pot gear reported by tour operator. Whale initially observed in early stages of entanglement. Tour operator attempted to 'pass' whale to another vessel. This crew of this vessel did not observe any entanglement. NMFS responded but could not track whale down.	Prorate	Prorate	L10	0.75	0.75	Entangled in unspecified pot gear	
2010047.1	6/22/2010	2010	Pt. Adolphus	SEAK	Humpback Whale	Central North Pacific	A	F	AKRO	Mother and calf reported entangled in gear. Rescue mounted, but animals were not relocated. This entry is the entangled sow.	Prorate	Prorate	L10	0.75	0.75	Entangled in unspecified gillnet gear	
2010047.2	6/22/2010	2010	Pt. Adolphus	SEAK	Humpback Whale	Central North Pacific	pup/calf	U	AKRO	Mother and calf reported entangled in gear. Rescue mounted, but animals were not relocated. This entry is the entangled calf.	Prorate	Prorate	L10	0.75	0.75	Entangled in unspecified gillnet gear	

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2010061	7/6/2010	2010	Benjamin Island	SEAK	Humpback Whale	Central North Pacific	J	U	AKRO	Humpback (juvenile) reported entangled in multiple sets of gillnet. Animal was partially released at the scene. Mesh and corkline remained around the tailstock, trailing about 50 ft. Response was attempted, but animal was not relocated. Possibly life threatening according to stranding database.	Prorate	Prorate	L10	0.75	0.75	Entangled in unknown gillnet	
2010066	7/8/2010	2010	Juneau	SEAK	Humpback Whale	Central North Pacific	J	U	AKRO	Animal reported swimming with gear. Reported with 2 wraps of line around head, perhaps through mouth and red polyball alongside mouth. Behavior (thrashing, breaching) suggests recent entanglement. Timing, location, and description indicate this is crab gear. No response mounted, not seen again.	Prorate	Prorate	L10	0.75	0.75	Entangled in unspecified pot gear	
2010080	7/13/2010	2010	Juneau	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Animal reported with line draped over dorsal fin. Response mounted & whale was not found. Stranding report indicated this was possibly life threatening, but based upon injury categories and criteria, this is a NSI.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2010108.1	7/27/2010	2010	Petersburg	SEAK	Humpback Whale	Central North Pacific	A	F	AKRO	Residents of Pt Baker reported a mother and calf humpback swim twice through a gillnet and become entangled with each other. Whales thrashed, became motionless, and after a couple hours self separated. NMFS responders assessed the scene. The mother was obsvd to be free of gear and the calf was shedding what little gear remained. This entry is the sow.	SI	NSI	L2	1	0	Entangled, but whales disentangled themselves	
2010108.2	7/27/2010	2010	Petersburg	SEAK	Humpback Whale	Central North Pacific	pup/calf	U	AKRO	Residents of Pt Baker reported a mother and calf humpback swim twice through a gillnet and become entangled with each other. Whales thrashed, became motionless, and after a couple hours self separated. NMFS responders assessed the scene. The mother was obsvd to be free of gear and the calf was shedding what little gear remained. This entry is the calf	SI	NSI	L2	1	0	Entangled, but whales disentangled themselves	
2010089	7/28/2010	2010	Juneau	SEAK	Humpback Whale	Central North Pacific	A	F	AKRO	Whale found wedged on bulbous bow. Necropsy reviewed- this whale likely had its right fore flipper severed in a previous collision, died, was fed on by orcas, and then was struck and wedged onto the bow of the Sapphire Princess cruise ship.	DEAD	DEAD	L5a	1	1	Ship strike (unknown)	
2010219	8/14/2010	2010	Juneau	SEAK	Humpback Whale	Central North Pacific	J	U	AKRO	Subadult humpback reported with multiple wraps of line with red and white sponges buoy alongside body. No response mounted, possibly life-threatening.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	

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2010200	8/16/2010	2010	Tracy Arm	SEAK	Humpback Whale	Central North Pacific	J	U	AKRO	Subadult humpback reported entangled in gillnet at Tracy Arm. Net strung across back like a sash, stretching underneath the left pectoral and over to the animal's right side with float line visible. Animal did not appear to be in distress and exhibited normal behavior. No response mounted.	Prorate	Prorate	L10	0.75	0.75	Entangled in unspecified gillnet gear	
2010147	8/18/2010	2010	Tenakee	SEAK	Humpback Whale	Central North Pacific	J	M	AKRO	Carcass obsvd by Tenakee locals, NMFS towed whale to shore, necropsy team conducted necropsy. Whale likely killed due to respiratory damage caused by shipstrike	DEAD	DEAD	N/A	1	1	Ship strike (unknown)	
2010172	8/31/2010	2010	Hoonah	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	The 79' American Eagle hit a humpback at 10kts. No blood observed in water, whale behavior appeared normal for subsequent 20 minutes.	NSI	NSI	L6c	0	0	Ship strike (unknown)	
2010220	9/1/2010	2010	Chatham Strait	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Note: There are very few details on this level A. This sighting is 'unconfirmed' on Ed Lyman's site.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2010212	9/2/2010	2010	Tenakee	SEAK	Humpback Whale	Central North Pacific	pup/calf	U	AKRO	Calf was entangled, a two day response was launched. "Oliver" was successfully disentangled though it did have some lacerations associated with severe wrapping, including one "abrasion" into the muscle on upper caudal peduncle.	SI	NSI	L2	1	0	Entangled in unspecified crab pot gear.	
2010190	9/6/2010	2010	Juneau	SEAK	Humpback Whale	Central North Pacific	A	U	AKRO	9/6: humpback spotted with crab line wrapped around rostrum & trailing line & buoy. 9/9: Report of entangled animal seen near North Island. While response team was enroute whale reportedly shed gear.	Prorate	NSI	L10	0.75	0	Entangled in crab gear - self disentangled	
2010191	9/6/2010	2010	Juneau	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Humpback entangled in crab-pot gear. Entanglement reported originally via hotline, but subsequent sightings by the reporting vessel's captain indicate the whale shed the gear.	NSI	NSI	L10	0	0	Entangled in crab gear - self disentangled	
2010201	9/9/2010	2010	Sitka	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Whale entangled in active gillnet - fisherman coordinated with another vessel to free whale. Although whale damaged net no gear was missing and the whale was entirely free of gear.	Prorate	NSI	L10	0.75	0	Entangled in unknown gillnet - disentangled	
2011015	5/11/2011	2011	Juneau	SEAK	Humpback Whale	Central North Pacific	J	U	AKRO	Entangled humpback; towing crab pot gear; line wrapped through mouth and trailing at least 125 ft. behind animal; large yellow buoy and smaller orange buoy trailing off to side 5-8 ft. behind blowhole; resighted over several days; ~75 ft. cut from two trailing lines, leaving ~50 ft. of 3 lines trailing behind animal; 2 lines yellow poly dragging near surface, 1 light colored dragging below surface	SI	Prorate	L10	1	0.75	Entangled in unspecified crab pot gear	

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2011019	5/18/2011	2011	Gambier	SEAK	Humpback Whale	Central North Pacific	pup/calf	U	AKRO	Calf entangled w/ white football-shaped float (basketball-sized) trailing ~15 ft. behind calf; mom appeared to be pushing calf up to breathe; traveling speed ~ 2kts.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2011023	5/26/2011	2011	Wrangell	SEAK	Humpback Whale	Central North Pacific	J	U	AKRO	Entangled in active fishing gillnet; severely wrapped in mesh, cork, and lead line; fishermen cut whale completely free of gear	Prorate	NSI	L10	0.75	0	Entangled in unspecified gillnet gear	
2011028.1	5/29/2011	2011	Ketchikan	SEAK	Humpback Whale	Central North Pacific	J	U	AKRO	Two whales entangled together in 5/8 in. line w/ yellow buoy attached; whole body wrap; line entangled in prop of vessel and vessel dragged by whales; vessel operator cut line from prop, which may have separated animals from mutual entanglement; unclear whether either animal fully disentangled; whale 1 of 2	SI	Prorate	L10	1	0.75	Unknown marine debris / gear entanglement	
2011028.2	5/29/2011	2011	Ketchikan	SEAK	Humpback Whale	Central North Pacific	J	U	AKRO	Two whales entangled together in 5/8 in. line w/ yellow buoy attached; whole body wrap; line entangled in prop of vessel and vessel dragged by whales; vessel operator cut line from prop, which may have separated animals from mutual entanglement; unclear whether either animal fully disentangled; whale 2 of 2	SI	Prorate	L10	1	0.75	Unknown marine debris / gear entanglement	
2011042	6/21/2011	2011	Pt Baker	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Entangled in gillnet; hit net, rolled, became entangled; surfacing regularly; gear still attached to vessel, 15-20 yards off stern, not in apparent distress; entangled ~1.5 hrs.; loops of webbing around head and some web and lead line across body, no corkline involved; partially disentangled by fisher and self-release; swam away w/layer of web around rostrum and loop of lead line draping back to end of tail; tail clear and no gear tight or cinching body; swam away fast and diving normally	Prorate	NSI	L3	0.75	0	Entangled in unspecified gillnet gear	
2011050	6/28/2011	2011	Chatham Strait	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Struck 50 ft. motor vessel, speed 7-8 knots.; hit by bow of vessel; pink spot on dorsum of tail believed to be wound from strike; whale observed breathing, diving, and traveling north	NSI	NSI	L6c	0	0	Ship strike (unknown)	
2011074	7/6/2011	2011	Hoonah	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Struck 34 ft. sailing vessel, idling slowly near bubblenet feeding whales; whale surfaced under vessel, lifting it 4 ft. out of water, pushing it 10 ft. sideways, and ripping keel off; vessel sunk; whale appeared initially stunned, then possibly same whale observed breaching	NSI	NSI	L6c	0	0	Ship strike (recreational)	

**Appendix Table 1-20.** Humpback whale (Central North Pacific Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2011079	7/17/2011	2011	Ketchikan	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Entangled in gillnet; swam into active gillnet; whale was pulling gear and vessel towards shore; fisher pulled in as much net as possible before cutting it; webbing over head of whale, but not on fins; no other details on entanglement; fisher observed whale next morning still entangled and swimming	SI	Prorate	L10	1	0.75	Entangled in unspecified gillnet gear	
2011115	8/8/2011	2011	Craig	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Entangled by 6 wraps of line around peduncle and single taut line extending from head to tail; labored breathing/ wheezing; disentangled gear entirely from tail, uncertain if line remained forward; swam away apparently in good condition	SI	Prorate	L10	1	0.75	Entangled in unspecified longline gear	
2011107	8/17/2011	2011	Juneau	SEAK	Humpback Whale	Central North Pacific	pup/calf	U	AKRO	Entangled by a single wrap around tip of rostrum; single twist near right pectoral flipper; pot (trap) line trailed deeper into water; buoy line trailed along right side; buoy originally at level of flukes, but changed position during rescue effort. Animal partially disentangled; remaining gear believed to have been shed by animal. Animal in good condition.	SI	NSI	L3	1	0	Entangled in crab pot gear	
2011125	8/19/2011	2011	Juneau	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Entangled with large, oblong, bright-orange stationary buoy; buoy observed caught ~1/4 way down whales back on left side; no trailing lines noted; whale traveling at fast speed; no further description of entanglement	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2011158	8/31/2011	2011	Glacier Bay	SEAK	Humpback Whale	Central North Pacific	J	U	AKRO	Small whale struck by 79 ft. catamaran hull traveling 13-14 knots; obvious abrasion on left flank below dorsal fin, no other open wounds or blood observed; whale traveled quickly at 5-6 knots, 7-10 minute fluke up dives, giving stress blows at each surfacing, observed for approx. 1 hr.	SI	SI	L6a	1	1	Ship strike (unknown)	
2011160	9/7/2011	2011	Juneau	SEAK	Humpback Whale	Central North Pacific	pup/calf	U	AKRO	Calf struck by underside of 80' fiberglass hull catamaran travelling at approx. 23 knots when attempted to surface in front of vessel; calf resurfaced w/ cow and remained breathing on surface for approx. 3 min; several 5-6 min. dives observed; small gash on right side of calf's back adjacent to blowhole	SI	SI	L6a	1	1	Ship strike (unknown)	

**Appendix Table 1-20.** Humpback whale (Central North Pacific Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2011183	10/29/2011	2011	Tenakee	SEAK	Humpback Whale	Central North Pacific	U	U	AKRO	Entangled in single-set shrimp pot gear; pickup line, including small, yellow Spongex buoy along left flank, possibly in mouth or around flipper but origin uncertain; small-gauge sinking buoyline draped over left fluke and trailing at least 40 ft of line; line cut 4-6 inches into leading edge of fluke; red, A3 polyball w/ black text trails 40 ft behind animal; appears in good condition and mobility not restricted; evidence entangled since late July	SI	NSI	L2	1	0	Entangled in unspecified shrimp pot gear	

**Appendix Table 1-21.** Humpback whale (Central North Pacific or Western North Pacific Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2007041	5/28/2007	2007	Passage Canal	SCAK	Humpback Whale	Western North Pacific / Central North Pacific	U	U	AKRO	25' jet boat hit a humpback at 28 knots. Struck whale behind dorsal fin. Boat was dented (very minor), whale was not seen again.	Prorate	Prorate	L6b	0.2	0.2	Ship strike (recreational)	
2007040	6/10/2007	2007	Prince William Sound	SCAK	Humpback Whale	Western North Pacific / Central North Pacific	U	U	AKRO	Vessel XXX reported colliding with a humpback whale. Animal hit with prop and observed bleeding. XXX is a small charter fishing boat.	Prorate	Prorate	L11	0.52	0.52	Ship strike (charter)	
2007038	6/27/2007	2007	Kodiak	SCAK	Humpback Whale	Western North Pacific / Central North Pacific	U	U	AKRO	Reported as possibly entangled with green wadded up gillnet near mouth. Whale reported to be "hanging in the water" for about an hour. According to entanglement report this whale likely threw gear and the situation was not life-threatening, though gear may remain.	Prorate	Prorate	L10	0.75	0.75	Entangled in unknown gillnet	
2007086	9/23/2007	2007	Kachemak Bay	SCAK	Humpback Whale	Western North Pacific / Central North Pacific	U	U	AKRO	Whale obsvd with white 1-2 ft oblong buoy near the rostrum. No line obsvd and gear type not identified. According to entanglement report this is possibly life-threatening.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2008089	7/23/2008	2008	Kodiak	Kodiak	Humpback Whale	Western North Pacific / Central North Pacific	A	U	AKRO	26 ft personal cabin cruiser hit a humpback whale near Kodiak Island while going 30 mph. The impact almost tipped the boat over. The operator observed the whale breach for almost 20 minutes afterward and then left. There was no damage to the boat.	Prorate	Prorate	L6b	0.2	0.2	Ship strike (recreational)	
2008094	7/30/2008	2008	Chiniak Bay	SCAK	Humpback Whale	Western North Pacific / Central North Pacific	U	U	AKRO	Pleasure craft hit a humpback whale while transiting off Kodiak at 15 knots. Whale surfaced unexpectedly in front of boat. Operator put boat into reverse. Hit whale between dorsal fin and fluke. Fluke damaged bow rail and some fittings. The prop did not hit the whale. No apparent injury to whale. Whale surfaced four minutes later and behaved normally. No associated reports of injured whales in area. No info on vessel length, thus prorated at L12.	Prorate	Prorate	L12	0.36	0.36	Ship strike (recreational)	
2008138	9/7/2008	2008	Seward	SCAK	Humpback Whale	Western North Pacific / Central North Pacific	U	U	AKRO	A humpback whale surfaced underneath a tour vessel travelling at slow speed. Whale surfaced and there was blood observed in the water in 2.5-3.5 ft patches each time the animal surfaced. Passengers and crew felt and heard the impact of whale and vessel. L11 primarily, but also L6c.	SI	SI	L11	0.52	0.52	Ship strike (charter)	

**Appendix Table 1-21.** Humpback whale (Central North Pacific or Western North Pacific Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2008172	10/27/2008	2008	Kodiak	Kodiak	Humpback Whale	Western North Pacific / Central North Pacific	U	U	AKRO	Humpback whale entangled off of Kodiak Island. Entanglement originally life-threatening, but a response team was able to disentangle animal of nearly all gear. No longer life-threatening according to entanglement report.	Prorate	NSI	L10	0.75	0	Entangled in pot gear - disentangled	Unknown Pot Fishery
2009164	10/31/2009	2009	Kodiak	Kodiak	Humpback Whale	Western North Pacific / Central North Pacific	U	U	AKRO	Humpback whale entangled on the north side of Kodiak Island. Observer noted from a distance a whale was in distress and trailed 1 or 2 buoys. The whale was associated with a group of 4-5. The whales left the bay and were not seen again.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2010040	6/18/2010	2010	Whittier	SCAK	Humpback Whale	Western North Pacific / Central North Pacific	U	U	AKRO	Humpback observed with 4 buoys (line thought to be wrapped around tail stock). Whale was later seen with no buoys present. Apparent self-release.	NSI	NSI	L3	0	0	Unknown marine debris / gear entanglement - Self release	
1120	7/19/2010	2010	Eastern Bering Sea	WAK	Humpback Whale	Western North Pacific / Central North Pacific	U	U	Observer	Humpback whale was caught in haul. Animal was killed by gear. Whale was bleeding bright red from its wounds. Whale had to be cut away from the net and floated away. Photos and tissue sample taken - whale was about 13 meters long.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Pollock Trawl Fishery
1121	11/2/2010	2010	Eastern Bering Sea	WAK	Humpback Whale	Western North Pacific / Central North Pacific	U	U	Observer	Humpback whale caught in net, disentangled on deck. Appeared to be dead. Carcass was in excellent condition. Blood flowed from area where specimens were taken.	DEAD	DEAD	N/A	1	1	Caught in haul	AK BSAI Flatfish trawl fishery
2011117	8/8/2011	2011	Kodiak	Kodiak	Humpback Whale	Western North Pacific / Central North Pacific	U	U	AKRO	Struck by hull of 36 ft. vessel traveling 8 knots.; no injury apparent	NSI	NSI	L6c	0	0	Ship strike (fishing)	
2011184	9/1/2011	2011	Sand Point	WAK	Humpback Whale	Western North Pacific / Central North Pacific	U	U	AKRO	Entangled in line; body wrap forward near the pectoral flippers, including a line going straight down; anchored by gear; line was dark and bio-fouled with growth; single spindle-shaped orange buoy present; seen in same location a month later; exhibiting wheezed blows; animal towed to shallower water; next day seemed to be in more relaxed condition; no response mounted	SI	SI	L2	1	1	Unknown marine debris / gear entanglement	
2011149	9/12/2011	2011	Shumagin Islands	WAK	Humpback Whale	Western North Pacific / Central North Pacific	U	U	AKRO	Entangled around one pectoral fin by set net anchor line; animal appeared agitated and distressed; no specific details on entanglement or injury	Prorate	Prorate	L10	0.75	0.75	Entangled in unspesified set net gear	

**Appendix Table 1-21.** Humpback whale (Central North Pacific or Western North Pacific Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2011185.1	10/4/2011	2011	Kodiak	Kodiak	Humpback Whale	Western North Pacific / Central North Pacific	A	F	AKRO	Adult female, with accompanying calf, with large gauge yellow polyline draped over its back; entanglement involves flipper(s) and/or mouth; uncertain whether fluke involved; no gear, including buoys, seen trailing; animal appears in good condition; animal observed for 5 minutes before being lost; this is entangled sow.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2011185.2	10/4/2011	2011	Kodiak	Kodiak	Humpback Whale	Western North Pacific / Central North Pacific	pup/calf	U	AKRO	Adult female, with accompanying calf, with large gauge yellow polyline draped over its back; entanglement involves flipper(s) and/or mouth; uncertain whether fluke involved; no gear, including buoys, seen trailing; animal appears in good condition; animal observed for 5 minutes before being lost; calf of entangled sow.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2011177	10/8/2011	2011	Bering Sea	WAK	Humpback Whale	Western North Pacific / Central North Pacific	U	U	AKRO	Entangled in pot gear; no description of entanglement; no photos	Prorate	Prorate	L10	0.75	0.75	Entangled in unspecified pot gear	

**Appendix Table 1-22.** Fin whale (Northeast Pacific Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2009022	6/1/2009	2009	Valdez	SCAK	Fin Whale	NE Pacific	U	U	AKRO	A whale was found dead on the bulbous bow of an oil tanker in Valdez Arm. The whale became a 'homeland security issue' and was sunk without a necropsy conducted. Determined to be a fin whale following photo evaluations.	DEAD	DEAD	L6a	1	1	Ship strike (tanker)	
2010170	8/29/2010	2010	Kodiak	Kodiak	Fin Whale	NE Pacific	J	F	AKRO	Fin whale obsvd floating dead outside Kodiak Harbor. Towed to a beach and necropsied. Bruising and ante-mortem skull fracture indicate COD was shipstrike.	DEAD	DEAD	N/A	1	1	Ship strike	

**Appendix Table 1-23. Minke whale (Alaska Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2007095	8/8/2007	2007	Ninilchik	SCAK	Minke Whale	Alaska	U	M	AKRO	Minke whale found moderately decomposed beached 2.9 miles south of Nilichik. Necropsy revealed fractured ribs. Rib fractures appeared to be ante-mortem with intramuscular hemorrhaging. Blunt trauma suggestive of boat strike with damage severe enough to cause death.	DEAD	DEAD	N/A	1	1	Ship strike (unknown)	

**Appendix Table 1-24. Bowhead whale (Western Arctic Stock) human-related injury and mortality records, 2007-2011. Records are sorted by date.**

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2010079	7/4/2010	2010	Chukchi Sea	Arctic	Bowhead Whale	Western Arctic	A	F	AKRO	Washed up on shore, entangled in pot gear. Advanced decomposition. Flukes & baleen absent. Gear retrieved and sent to Nome.	DEAD	DEAD	L2	1	1	Entangled in unspecified commercial pot gear	

**Appendix Table 1-25.** Unidentified pinniped human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
9	8/17/2007	2007	Eastern Bering Sea	WAK	Unident. Otariid	N/A	U	U	Observer	An unidentified Otariid had its flipper hooked and was lifted out of the water. The rollerman cut the gangion and the animal swam away.	SI	SI	P6	1	1	Flipper hooked - trailing gear	AK BSAI Pacific Cod Longline Fishery
8	9/4/2007	2007	Eastern Bering Sea	WAK	Unident. Otariid	N/A	U	U	Observer	Small unident. Otariid was hooked by gear. The animal was hauled up to the roller, fell onto another hook, was hooked a second time, fell again, and was not seen again.	SI	SI	P5c	1	1	Hooked on gear	AK BSAI Pacific Cod Longline Fishery
2009039	6/27/2009	2009	Sitka	SEAK	Unident. Pinniped	N/A	U	U	AKRO	Animal hauled out on Beili Rock, Sitka Sound. The animal had a flasher hanging from its mouth. The reporter states this was an fur seal, but the animal was sighted in an area not known for fur seals but with a high occurrence of SSLs.	SI	SI	P2	1	1	Swallowed troll gear	
1018	9/29/2009	2009	Central Bering Sea	WAK	Unident. Pinniped	N/A	U	U	Observer	Unidentified pinniped hooked on longline gear. Appeared to be dead. Crew was unable to retrieve. Observer was unable to learn details.	DEAD	DEAD	N/A	1	1	Caught on longline	AK BSAI Pacific Cod Longline Fishery
1126	4/13/2010	2010	BSAI (central)	WAK	Unident. Pinniped	N/A	U	U	Observer	Unidentified pinniped was hooked by longline and apparently drowned.	DEAD	DEAD	N/A	1	1	Caught on longline	AK BSAI Pacific Cod Longline Fishery

**Appendix Table 1-26.** Unidentified whale human-related injury and mortality records, 2007-2011. Records are sorted by date.

Animal ID	Date	Year	Location	Area	Common Name	Stock	Age	Sex	Source of Information	NMML Determination Details	Initial Assessment NSI, SI, DEAD, CBD	Final Determination NSI, SI, DEAD, CBD	SI Criteria Supporting Designation	Initial Prorate Value	Final Prorate value	Cause of Injury	Fishery within LOF
2007006	3/17/2007	2007	Sitka	SEAK	Unident. Whale	N/A	U	U	AKRO	Unidentified whale sighted dragging a 2-3 foot orange ball buoy about 75 feet behind flukes. Likely tail wrap. Not resighted.	Prorate	Prorate	L10	0.75	0.75	Unknown marine debris / gear entanglement	
2008026	6/16/2008	2008	Pt Adolphus	SEAK	Unident. Whale	N/A	U	U	AKRO	Vessel operator saw something come out of the water and the boat hit it. The vessel was 24 ft and travelling at 30 knots. The engine was knocked into the boat and the vessel began to flood. Vessel made it to shore and crew was rescued. Surveys of area revealed no sign of an injured whale. No info on vessel length, thus prorate at L12.	Prorate	Prorate	L6b	0.2	0.2	ship strike (unknown)	
2010145	8/1/2010	2010	Ketchikan	SEAK	Unident. Whale	N/A	U	U	AKRO	Large unknown whale entangled in gillnet by fishing vessel. Response mounted within two hours but whale was not relocated.	Prorate	Prorate	L10	0.75	0.75	Entangled in unspecified gillnet gear	
2011057	6/20/2011	2011	Prince William Sound	SCAK	Unident. Whale	N/A	U	U	AKRO	Fishing vessel saw a ~25 ft. whale swim through fishing net as hauled up; whale not entangled, but net had a large hole in it; probable minke or juvenile fin whale	NSI	NSI	L3	0	0	Swam through gear	



## **Appendix 2**

Appendix Tables 2-1 through 2-3 summarize the large cetacean, small cetacean, and pinniped injury categories and criteria, which are copied from Tables 1-3 in the “Guidelines for Distinguishing Serious from Non-Serious Injury of Marine Mammals Pursuant to the Marine Mammal Protection Act” (NMFS 2012b). (Available at: <http://www.nmfs.noaa.gov/op/pds/documents/02/238/02-238-01.pdf>)

Appendix Table 2-1: Summary of Large Cetacean Injury Categories and Criteria

Appendix Table 2-2: Summary of Small Cetacean Injury Categories and Criteria

Appendix Table 2-3: Summary of Pinniped Injury Categories and Criteria



## Appendix Table 2-1

**TABLE 1: Summary of Large Cetacean<sup>1</sup> Injury Categories and Criteria**

<p>Instructions: Each large cetacean injury event is recorded to the appropriate injury/information category using all available information and scientific judgment, as described in the Procedural Directive. Criteria L10 - L12 accommodate events that lack details necessary for assignment to a more specific category. For a single injury event to which several categories apply, the injury determination with the highest level of severity is assigned. More detailed information or extended observation on an individual case/animal may justify a determination differing from the guidance of this table. An animal that is fully disentangled would generally be considered not seriously injured, unless there is additional evidence of a serious injury. Any injury leading to apparent significant health decline (e.g., skin discoloration, lesions near the nares, fat loss, increased cyamid loads) is a serious injury.</p>			
Category	Injury/ Information	Injury Determination	Criteria
L1	Ingested gear <sup>2</sup> or hook(s)	SI <sup>3</sup>	Swallowed, not simply draped through mouth
L2	Constricting wrap	SI	Tightly wrapped line anywhere on body that indents the skin or does not shift with whale's movement, or line that is likely to become constricting as the whale grows. Indication that a whale that is heavily weighted, anchored or has a discolored appendage is sufficient evidence of constricting gear
L3	Loose wrap, bridled or draped gear	NSI <sup>4</sup>	Loosely wrapped gear that moves or shifts freely with whale's movement. Absence of constricting gear must be confirmed
L4	External hook	NSI	Fishing hook of any size on any part of the body (i.e., not ingested)
L5a	Deep laceration <sup>5</sup>	SI	Laceration with the potential to affect major artery (e.g., laceration or severing at insertion of flipper/fluke), penetrating body cavity, or cutting bone
L5b	Superficial laceration	NSI	Laceration not deeper than blubber layer, does not affect major artery, or cut bone
L6a	Vessel much greater in size than whale or vessel $\geq 65'$ and $>10$ knots	SI	Struck by vessel much greater in size than the whale and traveling greater than 10 knots, or struck by vessel equal or greater than 65' and traveling greater than 10 knots, and no information on injury to the whale
L6b	Vessel smaller in size than whale or vessel $<65'$ and $>10$ knots	Prorate <sup>6</sup> : 0.20	Struck by vessel smaller in size than the whale and traveling greater than 10 knots, or struck by vessel less than 65' and traveling greater than 10 knots, and no information on injury to the whale. A strike to a calf by a vessel of any size and traveling greater than 10 knots will be considered a serious injury

<sup>1</sup> For the purposes of this table, "large cetaceans" include all mysticetes and sperm whales.

<sup>2</sup> For the purposes of this table, "gear" is defined as any portion of fishing gear excluding the hook, which is considered separately.

<sup>3</sup> SI = Serious Injury.

<sup>4</sup> NSI = Non-Serious Injury.

<sup>5</sup> For the purposes of this table, "laceration" is defined as a ragged incision or a tearing of the skin. Lacerations are caused by trauma that results in stretching, tearing, crushing, shearing, or avulsion of the tissue. Trauma, including blunt and sharp force trauma, includes a wound or bodily harm caused by an extrinsic agent.

<sup>6</sup> "Prorate" means the number of events assigned to a given category within the assessment period is multiplied by the prorate number provided for that category.

**Appendix Table 2-1**

L6c	Vessel any size $\leq 10$ knots	NSI	Struck by vessel of any size traveling at equal or less than 10 knots and no information on injury to the whale
L7a	Vessel much greater in size than whale or vessel $\geq 65'$ and speed unknown	Prorate: 0.56	Struck by vessel much greater in size than the whale traveling at an unknown speed, or struck by vessel equal or greater than 65' and traveling at unknown speed, and no information on injury to the whale. A strike to a calf by a vessel of any size when speed is unknown will be considered a serious injury
L7b	Vessel smaller in size than whale or vessel $< 65'$ and speed unknown	Prorate: 0.14	Struck by vessel smaller than the whale traveling at an unknown speed, or struck by vessel less than 65' and traveling at unknown speed, and no information on injury to the whale. A strike to a calf by a vessel of any size when speed is unknown will be considered a serious injury
L8	Dependent <sup>7</sup>	SI	Dependent calf of a dead or seriously injured mother
L9	Brought on deck	SI	Whale removed from water and brought on deck
L10	Evidence of entanglement	Prorate: 0.75	Confirmed entanglement but insufficient information available to place in any of the L1-L4 criteria with a high degree of certainty
L11	Vessel strike laceration	Prorate: 0.52	Whale confirmed with non-entanglement related laceration but lacking details to place in either criteria L5a or L5b with a high degree of certainty. Includes observation of blood in water
L12	Vessel strike observed	Prorate: 0.36	Confirmed vessel strike report where there is insufficient detail to assign event to criteria L6a – L7b with a high degree of certainty. A strike to a calf by a vessel of unknown size traveling at an unknown speed will be considered a serious injury

<sup>7</sup> “Dependent” for a large cetacean means a non-weaned calf. Weaned calves and juvenile large cetaceans are no longer dependent on their mothers.

## Appendix Table 2-2

**TABLE 2: Summary of Small Cetacean<sup>1</sup> Injury Categories and Criteria**

Instructions: Each small cetacean injury event is recorded to the appropriate injury/information category using all available information and scientific judgment, as described in the Procedural Directive. For a single injury event to which several categories apply, the injury determination with the highest level of severity is assigned. More detailed information or extended observation on an individual case/animal may justify a determination differing from the guidance of this table. Any injury leading to apparent significant health decline (e.g., skin discoloration, fat loss) is a serious injury.			
Category	Injury/Information	Injury Determination <sup>2</sup>	Additional factors for evaluating whether “case specific” injuries are serious or non-serious (additional factors at end of table) *
S1	A free-swimming animal observed at a date later than its human interaction, exhibiting signs of declining health believed to be resulting from initial injury (e.g., a marked skin discoloration, fat loss)	SI <sup>3</sup>	
S2	Ingested gear <sup>4</sup> or hook(s)	SI	
S3	Visible blood loss	Case specific <sup>5</sup>	Amount of blood, location of the bleeding injury, duration of bleeding
S4	Animal brought on vessel deck following entanglement/entrapment (excluding scientific research targeting marine mammals and authorized as such under a NMFS scientific research permit, where the animal is brought on and placed on the vessel deck in a controlled manner)	SI	
S5a	Hook(s) in head (excluding criterion S5b), regardless of the presence of gear	SI	
S5b	Hook(s) confirmed in lip only, external tissue outside of teeth, no trailing gear	Case specific	Prolonged restraint or struggle that could lead to capture myopathy, size of hook, depth of hooking, impairing ability to feed, presence of other injuries
S5c	Hook(s) in any body part, but hook(s) is removed or pulls out	Case specific	Prolonged restraint or struggle that could lead to capture myopathy, depth of hook, hook pulls out cleanly vs. causes further injury during dehooking, method used to remove hook, length of time hooked
S5d	Hook(s) in appendage or body (excluding criterion S5a), without trailing gear or with trailing gear that does not have the potential <sup>6</sup> to: 1) become a constricting wrap on animal; 2) be ingested; 3) accumulate drag; or 4) become snagged on something in the environment, anchoring the animal	Case specific	Prolonged restraint or struggle that could lead to capture myopathy, depth and location of hook, type and amount of gear attached

<sup>1</sup> For the purposes of this table, small cetaceans include all odontocetes except sperm whales.

<sup>2</sup> This table includes on only those criteria determined to be serious injuries or case specific based on expert opinion at the 2007 Workshop (Andersen *et al.*, 2008) and by small cetacean experts on the NMFS Determination Staff working group. For the purposes of streamlining the information for the reader, criteria determined to be non-serious injuries are not included in this table.

<sup>3</sup> SI = serious injury.

<sup>4</sup> For the purposes of this table, gear is defined as any portion of fishing gear excluding the hook, which is considered separately. Lures are considered gear. Gear also generally refers to any type of debris entangling or attached to the animal.

<sup>5</sup> Case specific = Could be a serious or non-serious injury, but either 1) there is insufficient information about the impact of a particular injury, or 2) additional factors must be considered on a case-by-case basis to determine the severity

<sup>6</sup> For the purposes of this table, “potential” as it relates criterion S5d indicates that the trailing gear IS NOT capable of leading to any of the situations listed.

**Appendix Table 2-2**

S6	Gear attached to free-swimming animal with potential <sup>7</sup> to: 1) become a constricting wrap on animal; 2) be ingested; 3) accumulate drag; or 4) become snagged on something in the environment, anchoring the animal	SI	
S7a	Anchored, immobilized, or entrapped and not freed	SI	
S7b	Anchored, immobilized, entangled, or entrapped before being freed without gear attached	Case specific	Duration of entanglement/entrapment, prolonged restraint or struggle that could lead to capture myopathy, gear type, where/how gear is attached to animal, associated injury (i.e., where directly or indirectly caused by initial entanglement), response of individual animal, method used by human to remove gear from animal
S8a	Gear wrapped and constricting on any body part or is likely to become constricting as the animal moves or grows	SI	
S8b	Gear wrapped and loose on any body part	Case specific	Gear type, amount of gear, potential for snag, potential to lead to criterion S8a, animal body size relative to gear (e.g., because of species or age), effect on animal movement, species sensitivity (e.g., frightens easily)
S9	Body trauma <sup>8</sup> not covered by any other criteria	Case specific	Location of wound, depth (e.g., superficial or to the bone, penetrating muscle or organs), length, number of lacerations, cleanliness (i.e., compression vs. tearing)
S10	Visible fracture(s), excluding pectoral fins (see criterion S13d for pectoral fin fractures)	SI	
S11	Vertebral transection, including fully severed flukes	SI	
S12	Body cavity penetration <sup>9</sup> by foreign object or body cavity exposure	SI	
S13a	Loss or disfigurement of dorsal fin	Case specific	Cleanliness (i.e., compression vs. tearing), nature of injury causing the loss, extent of fin loss (i.e., full or partial), amount and duration of blood loss
S13b	Partially severed flukes, transecting midline	SI	

<sup>7</sup> For the purposes of this table, potential as it relates criterion S6 indicates that the trailing gear IS capable of leading to any of the situations listed.

<sup>8</sup> For the purposes of this table, “trauma” is defined as a wound or bodily harm caused by an extrinsic agent. Blunt trauma is an injury (abrasion, laceration, contusion or skeletal fracture) produced by a blunt object striking the body or impact of the body against a blunt object or surface. Sharp force trauma is an injury caused by a sharp or pointed object creating a penetrating (stab, chop or incision) wound. Laceration is defined as a ragged incision or a tearing of the skin. Lacerations are caused by blunt trauma that results in stretching, tearing, crushing, shearing, or avulsion of the tissue.

<sup>9</sup> For the purposes of this table, “penetration” is defined as a wound occurring when a foreign object punctures the body. Penetrating wounds can be characterized as one of three types: stab (small external wound that is greater in length into the body than is apparent on the skin surface), incised (clean cuts into the skin which are longer on the skin surface than they are deep), or chop wounds (incised wounds that penetrate deep to the bone, leaving a groove or cut in the bone).

**Appendix Table 2-2**

S13c	Partially severed flukes, not transecting midline	Case specific	Cleanliness (i.e., compression vs. tearing), nature of injury causing the loss, amount and duration of blood loss
S13d	Partially or completely severed or fractured pectoral fin(s)	Case specific	Cleanliness (i.e., compression vs. tearing), nature of injury causing the loss, extent of fin loss (i.e., full or partial), amount and duration of blood loss, opened or closed fracture
S14	Social animal separated from group and/or released alone post-interaction (excluding criterion S15)	Case specific	Species (e.g., sensitivity, offshore vs. inshore), location of release (e.g., likelihood of animal locating its conspecifics)
S15	Dependent animal (i.e., calf, juvenile) released alone post-interaction or dependent animal left with a seriously injured or dead mother	SI	
S16	Observed or reported collision with vessel	Case specific	Speed of vessel, size of vessel, hull shape, part of vessel to strike the animal, size of animal compared to size of vessel, behavior of animal after collision, extent and location of wound(s) on animal

\* Factors listed in the far right column of Table 2 are unique to the associated injury type. In addition to those listed in this column, the factors that should be considered, if available, when reviewing all case specific injury events in Table 2 include, but are not limited to:

- Species
- Age or age class (e.g., calf, juvenile, adult)
- Sex
- Size of animal
- Overall health (e.g., nutritional status, body condition, pre-existing disease state, pre-existing injuries)
- Behavior during and/or after injury-causing interaction (e.g., dorsal arching, listlessness)
- Reproductive status (e.g., pregnant, lactating, has dependant calf)
- Natural history (e.g., indigenous, migratory)
- Location of injury (e.g., mouth, head, body, fin, tail, internal)
- Size of injury
- Duration of injury (e.g., single event, repeated, chronic)
- Depth of injury (e.g., superficial or to the bone, penetrating muscle or organs)
- Cleanliness of injury (e.g., compression, tearing)
- Environmental condition (e.g., individuals out of their normal habitat, climate stressors)
- Social stressors (e.g., social structure of species, separation of social individuals from the group, cow/calf separation)
- Cumulative effects of repeated exposures
- Compounding effects of multiple injuries obtained during a single event
- Availability of data on multiple sequential events involving the same individual over time
- Susceptibility of the species to capture myopathy (spinner dolphins and porpoises notoriously sensitive; bottlenose dolphins robust; many others fall in between, with some unknown)
- Ability of rehabilitated animal to be released
- Relative effect of blood loss on different species

In addition to those factors listed above, the factors that apply to all fishery-interaction related case specific injuries include, but are not limited to:

- Entanglement type (e.g., hooked, anchored, entrapment)
- Amount and size of gear (e.g., size, length and number of branches of line; number of buoys, traps or anchors; volume of netting)
- Entanglement constriction (e.g., tight, loose, multiple wraps)
- Habitat where animal is located (e.g., an animal with trailing gear areas of dense gear or an area with vegetation is more likely to risk snagging the gear and becoming anchored)
- Entanglement duration
- Existence, type and amount of any trailing gear
- Method of handling the animal during disentanglement

## Appendix Table 2-3

**TABLE 3: Summary of Pinniped<sup>1</sup> Injury Categories and Criteria**

Instructions: Each pinniped injury event is recorded to the appropriate injury/information category using all available information and scientific judgment, as described in the Procedural Directive. For a single injury event to which several categories apply, the injury determination with the highest level of severity is assigned. More detailed information or extended observation on an individual case/animal may justify a determination differing from the guidance of this table. Any injury leading to apparent significant health decline (e.g., skin discoloration, fat loss) is a serious injury.			
Category	Injury/Information	Injury Determination <sup>2</sup>	Additional factors for evaluating whether “case specific” injuries are serious or non-serious (additional factors at end of table) *
P1	A free-swimming animal observed at a date later than its human interaction, exhibiting signs of declining health believed to be resulting from initial injury (e.g., a marked change in body condition, tissue necrosis, emaciation, gangrene).	SI <sup>3</sup>	
P2	Ingested gear <sup>4</sup> or hook(s)	SI	
P3	Visible blood loss	Case specific <sup>5</sup>	Amount of blood, location of the bleeding injury, duration of bleeding
P4	Animal brought on vessel deck following entanglement/entrapment (excluding scientific research targeting marine mammals and authorized as such under a NMFS scientific research permit, where the animal is brought on and placed on the vessel deck in a controlled manner)	Case specific	Manner in which animal is brought on deck, length of time animal is on deck, environmental conditions (e.g., temperature)
P5a	Hook(s) in mouth (excluding criterion P5b), regardless of the presence of gear	SI	
P5b	Hook(s) confirmed in head (excluding criterion P5a), or in lip only (external tissue outside of teeth), no trailing gear	Case specific	Location on head (e.g., eye), depth of penetration, type of hook, prolonged restraint or struggle that could lead to capture myopathy, size of hook, impairing ability to feed
P5c	Hook(s) in any body part, but hook(s) is removed or pulls out	Case specific	Prolonged restraint or struggle that could lead to capture myopathy, location of hooking on the body, depth of hook, hook pulls out cleanly vs. causes further injury during dehooking, method used to remove hook, length of time hooked

<sup>1</sup> For the purposes of this table, pinnipeds include all pinniped species except walrus.

<sup>2</sup> This table includes only those criteria determined to be serious injuries or case specific based on expert opinion at the 2007 Workshop (Andersen *et al.*, 2008) and by pinniped experts on the NMFS Determination Staff working group. For the purposes of streamlining the information for the reader, criteria determined to be non-serious injuries are not included in this table.

<sup>3</sup> SI = serious injury.

<sup>4</sup> For the purposes of this table, gear is defined as any portion of fishing gear excluding the hook, which is considered separately. Lures are considered gear. Gear also generally refers to any type of debris entangling or attached to the animal.

<sup>5</sup> Case specific = Could be a serious or non-serious injury, but either 1) there insufficient information about the impact of a particular injury, or 2) additional factors must be considered on a case-by-case basis to determine the severity.

**Appendix Table 2-3**

P5d	Hook(s) in appendage or body (excluding criteria P5a-c and P12), without trailing gear or with trailing gear that does not have the potential <sup>6</sup> to: 1) become a constricting wrap on animal; 2) be ingested, 3) accumulate drag; or 4) become snagged on something in the environment, anchoring the animal	NSI <sup>7</sup>	
P6	Gear attached in any manner to free-swimming animal with potential <sup>8</sup> to: 1) become a constricting wrap on animal; 2) be ingested; 3) accumulate drag; or 4) become snagged on something in the environment, anchoring the animal	SI	
P7a	Anchored/immobilized and not freed	SI	
P7b	Anchored, immobilized, or entangled before being freed without gear attached	Case specific	Duration of entanglement, prolonged restraint or struggle that could lead to capture myopathy, type of fishing gear, where/how gear immobilized animal, associated injury (where directly or indirectly caused by initial entanglement), response of individual
P8a	Gear wrapped and constricting any body part or likely to become constricting as the animal moves or grows	SI	
P8b	Gear wrapped loosely on any body part	Case specific	Type and amount of fishing gear, animal body size relative to gear (species, age), effect on movement, species sensitivity
P9	Body trauma <sup>9</sup> not covered by any other criteria	Case specific	Location of trauma on body, depth (superficial or to the bone, penetrating muscle or organs) length of laceration(s), number of lacerations, cleanliness (compression vs. tearing), amount and duration of blood loss, risk of infection or disease transmission (e.g., dog bites)
P10	Visible fracture(s), excluding broken appendages (see criterion P13 for broken appendages)	SI	
P11	Vertebral transection or fully severed flipper(s)	SI	
P12	Body cavity penetration <sup>10</sup> by foreign object or body cavity exposure	SI	

<sup>6</sup> For the purposes of this table, potential as it relates to criterion P5d indicates that the trailing gear IS NOT capable of leading to any of the situations listed.

<sup>7</sup> NSI = non-serious injury.

<sup>8</sup> For the purposes of this table, potential as it relates to criterion P6 indicates that the trailing gear IS capable of leading to any of the situations listed.

<sup>9</sup> For the purposes of this table, “trauma” is defined as a wound or bodily harm caused by an extrinsic agent. Blunt trauma is an injury (abrasion, laceration, contusion or skeletal fracture) produced by a blunt object striking the body or impact of the body against a blunt object or surface. Sharp force trauma is an injury caused by a sharp or pointed object or a bullet from a gunshot creating a penetrating (stab, chop or incision) wound. Laceration is defined as a ragged incision or a tearing of the skin. Lacerations are caused by blunt trauma that results in stretching, tearing, crushing, shearing, or avulsion of the tissue.

<sup>10</sup> For the purposes of this table, “penetration” is defined as a wound occurring when a foreign object punctures the body, such as a bullet from a gunshot. Penetrating wounds can be characterized as one of three types: stab (small external wound that is greater in length into the body than is apparent on the skin surface), incised (clean cuts into the skin which are longer on the skin surface than they are deep), or chop wounds (incised wounds that penetrate deep to the bone, leaving a groove or cut in the bone).

**Appendix Table 2-3**

P13	Partially severed or fractured flipper(s)	Case specific	Cleanliness (clean cut vs. tear), nature of injury causing the loss, extent of fin or flipper loss, opened or closed fracture, dislocation, amount/duration of blood loss
P14	Dependent animal (i.e., pup, juvenile) released alone post-interaction or dependent animal left with a seriously injured or dead mother	SI	
P15	Observed or reported collision with vessel	Case specific	Speed of vessel, size of vessel, hull shape, part of vessel to strike the animal (e.g., propeller, hull), size of animal compared to size of vessel, location of strike on animal's body, extent and location of wound(s) to animal

\* Factors listed in the far right column of Table 3 are unique to the associated injury type. In addition to those listed in this column, the factors that should be considered, if available, when reviewing all case specific injury events in Table 3 include, but are not limited to:

- Species
- Age or age class (e.g., calf, juvenile, adult)
- Sex
- Size of animal
- Overall health (e.g., nutritional status, body condition, pre-existing disease state, pre-existing injuries)
- Behavior during and/or after injury-causing interaction (e.g., listlessness)
- Reproductive status (e.g., pregnant, lactating, has dependant pup)
- Natural history (e.g., small home range, large home range)
- Location of injury (e.g., mouth, head, body, flipper/fin, internal)
- Size of injury
- Duration of injury (e.g., single event, repeated, chronic)
- Depth of injury (e.g., superficial or to the bone, penetrating muscle or organs)
- Cleanliness of injury (e.g., compression, tearing)
- Environmental condition (e.g., individuals out of their normal habitat, environmental stressors)
- Social stressors (e.g., social structure of species, separation of social individuals from the group, mother/pup separation)
- Cumulative effects of repeated exposures
- Compounding effects of multiple injuries obtained during a single event
- Availability of data on multiple sequential events involving the same individual over time
- Susceptibility of the species to capture myopathy (some sensitive, others robust, some unknown)
- Ability of rehabilitated animal to be released
- Relative effect of blood loss on different species

In addition to those factors listed above, the factors that apply to all fishery or marine-debris interaction related case specific injuries include, but are not limited to:

- Entanglement type (e.g., hooked, anchored, entrapment)
- Amount and size of gear (e.g., size, length and number of lines; number of buoys, traps or anchors; volume of netting; material of gear)
- Method of handling the animal during disentanglement
- Entanglement constriction (e.g., tight, loose, multiple wraps)
- Habitat where animal is located (e.g., an animal with trailing gear in areas of dense gear or an area with vegetation or on shore is more likely to risk snagging the gear and becoming anchored)
- Entanglement duration
- Existence, type and amount of any trailing gear

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### AFSC-

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- 272 DE ROBERTIS, A., D. MCKELVEY, K. TAYLOR, and T. HONKALEHTO. 2014. Development of acoustic-trawl survey methods to estimate the abundance of age-0 walleye pollock in the eastern Bering Sea shelf during the Bering Arctic subarctic survey, 46 p. NTIS number pending.
- 271 VULSTEK, S. C., C. M. KONDZELA, C. T. MARVIN, J. WHITTLE, and J. R. GUYON. 2014. Genetic stock composition analysis of chum salmon bycatch and excluder device samples from the 2012 Bering Sea walleye pollock trawl fishery, 35 p. NTIS No. PB2014-105096.
- 270 GUTHRIE, C. M., III, H. T. NGUYEN, and J. R. GUYON. 2014. Genetic stock composition analysis of Chinook salmon bycatch samples from the 2012 Bering Sea and Gulf of Alaska trawl fisheries, 33 p. NTIS No. PB2014-105095.
- 269 MATEO, I., and D. H. HANSELMAN. 2014. A comparison of statistical methods to standardize catch-per-unit-effort of the Alaska longline sablefish, 71 p. NTIS No. PB2014-104078.
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- 267 FOWLER, C. W., and S. M. LUIS. 2014. We are not asking management questions, 48 p. NTIS No. PB2014-104034.
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- 264 STONE, R. P., K. W. CONWAY, D. J. CSEPP, and J. V. BARRIE. 2014. The boundary reefs: glass sponge (Porifera: Hexactinellida) reefs on the international border between Canada and the United States, 31 p. NTIS No. PB2014-101865.
- 263 SHELDEN K. E. W., D. J. RUGH, K. T. GOETZ, C. L. SIMS, L. VATE BRATTSTRÖM, J. A. MOCKLIN, B. A. MAHONEY, B. K. SMITH, and R. C. HOBBS. 2013. Aerial surveys of beluga whales, *Delphinapterus leucas*, in Cook Inlet, Alaska, June 2005 to 2012, 122 p. NTIS No. PB2014-104033.
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- 260 BREIWICK, J. M. 2013. North Pacific marine mammal bycatch estimation methodology and results, 2007-2011, 40 p. NTIS No. PB2014-104030.
- 259 HIMES-CORNELL, A., K. HOELTING, C. MAGUIRE, L. MUNGER-LITTLE, J. LEE, J. FISK, R. FELTHOVEN, C. GELLER, and P. LITTLE. 2013. Community profiles for North Pacific fisheries - Alaska. (Volumes 1-12). NTIS No. PB2014-104038.