



# MARINE MAMMAL COMMISSION

18 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. 22677  
(Pacific Islands Fisheries Science Center)

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). Pacific Islands Fisheries Science Center (PIFSC) is requesting to renew its permit to conduct research on Hawaiian monk seals during a five-year period—permit 16632 authorized similar activities.

PIFSC proposed to conduct research on monk seals year-round throughout the Hawaiian Islands and at Johnston Atoll. 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) interactions between seals and humans. Researchers would harass, observe, handle, restrain, photograph/videotape<sup>1</sup>, measure/weigh, mark, sample, instrument, passively record, and/or conduct enhancement activities<sup>2</sup> on numerous individual monk seals of either sex and any age class each year (see the take tables for specifics). PIFSC also requested up to 10 unintentional and 20 intentional mortalities<sup>3</sup> each year, as well as authorization to import, receive, possess, and/or export samples from monk seals. PIFSC would implement various measures to minimize impacts on seals and also would be required to abide by the National Marine Fisheries Service's (NMFS) standard permit conditions. PIFSC's Institutional Animal Care and Use Committee has reviewed and approved the research protocols.

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<sup>1</sup> Including using unmanned aircraft systems (UAS) and remotely operated vehicles (ROV).

<sup>2</sup> Including translocating, acoustically harassing and hazing using other aversive conditioning techniques, disentangling and dehooking, supplementally feeding, and vaccinating seals. Enhancement activities also could be conducted on seals brought into captivity to be rehabilitated or held permanently.

<sup>3</sup> Unintentional mortalities could occur during research or enhancement activities and would include euthanasia for humaneness purposes. Intentional mortalities would occur during humane killing or euthanasia of aggressive male seals and/or of moribund or injured seals.

## Personnel qualifications

The Commission noted in its informal comments on PIFSC's application numerous issues involving the authorization of co-investigators (CIs) to conduct procedures for which adequate experience has not been demonstrated. As one example, Mses. Becker, Johanos, and Kashinsky would be authorized to biopsy sample monk seals remotely, but they denote their level of experience in their qualification forms (QFs) as either "N/A" or "0".<sup>4</sup> As such, the Commission must assume that Mses. Becker, Johanos and Kashinsky have not assisted or been trained to conduct remote biopsy sampling. In addition, the three CIs have only assisted or received training in collecting regular blubber biopsy samples, as they all denoted their level of experience with this procedure as a 1<sup>5</sup>.

As another example, Mses. Bohlander and Ronco would be authorized to collect blood from unsedated monk seals but not sedated seals. This is counter-intuitive given the greater difficulty of collecting blood from unsedated seals than from sedated ones. More importantly, it is unclear whether the CIs have the necessary experience to collect blood in general. Ms. Bohlander indicated that she had some experience collecting blood from monk seals while supervised but in the QF table denoted her experience as both a Level 1 and 2 for blood sampling, leading to confusion as to her actual level of experience. Ms. Ronco indicated that she has received training only in collecting blood from dead seals and listed her experience as a Level 1, indicating that she is not qualified to collect blood in general, let alone from unsedated monk seals.

The Commission has repeatedly asserted that PI/CIs who do not have adequate experience conducting procedures should not be authorized to conduct them. That is, if a PI/CI has only received training, he or she should not be authorized to conduct that procedure under the permit until having conducted it successfully under supervision—and, for invasive procedures, on live animals. As the Commission has noted, in its 14 November 2019 letter and in numerous other letters<sup>6</sup>, authorizing PI/CIs to conduct procedures unsupervised on animals for which they have no experience or for which they have only assisted others or received training (Level 1) increases the risk of harm or injury to both the animal and the researchers. Such standards are not impractical nor are they barriers to gaining additional experience. PI/CIs who are not yet formally authorized to conduct procedures can continue gaining experience performing procedures under supervision until they have sufficient experience to conduct them unsupervised. This step-wise approach ensures compliance with NMFS's implementing regulations, which require individuals conducting procedures authorized under the permit to possess qualifications commensurate with their duties and responsibilities or to be under the direct supervision of a person with such qualifications (50 C.F.R. § 216.35(g)). Thus, the Commission recommends that NMFS (1) require the CIs to indicate a

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<sup>4</sup> The Commission recommended in its [14 November 2019 letter](#) on the revised application instructions that NMFS standardize how a principal investigator (PI) or CIs denote when they do not have experience conducting an activity, as inconsistencies between QF tables make it difficult to assess whether personnel lack the experience to conduct a procedure.

<sup>5</sup> 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.

<sup>6</sup> Including its [7 May 2019 letter](#) on Marine Mammal Lab permit 22289

single level of experience for the various procedures and (2) ensure that CIs are only authorized to *conduct* procedures for which they have at least performed under supervision (Level 2 or greater) under PIFSC's permit.

### **Personnel table**

In its application, PIFSC provided a personnel table that listed the PI and each CI and the procedures that he/she could *not* conduct, as well as a statement that he/she could conduct all other procedures to be authorized under the permit. PIFSC contends that it would be “redundant and unwieldy” to make a table that documents what each PI/CI can conduct and that the table provided does make this information clear. However, as stated in its more general 14 November 2019 letter on these matters, the Commission asserted that it is difficult to discern which activity a PI/CI would be authorized to conduct when dozens of procedures have been proposed, especially when an individual's QF does not specify any demonstrated experience for some of those procedures. The personnel table should list each PI/CI and designate with an X each procedure that he or she would be authorized to conduct. Such tables<sup>7</sup> have been used routinely by the majority of applicants that have proposed to conduct live-capture procedures in the last three years on pinnipeds<sup>8</sup> and cetaceans<sup>9</sup> and by other applicants that have proposed to conduct numerous invasive procedures<sup>10</sup>. Therefore, to provide clarity regarding the procedures that each PI/CI is requesting authorization to conduct and ultimately is authorized to conduct if the permit is issued, the Commission recommends that NMFS require PIFSC to provide a personnel table based on the example provided in the Commission's 14 November 2019 letter.

### **Remote sedation**

PIFSC proposed to use remote sedation or in-water capture/sedation techniques on juvenile and adult male and non-nursing female monk seals. Remotely sedating seals and administering sedation to facilitate in-water capture have inherent risks. As such, the Commission believes that NMFS should continue to take a precautionary approach, as it has with authorizing remote sedation under previous permits involving pinnipeds<sup>11</sup>. The Commission recommends that NMFS condition the permit to require PIFSC to monitor monk seals that have been remotely sedated or are being sedated during in-water captures and report on (1) their behavioral response and any activities that put them at heightened risk of injury or death and (2) whether remotely sedated seals entered the water and their fate could not be determined. The Commission further recommends that NMFS condition the permit to require PIFSC to halt the use of remote sedation and in-water capture/sedation techniques and consult with NMFS and the Commission if three or more seals are sedated and disappear so that their fate cannot be determined or suffer unanticipated adverse effects, including entering the water and drowning.

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<sup>7</sup> Which include dozens of procedures.

<sup>8</sup> e.g., Alaska Department of Fish and Game (ADFG) permit 20443, Marine Mammal Lab (MML) permit 22289, and MML permit 22678.

<sup>9</sup> e.g., Wells permit 20455.

<sup>10</sup> e.g., Scripps Institution of Oceanography permit 22835 and Baird permit 20605.

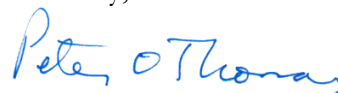
<sup>11</sup> e.g., ADFG permit 22298, Alaska Sealife Center permit 22293, and MML permit 22289.

### **Proposed numbers of takes for enhancement activities**

For numerous projects pertaining to its enhancement activities, such as the hazing of adult males and the disentangling or dehooking of individuals, PIFSC has requested an unlimited number of takes of monk seals in a year, as well as an unlimited number of takes per animal. The Commission disagrees with this approach for two reasons. First, it is not possible to take more seals in a year than the abundance estimate of the species or stock<sup>12</sup>, which was estimated at 1,415 individuals in 2016 (Carretta et al. 2019). Even with a 4% growth rate<sup>13</sup>, the monk seal population would just barely exceed 2,000<sup>14</sup> animals by the end of the permit. Thus, no more than 2,000 seals could be taken in a given year. It also is not possible to take an animal an unlimited number of times in a year, as an animal can only be taken once in a day. Therefore, the number of takes per animal can never exceed 365. This approach is consistent with other permits that have authorized samples to be collected from or procedures to be conducted on an animal daily and that cap the takes per animal at 365<sup>15</sup>. In addition, based on PIFSC's last five years of annual reports under permit 16632, researchers have never conducted enhancement activities on more than 50 monk seals in a given year nor have they taken an individual more than a few times in a year. The Commission does not intend to limit the enhancement activities that could be conducted but believes that the take tables should be realistic. As such, the Commission recommends that NMFS specify in the take table a reasonable number of takes, but no more than 2,000 expected takes and 365 takes per animal, for each relevant enhancement activity rather than include an unlimited number of takes and an unlimited number of takes per animal.

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,



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

### **Reference**

Carretta, J.A., K.A. Forney, E.M. Oleson, D.W. Weller, A.R. Lang, J. Baker, M.M. Muto, B. Hanson, A.J. Orr, H. Huber, M.S. Lowry, J. Barlow, J.E. Moore, D. Lynch, L. Carswell, and R.L. Brownell Jr. 2019. U.S. Pacific marine mammal stock assessments: 2018. NOAA Technical Memorandum NMFS-SWFSC-617, Southwest Fisheries Science Center, La Jolla, California. 382 pages.

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<sup>12</sup> The Commission notes that NMFS's application instructions specify that the "expected take" represents a reasonable estimate of the maximum number of *individuals* that the applicant would take, import, or export, annually.

<sup>13</sup> Based on estimates between 2013 and 2016.

<sup>14</sup> 2,014 seals.

<sup>15</sup> e.g., Reichmuth permit 18902 and Nachtigall permit 16992.