



M. Bradley Hanson, Ph. D.  
Northwest Fisheries Science Center  
National Marine Fisheries Service  
2725 Montlake Blvd. East  
Seattle, Washington 98112-2097

JUN 05 2012

Dear Dr. Hanson:

*Brad*

The National Marine Fisheries Service has issued Permit No. 16163 to the Northwest Fisheries Science Center for research activities on marine mammals. This permit is effective upon your signature and valid through the expiration date indicated in Condition A.1.

Please note that as the Responsible Party you are ultimately responsible for the activities of individuals operating under the authority of this permit. Please attach this letter to Permit No. 16163 and ensure all CIs receive a copy of the letter and permit.

Here's what you need to do to use your permit:

1. Read the permit, including attachments. If you have questions, call your permit analyst -- Laura Morse or Jennifer Skidmore -- at 301-427-8401 before signing the permit.
2. Sign and date the original signature page and the signature page marked "file copy."
3. Keep the original signature page with your permit. You need both as proof of your authorization to conduct the research activities.
4. Send the "file copy" signature page to our office as proof of your acceptance of the permit.

For humpback research: You are encouraged to participate in the National Marine Mammal Laboratory (NMML) Humpback Whale Centralized Computer Photo-identification and Retrieval System. Please contact Ms. Sally Mizroch, Coordinator, NMML Centralized Computer Photo-identification and Retrieval System, NMML, NMFS, 7600 Sand Point Way, NE, BIN C15700, Seattle, Washington 98115 (tel. 206-526-4030) for further information. You are also encouraged to share animal identification photographs with other researchers who are working on humpback whales.

For research in HI: Please report opportunistic sightings of monk seals to Thea Johanos, NMFS Pacific Islands Fisheries Science Center, Marine Mammal Research Program, 1601 Kapiolani Boulevard, Suite 1110, Honolulu, HI 96814-4700; phone (808)944-2174; email Thea.Johanos-Kam@noaa.gov; fax (808)944-2200.

For research occurring within Alaska Maritime National Wildlife Refuge: Please note that some of your research may require a special use permit from the Alaska Maritime National Wildlife



Refuge. Please contact the Refuge office at 2355 Kachemak Bay Drive, Suite 101, Homer, Alaska 99603 (phone: 907-235-6546; FAX: 907-235-7783).

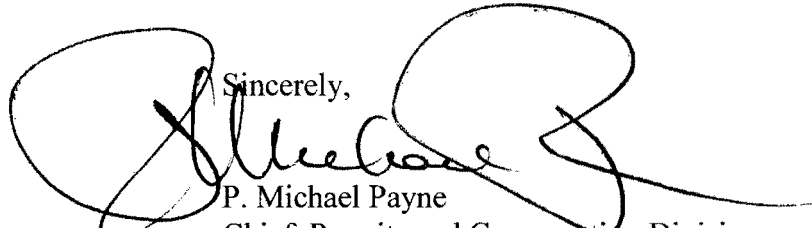
For research within Channel Islands National Park and Channel Islands National Marine Sanctuary: Please note that you may need permits or authorizations for research within the Channel Islands National Park or Channel Islands National Marine Sanctuary. Please contact the Park and Sanctuary directly at:

- Channel Islands National Park, 1901 Spinnaker Drive, Ventura CA 93001 (805) 658-5700
- Channel Islands National Marine Sanctuary Manager, 113 Harbor Way, Santa Barbara, CA 93109 (805) 966-7107

For research in waters of northwest Washington coast: Please be advised that your research permit does not exempt you from compliance with other applicable federal, state or local laws. U.S. Coast Guard regulations (33 CFR 165.1310) establish a regulated navigation area around Makah Tribe vessels during authorized hunts in waters of the Strait of Juan de Fuca and adjacent coastal waters of Northwest Washington. Hunts may occur between April 1 and October 31 annually. During this period, you should monitor channel 16 VHF-FM for notice by the Makah Tribe of a gray whale hunt and, if a hunt is underway, stay 500 yards away from any vessel flying international numeral pennant five (5). In addition, federal regulations governing activities within the Olympic National Marine Sanctuary (15 CFR 922.152) prohibit aircraft from flying below 2000 feet without a permit from the Sanctuary. For information about Sanctuary permits, contact the Director, Office of Ocean and Coastal Resource Management; ATTN: Manager, Olympic Coast National Marine Sanctuary, 138 West First Street, Port Angeles, WA 98362.

For activities involving import or export of animals or parts of animals listed under CITES: Please note that import and export of species, or parts of species, listed on the Appendices to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) requires a CITES Permit. For further information please contact Ms. Lisa Lierheimer, U.S. Fish and Wildlife Service (USFWS), Division of Management Authority, 4401 N. Fairfax Drive, Room 212, Arlington, VA 22203 (1-800-358-2104).

Please return the signature page marked "file copy" to the Permits Division (F/PR1), 1315 East-West Highway, Silver Spring, MD 20910. You may submit the "file copy" of the signature page by emailing a PDF to Laura Morse (Laura.Morse@noaa.gov) or by facsimile to (301) 713-0376 and confirm it by mail.

Sincerely,  
  
P. Michael Payne  
Chief, Permits and Conservation Division  
Office of Protected Resources  
(phone: 301-427-8401)

Enclosure



Permit No. 16163  
Expiration Date: June 6, 2017  
Reports Due: September 1st, annually

## PERMIT TO TAKE PROTECTED SPECIES<sup>1</sup> FOR SCIENTIFIC PURPOSES

### I. Authorization

This permit is issued to the National Marine Fisheries Service, Northwest Fisheries Science Center [Responsible Party, Dr. M. Bradley Hanson], 2725 Montlake Blvd. East, Seattle, Washington 98112-2097, (hereinafter "Permit Holder"), pursuant to the provisions of the Marine Mammal Protection Act of 1972 as amended (MMPA; 16 U.S.C. 1361 *et seq.*); the regulations governing the taking and importing of marine mammals (50 CFR Part 216); the Endangered Species Act of 1973 (ESA; 16 U.S.C. 1531 *et seq.*); the regulations governing the taking, importing, and exporting of endangered and threatened species (50 CFR Parts 222-226); and the Fur Seal Act of 1966 (16 U.S.C. 1151 *et seq.*).

### II. Abstract

The objectives of the permitted activity, as described in the application, are to determine the abundance, population structure, social organization, fecundity, mortality, distribution, seasonal movements, habitat use, responses to anthropogenic impacts, contaminant burdens, breath and fecal borne pathogens, prey availability including prey selection and energetic of marine mammals in U.S. territorial and international waters, focusing on the Pacific NW region. These studies are conducted through vessel and aerial surveys, photographic identification, behavioral research, biological sample collection, acoustic imaging with echosounders, dart and/or suction cup tagging, ultrasound, and active acoustic playback. Research activities also include the import and export of marine mammal parts.

### III. Terms and Conditions

The activities authorized herein must occur by the means, in the areas, and for the purposes set forth in the permit application, and as limited by the Terms and Conditions specified in this permit, including attachments and appendices. Permit noncompliance constitutes a violation and is grounds for permit modification, suspension, or revocation, and for enforcement action.

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<sup>1</sup> "Protected species" include species listed as threatened or endangered under the ESA, and marine mammals.



A. Duration of Permit

1. Personnel listed in Condition C.1 of this permit (hereinafter “Researchers”) may conduct activities authorized by this permit through June 6, 2017. This permit expires on the date indicated and is non-renewable. This permit may be extended by the Director, NMFS Office of Protected Resources, pursuant to applicable regulations and the requirements of the MMPA and ESA.
2. Researchers must immediately stop permitted activities and the Permit Holder must contact the Chief, NMFS Permits, Conservation and Education Division (hereinafter “Permits Division”) for written permission to resume:
  - a. If serious injury or mortality<sup>2</sup> of protected species occurs. See Condition E.2 for reporting requirements.
  - b. If authorized take<sup>3</sup> is exceeded, including accidental takes of protected species not listed in this permit. See Condition E.2 for reporting requirements.
  - c. The Permit Holder must cease dart tagging of Southern Resident Killer Whales (SRKW) in the event dart breakage occurs (i.e. dart barbs are separated from the tag sensor package and remain implanted) and notify the Chief, Permits Division by phone (301-427-8401) within two days of the event; and, submit an incident report that includes a complete description of the events surrounding the incident and identification of steps that will be taken to reduce the potential for additional breakage occurrence. Dart tagging SRKW’s may recommence upon review of that information and authorization by the Chief, Permits Division.
3. The Permit Holder may continue to possess biological samples<sup>4</sup> acquired<sup>5</sup> under this permit after permit expiration without additional written authorization, provided the samples are maintained as specified in this permit.

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<sup>2</sup> This permit does not allow for unintentional serious injury and mortality caused by the presence or actions of researchers. This includes, but is not limited to: deaths resulting from infections related to sampling procedures. Note that for marine mammals, a serious injury is defined by regulation as any injury that will likely result in mortality.

<sup>3</sup> By regulation, a take under the MMPA means to harass, hunt, capture, collect, or kill, or attempt to harass, hunt, capture, collect, or kill any marine mammal. This includes, without limitation, any of the following: The collection of dead animals, or parts thereof; the restraint or detention of a marine mammal, no matter how temporary; tagging a marine mammal; the negligent or intentional operation of an aircraft or vessel, or the doing of any other negligent or intentional act which results in disturbing or molesting a marine mammal; and feeding or attempting to feed a marine mammal in the wild. Under the ESA, a take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to do any of the preceding.

<sup>4</sup> Biological samples include, but are not limited to: carcasses (whole or parts); and any tissues, fluids, or other specimens from live or dead protected species; except feces, urine, and spew collected from the water or ground.

<sup>5</sup> Authorized methods of sample acquisition are specified in Appendix I and may include collection from animals, import, and receipt from subsistence harvest or other legal sources.

B. Number and Kind(s) of Protected Species, Location(s) and Manner of Taking

1. The table in Appendix 1 outlines the number of protected species, by species and stock, authorized to be taken, and the locations, manner, and time period in which they may be taken.
2. Researchers working under this permit may collect visual images (*e.g.*, photographs, video) in addition to the photo-identification or behavioral photo-documentation authorized in Appendix 1 as needed to document the permitted activities, provided the collection of such images does not result in takes.
3. The Permit Holder may use visual images and audio recordings collected under this permit, including those authorized in the table in Appendix 1, in printed materials (including commercial or scientific publications) and presentations provided the images and recordings are accompanied by a statement indicating that the activity was conducted pursuant to a NMFS Permit. This statement must accompany the images and recordings in all subsequent uses or sales.
4. The Chief, Permits Division may grant written approval for photography, filming, or audio recording activities not essential to achieving the objectives of the permitted activities, including allowing persons not essential to the research (*e.g.*, a documentary film crew) to be present, provided:
  - a. The Permit Holder submits a request to the Permits Division specifying the location and nature of the activity, approximate dates, and number and roles of individuals for which permission is sought.
  - b. Non-essential photography, filming, or recording activities will not influence the conduct of permitted activities or result in takes of protected species.
  - c. Persons authorized to accompany the Researchers for the purpose of such non-essential activities will not be allowed to participate in the permitted activities.
  - d. The Permit Holder and Researchers do not require compensation from the individuals in return for allowing them to accompany Researchers.

5. Researchers must comply with the following conditions related to the manner of taking:

Counting and Reporting Takes

- a. Any "approach"<sup>6</sup> of a cetacean constitutes a take by harassment and must be counted and reported.
- b. During an approach, Researchers may attempt all procedures in a take table row once.
- c. For Level A procedures [tag/sample]:  
Each additional attempt to perform the suite of procedures during the same approach constitutes a new take and must be counted and reported against that row of takes.  
  
Attempts include:
  - Misses
  - Successful hits
  - Hits with no data or sample collected.
- d. Any marine mammal observed during sound playback must be counted as a take by harassment and reported.
- e. During aerial surveys flown at an altitude lower than 1,000 ft, any cetacean observed should be counted and reported as a take.
- f. No individual animal may be taken more than 4 times in one day. No more than 2 tagging attempts by dart or suction cup tagging and three attempts for biopsy and ultrasound sampling per encounter.

General

- g. To minimize disturbance of the subject animals the Permit Holder must exercise caution when approaching animals and must retreat from animals if behaviors indicate the approach may be interfering with reproduction, feeding, or other vital functions.
- h. Where females with calves are authorized to be taken, Researchers:
  - i. Must immediately terminate efforts if there is any evidence that the

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<sup>6</sup> An "approach" is defined as a continuous sequence of maneuvers (episode) [involving a vessel or researcher's body in the water], including drifting, directed toward a cetacean or group of cetaceans closer than 100 yards for large whales, or 50 yards for smaller cetaceans.

activity may be interfering with pair-bonding or may be life threatening;

- ii. Must not position the research vessel between the mother and calf;
  - iii. Must approach mothers and calves gradually to minimize or avoid any startle response; and
  - iv. Must not approach any mother or calf while the calf is nursing.
- i. For research in the inland waters of Washington state:  
At all times when vessels engaging in research activities are in the inland waters of Washington, such vessels must fly a clearly visible triangular pennant. The pennant must be yellow in color with minimum dimensions of 18"H x 26"L and with the permit number displayed in 6" high black numerals.
  - j. For research in CA/OR/WA:  
For activities occurring in near-shore kelp beds in California, Oregon or Washington waters between mid-July and Dec 31, if marbled murrelets are present, researchers must reduce boat speed to 10 miles per hour, maintain a consistent heading, and make only 1 pass through per day.
  - k. For Hawaiian humpback research:  
At all times when vessels engaging in research activities are on the water ("port-to-port") in Hawaii, such vessels must fly a clearly visible triangular pennant. The pennant must be yellow in color with minimum dimensions of 18"H x 26"L and with the permit number displayed in 6" high black numerals.

#### Aerial Surveys

- l. Manned and un-manned aerial surveys (excluding tethered airships) must be flown at no less than an altitude of 300 feet.
- m. To minimize disturbance: If an animal shows a response to the presence of the aircraft, the aircraft must leave the vicinity and either resume searching or continue on the line-transect survey.
- n. Aerial flights must not be conducted over pinniped haul out areas.

#### Non-target Species

- o. This permit does not authorize takes of any protected species not identified in Appendix 1, including those species under the jurisdiction of the USFWS (e.g. sea otters). Should other protected species be

encountered during the research activities authorized under this permit, researchers must exercise caution and remain a safe distance from the animal(s) to avoid take, including harassment.

#### Sampling Activities: Biopsy, Tagging, Ultrasound

- p. All biopsy tips must be disinfected between and prior to each use.
- q. Researchers may biopsy sample and/or tag calves greater than 1 year old and females accompanied by these calves. However, no calf less than 1 year old or female accompanied by a calf less than 6 months old shall be sampled. No animal less than 3 years old will be targeted for ultrasound.  
  
Exception: SRKW's
  - Only specified males and post-reproductive females may be LIMPET tagged;
  - Only individuals 3 years or older may be suction cup tagged or biopsy sampled.
- r. Before attempting to sample an individual, Researchers must take reasonable measures (e.g., compare photo-identifications) to avoid repeated sampling of any individual.
- s. A tag attachment, ultrasound, or biopsy attempt must be discontinued if an animal exhibits repetitive strong adverse reactions to the activity or the vessel.
- t. No individual animal may be tagged with the same tag type (e.g. dart, suction cup) more than once per year per year.

#### Active Acoustics

- u. Playback studies must be limited to 1 trial per day and 5 per year/ per individual, not to exceed 179 dB re 1  $\mu$ Pa at 1 meter.
- v. A playback episode must be discontinued if an animal exhibits repetitive strong adverse reactions to the playback activity or the vessel (e.g. aggression, aversion, avoidance, or extensive/prolonged changes in group cohesion).
- w. Researchers must take reasonable measures to avoid playback exposure to groups that include calves less than 1 year old.



6. The Permit Holder is ultimately responsible for biological samples<sup>7</sup> acquired or possessed<sup>8</sup> under authority of this permit and must comply with the following conditions and the regulations at 50 CFR 216.37.
- a. Samples must be maintained according to accepted curatorial standards and must be labeled with a unique identifier (e.g., alphanumeric code) that is connected to on-site records with information identifying the:
    - i. species and, where known, age and sex
    - ii. date of collection, acquisition, or import
    - iii. type of sample (e.g., blood, skin, bone)
    - iv. origin (i.e., where collected or imported from)
    - v. legal authority for sample collection (e.g., permit number)
  - b. Samples cannot be bought or sold.
  - c. The Permit Holder may designate Authorized Recipients for analysis and curation of samples related to the permit objectives provided they submit to the Permits Division the following information:
    - i. a copy of the letter designating the recipient and specifying their duties under the permit is forwarded to the Permits Division by facsimile or email on the day of designation;
    - ii. the copy of the letter is accompanied by:
      - the name and affiliation of the recipient
      - the address of the recipient
      - the types of samples to be sent (species, tissue type)
      - whether the disposition is analysis or curation
    - iii. the Permit Holder acknowledges that the designation is subject to review and revocation by the Chief, Permits Division.
  - d. Temporary transfer: samples may be temporarily transferred for analysis or curation related to permit objectives to Authorized Recipients identified in Appendix 2 without additional written authorization.
    - i. Samples not consumed in analysis must be returned to the Permit Holder within the time frame specified by the Permit Holder, unless permanently transferred according to B.6.g.
    - ii. Authorized Recipients may only transfer parts under the direction of the Permit Holder.

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<sup>7</sup> Biological samples include, but are not limited to carcasses (whole or parts); and tissues, fluids, or other specimens from live or dead protected species; except feces, urine, and spew collected from the water or ground.

<sup>8</sup> Authorized methods of sample acquisition are specified in Appendix 1.

- e. Samples belong to the Permit Holder while in the possession of Authorized Recipients. The Permit Holder is responsible for reporting requirements.
- f. The Permit Holder must request written approval from the Permits Division to use samples for purposes not related to the permitted objectives.
- g. For permanent transfer<sup>9</sup> of samples, and temporary transfers for purposes not related to the permit objectives, sample recipients must be:
  - i. A NMFS or U.S. Fish and Wildlife employee, or other government agency with conservation responsibilities, who receives the sample as part of their official duties;
  - ii. An authorized Stranding Agreement holder for the Marine Mammal Health and Stranding Response Program (for non-ESA listed species only);
  - iii. Permitted to take, import, or possess marine mammal parts of that species; or
  - iv. A holder of a NMFS Regional Authorization letter.
- h. Individuals developing or receiving cell lines must obtain a NMFS permit or be an Authorized Recipient on a permit authorizing cell lines, prior to transfer.
- i. The Permit Holder and Authorized Recipients may continue to possess and use samples acquired under this permit after permit expiration without additional written authorization, provided the samples are maintained as specified in the permit. This excludes:
  - i. Development and use of cell lines;
  - ii. Export or import of samples; or
  - iii. Receipt or transfer of samples without authorization as required in B.6.g above.
- j. The Permit Holder must not import samples into the U.S. from marine mammals:
  - i. Taken in any high seas driftnet fishery after December 31, 1992;
  - ii. Deliberately killed for the express purposes of fulfilling this permit;
  - iii. Taken illegally in the country of origin;
  - iv. Taken during whaling activities not approved by the International Whaling Commission; or
  - v. Taken in a directed fishery, including “drive fisheries.”

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<sup>9</sup> Permanent Transfer means the transfer of legal custody of biological samples to another party.

- k. Marine mammal parts imported under the authority of this permit must be taken in a humane manner, and in compliance with the Marine Mammal Protection Act, the Endangered Species Act, and any applicable foreign laws. Importation of marine mammal parts is subject to the provisions of 50 CFR parts 14, 23 [CITES], 216, and 222.

C. Qualifications, Responsibilities, and Designation of Personnel

1. At the discretion of the Permit Holder, the following Researchers may participate in the conduct of the permitted activities in accordance with their qualifications and the limitations specified herein:
  - a. Principal Investigator – M. Bradley Hanson, Ph.D.
  - b. Co-Investigator(s) – See Appendix 2 for list of names and corresponding activities.
  - c. Research Assistants – personnel identified by the Permit Holder or Principal Investigator and qualified to act pursuant to Conditions C.2, C.3, and C.4 of this permit
2. Individuals conducting permitted activities must possess qualifications commensurate with their roles and responsibilities. The roles and responsibilities of personnel operating under this permit are as follows:
  - a. The Permit Holder is ultimately responsible for activities of individuals operating under the authority of this permit. Where the Permit Holder is an institution/facility, the Responsible Party is the person at the institution/facility who is responsible for the supervision of the Principal Investigator.
  - b. The Principal Investigator (PI) is the individual primarily responsible for the taking, import, export and related activities conducted under the permit. The PI must be on site during activities conducted under this permit unless a Co-Investigator named in Condition C.1 is present to act in place of the PI.
  - c. Co-Investigators (CIs) are individuals who are qualified to conduct activities authorized by the permit, for the objectives described in the application, without the on-site supervision of the PI. CIs assume the role and responsibility of the PI in the PI's absence.
  - d. Research Assistants (RAs) are individuals who work under the direct and on-site supervision of the PI or a CI. RAs cannot conduct permitted activities in the absence of the PI or a CI.

3. Personnel involved in permitted activities must be reasonable in number and essential to conduct of the permitted activities. Essential personnel are limited to:
  - a. Individuals who perform a function directly supportive of and necessary to the permitted activity (including operation of vessels or aircraft essential to conduct of the activity);
  - b. Individuals included as backup for those personnel essential to the conduct of the permitted activity; and
  - c. Individuals included for training purposes.
4. Persons who require state or Federal licenses to conduct activities authorized under the permit (*e.g.*, veterinarians, pilots) must be duly licensed when undertaking such activities.
5. Permitted activities may be conducted aboard vessels or aircraft, or in cooperation with individuals or organizations, engaged in commercial activities, provided the commercial activities are not conducted simultaneously with the permitted activities.
6. The Permit Holder cannot require or receive direct or indirect compensation from a person approved to act as PI, CI, or RA under this permit in return for requesting such approval from the Permits Division.
7. The Permit Holder or PI may designate additional CIs without prior approval from the Chief, Permits Division provided:
  - a. a copy of the letter designating the individual and specifying their duties under the permit is forwarded to the Permits Division by facsimile or email on the day of designation;
  - b. the copy of the letter is accompanied by a summary of the individual's qualifications to conduct and supervise the permitted activities; and
  - c. the Permit Holder acknowledges that the designation is subject to review and revocation by the Chief, Permits Division.
8. Where the Permit Holder is an institution/facility, the Responsible Party may request a change of PI by submitting a request to the Chief, Permits Division that includes a description of the individual's qualifications to conduct and oversee the activities authorized under this permit. Submit requests to add CIs or change the PI by one of the following:
  - the online system at <https://apps.nmfs.noaa.gov>
  - an email attachment to the permit analyst for this permit
  - a hard copy mailed or faxed to the Chief, Permits Division

D. Possession of Permit

1. This permit cannot be transferred or assigned to any other person.
2. The Permit Holder and persons operating under the authority of this permit must possess a copy of this permit when:
  - a. engaged in a permitted activity;
  - b. a protected species is in transit incidental to a permitted activity; and
  - c. a protected species taken or imported under the permit is in the possession of such persons.
3. A duplicate copy of this permit must accompany or be attached to the container, package, enclosure, or other means of containment in which a protected species or protected species part is placed for purposes of storage, transit, supervision or care.

E. Reports

1. The Permit Holder must submit annual, final, and incident reports containing the information and in the format specified by the Permits Division.
  - a. Reports must be submitted to the Permits Division by one of the following:
    - the online system at <https://apps.nmfs.noaa.gov>
    - an email attachment to the permit analyst for this permit
    - a hard copy mailed or faxed to the Chief, Permits Division, Office of Protected Resources, NMFS, 1315 East-West Highway, Room 13705, Silver Spring, MD 20910; phone (301)427-8401; fax (301)713-0376
  - b. You must contact your permit analyst for a reporting form if you do not submit reports through the online system.
2. Incident reports: must be submitted within two weeks of serious injury and mortality events or exceeding authorized takes, as specified in Conditions A.2 and B.1.
  - a. The incident report must include a complete description of the events and identification of steps that will be taken to reduce the potential for additional serious injury and research-related mortality or exceedence of authorized take.

- b. In addition to the written report, the Permit Holder must contact the Permits Division by phone (301-427-8401) as soon as possible, but no later than within two business days of the incident.
    - c. The Permits Division may grant authorization to resume permitted activities based on review of the incident report and in consideration of the Terms and Conditions of this permit.
  3. Annual reports describing activities conducted during the previous permit year (from June 1st to May 31st) must:
    - a. be submitted by September 1<sup>st</sup> each year for which the permit is valid; and
    - b. include a tabular accounting of takes and a narrative description of activities and effects.
  4. A final report summarizing activities over the life of the permit must be submitted by (December 1<sup>st</sup>, 2017), or, if the research concludes prior to permit expiration, within 180 days of completion of the research.
  5. Research results must be published or otherwise made available to the scientific community in a reasonable period of time. Copies of technical reports, conference abstracts, papers, or publications resulting from permitted research must be submitted the Permits Division.

F. Notification and Coordination

1. The Permit Holder must provide written notification of planned field work to the applicable NMFS Region at least two weeks prior to initiation of each field trip/season. If there will be multiple field trips/seasons in a permit year, a single summary notification may be submitted per year.
  - a. Notification must include the
    - i. locations of the intended field study and/or survey routes
    - ii. estimated dates of activities
    - iii. number and roles of participants (for example: PI, CI, veterinarian, boat driver, safety diver, animal restrainer, Research Assistant “in training”)
  - b. Notification must be sent to the following Assistant Regional Administrator(s) for Protected Resources as applicable to the location of your activity:

For activities in AK: Alaska Region, NMFS, P.O. Box 21668, Juneau, AK 99802-1668; phone (907)586-7235; fax (907)586-7012;

For activities in WA and OR: Northwest Region, NMFS, 7600 Sand Point Way NE, BIN C15700, Bldg. 1, Seattle, WA 98115-0700; phone (206)526-6150; fax (206)526-6426;

For activities in CA: Southwest Region, NMFS, 501 West Ocean Blvd., Suite 4200, Long Beach, CA 90802-4213; phone (562)980-4020; fax (562)980-4027;  
Email (preferred): [SWR.research.notification@noaa.gov](mailto:SWR.research.notification@noaa.gov)

For activities in HI, American Samoa, Guam, and Northern Mariana Islands: Pacific Islands Region, NMFS, 1601 Kapiolani Blvd., Suite 1110, Honolulu, HI 96814-4700; phone (808)944-2200; fax (808)973-2941.  
Email (preferred): [NER.permit.notification@noaa.gov](mailto:NER.permit.notification@noaa.gov)

2. To the maximum extent practical, the Permit Holder must coordinate permitted activities with activities of other Permit Holders conducting the same or similar activities on the same species, in the same locations, or at the same times of year to avoid unnecessary disturbance of animals. Contact the applicable Regional Office(s) listed in F.1.b for information about coordinating with other Permit Holders.
3. Researchers must comply with protocols provided by the Regional Administrators related to coordination of research, including additional measures deemed necessary to minimize unnecessary duplication, harassment, or other adverse impacts from multiple permit holders.

#### G. Observers and Inspections

1. NMFS may review activities conducted under this permit. At the request of NMFS, the Permit Holder must cooperate with any such review by:
  - a. Allowing an employee of NOAA or other person designated by the Director, NMFS Office of Protected Resources to observe permitted activities; and
  - b. Providing all documents or other information relating to the permitted activities.

#### H. Modification, Suspension, and Revocation

1. Permits are subject to suspension, revocation, modification, and denial in accordance with the provisions of subpart D [Permit Sanctions and Denials] of 15 CFR part 904.
2. The Director, NMFS Office of Protected Resources may modify, suspend, or revoke this permit in whole or in part:

- a. In order to make the permit consistent with a change made after the date of permit issuance with respect to applicable regulations prescribed under section 103 of the MMPA and section 4 of the ESA;
  - b. In a case in which a violation of the terms and conditions of the permit is found;
  - c. In response to a written request<sup>10</sup> from the Permit Holder;
  - d. If NMFS determines that the application or other information pertaining to the permitted activities (including, but not limited to, reports pursuant to Section E of this permit and information provided to NOAA personnel pursuant to Section G of this permit) includes false information; and
  - e. If NMFS determines that the authorized activities will operate to the disadvantage of threatened or endangered species or are otherwise no longer consistent with the purposes and policy in Section 2 of the ESA.
3. Issuance of this permit does not guarantee or imply that NMFS will issue or approve subsequent permits or amendments, or the same or similar activities requested by the Permit Holder, including those of a continuing nature.

#### I. Penalties and Permit Sanctions

1. A person who violates a provision of this permit, the MMPA, ESA, or the regulations at 50 CFR 216 and 50 CFR 222-226 is subject to civil and criminal penalties, permit sanctions, and forfeiture as authorized under the MMPA, ESA, and 15 CFR part 904.
2. NMFS shall be the sole arbiter of whether a given activity is within the scope and bounds of the authorization granted in this permit.
  - a. The Permit Holder must contact the Permits Division for verification before conducting the activity if they are unsure whether an activity is within the scope of the permit.
  - b. Failure to verify, where NMFS subsequently determines that an activity was outside the scope of the permit, may be used as evidence of a violation of the permit, the MMPA, the ESA, and applicable regulations in any enforcement actions.

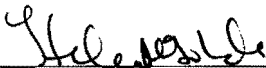
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<sup>10</sup> The Permit Holder may request changes to the permit related to: the objectives or purposes of the permitted activities; the species or number of animals taken; and the location, time, or manner of taking or importing protected species. Such requests must be submitted in writing to the Permits Division in the format specified in the application instructions.



J. Acceptance of Permit

1. In signing this permit, the Permit Holder:
  - a. Agrees to abide by all terms and conditions set forth in the permit, all restrictions and relevant regulations under 50 CFR Parts 216, and 222-226, and all restrictions and requirements under the MMPA, and the ESA;
  - b. Acknowledges that the authority to conduct certain activities specified in the permit is conditional and subject to authorization by the Office Director; and
  - c. Acknowledges that this permit does not relieve the Permit Holder of the responsibility to obtain any other permits, or comply with any other Federal, State, local, or international laws or regulations.

  
\_\_\_\_\_  
Helen M. Golde  
Acting Director, Office of Protected Resources  
National Marine Fisheries Service

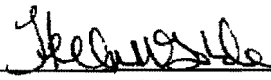
**JUN 05 2012**  
\_\_\_\_\_  
Date Issued

\_\_\_\_\_  
Dr. M. Bradley Hanson  
National Marine Fisheries Service  
Northwest Fisheries Science Center  
Responsible Party and Principal Investigator

\_\_\_\_\_  
Date Effective


J. Acceptance of Permit

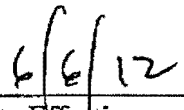
1. In signing this permit, the Permit Holder:
  - a. Agrees to abide by all terms and conditions set forth in the permit, all restrictions and relevant regulations under 50 CFR Parts 216, and 222-226, and all restrictions and requirements under the MMPA, and the ESA;
  - b. Acknowledges that the authority to conduct certain activities specified in the permit is conditional and subject to authorization by the Office Director; and
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\_\_\_\_\_  
Helen M. Golde  
Acting Director, Office of Protected Resources  
National Marine Fisheries Service

JUN 05 2012

\_\_\_\_\_  
Date Issued

  
\_\_\_\_\_  
Dr. M. Bradley Hanson  
National Marine Fisheries Service  
Northwest Fisheries Science Center  
Responsible Party and Principal Investigator

  
\_\_\_\_\_  
Date Effective

**FILE COPY**

Appendix 1: Table Specifying the Kinds of Protected Species, Locations, and Manner of Taking

**Table 1. Authorized Annual Takes of Marine Mammals Year-Round in the Pacific Ocean (WA, OR, CA, HI, AK, High Seas North Pacific Ocean). Both male and female could be harassed.**

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, blue	Eastern North Pacific Stock (NMFS Endangered)	Adult/ Juvenile	30	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Whale, blue	Eastern North Pacific Stock (NMFS Endangered)	Adult/ Juvenile	20	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 10 may receive suction cup tags; Up to 10 may receive dart/barb tags; up to 10 may receive both.

<sup>11</sup> Takes = the **maximum** number of animals, not necessarily individuals, that may be targeted for research annually for the suite of procedures in each row of the table.

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES <sup>11</sup>	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, blue	Eastern North Pacific Stock (NMFS Endangered)	All	200	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, blue	Eastern North Pacific Stock (NMFS Endangered)	All	200	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, fin	Range-wide (NMFS Endangered)	Adult/ Juvenile	30	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Whale, fin	Range-wide (NMFS Endangered)	Adult/ Juvenile	30	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 10 may receive suction cup tags; Up to 20 may receive dart/barb tags; up to 10 may receive both.

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, fin	Range-wide (NMFS Endangered)	Adult/ Juvenile	5	3	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Incidental to acoustic active playback/broadcast
Whale, fin	Range-wide (NMFS Endangered)	All	500	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	other=non-audible acoustic imaging
Whale, fin	Range-wide (NMFS Endangered)	All	500	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, sei	Range-wide (NMFS Endangered)	All	500	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, sei	Range-wide (NMFS Endangered)	All	500	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES <sup>11</sup>	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, Bryde's	Range-wide	All	500	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, Bryde's	Range-wide	All	500	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, humpback	Range-wide (NMFS Endangered)	Adult/ Juvenile	30	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Whale, humpback	Range-wide (NMFS Endangered)	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole or by UAV

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, humpback	Range-wide (NMFS Endangered)	Adult/ Juvenile	20	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 10 may receive suction cup tags; Up to 10 may receive dart/barb tags; up to 10 may receive both.
Whale, humpback	Range-wide (NMFS Endangered)	All	5	5	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Incidental to acoustic active playback/broadcast
Whale, humpback	Range-wide (NMFS Endangered)	All	500	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Tracking	other=non-audible acoustic imaging
Whale, humpback	Range-wide (NMFS Endangered)	All	500	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES <sup>11</sup>	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, right, North Pacific	Eastern North Pacific Stock (NMFS Endangered)	All	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, right, North Pacific	Eastern North Pacific Stock (NMFS Endangered)	All	10	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, unidentified baleen	NA	All	500	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, unidentified baleen	NA	All	500	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	



SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES <sup>11</sup>	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, sperm	Range-wide (NMFS Endangered)	Adult/ Juvenile	30	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Whale, sperm	Range-wide (NMFS Endangered)	Adult/ Juvenile	20	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 10 may receive suction cup tags; Up to 10 may receive dart/barb tags; up to 10 may receive both.
Whale, sperm	Range-wide (NMFS Endangered)	All	250	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, sperm	Range-wide (NMFS Endangered)	All	250	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, killer	Eastern North Pacific Offshore Stock	Adult/ Juvenile	25	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Whale, killer	Eastern North Pacific Offshore Stock	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole or by UAV
Whale, killer	Eastern North Pacific Offshore Stock	Adult/ Juvenile	25	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 10 may receive suction cup tags; Up to 15 may receive dart/barb tags; up to 10 may receive both.

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, killer	Eastern North Pacific Offshore Stock	All	100	3	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Incidental to acoustic active playback/broadcast
Whale, killer	Eastern North Pacific Offshore Stock	All	250	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Tracking	other=non-audible acoustic imaging
Whale, killer	Eastern North Pacific Offshore Stock	All	250	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, killer	West Coast Transient Stock	Adult/ Juvenile	50	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, killer	West Coast Transient Stock	Adult/ Juvenile	50	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole or by UAV
Whale, killer	West Coast Transient Stock	Adult/ Juvenile	50	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 25 may receive suction cup tags; Up to 25 may receive dart/barb tags; up to 10 may receive both.
Whale, killer	West Coast Transient Stock	All	25	3	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Incidental to acoustic active playback/broadcast

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, killer	West Coast Transient Stock	All	200	25	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Tracking	other=non-audible acoustic imaging
Whale, killer	West Coast Transient Stock	All	200	25	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, killer	West Coast Transient Stock	Adult/ Juvenile	50	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking; Ultrasound	
Whale, killer	Eastern North Pacific Alaska Resident Stock	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, killer	Eastern North Pacific Alaska Resident Stock	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole or by UAV
Whale, killer	Eastern North Pacific Alaska Resident Stock	Adult/ Juvenile	30	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 10 may receive suction cup tags; Up to 20 may receive dart/barb tags; up to 10 may receive both.
Whale, killer	Eastern North Pacific Alaska Resident Stock	All	200	10	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, killer	Eastern North Pacific Alaska Resident Stock	All	200	10	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, killer	Eastern North Pacific Alaska Resident Stock	Adult/ Juvenile	25	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking; Ultrasound	
Whale, killer	Eastern North Pacific Northern Resident Stock	Adult/ Juvenile	25	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Whale, killer	Eastern North Pacific Northern Resident Stock	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole or by UAV

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, killer	Eastern North Pacific Northern Resident Stock	Adult/ Juvenile	30	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 10 may receive suction cup tags; Up to 20 may receive dart/barb tags; up to 10 may receive both.
Whale, killer	Eastern North Pacific Northern Resident Stock	All	50	3	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Incidental to acoustic active playback/broadcast
Whale, killer	Eastern North Pacific Northern Resident Stock	All	100	10	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Tracking	other=non-audible acoustic imaging
Whale, killer	Eastern North Pacific Northern Resident Stock	All	100	10	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	



SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, killer	Eastern North Pacific Southern Resident Stock (NMFS Endangered)	Adult/ Juvenile	25	10	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Whale, killer	Eastern North Pacific Southern Resident Stock (NMFS Endangered)	Adult/ Juvenile	50	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole or by UAV
Whale, killer	Eastern North Pacific Southern Resident Stock (NMFS Endangered)	Adult/ Juvenile	39	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 30 may receive suction cup tags; Up to 9 may receive dart/barb tags; up to 9 may receive both.

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, killer	Eastern North Pacific Southern Resident Stock (NMFS Endangered)	Adult/ Juvenile	25	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking; Ultrasound	
Whale, killer	Eastern North Pacific Southern Resident Stock (NMFS Endangered)	All	130	5	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Directed playback
Whale, killer	Eastern North Pacific Southern Resident Stock (NMFS Endangered)	All	750	10	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Incidental to acoustic active playback/broadcast
Whale, killer	Eastern North Pacific Southern Resident Stock (NMFS Endangered)	All	6000	60	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Tracking	other=non-audible acoustic imaging

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, killer	Eastern North Pacific Southern Resident Stock (NMFS Endangered)	All	6000	60	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, killer	Hawaiian Stock	Adult/ Juvenile	20	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	other=non-audible acoustic imaging
Whale, killer	Hawaiian Stock	All	100	10	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, killer	Range-wide	Adult/ Juvenile	50	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	other=non-audible acoustic imaging

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, killer	Range-wide	All	100	10	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	other=non-audible acoustic imaging
Whale, minke	Range-wide	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Whale, minke	Range-wide	Adult/ Juvenile	35	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 15 may receive suction cup tags; Up to 20 may receive dart/barb tags; up to 10 may receive both.

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, minke	Range-wide	Adult/ Juvenile	5	10	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Incidental to acoustic active playback/broadcast
Whale, minke	Range-wide	All	50	15	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	other=non-audible acoustic imaging
Whale, minke	Range-wide	All	50	15	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, gray	Eastern North Pacific	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, gray	Eastern North Pacific	Adult/ Juvenile	20	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole or by UAV
Whale, gray	Eastern North Pacific	Adult/ Juvenile	20	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 10 may receive suction cup tags; Up to 10 may receive dart/barb tags; up to 10 may receive both.
Whale, gray	Eastern North Pacific	Adult/ Juvenile	5	3	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Incidental to acoustic active playback/broadcast
Whale, gray	Eastern North Pacific	All	100	15	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Tracking	other=non-audible acoustic imaging

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, gray	Eastern North Pacific	All	100	15	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, pygmy sperm	Range-wide	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Whale, pygmy sperm	Range-wide	Adult/ Juvenile	30	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 20 may receive suction cup tags; Up to 10 may receive dart/barb tags; up to 10 may receive both.
Whale, pygmy sperm	Range-wide	All	25	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Sample collected using pole or by UAV

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES <sup>1</sup>	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, pygmy sperm	Range-wide	All	25	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, dwarf sperm	Range-wide	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Whale, dwarf sperm	Range-wide	Adult/ Juvenile	40	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 20 may receive suction cup tags; Up to 20 may receive dart/barb tags; up to 10 may receive both.
Whale, dwarf sperm	Range-wide	All	25	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole or by UAV



SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, dwarf sperm	Range-wide	All	25	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, Baird's beaked	Range-wide	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Whale, Baird's beaked	Range-wide	Adult/ Juvenile	20	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 10 may receive suction cup tags; Up to 10 may receive dart/barb tags; up to 10 may receive both.
Whale, Baird's beaked	Range-wide	All	200	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole or by UAV

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, Baird's beaked	Range-wide	All	200	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, Cuvier's beaked	Range-wide	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Whale, Cuvier's beaked	Range-wide	Adult/ Juvenile	30	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 10 may receive suction cup tags; Up to 20 may receive dart/barb tags; up to 10 may receive both.
Whale, Cuvier's beaked	Range-wide	All	200	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole or by UAV

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, Cuvier's beaked	Range-wide	All	200	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, Stejneger's beaked	Range-wide	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Whale, Stejneger's beaked	Range-wide	Adult/ Juvenile	20	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, Stejneger's beaked	Range-wide	All	30	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole or by UAV

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, Stejneger's beaked	Range-wide	All	30	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, Mesoplodon beaked	California/Oregon/Washington Stocks	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Whale, Mesoplodon beaked	California/Oregon/Washington Stocks	Adult/ Juvenile	30	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 10 may receive dart barb tags
Whale, Mesoplodon beaked	California/Oregon/Washington Stocks	All	30	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, Mesoplodon beaked	California/Oregon/Washington Stocks	All	30	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, Hubbs' beaked	Range-wide	All	30	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, Hubbs' beaked	Range-wide	All	30	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, Perrin's beaked	Range-wide	All	30	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, Perrin's beaked	Range-wide	All	30	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, pygmy beaked	Range-wide	All	30	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, pygmy beaked	Range-wide	All	30	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, unidentified beaked	NA	All	30	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, unidentified beaked	NA	All	30	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, pilot, short-finned	Range-wide	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFE STAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, pilot, short-finned	Range-wide	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole or by UAV
Whale, pilot, short-finned	Range-wide	Adult/ Juvenile	30	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 10 may receive suction cup tags; Up to 20 may receive dart/barb tags; up to 10 may receive both.
Whale, pilot, short-finned	Range-wide	All	2000	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Whale, pilot, short-finned	Range-wide	All	2000	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Dolphin, Risso's	Range-wide	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Dolphin, Risso's	Range-wide	Adult/ Juvenile	20	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 10 may receive dart/barb tags
Dolphin, Risso's	Range-wide	All	2000	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Dolphin, Risso's	Range-wide	All	2000	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	



SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Dolphin, common, short-beaked	California/Oregon/Washington Stock	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Dolphin, common, short-beaked	California/Oregon/Washington Stock	Adult/ Juvenile	5	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	other=audible acoustic imaging
Dolphin, common, short-beaked	California/Oregon/Washington Stock	All	25	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Dolphin, common, short-beaked	California/Oregon/Washington Stock	All	25	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Dolphin, common, long-beaked	California Stock	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Dolphin, common, long-beaked	California Stock	All	5	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	other=audible acoustic imaging
Dolphin, common, long-beaked	California Stock	All	25	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Dolphin, common, long-beaked	California Stock	All	25	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Dolphin, Pacific white-sided	Range-wide	Adult/ Juvenile	50	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Dolphin, Pacific white-sided	Range-wide	Adult/ Juvenile	5	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole only
Dolphin, Pacific white-sided	Range-wide	Adult/ Juvenile	25	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 5 may receive suction cup tags; Up to 20 may receive dart/barb tags; up to 5 may receive both.

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Dolphin, Pacific white-sided	Range-wide	All	25	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Tracking	other=audible acoustic imaging
Dolphin, Pacific white-sided	Range-wide	All	25	3	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	Incidental to acoustic active playback/broadcast
Dolphin, Pacific white-sided	Range-wide	All	2500	10	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Dolphin, Pacific white-sided	Range-wide	All	2500	10	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Dolphin, striped	Range-wide	Adult/ Juvenile	20	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Dolphin, striped	Range-wide	All	2000	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Dolphin, striped	Range-wide	All	2000	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Dolphin, northern right whale	Range-wide	Adult/ Juvenile	50	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Dolphin, northern right whale	Range-wide	Adult/ Juvenile	5	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole only
Dolphin, northern right whale	Range-wide	Adult/ Juvenile	5	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 5 may receive suction cup tags
Dolphin, northern right whale	Range-wide	All	2000	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Dolphin, northern right whale	Range-wide	All	2000	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Porpoise, harbor	Range-wide	Adult/ Juvenile	50	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Porpoise, harbor	Range-wide	Adult/ Juvenile	100	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	other=audible acoustic imaging
Porpoise, harbor	Range-wide	Adult/ Juvenile	25	3	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Incidental to acoustic active playback/broadcast
Porpoise, harbor	Range-wide	All	5000	50	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Porpoise, harbor	Range-wide	All	5000	50	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Porpoise, Dall's	Range-wide	Adult/ Juvenile	50	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Sample, skin and blubber biopsy; Tracking	
Porpoise, Dall's	Range-wide	Adult/ Juvenile	25	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole only
Porpoise, Dall's	Range-wide	All	12	4	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, suction-cup (e.g., VHF, TDR); Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Up to 12 may receive suction cup tags



SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Porpoise, Dall's	Range-wide	Adult/ Juvenile	5	3	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Incidental to acoustic active playback/broadcast
Porpoise, Dall's	Range-wide	Adult/ Juvenile	10	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Tracking	other=audible acoustic imaging
Porpoise, Dall's	Range-wide	All	5000	50	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Porpoise, Dall's	Range-wide	All	5000	50	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, Blainville's beaked	Range-wide	Adult/ Juvenile	20	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, Blainville's beaked	Range-wide	All	200	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole only
Whale, Longman's beaked	Range-wide	Adult/ Juvenile	20	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES <sup>11</sup>	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, Longman's beaked	Range-wide	All	200	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole only
Whale, pygmy killer	Range-wide	Adult/ Juvenile	20	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, pygmy killer	Range-wide	All	200	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole only
Whale, melon-headed	Range-wide	Adult/ Juvenile	20	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, melon-headed	Range-wide	All	5000	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole only
Whale, false killer	Hawaiian Stock	Adult/ Juvenile	20	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Whale, false killer	Hawaiian Stock	All	200	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole only
Whale, false killer	Range-wide	Adult/ Juvenile	20	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES <sup>1</sup>	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Whale, false killer	Range-wide	All	5	3	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	Incidental to acoustic active playback/broadcast
Whale, false killer	Range-wide	All	2000	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	other=non-audible acoustic imaging, Sample collected using pole only
Dolphin, bottlenose	Range-wide	Adult/ Juvenile	20	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Dolphin, bottlenose	Range-wide	Adult/ Juvenile	5	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	other=non-audible acoustic imaging

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Dolphin, bottlenose	Range-wide	All	2000	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, exhaled air; Sample, fecal ; Tracking	Sample collected using pole only
Dolphin, bottlenose	Range-wide	All	2000	3	Survey, aerial	Count/survey; Imaging, thermal; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Tracking	
Dolphin, rough-toothed	Range-wide	Adult/ Juvenile	20	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Instrument, dart/barb tag; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Dolphin, rough-toothed	Range-wide	All	2000	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Dolphin, spinner	Range-wide	All	2000	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Dolphin, pantropical spotted	Range-wide	All	2000	10	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Dolphin, Fraser's	Range-wide	All	2000	10	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Collect, remains for predation study; Collect, sloughed skin; Count/survey; Imaging, thermal; Import/export/receive, parts; Incidental harassment; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry; Photograph/Video; Sample, fecal ; Tracking	
Seal, northern elephant	Range-wide	All	5	3	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, sonar for prey mapping; Count/survey; Import/export/receive, parts; Incidental disturbance; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry	Incidental to acoustic active playback/broadcast

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Seal, northern elephant	Range-wide	All	500	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Count/survey; Import/export/receive, parts; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry	other=non-audible acoustic imaging,
Seal, northern elephant	Range-wide	All	500	3	Survey, aerial	Count/survey; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry	
Sea lion, Steller	East of 144° Long (Eastern US) (NMFS Threatened)	All	5	3	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, sonar for prey mapping; Count/survey; Import/export/receive, parts; Incidental disturbance; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry	Incidental to acoustic active playback/broadcast
Sea lion, Steller	East of 144° Long (Eastern US) (NMFS Threatened)	All	500	5	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Count/survey; Import/export/receive, parts; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry	other=non-audible acoustic imaging,
Sea lion, Steller	East of 144° Long (Eastern US) (NMFS Threatened)	All	500	5	Survey, aerial	Count/survey; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry	
Sea lion, California	US Stock	All	5	3	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, sonar for prey mapping; Count/survey; Import/export/receive, parts; Incidental disturbance; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry	Incidental to acoustic active playback/broadcast



SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Sea lion, California	US Stock	All	500	10	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Count/survey; Import/export/receive, parts; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry	other=non-audible acoustic imaging,
Sea lion, California	US Stock	All	500	10	Survey, aerial	Count/survey; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry	
Seal, harbor	Range-wide	All	25	5	Survey, vessel	Acoustic, active playback/broadcast; Acoustic, sonar for prey mapping; Count/survey; Import/export/receive, parts; Incidental disturbance; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry	Incidental to acoustic active playback/broadcast
Seal, harbor	Range-wide	All	1000	25	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Count/survey; Import/export/receive, parts; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry	other=non-audible acoustic imaging,
Seal, harbor	Range-wide	All	1000	25	Survey, aerial	Count/survey; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry	
Seal, Northern fur	Eastern Pacific Stock	All	500	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Count/survey; Import/export/receive, parts; Observation, monitoring; Observations, behavioral; Other; Photo-id; Photogrammetry	other=non-audible acoustic imaging,
Seal, Northern fur	Eastern Pacific Stock	All	500	3	Survey, aerial	Count/survey; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry	

SPECIES	LISTING UNIT/STOCK	LIFESTAGE	NUMBER OF TAKES	TAKES PER INDIVIDUAL	PLATFORM	PROCEDURES	DETAILS
Seal, Guadalupe fur	Range-wide	All	100	3	Survey, vessel	Acoustic, passive recording; Acoustic, sonar for prey mapping; Count/survey; Import/export/receive, parts; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry	
Seal, Guadalupe fur	Range-wide	All	100	3	Survey, aerial	Count/survey; Observation, monitoring; Observations, behavioral; Photo-id; Photogrammetry	
Seal, Hawaiian monk	Hawaiian Islands (NMFS Endangered)	All	10	2	Survey, vessel	Incidental disturbance	

Appendix 2: NMFS-Approved Personnel and Authorized Recipients for Permit No.16163.

The following individuals are approved to act as Co-Investigators pursuant to the terms and conditions under Section C (Qualifications, Responsibilities, and Designation of Personnel) of this permit.

Name of Co-Investigator	Activities
Candice Emmons	All research activities
Dr. Dawn Noren	All research activities
Dr. Marla Holt	All research activities
Jeff Foster	All research activities
Dr. Robin Baird	All research activities
Daniel Webster	All research activities
John Calmbokidis	All research activities
Erin Falcone	All research activities
Greg Schorr	All research activities
Allan Lignon	All research activities

Biological samples authorized for collection or acquisition in Appendix 1 may be transferred to the following Authorized Recipients for the specified disposition, consistent with Condition B.6 of the permit:

Sample Type	Disposition	Authorized Recipient
		None identified