



LETTER OF AUTHORIZATION

The National Marine Fisheries Service's Southwest Fisheries Science Center (SWFSC) is hereby authorized under section 101(a)(5)(A) of the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1371(a)(5)(A)) to take marine mammals incidental to fishery and ecosystem research activities in the Antarctic Marine Living Resources Ecosystem, subject to the provisions of the MMPA and the Regulations Governing Taking of Marine Mammals Incidental to Southwest Fisheries Science Center Fisheries Research in the Antarctic (50 CFR Part 219, Subpart C) (Regulations).

1. This Letter of Authorization (LOA) is valid from October 30, 2015 through October 29, 2020.
2. This LOA is valid only for take incidental to the specified research survey program activities in the AMLR and described in the preamble to the Regulations.
3. General Conditions
 - (a) A copy of this LOA must be in the possession of SWFSC, its designees, and personnel operating under the authority of this LOA.
 - (b) The taking, by Level B harassment only, is limited to the species and numbers listed in Table 1 (attached).
 - (c) The taking by injury (Level A harassment), serious injury, or death of any of the species listed in Table 1 of the Authorization or any taking of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this LOA.
 - (d) SWFSC shall take all necessary measures to coordinate and communicate in advance of each specific survey with the National Oceanic and Atmospheric Administration's (NOAA) Office of Marine and Aviation Operations (OMAO) or other relevant parties on non-NOAA platforms to ensure that all mitigation measures and monitoring requirements described herein, as well as the specific manner of implementation and relevant event-contingent decision-making processes, are clearly understood and agreed upon.
 - (e) SWFSC shall coordinate and conduct briefings at the outset of each survey and as necessary between ship's crew (Commanding Officer/master or designee(s), as appropriate) and scientific party in order to explain responsibilities, communication procedures, marine mammal monitoring protocol, and operational procedures.



- (f) SWFSC shall coordinate as necessary on a daily basis during survey cruises with OMAO personnel or other relevant personnel on non-NOAA platforms to ensure that requirements, procedures, and decision-making processes are understood and properly implemented.

4. Mitigation Measures

The holder of this Authorization is required to implement the following mitigation measures:

- (a) When deploying any type of sampling gear at sea, SWFSC shall at all times monitor for any unusual circumstances that may arise at a sampling site and use best professional judgment to avoid any potential risks to marine mammals during use of all research equipment.
- (b) SWFSC shall implement handling and/or disentanglement protocols as specified in guidance provided to SWFSC survey personnel.
- (c) Trawl survey protocols:
 - (i) SWFSC shall conduct trawl operations as soon as is practicable upon arrival at the sampling station.

4. Monitoring

The holder of this Authorization is required to implement the following monitoring requirements:

- (a) Visual monitoring:
 - (i) Marine mammal watches shall be conducted by watch-standers (those navigating the vessel and/or other crew) at all times when the vessel is being operated.
- (b) Training:
 - (i) SWFSC must conduct annual training for all chief scientists and other personnel who may be responsible for conducting dedicated marine mammal visual observations to explain mitigation measures and monitoring and reporting requirements, mitigation and monitoring protocols, marine mammal identification, completion of datasheets, and use of equipment. SWFSC may determine the agenda for these trainings.
 - (ii) SWFSC shall also dedicate a portion of training to discussion of best professional judgment, including use in any incidents of marine mammal

interaction and instructive examples where use of best professional judgment was determined to be successful or unsuccessful.

- (c) Handling procedures and data collection:
- (i) SWFSC must develop and implement standardized marine mammal handling, disentanglement, and data collection procedures. These standard procedures will be subject to approval by NMFS' Office of Protected Resources (OPR).
 - (ii) When practicable, for any marine mammal interaction involving the release of a live animal, SWFSC shall collect necessary data to facilitate a serious injury determination.
 - (iii) SWFSC shall provide its relevant personnel with standard guidance and training regarding handling of marine mammals, including how to identify different species, bring an individual aboard a vessel, assess the level of consciousness, remove fishing gear, return an individual to water, and log activities pertaining to the interaction.
 - (iv) SWFSC shall record such data on standardized forms, which will be subject to approval by OPR. The data shall be collected at a sufficient level of detail (e.g., circumstances leading to the interaction, extent of injury, condition upon release) to facilitate serious injury determinations under the MMPA.

5. Reporting

The holder of this Authorization is required to report as follows:

- (a) SWFSC shall report all incidents of marine mammal interaction to NMFS' Protected Species Incidental Take database within 48 hours of occurrence, and shall provide supplemental information to OPR upon request. Information related to marine mammal interaction (animal captured or entangled in research gear) must include details of survey effort, full descriptions of any observations of the animals, the context (vessel and conditions), decisions made, and rationale for decisions made in vessel and gear handling.
- (b) Annual reporting:
 - (i) SWFSC shall submit an annual summary report to OPR not later than ninety days following the end of a given year. SWFSC shall provide a final report within thirty days following resolution of comments on the draft report.

- (ii) These reports shall contain, at minimum, the following:
1. Annual line-kilometers surveyed during which the EK60, ME70, SX90 (or equivalent sources) were predominant and associated pro-rated estimates of actual take;
 2. Summary information regarding use of all trawl gear, including number of tows, etc.;
 3. Accounts of all incidents of marine mammal interactions, including circumstances of the event, descriptions of any mitigation procedures implemented or not implemented and why;
 4. Summary information related to any on-ice disturbance of pinnipeds, including event-specific total counts of animals present, counts of reactions according to a three-point scale of response severity (1 = alert; 2 = movement; 3 = flight), and distance of closest approach;
 5. A written evaluation of the effectiveness of SWFSC mitigation strategies in reducing the number of marine mammal interactions with survey gear, including best professional judgment and suggestions for changes to the mitigation strategies, if any;
 6. Final outcome of serious injury determinations for all incidents of marine mammal interactions where the animal(s) were released alive; and
 7. A summary of all relevant training provided by SWFSC and any coordination with NMFS' West Coast Regional Office.

(c) Reporting injured or dead marine mammals:

- (i) In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a prohibited manner, SWFSC personnel engaged in the research activity shall immediately cease such activity until such time as an appropriate decision regarding activity continuation can be made by the SWFSC Director (or designee). The incident must be reported to OPR (Benjamin.Laws@noaa.gov). OPR will review the circumstances of the prohibited take and work with SWFSC to determine what measures are necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. The report must include the following information:

1. Time, date, and location (latitude/longitude) of the incident;

2. Description of the incident;
 3. Environmental conditions (e.g., wind speed and direction, Beaufort sea state, cloud cover, visibility);
 4. Description of all marine mammal observations in the 24 hours preceding the incident;
 5. Species identification or description of the animal(s) involved;
 6. Status of all sound source use in the 24 hours preceding the incident;
 7. Water depth;
 8. Fate of the animal(s); and
 9. Photographs or video footage of the animal(s).
- (ii) In the event that SWFSC discovers an injured or dead marine mammal and determines that the cause of the injury or death is unknown and the death is relatively recent (e.g., in less than a moderate state of decomposition), SWFSC shall immediately report the incident to OPR. The report must include the information identified in 5(c)(i) of this LOA. Activities may continue while OPR reviews the circumstances of the incident. OPR will work with SWFSC to determine whether additional mitigation measures or modifications to the activities are appropriate.
- (iii) In the event that SWFSC discovers an injured or dead marine mammal and determines that the injury or death is not associated with or related to the specified activity (e.g., previously wounded animal, carcass with moderate to advanced decomposition, scavenger damage), SWFSC shall report the incident to OPR within 24 hours of the discovery. SWFSC shall provide photographs or video footage or other documentation of the stranded animal sighting to OPR.

6. This Authorization may be modified, suspended or withdrawn if the holder fails to abide by the conditions prescribed herein or contained in the Regulations, or if OPR determines the authorized taking is having more than a negligible impact on the species or stock of affected marine mammals.

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Donna S. Wieting
Director,
Office of Protected Resources,
National Marine Fisheries Service.

OCT 30 2015

Date

Table 1. Authorized take numbers, by species

Species	Authorized take¹
Southern right whale (<i>Eubalaena australis</i>)	1
Humpback whale (<i>Megaptera novaeangliae</i>)	92
Antarctic minke whale (<i>Balaenoptera bonaerensis</i>)	6
Fin whale (<i>Balaenoptera physalus</i>)	114
Sperm whale (<i>Physeter macrocephalus</i>)	3
Arnoux' beaked whale (<i>Berardius arnuxii</i>)	37
Southern bottlenose whale (<i>Hyperoodon planifrons</i>)	37
Hourglass dolphin (<i>Lagenorhynchus cruciger</i>)	12
Killer whale (<i>Orcinus orca</i>)	11
Long-finned pilot whale (<i>Globicephala melas</i>)	43
Spectacled porpoise (<i>Phocoena dioptrica</i>)	12
Antarctic fur seal (<i>Arctocephalus philippii townsendi</i>)	553
Southern elephant seal (<i>Mirounga leonina</i>)	6
Weddell seal (<i>Leptonychotes weddellii</i>)	4
Crabeater seal (<i>Lobodon carcinophaga</i>)	7
Leopard seal (<i>Hydrurga leptonyx</i>)	5

¹ These takes may be by Level B harassment only. The number represents the annual take authorization for five years.