



# MARINE MAMMAL COMMISSION

9 May 2025

Mr. Trevor Spradlin, Acting Supervisor  
Directed Take Program  
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. 28912  
(Daniel Costa, Ph.D.,  
University of California at Santa Cruz)

Dear Mr. Spradlin:

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 (MMPA). Dr. Costa is proposing to conduct research on California sea lions along the U.S. West Coast during a 10-year period—permit #17952 authorized similar activities.

The purpose of the research is to investigate (1) foraging ecology and diving physiology, (2) habitat use, (3) health, and (4) effects of anthropogenic sound on California sea lions. Dr. Costa and his co-investigators would harass, capture<sup>1</sup>, handle, restrain, sedate, measure, weigh, conduct procedures on<sup>2</sup>, sample<sup>3</sup>, mark<sup>4</sup>, and/or attach instruments<sup>5</sup> to numerous individuals of various age classes and both sexes per year. Samples could be imported or exported for analyses. In addition, Dr. Costa requests up to 3 unintentional or intentional<sup>6</sup> mortalities per year, not to exceed 20 mortalities during the 10-year period. Researchers would use various measures to minimize impacts on pinnipeds. The proposed protocols previously have been or are currently approved by the University's Institutional Animal Care and Use Committee (IACUC).

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<sup>1</sup> Via hoop net, floating trap, and remote sedation.

<sup>2</sup> Including photogrammetry, ultrasound, metabolic rate measurement, controlled exposure experiments (CEEs), and disentanglement.

<sup>3</sup> Including hair, vibrissae, swabs, urine, milk, blubber, muscle, and blood. Samples for diet analysis would be collected via stomach lavage or enema.

<sup>4</sup> Using hair dye, bleach, flipper tags, and PIT tags.

<sup>5</sup> Including satellite tags, time-depth recorders, accelerometers, CTD tags, Dtags, and cameras.

<sup>6</sup> Via euthanasia for humaneness purposes.

## Procedures not included in the take and personnel tables

The National Marine Fisheries Service (NMFS) uses an online application system for research permits, namely Authorizations and Permits for Protected Species (APPS). To streamline and standardize the permit application process, applicants use a pre-determined list of procedures in APPS to populate the required take table. During its informal review of this application, the Commission noted that cystocentesis was not included as a procedure in the take table nor was it included as an authorized procedure in the personnel table. In response, NMFS informed the Commission that cystocentesis is not a standard procedure in APPS, and because it is not in APPS, it was not included. Although that may be the case, NMFS has not taken that approach for other permits<sup>7</sup> and did not take that approach for remote sedation in the current permit application. Remote sedation is not a standard procedure in APPS. However, it was included in the “Details” portion of the take table under the “Other” procedure category<sup>8</sup> and as an authorized procedure to be conducted by the researchers in the personnel table. The take table must reflect all procedures the researchers would be authorized to conduct, and as such, the Commission recommends that NMFS ensure that all authorized procedures are included using the procedure category “Other” or “Sample, other” with clarifying information regarding cystocentesis in the “Details” section of the take table. Additionally, cystocentesis is an invasive procedure that requires specialized expertise. Only the qualification forms of the veterinarians, Dr. Prager and Dr. Moriarty, indicate sufficient experience conducting this procedure. For consistency with the format of the personnel table, the Commission recommends that NMFS exempt Dr. Costa and all other co-investigators, except Dr. Prager and Dr. Moriarty, from being authorized to conduct cystocentesis<sup>9</sup>.

## Permit conditions involving acoustic thresholds

As the Commission noted in its [6 June 2024 letter](#) regarding NMFS’s proposed implementing regulations for issuance of longer-duration research permits<sup>10</sup>, it still remains unclear how NMFS plans to ensure that authorized procedures are consistent with the most up-to-date agency guidance and policies, particularly in regard to acoustic thresholds. In anticipation of NMFS finalizing its updated auditory thresholds (NMFS 2024), the Commission recommended in its letter that the agency include a general condition in all permits or permit modifications involving active acoustics requiring permit holders to base the Level A and B harassment zones on NMFS’s current thresholds at the time field work would occur rather than the thresholds in place when the permit was issued. The Commission further recommended that NMFS develop a plan to ensure that all future changes affecting research activities are communicated to longer-duration permit holders and incorporated as permit conditions or through permit modifications. NMFS responded in the preamble to the final rule for longer-duration research permits that any changes to its acoustic thresholds had not been finalized and that it could not speak to how any such changes to research permits would be implemented (89 Fed. Reg. 100396–100397). In fact, NMFS had finalized and published its updated auditory thresholds (NMFS 2024) in the *Federal Register* more than 45 days

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<sup>7</sup> For example, Marine Mammal Laboratory permit #27499 and Lloyd-Smith permit #27155 include cystocentesis in the take table.

<sup>8</sup> The Commission notes that “Other” was inadvertently omitted from the procedures column in row 6 of the take table, but was included in all other rows involving remote sedation.

<sup>9</sup> Dr. Holser and Dr. Crocker also should be exempted from conducting urine catheterization based on their qualification forms.

<sup>10</sup> Which would be a 10-year permit for Dr. Costa’s proposed activities.

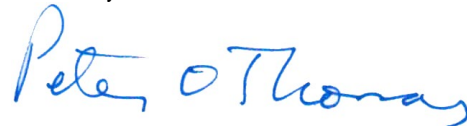
prior to its final rule for issuance of longer-duration research permits (89 Fed. Reg. 84872). Finalization of NMFS (2024) had been anticipated for more than a year and included no substantive changes as a result of the public comment period.

NMFS further indicated in the preamble that it already had mechanisms in place, such as permit contact emails, APPS, and webpages, to disseminate relevant information to permit holders (89 Fed. Reg. 100397). Although such tools may be in place, it does not appear that NMFS has been proactively using them. This is important since the updated auditory thresholds inform the exclusion or shut-down zones specified in various conditions underlying the permits. In multiple instances, permit conditions have only been updated after a permit holder has already requested a permit modification<sup>11</sup>. In one instance, the permit condition was written generally enough<sup>12</sup> that NMFS (2024) would apply. However, a follow-on permit condition specified the actual shut-down zones, which were based on NMFS (2018) and were smaller than would be estimated using NMFS (2024). For other permits, shut-down zones are based on Level B harassment thresholds to mitigate taking of non-target species, age classes, or sexes for which taking has not been authorized.

At least 15 permits currently include active acoustics (i.e., CEEs/playback studies, echosounders)<sup>13</sup> and permit conditions that should be revised based on NMFS (2024). Since NMFS is issuing 10-year permits and the Level A and B harassment thresholds will change within that timeframe, the Commission again recommends that NMFS include a general condition in all permits and permit modifications involving active acoustics, including Dr. Costa's permit if issued, requiring permit holders to base the Level A and B harassment zones on NMFS's current thresholds at the time field work would occur rather than the thresholds in place when the permit is issued. The Commission further recommends that NMFS contact all permit holders whose permits include active acoustics (i.e., CEE/playback studies, echosounders, etc.) that are not in the process of being modified or renewed and revise all associated permit conditions to include shut-down zones and any other mitigation measures based on NMFS (2024)<sup>14</sup>.

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

Sincerely,



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

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<sup>11</sup> e.g., Straley permit #24378, Liwanag permit #27514.

<sup>12</sup> "The received level of echosounder exposure for prey mapping studies must not exceed Level A harassment guidelines following the current acoustic thresholds."

<sup>13</sup> That expire in 2026 and beyond per APPS.

<sup>14</sup> This also should include changes that were made to the functional hearing groups.

## **References**

- NMFS. 2018. 2018 Revision to: Technical guidance for assessing the effects of anthropogenic sound on marine mammal hearing: Underwater acoustic thresholds for onset of permanent and temporary threshold shifts. Office of Protected Resources, Silver Spring, Maryland. 178 pages.
- NMFS. 2024. 2024 update to: Technical guidance for assessing the effects of anthropogenic sound on marine mammal hearing (Version 3.0): Underwater and in-air criteria for onset of auditory injury and temporary threshold shifts. National Marine Fisheries Service, Silver Spring, Maryland. 193 pages.