



# MARINE MAMMAL COMMISSION

13 April 2011

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: Permit Application No. 15748  
(Alaska SeaLife Center)

Dear Mr. Payne:

The Marine Mammal 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 applicant is requesting authorization to conduct research on Weddell seals in Antarctica during a four-year period.

## **RECOMMENDATION**

The Marine Mammal Commission recommends that the National Marine Fisheries Service issue the permit authorizing the proposed activities, contingent on the applicant providing the Service with documentation demonstrating that the proposed research has been reviewed and approved by the Institutional Animal Care and Use Committees identified in the application.

## **RATIONALE**

The applicant proposes to conduct research on Weddell seals in McMurdo Sound and along the shore of Ross Island, Antarctica. The purpose of the proposed activities is to quantify thermoregulatory costs to Weddell seals under ambient air and water conditions. Empirical field data would be combined with an established individual-based energetic model to estimate and compare the energetic requirements of animals of different sizes and body conditions.

The applicant would capture, handle, sedate, measure, weigh, and sample (blood and blubber) 20 adult non-pregnant, non-lactating females and 20 juvenile or weaned pups of either sex each year. In addition, researchers would evaluate the seals using sonography for pregnancy and blubber depth, thermography, and 3-D photogrammetry and would instrument the seals with various devices. The applicant would estimate the ages of the pups involved using observations of their behavior and records from other researchers conducting population surveys in the region. The applicant also is seeking authorization for the accidental capture, restraint, and release of up to 10 pregnant female seals each year. The applicant would not select females that it judged to be pregnant and would release captured females if sonography or a physical exam indicated that they were pregnant. The applicant would either conduct necropsies of or collaborate with researchers performing necropsies on dead Weddell seals found in the study area or that died as a result of the proposed research activities. The applicant also would export from the Antarctic all the tissue

Mr. P. Michael Payne  
13 April 2011  
Page 2

samples from those necropsies and research sampling and import them into the United States. The applicant requests authorization for two unintentional deaths per year and for taking up to 300 seals per year by Level B harassment during the proposed research.

Each year of the proposed research, the applicant would instrument 40 seals with multiple devices that would record depth, swim speed, ambient temperature, light levels, heat flux, skin temperature, and stroke frequency. The applicant also would insert stomach temperature transmitters. ARGOS transmitters and short-range VHF transmitters would be used to locate the seals for recapture and removal of the attached instruments. The applicant would leave ARGOS data transmitters on 10 of the weaned pups for two to three months to collect data on their activities, which are lacking for pups. The applicant also expects that the seals either will regurgitate their stomach temperature transmitters or pass them through their digestive tract within weeks of insertion.

The applicant plans to coordinate with other researchers on a weekly or, if needed, more frequent basis to avoid overlap of activities and to minimize disturbance to any given group of seals. The applicant indicates that the Institutional Animal Care and Use Committees at Alaska SeaLife Center, University of Alaska Fairbanks, and University of Oregon will review the research activities. In addition, the applicant has requested a permit under the Antarctic Conservation Act. The Marine Mammal Commission recommends that the National Marine Fisheries Service issue the permit authorizing the proposed activities, contingent on the applicant providing the Service with documentation demonstrating that the proposed research has been reviewed and approved by the Institutional Animal Care and Use Committees identified by the applicant.

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