



MARINE MAMMAL COMMISSION

20 November 2019

Ms. Jolie Harrison, Chief
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3225

Re: Permit Application No. 22678
(Marine Mammal Lab)

Dear Ms. Harrison:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the above-referenced permit application with regard to the goals, policies, and requirements of the Marine Mammal Protection Act (the MMPA). Marine Mammal Lab (MML) is requesting to renew its permit to conduct research on pinnipeds during a five-year period—permits 13430 and 16087 authorized similar activities.

MML proposed to conduct research on California sea lions, northern elephant seals, harbor seals, Guadalupe fur seals, and hybrid pinniped species year-round in Washington, Oregon, and California. The purpose of the research is to investigate (1) survival and reproductive success, (2) abundance and distribution, (3) health and body condition, (4) foraging ecology, and (5) hybridization of sea lions and seals. Researchers would harass, observe, handle, restrain, photograph/videotape¹, measure/weigh, mark, sample², instrument, and/or conduct ultrasound on numerous individual pinnipeds of either sex and any age class each year (see the take tables for specifics). MML also requested unintentional³ mortalities of up to five California sea lions, two northern elephant seals, five harbor seals, two Guadalupe fur seals, and two hybrid pinnipeds each year and intentional mortalities of up to 40 premature and 40 moribund California sea lions pups each year. MML would implement various measures to minimize impacts on pinnipeds and also would be required to abide by the National Marine Fisheries Service's (NMFS) standard permit conditions. MML's Institutional Animal Care and Use Committee has reviewed and approved the research protocols.

Personnel qualifications

In its personnel table, MML listed each principal investigator (PI) and co-investigator (CI) and each procedure that he or she would be authorized to conduct or supervise, with X's

¹ Including using unmanned aircraft systems (UAS).

² Samples could be imported and exported as well.

³ Including euthanasia for humaneness purposes.

designating procedures to be conducted and S's designating procedures to be supervised. MML also listed each PI/CI's level of experience⁴ with a given procedure with a 1 or a 2 by each S and a 3 or a 4 by each X. The Commission has interpreted the designations provided in the personnel table to mean that PI/CIs would supervise procedures, including invasive procedures, for which the person carrying out the procedure has only assisted others in carrying out, received training (Level 1) or conducted under supervision (Level 2). Those procedures include capturing animals with a seine net, administering anesthesia using a cone, a mask, or intubation, collecting remote biopsy samples, and collecting urine using a catheter. The Commission has repeatedly asserted that PI/CIs who do not have adequate experience conducting a procedure unsupervised should not be authorized to supervise that procedure. In other words, a PI/CI who has only conducted a procedure under supervision should not be authorized to supervise that procedure under the permit until having conducted it successfully without supervision. Moreover, if a PI/CI has only assisted others or received training in conducting a procedure, not only should he or she not be authorized to supervise the procedure, but also he or she should not be authorized to conduct the procedure unsupervised.

As the Commission noted, in its [14 November 2019 letter](#) on NMFS's revised application instructions and in numerous other letters⁵, having *conducted* certain procedures under supervision may be sufficient to allow a researcher to perform such procedures as a PI/CI. However, *supervising* procedures, particularly those that are invasive and/or involve sedation and anesthesia, requires a higher qualification standard, as it implies both an ability to conduct the procedure unsupervised and to take control in an emergency situation. Thus, the Commission recommends that NMFS authorize PI/CIs only to (1) *supervise* procedures that they have at least performed without supervision (Level 3 or greater) and (2) *conduct* procedures that they have at least performed under supervision (Level 2 or greater).

Additionally, the Commission notes that some PI/CIs would be authorized to conduct certain activities for which the qualifications indicated on their qualification form (QFs) were not sufficient. As an example, Mr. Jeffries would be authorized to anesthetize animals using intubation and using a cone or mask, as his levels of experience for both activities were denoted as 3 in both the personnel table and his QF. However, Mr. Jeffries indicated in his QF that he has only "assisted veterinarians" with each procedure⁶. As such, his actual level of experience should be denoted as a 1 for both procedures, and he should not be authorized to anesthetize pinnipeds unsupervised⁷. The Commission has repeatedly noted that a PI/CI's level of experience conducting a given procedure is not commensurate with the description of his or her experience. This is especially concerning for invasive and technical procedures that can result in harm to or the death of an animal when

⁴ Level 1 experience denotes having assisted or received education/training in performing the procedure, but have **not successfully performed** the procedure. Level 2 experience denotes having performed the procedure while **under supervision or training** of an expert (e.g., PI, CI, or veterinarian). Level 3 experience denotes having performed the procedure **without supervision** by a PI/CI. Level 4 experience denotes being considered an **expert** in performing this procedure, and having **supervised or trained** others in performing this procedure.

⁵ Including its [7 May 2019 letter](#) on Marine Mammal Lab permit 22289

⁶ In the QF, NMFS instructs PI/CIs to avoid using phrases such as "assisted with," or "participated in" when describing their qualifications to conduct a procedure, as those terms do not adequately convey a PI/CI's ability to conduct a task independently.

⁷ The Commission noted in its informal comments that QF levels of experience were inaccurate for some personnel. In response, MML adjusted the level of experience in one CI's QF, but not for Mr. Jeffries and others.

conducted incorrectly. Therefore, the Commission recommends that NMFS ensure that each PI/CI has delineated his or her level of experience conducting each procedure as reflected on the individual's QF and that PI/CIs be authorized to conduct or supervise only those procedures for which adequate experience is described in his or her QF.

Procedures and takes associated with surveys

To assess abundance of sea lions and seals (Project 1), MML proposed to conduct fixed-wing aerial, UAS, ground, and vessel surveys. Those activities could result in both direct and incidental takes of the target species. For similar pinniped permit applications⁸, survey activities generally are denoted in the "procedures" column of take tables as "count/survey," "observations, behavioral," "observation, monitoring," "photography/video," "remote vehicle, aerial (VTOL)," "vehicle, aerial (fixed wing)," and "incidental disturbance." However, MML included only "count/survey" as a procedure for direct takes associated with Project 1 in the take table and did not include incidental takes of the target species for any of the survey types. As noted in the Commission's 14 November 2019 letter, procedures listed in take tables should be consistent among applications that request to conduct the same types of activities. Given that in most instances animals have the potential to be harassed directly or incidental to conducting the various types of surveys, both types of taking should be included in the appropriate take tables. As such, the Commission recommends that NMFS ensure that all relevant procedures and incidental takes are included in MML's take table for rows related to Project 1.

Remote sedation

MML proposed to sedate adult male sea lions using remotely deployed darts and stated that most sea lions selected for remote sedation would be located at least 100 m from water. MML also stated that it has not observed any mortalities of sea lions related to remote sedation since it began employing the procedure in 2010. However, MML did not include information in its application regarding the number of pinnipeds that were targeted for remote sedation under its previous permits or the number that were successfully captured, handled, and released. The Commission continues to assert that remote sedation has inherent risks and that NMFS should continue to take a precautionary approach, as it has with authorizing remote sedation under MML's previous permit 16087 and other permits involving pinnipeds⁹. The Commission recommends that NMFS condition the permit to require MML to monitor sea lions that have been remotely sedated and report on (1) their behavioral response and any activities that place them at heightened risk of injury or death and (2) whether remotely sedated sea lions entered the water and their fate could not be determined. The Commission further recommends that NMFS condition the permit to require MML to halt the use of remote sedation techniques and consult with NMFS and the Commission if three or more sea lions are sedated and disappear so that their fate cannot be determined or suffer unanticipated adverse effects, including entering the water and drowning.

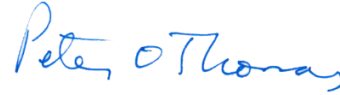
⁸ e.g., Pacific Islands Fisheries Science Center permit 22677, Alaska Department of Fish and Game permit 22298, and Liwanag permit 22187.

⁹ e.g., ADFG permit 22298, Alaska SeaLife Center permit 22293, and MML 22289.

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The Commission believes that the proposed activities are consistent with the purposes and policies of the MMPA. Kindly contact me if you have any questions concerning the Commission's recommendations.

Sincerely,

A handwritten signature in blue ink that reads "Peter O. Thomas". The signature is written in a cursive style with a large initial "P" and a distinct "O" before the last name.

Peter O. Thomas, Ph.D.,
Executive Director