



# MARINE MAMMAL COMMISSION

18 February 2022

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 Amendment Application No. 22187  
(Heather Liwanag, Ph.D.,  
California Polytechnic State University)

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 amendment application with regard to the goals, policies, and requirements of the Marine Mammal Protection Act (the MMPA). Dr. Liwanag is authorized to conduct research on northern elephant seals in California during a five-year period—permit 22187 expires on 31 March 2024. The purpose of the research is to establish a long-term elephant seal monitoring program to investigate life history parameters and demography, physiological parameters, behavior, and acoustic parameters. Dr. Liwanag is authorized to harass, observe, capture, handle, restrain, measure/weigh, mark<sup>1</sup>, sample<sup>2</sup>, photograph/videotape, passively record, and/or conduct other procedures<sup>3</sup> on numerous elephant seals of any age and either sex per year. She is also authorized to kill unintentionally up to two elephant seals per year, not to exceed five during the five-year period.

Dr. Liwanag requested to add takes of juvenile elephant seals to investigate and compare movement patterns of seals between a newly established and an older rookery<sup>4</sup>. Researchers would harass, observe, photograph/videotape, capture, handle, restrain, sedate, measure/weigh, mark<sup>5</sup>, sample<sup>6</sup>, instrument<sup>7</sup>, and conduct ultrasound on 10 juvenile individuals of either sex per year.

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<sup>1</sup> With flipper tags and/or bleach or hair dye.

<sup>2</sup> Including hair, swabs, and ectoparasites from live animals and various samples from dead animals. All samples could be exported for analysis.

<sup>3</sup> Including ultrasound, infrared thermography, and acoustic playback activities.

<sup>4</sup> The Commission reviewed a nearly identical permit modification request for Dr. Liwanag in November 2021 and provided formal comments on the application in its [14 December 2021 letter](#). The Commission understands that the previous amendment application has been withdrawn and replaced with the above-referenced application, which requests an additional handling of each seal per year for flipper tagging that could occur under previously authorized research activities.

<sup>5</sup> With flipper tags. Flipper tagging of seals for the proposed project could also occur under currently authorized research activities.

<sup>6</sup> Including blood, hair, and swabs.

<sup>7</sup> Including with a VHF and a satellite-linked transmitter.

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Animals could be recaptured once in a year for the retrieval of instruments. Non-target elephant seals and harbor seals could be harassed incidental to the proposed activities. Researchers would use 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. Dr. Liwanag has submitted the revised research protocols to California Polytechnic State University's Institutional Animal Care and Use Committee for review.

On 4 February 2022, NMFS published Dr. Liwanag's application in the *Federal Register* (86 Fed. 64457) for public comment. Based on its informal review of the application available online, the Commission found that some of the information required in NMFS's 2016 application instructions and its implementing regulations was not clear in the application and provided to NMFS a list of minor comments on the application. In particular, the Commission noted that the take table indicated that Dr. Liwanag is authorized to unintentionally kill one elephant seal under permit 22187, whereas the permit authorizes two such deaths. Furthermore, the details of the table and the text of the application specify that up to two deaths could occur under the permit. Inconsistencies occurred in the take table and text of the original permit application and the recent amendment application. The Commission noted these inconsistencies to NMFS during its informal reviews of the applications, and NMFS indicated that the numbers would be revised in the final application and permit. Based on the current amendment application, the issue has clearly still not been rectified.

The Commission has received adequate responses to its comments on Dr. Liwanag's current amendment application, but has not received a final application revised according to these responses. As discussed above and in its 14 December 2021 letter for Dr. Liwanag's application, it is apparent that not all responses to the Commission's comments and questions that should be incorporated into final applications and permits are being included. NMFS has again assured the Commission that the revisions mentioned in the responses will be incorporated into a final application once a permit decision is made. The Commission believes that the proposed activities are consistent with the purposes and policies of the MMPA and recommends that NMFS issue the permit, contingent on ensuring that the final application and permit include the relevant revisions based on responses to the Commission's informal comments.

Kindly contact me if you have any questions concerning the Commission's recommendation.



Peter O. Thomas, Ph.D.  
Executive Director