



# MARINE MAMMAL COMMISSION

1 March 2016

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. 19309  
(National Marine Mammal Laboratory)

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 request with regard to the goals, policies, and requirements of the Marine Mammal Protection Act (the MMPA). The National Marine Mammal Laboratory (NMML) proposes to conduct research on pinnipeds in Alaska during a five-year period—permit 15126 authorized similar activities.

NMML proposes to conduct research on harbor, bearded, ringed, spotted, and ribbon seals in the North Pacific Ocean, Bering Sea, Arctic Ocean, and coastal regions of Alaska. The purpose of the research is to investigate foraging ecology, population abundance and trends, population structure, habitat requirements, health and vital rates, and effects of natural and anthropogenic factors on pinnipeds. Researchers would harass, capture<sup>1</sup>, handle, restrain, measure/weigh, sedate<sup>2</sup>, conduct procedures<sup>3</sup> on, sample<sup>4</sup>, mark/tag<sup>5</sup>, and/or attach instruments to numerous individuals of various age classes and both sexes per year (see the Take Table). Researchers could attach up to three instruments<sup>6</sup> to an individual. Those instruments could include VHF transmitters, satellite transmitters, accelerometers, GPS transmitters, CTD tags, time-depth recorders, acoustic tags, and video/still cameras. Tags would either fall off during the seal's annual molt or be removed by the researchers at a later time. Researchers would not instrument harbor seal pups with a pink or red umbilicus or any unweaned ice seal pup, but they could instrument females with such pups. Veterinarians also could implant up to two life history (LHX-2) tags in up to 20 harbor seals<sup>7</sup> per year. When female-pup pairs are captured, those pairs would be identified and kept in close

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<sup>1</sup> Animals could be recaptured to conduct additional sampling and attachment of instruments.

<sup>2</sup> Including reversals for various sedation drugs, antibiotics if deemed necessary during implantation of tags in harbor seals, and remotely delivered sedation (i.e., darting) for adult bearded seals only.

<sup>3</sup> Including conducting ultrasound and administering Evans blue dye and collecting serial blood samples.

<sup>4</sup> Including blood, feces, spew, urine, skin, blubber, muscle, hair, vibrissae, nails, and swabs.

<sup>5</sup> Including flipper tags.

<sup>6</sup> With the combined mass of the instruments comprising no more than 2 percent of the animal's mass.

<sup>7</sup> A single LHX-2 tag could be implanted in seals that weigh at least 12 kg, and two LHX-2 tags could be implanted in seals that weigh at least 24 kg.

proximity to each other. In addition, they would be handled before other animals and released together. If either the female or the pup should become distressed during the capture activities and the decision made that it should be released, activities would cease and both the female and pup would be released together.

Researchers could collect sloughed skin and expelled spew, feces, and urine. NMML also would conduct manned and unmanned aerial surveys of pinnipeds. They could harass non-target pinnipeds incidentally during any of the proposed activities. In addition, NMML requests up to 5 mortalities<sup>8</sup> for each species per year and 15 mortalities for each species during the 5-year period—all dead seals would be necropsied. If a lactating female dies as a result of research activities and her dependent pup can be identified, researchers would euthanize it only if the probability of the pup's survival is low or if undue harm and suffering are likely. Further, NMML would coordinate its activities with the Alaska Department of Fish and Game, Alaska SeaLife Center, University of Alaska, U.S. Fish and Wildlife Service, Washington Department of Fish and Game, Department of Fisheries and Oceans Canada, Alaska Native Harbor Seal Commission, Ice Seal Committee, and Aleut Marine Mammal Commission.

NMML's Institutional Animal Care and Use Committee (IACUC) has yet to approve the research protocols but plans to review them in February 2016. The Commission finds this a bit unusual not only because of the need for IACUC input on the new procedures and requested mortality increases, but also because the National Marine Fisheries Service (NMFS) has a policy that requires the 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. Accordingly, the Commission recommends that NMFS abide by its own policy by returning all permit and permit amendment applications 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.

In addition, the Commission has had some ongoing concerns regarding darting animals. NMML indicated that a veterinarian trained in remotely sedating pinnipeds (or other veterinarians and researchers similarly trained) would be darting the bearded seals. When darting a bearded seal on fast ice, anesthetic agents would be administered to allow the seal to swim/float and reach the surface to breathe and so that researchers could approach and capture it. Since bearded seals are expected to enter the water after being darted, researchers would use an acoustic<sup>9</sup> transmitter to aid in locating and tracking the seal. They also could administer reversals, if necessary. Since darting has inherent risks, the Commission believes that NMFS should continue to take a precautionary approach, as it has with authorizing darting activities under previous bearded seal and other pinniped permits. Therefore, the Commission recommends that NMFS condition the permit to require monitoring of bearded seals that have been darted 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

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<sup>8</sup> By either unintentional mortality or intentional mortality (i.e., euthanasia for humaneness purposes).

<sup>9</sup> A 69-kHz transmitter would be attached to the dart and a hydrophone would be used to track the animal at a distance of up to 1 km. That technique has been used for darting harbor seals and California sea lions.

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those darted seals are abandoned, injured, or killed<sup>10</sup> and whether the pups' behavior in response to darting the females is notably different from their response to other capture methods. The Commission further recommends that NMFS condition the permit to halt the use of the darting technique and consult with NMFS and the Commission if three or more bearded seals are darted and suffer unanticipated adverse effects, including entering the water and either drowning or disappearing so that their fate cannot be determined.

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 regarding the Commission's recommendations.

Sincerely,



Rebecca J. Lent, Ph.D.  
Executive Director

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<sup>10</sup> Either by other seals if a stampede occurred or by the researchers if euthanasia was deemed necessary.