



# MARINE MAMMAL COMMISSION

7 May 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. 22289  
(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). The Marine Mammal Lab (MML) is requesting authorization to conduct research on Steller sea lions during a five-year period—permit 18528 authorized similar activities.

MML would conduct research on both the western and eastern populations of Steller sea lions in Alaska, Washington, Oregon, and California. The purpose of the research is to investigate (1) population status, (2) vital rates, (3) foraging ecology, (4) habitat requirements, and (5) natural and anthropogenic impacts on Steller sea lions. MML would harass, observe, handle, restrain, measure/weigh, photograph/videotape, mark, instrument, sample, and/or conduct procedures<sup>1</sup> on numerous individual Steller sea lions of either sex and any age class each year (see the take tables for specifics). MML also requested up to four unintentional or intentional<sup>2</sup> mortalities per year. Researchers would use various measures to minimize impacts on the sea lions and also would be required to abide by the National Marine Fisheries Service's (NMFS) standard permit conditions.

## Remote sedation

MML requested to sedate juvenile and adult sea lions using remotely-deployed darts. MML stated that, under its previous permit, it darted 28 animals, only 16 of which were successfully captured, handled, and released. Although MML confirmed the survival of the other 12 animals that were darted but not captured, other Steller sea lion researchers have not been able to confirm the survival of all animals that have been darted, including those with likely dependent pups. Since remote sedation has inherent risks, the Commission believes that NMFS should continue to take a precautionary approach, as it has with authorizing remote sedation under the previous Steller sea lion permits. Therefore, the Commission recommends that NMFS condition the permit to require

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<sup>1</sup> Including bioelectrical impedance analysis, photogrammetry, and ultrasound.

<sup>2</sup> Via euthanasia for humaneness purposes.

MML to monitor pinnipeds 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, (2) whether they entered the water and their fate could not be determined, and (3) whether the dependent pups of those remotely sedated pinnipeds are abandoned, injured, or killed<sup>3</sup> and whether the pups' behavior in response to remotely sedating the females is notably different from their response to other capture methods. The Commission further recommends that NMFS condition the permit to require MML to halt the use of remote sedation and consult with NMFS and the Commission if three or more pinnipeds are remotely sedated and suffer unanticipated adverse effects, including entering the water and either drowning or disappearing so that their fate cannot be determined.

### **Takes per animal**

MML stated in its application that individual Steller sea lions could be overflowed or approached multiple times each year during aerial, ground, and vessel-based surveys, primarily for the purpose of conducting re-sight surveys. Although those individuals could be potentially harassed multiple times per year, MML's take tables did not reflect that possibility. In its informal review of the application, the Commission indicated that MML should increase the number of takes per animal<sup>4</sup> based on the number of times an individual could be taken during those activities in the various take tables, which is consistent with MML's previous permit and NMFS's 2016 application instructions. However, NMFS instructed MML to not revise the numbers of takes per animal, since those numbers were accounted for in the total takes requested and it believes that MML would not be able to determine whether animals were taken multiple times per year. The Commission agrees that the total takes requested should account for the number of times an individual could be taken<sup>5</sup> but finds NMFS's second assertion illogical since one of the main purposes of the surveys is to resight marked or branded individuals. Thus, the intent is in fact to document the number of times a known animal is observed and where it is observed. Further, NMFS's approach reflects an inaccurate portrayal of the potential number of times an individual could be taken<sup>6</sup> and deviates from the approach followed in MML's previous permit and other recent permit applications, including another application related to Steller sea lion research<sup>7</sup> and that published in conjunction with MML's permit (84 Fed. Reg. 15597).

The 'takes per animal' column is intended to describe the number of times an individual could be taken by the procedures specified in a given year, and applicants generally base the 'takes per animal' on the maximum number of times that an animal could be taken (i.e., number of surveys that would be conducted). In ASLC's recent permit application, 12 takes per Steller sea lion were included during ground and vessel approaches to the Chiswell Island rookery, indicating that ASLC expects 12 site visits to the rookery and thus each individual sea lion could potentially be taken up to

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<sup>3</sup> Either by other pinnipeds or by the researchers.

<sup>4</sup> Only 1 take per animal was requested initially.

<sup>5</sup> For example, 200 Steller sea lions taken once would equate to 200 total takes; while 200 Steller sea lions taken up to five times each, would equate to 1,000 total takes.

<sup>6</sup> And is inconsistent with the information necessary for a section 7 consultation under the Endangered Species Act (ESA). Under the ESA, the number of times an individual is approached or taken in a given day is required for consultation purposes, let alone the number of times an individual is taken during an entire year of activities.

<sup>7</sup> Alaska SeaLife Center (ASLC) permit application 22293.

12 times per year. That same approach was used for numerous permits involving pinnipeds<sup>8</sup>, as well as cetaceans<sup>9</sup>. Since MML clearly stated in its application that it expects to conduct multiple surveys at one rookery throughout the field season, the ‘takes per animal’ are much greater than one and should be delineated as such. In addition, it appears that NMFS’s approach to the ‘takes per animal’ issue may be based on the concern that permittees are unable to report the number of takes per animal in NMFS’s application and reporting system (Authorizations and Permits for Protected Species (APPS)). If that is indeed the limiting factor, then APPS should be amended to collect that information, when available.

The Commission has commented, and provided recommendations, for many years on the manner in which NMFS populates take tables for Level B harassment, but inconsistencies in approach continue to persist across applications. Therefore, the Commission recommends that NMFS (1) base the ‘takes per animal’ in MML’s permit and all other permits on the estimated number of times an individual could be taken in a given year during aerial, ground, and vessel-based surveys for MML’s application and by the various methods of taking or procedures for other applications and (2) amend the reporting fields in APPS appropriately to enable permittees to provide that information, when available.

### **Principal investigator (PI) and co-investigator (CI) designations, responsibilities, and qualifications**

Many of the curricula vitae (CVs), qualification tables, and biosketches that NMFS provided to the Commission for review lack detail regarding the experience of the PI or CI relevant to some or all of the procedures for which the PI or CI would be authorized to conduct or supervise. For example, although Drs. DeLong and Gearin presumably have the necessary experience to conduct or supervise the various research activities delineated in the PI/CI procedures table, their CVs or biosketches do not include any information on their abilities to conduct those activities. The majority of CIs have experience listed in their CVs, qualification tables, or biosketches pertaining to only some of the activities that they would be authorized to conduct or supervise under the permit. An Addendum that includes the information that is lacking for each PI or CI has been provided to NMFS along with this letter and is publically available upon request. Only 2 of the 10 CIs that would be authorized to conduct or supervise UAS surveys currently hold either a Federal Aviation Administration (FAA) remote pilot certificate or remote Pilot in Command certification<sup>10</sup>. MML’s application also does not specify whether an individual designated to conduct UAS surveys would be piloting a UAS or serving as a spotter or personnel tasked with determining whether animals are responding to the UAS and mitigation measures would need to be employed. Details for every procedure that a PI or CI is being authorized to conduct or supervise must be explicitly provided in the CV, qualification table, or biosketch to ensure that the researcher has qualifications commensurate with the duties to be conducted under the permit—this is consistent with NMFS’s implementing regulations (50 C.F.R. § 216.35(g)) and its 2016 application instructions. As such, the Commission recommends that NMFS (1) only authorize a PI or CI to conduct or supervise a procedure that he/she has sufficient experience to be able to conduct unsupervised and (2) if a PI or CI does not have any or sufficient experience conducting a procedure, he/she should not be

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<sup>8</sup> See, for example, permits issued to MML (16087 and 18528), Alaska Department of Fish and Game (ADFG; 20466, 20443, and 18537), Dr. Linnea Pearson (21006), Dr. Robert Garrott (21158), Southwest Fisheries Science Center (20599).

<sup>9</sup> See, for example, permits issued to MML (20465), Tamara McGuire (18016).

<sup>10</sup> It is unclear whether a remote Pilot in Command certification is synonymous with an FAA remote pilot certificate.

authorized to conduct or supervise that procedure and the PI/CI procedures table should be amended accordingly, considering and based on the deficiencies stipulated in the Addendum.

In addition, MML has requested that the PI or CIs supervise activities for which he/she has only received training in or conducted while under the supervision of others (see Addendum for specifics). Conducting certain procedures under supervision may be sufficient to allow that researcher to perform the procedure as a CI on a project. However, supervising a procedure, particularly those that are invasive and/or involve sedation/anesthesia, requires a higher qualification standard, as it implies both an ability to conduct the procedure unsupervised and to assume responsibility to take control in an emergency situation. A researcher should only be authorized to supervise a procedure that he/she has performed without supervision. It should be noted that Dr. Rehberg, who is listed as a CI for this permit and would be authorized to supervise numerous activities which he has no experience conducting (see Addendum for specifics), is also listed as the PI for ADFG's permit application. However, ADFG has only requested authorization for Dr. Rehberg to perform procedures that he is already qualified to conduct<sup>11</sup>. Thus, the Commission recommends that NMFS refrain from authorizing a PI or CI to supervise procedures that he/she has only observed during training or conducted under the supervision of others.

Finally, the PI/CI procedures table includes two procedures, "capture, underwater noose" and "instrument, internal (e.g., PIT)", that were never mentioned or described in the application or included in any of the take tables. If MML is requesting to conduct these procedures under this permit, the Commission recommends that NMFS require MML to include the methods associated with these research activities<sup>12</sup> in the application and in the relevant take tables. Otherwise, NMFS should remove those two procedures from the PI/CI procedures table.

### **Institutional Animal Care and Use Committee (IACUC) approval**

The Commission also notes that MML provided its research protocols that were submitted to its IACUC for review but has yet to provide documentation that those protocols were approved. MML indicated in its application that the IACUC was to review the protocols in December 2018. However, when the Commission inquired about the status of the approval, NMFS indicated that MML refused to provide any further information, as it does not believe it is either NMFS or the Commission's role to enforce the Animal Welfare Act (AWA). The Commission disagrees with MML's characterization of the facts.

The Commission has a mandate that involves reviewing and commenting on many different types of activities that involve or impact marine mammals under a broad range of statutes and agreements including the MMPA, as well as the ESA, AWA, National Environmental Policy Act, Antarctic Conservation Act, Convention on International Trade in Endangered Species of Wild Fauna and Flora, Magnuson-Stevens Conservation and Management Act, Outer Continental Shelf Lands Act, Coastal Zone Management Act, International Convention for the Regulation of Whaling, Commission for the Conservation of Antarctic Marine Living Resources, etc. In addition, the findings and any additional measures required to be implemented by the IACUC help to inform the humaneness taking criterion under section 104(c) of the MMPA. Specifically, NMFS's 2016 application instructions require that the IACUC protocols, any IACUC comments or

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<sup>11</sup> ADFG also removed without comment all CIs that did not have sufficient experience.

<sup>12</sup> Per NMFS 2017 application instructions.

recommendations, and the signed IACUC approval be submitted with any scientific research application. Both ASLC and ADFG provided their IACUC protocols and either the current IACUC approval<sup>13</sup> or the status of when the approval would be obtained, with their associated permit applications to conduct research on Steller sea lions.

Furthermore, NMFS has a policy that requires its Science Centers to include the IACUC assurance statement with all applications—a policy that has been in effect since 2009. Based on that policy, any applications for permits or permit amendments that do not include the assurance statement are to be returned to the applicant. Thus, it is unclear why NMFS did not elevate this issue to MML leadership to obtain the IACUC approval prior to disseminating the application to the Commission for its review and prior to publishing the application in the *Federal Register* for public comment. Accordingly, the Commission recommends that NMFS (1) abide by its own policy and return MML's application and stop further processing until the IACUC assurance statement is obtained and (2) return all permit and permit amendment applications submitted by the Science Centers that do not include the IACUC assurance statement and refrain from publishing those applications for public comment until such time that the IACUC assurance statement has been provided.

### **Consistency and accuracy in applications and issued permits**

The Commission has noted multiple inconsistencies and inaccuracies in MML's permit application that need to be addressed and remedied. These are particularly worrisome, since three Steller sea lion permits (MML, ADFG, ASLC) were provided for public comment simultaneously with either conflicting or confusing information. Aside from how the take tables are to be populated for Level B harassment takes, the Commission also notes that the same procedures proposed to be conducted amongst the three applicants are delineated as different procedures in the take tables. For example, sampling milk from pups was noted as 'sample, stomach lavage' by MML and ASLC and 'sample, other' by ADFG. ASLC and ADFG also denoted numerous 'take actions' in their respective take tables as 'incidental take' or 'harass/sampling' rather than 'harass' as stipulated by MML. NMFS should be ensuring that the same procedures and take actions are specified consistently amongst *all* take tables, including those involving the same species and that publish for comment simultaneously.

Permit applications aside, the Commission has been noting informally for many years that the permits that are issued by NMFS include inconsistencies and errors in both the permit conditions and the take tables. In some instances, NMFS has attempted to retract or revise the permits, while in others, NMFS has acknowledged that the inconsistencies and errors exist but have not resolved them. Providing permit applications and take tables that include inconsistencies and errors to the Commission and public for comment only exacerbates this issue.

Moreover, as appears to be the case for MML Steller sea lion researchers, certain applicants appear to be held to different standards than other applicants and permittees and inconsistencies exist among permit analysts. Analysts should be striving to ensure the applications are not published with conflicting information or are not proposing to authorize a PI or CI to conduct procedures that he/she does not have experience conducting. All analysts should be reviewing the applications through the same lens, implementing the same criteria, and holding all applicants to the same

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<sup>13</sup> MML also has provided its IACUC approvals for other research permit applications without comment.

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standards. For all these reasons, the Commission recommends that, prior to providing any application to the Commission for review, NMFS ensure (1) the same procedures and take actions are delineated consistently across all permit applications, (2) the take tables are accurate and consistent with the information provided in the application, as well as NMFS's 2016 application instructions, and (3) all applicants and permittees are held to the same standards. The Commission further recommends, that at a minimum, NMFS enlist senior staff of the Permits and Conservation Division to more thoroughly review all permits and take tables, in conjunction with the Commission's and public recommendations and comments, prior to issuance to ensure accuracy and consistency.

Please contact me if you have any questions regarding the Commission's recommendations.

Sincerely,



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