



# MARINE MAMMAL COMMISSION

23 November 2022

Dr. Mary Cogliano, Chief  
Branch of Permits, MS: IA  
Division of Management Authority  
U.S. Fish and Wildlife Service  
5275 Leesburg Pike  
Falls Church, Virginia 22041-3803

Re: Permit Application No. 067925  
(U.S. Geological Survey,  
Alaska Science Center)

Dear Dr. Cogliano:

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). U.S. Geological Survey (USGS) is requesting to renew and amend its permit to conduct research on northern sea otters in Alaska during a five-year period.

The purpose of the research is to investigate (1) population trends, (2) reproductive rates, (3) movement patterns and habitat use, (4) foraging ecology, and (5) disease and health of sea otters. Researchers would harass, survey, capture, transport, restrain, sedate, mark<sup>1</sup>, tag<sup>2</sup>, measure, collect biological samples from, and release northern sea otters of any age class and either sex. USGS requested up to two unintentional or intentional<sup>3</sup> mortalities of sea otters over the course of the permit. USGS would implement various measures to minimize impacts on non-target marine mammals. USGS's Institutional Animal Care and Use Committee (IACUC) has reviewed and approved the research protocols.

## Background

In September 2019, the U.S. Fish and Wildlife Service (FWS) asked the Commission to review informally USGS's application and provide any comments or questions. At that time, FWS did not consider the application to be complete and had numerous clarifying questions for USGS regarding personnel qualifications, IACUC approval, annual permit reports, and USGS's intention to import/export samples and to conduct UAS surveys. The Commission provided FWS additional

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<sup>1</sup> With flipper tags.

<sup>2</sup> With passive integrated transponder (PIT), life history (LHX2) and very high frequency (VHF) radio transmitter tags, and time-depth recorders (TDR). LHX2 and VHF tags and TDRs would be surgically implanted in sea otters. The application indicated that up to two instruments could be surgically implanted in an individual sea otter weighing more than 20 pounds.

<sup>3</sup> Via euthanasia for humaneness purposes.

comments and questions involving numerous deficiencies, inconsistencies, and concerns but did not receive any responses.

On 28 October 2022, the permit application, including a 697-page application packet, was published in the *Federal Register* (87 Fed. Reg. 65237) for public comment. The new application packet consisted of USGS's original application, clarifying questions from FWS and the Commission to USGS, USGS's responses to those questions, and a partially revised application, among other documents. The need to review several hundred pages of appended documents continues to make it difficult for reviewers to discern what the applicant plans to do and puts the permit holder at risk of violating the permit unintentionally based on the lack of clarity regarding what the agency intended for the permit to authorize. As repeatedly recommended to FWS in recent years, the Commission recommends that, prior to publication of any application in the *Federal Register*, FWS staff review each application in light of the applicable instructions to ensure that all required information is included and has been incorporated into a revised application that facilitates a transparent review by the Commission and the public.

On review of the application packet, it is clear that many of the Commission's comments and questions from 2019 were addressed. However, some outstanding issues remain and the application is still technically incomplete until USGS's responses have been incorporated into a final, revised application. The Commission is particularly concerned that the application included numerous invasive research activities that would be conducted on sea otters<sup>4</sup> but did not provide adequate evidence that the humaneness criterion under the MMPA would be met.

### **Surgical implantation of tags**

USGS's previous permit authorized the implantation of VHF and TDR tags, however, tagging of pregnant females was prohibited. The previous permit also was conditioned to preclude capture activities in areas where a high number of pregnant otters occur, specifying that USGS must cease capture activities in any area where more than 20 percent of sea otters captured per day are otters in their third trimester of pregnancy. In the current permit application, USGS proposed to implant pregnant females with various tags. The application stated that the greatest risk with respect to pregnant females was associated with post-surgical dehiscence of the surgical site during labor and as such, indicated that the decision to perform or not perform surgery on any animal, including pregnant females, would be based on veterinary discretion and informed by the state of pregnancy, overall body condition, and surgical procedure under consideration. USGS indicated that surgeries would not be performed on near-term pregnant females. The Commission recommends that FWS condition the permit similarly to USGS southern sea otter permit #672624 to say how near-term pregnancies will be defined and detected (i.e., with palpation or ultrasound)<sup>5</sup> and that the decision on whether to implant tags in pregnant females that are not near-term will be at the discretion of the attending veterinarian.

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<sup>4</sup> Including near-term pregnant females.

<sup>5</sup> USGS's southern sea otter permit #672624 required that palpably-pregnant females only be tagged at the discretion of the attending veterinarian. That permit only authorized implantation of VHF and TDR tags and did not include LHX2 tags.

USGS also requested to implant sea otters with LHX2 tags. Currently, the only existing permit that authorizes implantation of LHX2 tags in sea otters is Monterey Bay Aquarium's southern sea otter permit #186914, which specifies that otters must weigh at least 18 pounds to receive a VHF or TDR tag, 26 pounds to receive an LHX2 tag, and 33 pounds to receive an LHX2 and VHF tag.<sup>6</sup> In contrast, USGS proposed to implant any combination of tags on otters weighing more than 20 pounds. USGS also proposed to implant two LHX2 tags, a procedure which has yet to be authorized for sea otters, although consulting veterinarians have expressed support for doing so. As such, the Commission recommends that, unless new data are available indicating that a 20-pound weight limit is sufficient for all types and combinations of implantable tags, FWS condition the permit to match the weight requirements specified in the Monterey Bay Aquarium's permit.<sup>7</sup>

Additionally, because USGS requested to capture and surgically implant tags in mothers with pups, the Commission recommends that FWS retain the previous permit condition that required USGS to humanely provide for (i.e. recover and care for or euthanize if absolutely necessary) any orphaned or abandoned pup in the event that a lactating female is killed or seriously injured as a result of permitted activities.

### **Tangle net protocols and considerations**

In response to one of the Commission's clarifying questions, USGS confirmed its intent to conduct periodic observational monitoring of tangle nets in low-density areas. This would involve monitoring the net every 2 to 3 hours, with a monitoring interval never greater than 8 hours. Based on FWS northern sea otter permit #041309 and USGS's previous northern sea otter permit, the Commission recommends that FWS condition USGS's new permit to prohibit the use of tangle nets if the weather or sea state is, or is forecast to become severe enough that the recovery of entangled otters could be impeded and to require that nets be monitored at least every 6 hours, or every 2 to 4 hours when visibility is poor.

### **Take tables**

The Commission provided several informal comments on USGS's take table in 2019. Many of the errors were fixed, and a second take table for Level B harassment takes was provided. However, some issues still need to be resolved. For example, a specific number of Level B harassment takes must be requested—simply writing “all” is insufficient. In the Level A harassment table, (1) several procedures are missing<sup>8</sup>, (2) 80 takes of each age class from each stock were requested rather than 80 takes total from each stock, as referenced in the text, and (3) the table does not specify how the applicant will differentiate between “large” and “newborn-small” pups. It also is unclear what samples would be collected from large, dependent pups, as the separate biological sample table only includes samples that would be obtained from adult and juvenile otters. In addition, incidental mortalities of sea otters should be included in the take tables.

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<sup>6</sup> Monterey Bay Aquarium's permit specified that surgery may not knowingly be performed on pregnant females.

<sup>7</sup> Monterey Bay Aquarium's permit specified that otters must weigh 33 pounds to receive an LHX2 and VHF tag. VHF tags are larger than LHX2 tags, so this weight limit could apply to any combination of two implantable tags.

<sup>8</sup> E.g., observe, measure, weigh, sex, restrain, anesthetize.

The Commission further notes that FWS has been omitting take tables from the permits it issues.<sup>9</sup> This leads to additional unnecessary confusion when the application packets are, as described above, 697 pages long, consisting of USGS's original application, clarifying questions from FWS and the Commission to USGS, USGS's responses to those questions, and a partially revised application, among other documents with multiple inconsistencies, contradictions, and omissions. Take tables must be included in all research permits issued by FWS, so that, at a minimum, FWS is clear in what it has authorized and the permittee is clear on what has been authorized. The Commission recommends that FWS (a) include in all research permits issued, including USGS's, take tables that stipulate the species and stocks (if relevant), age classes, sexes, numbers of takes, procedures, and types of taking authorized and (b) ensure that all take tables are accurate and include all procedures and forms of authorized taking.

### **Personnel qualifications**

FWS requested curriculum vitae (CVs) that sufficiently describe each person's experience conducting each procedure he/she would be authorized to conduct. USGS did submit CVs for the principal investigator (PI) and co-investigators (CIs), and the Commission was pleased to see a personnel table included that clearly listed what procedures each person would be authorized to conduct. As indicated in a note by USGS, there was some confusion because the permit application states that a brief description of experience and expertise is acceptable. Unfortunately, the CVs that were provided still do not demonstrate experience with each specific procedure that is listed in the personnel table. For example, veterinarians requesting authorization to surgically implant tags in sea otters should document their experience conducting the procedure, and non-veterinarians requesting authorization to sample sea otters should similarly demonstrate their experience with specific methods of intrusive sampling.

Without the necessary information, it is impossible to assess whether the experience described in CVs adequately demonstrates the PI or CI's ability to conduct procedures under the permit. As such, a PI or CI could be authorized to conduct a procedure, such as extracting teeth or capturing an otter with a Wilson trap, without the requisite experience, thus placing the animal at risk of harm or injury. In accordance with the application requirements, the Commission recommends, as it has consistently for such approvals, that FWS only authorize the PI and CIs to conduct procedures for which they have demonstrated sufficient experience. Researchers without the required experience could still be trained under an authorized PI or CI and could be added to the permit under an amendment in the future, once they can demonstrate that they have the necessary experience. Given the ongoing confusion among applicants on this issue, the Commission recommends that FWS add a more detailed description of what is required, including illustrative examples, to its permit application instructions to ensure submission of accurate personnel tables and qualification descriptions in future applications.

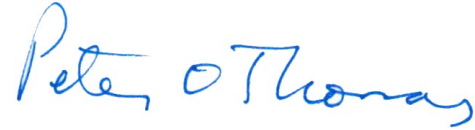
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<sup>9</sup> E.g., USGS southern sea otter permit #672624.

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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