



MARINE MAMMAL COMMISSION

2 August 2010

Mr. P. Michael Payne, Chief
Permits, Conservation, and Education Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

Re: Request for Amendment, Permit No. 87-1851-02
(Daniel P. Costa, Ph.D.)

Dear Mr. Payne:

The Marine Mammal 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. Permit 87-1851-02 authorizes tagging studies and physiological research on crabeater, Weddell, and Ross seals. It also authorizes research regarding foraging, diving, energetics, food habits, and at-sea distribution of California sea lions. The permit holder is requesting amendment of the permit to allow the attachment of a drag-inducing device on 8 of the 40 Weddell seals that he currently is authorized to capture, sample, and release.

RECOMMENDATION

The Marine Mammal Commission recommends that the National Marine Fisheries Service approve the requested permit amendment, provided that—

- the Service consult with the permit holder regarding the design of the drag device that will be used;
- if the drag device that is selected could hinder passage of Weddell seals through ice holes, the permit holder be required to test the device on a small number of seals to ensure that passage is not hindered before being allowed to deploy the device on all eight seals;
- the proposed activities have been reviewed and approved by the permit holder's Institutional Animal Care and Use Committee in accordance with section 2.31 of the Animal and Plant Health Inspection Service's Animal Welfare Act regulations;
- the permit holder be required to obtain all necessary permits under the Convention on International Trade in Endangered Species of Wild Fauna and Flora before importing or exporting any marine mammal parts; and
- the conditions contained in the permit as currently amended remain in effect.

RATIONALE

The current permit authorizes the permit holder to capture Weddell seals, administer isotopes (i.e., $^3\text{H}^{18}\text{O}$), collect tissue samples, attach instruments, and recapture and resample the

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animals at a later date. The permit holder is requesting an amendment to modify the use of 8 of the 40 Weddell seals (males or females) that can be handled under the current permit. For each of the eight seals, the proposed modification would increase the number of captures from two to three (i.e., initial capture and two recaptures) and allow the attachment of a drag-inducing device in addition to the currently permitted ARGOS telemetry tag, time depth recorder, and accelerometer tag. The drag-inducing device being considered would consist of a neutrally buoyant wooden cube glued to the dorsal side of the animal that would increase the frontal surface area of the animal to which it is attached by 5–10 percent. This technique has been used successfully, with no apparent ill effects, in a study of 12 juvenile northern elephant seals at Año Nuevo State Reserve in California from 2009–2010. Each seal would be recaptured for sampling after two separate foraging dives. After the second recapture of any given animal (i.e., the third time the animal would be handled), the permit holder would remove all instruments.


The requested amendment would enable the permit holder to investigate the foraging efficiency and behavior of Weddell seals under multiple conditions. Specifically, the permit holder suggests that the additional drag is one way of simulating conditions when prey might be less available (i.e., the animal has to work harder to find sufficient prey), such as when the foraging area is covered by thick sea ice. The proposed amendment would remain in effect for the duration of the permit, which expires on 31 January 2012.

Unlike northern elephant seals, Weddell seals use ice holes to exit the water, and their ability to do so could be hindered by the drag device. This possibility has been acknowledged by the permit holder, and the Commission understands that he and his co-investigators are considering alternative devices that could alleviate the problem. The Marine Mammal Commission therefore recommends that, before approving the requested permit amendment, the National Marine Fisheries Service consult with the permit holder regarding the design of the drag device that will be used. The Marine Mammal Commission further recommends that, if the selected device could hinder passage of seals through ice holes, the permit holder be required to test the device on a small number of seals to ensure that passage is not hindered before being allowed to deploy the device on all eight seals.

The Commission believes that the activities for which it has recommended approval are consistent with the purposes and policies of the Marine Mammal Protection Act.

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

Sincerely,



Timothy J. Ragen, Ph.D.
Executive Director