



MARINE MAMMAL COMMISSION

15 August 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 20910-3225

Re: Permit Application No. 16472
(Southwest Fisheries Science 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 request with regard to the goals, policies, and requirements of the Marine Mammal Protection Act. The Southwest Fisheries Science Center is requesting authorization to conduct research on four pinniped species in Antarctica during a five-year period. The Center also is requesting authorization to take by incidental harassment six species of pinnipeds. Some of the proposed activities currently are authorized under permit 774-1847, which the Center is seeking to renew and amend.

RECOMMENDATION

The Marine Mammal Commission recommends that the National Marine Fisheries Service issue the permit, provided that it—

- conditions the permit to require the Center to (1) have an experienced marine mammal veterinarian present to ensure proper dosages and protocols for use of sedatives and anesthesia and to direct emergency responses, or (2) if—despite all reasonable efforts—a marine mammal veterinarian or another experienced veterinarian is not available, ensure that the researchers have been instructed in procedures for sedating pinnipeds by an experienced marine mammal veterinarian and their protocols and equipment for animal handling, sedation, and emergency response have been reviewed by that veterinarian prior to conducting the proposed activities;
- advises the Center of the need to obtain approval from its Institutional Animal Care and Use Committee prior to conducting the proposed activities; and
- advises the Center of the need to obtain all necessary permits under the Convention on International Trade in Endangered Species of Wild Fauna and Flora before importing any marine mammal part.

RATIONALE

The Center proposes to conduct research on Antarctic fur seals, leopard seals, southern elephant seals, and Weddell seals in the South Shetland Islands, including Cape Shirreff, Antarctica, during the austral summer. Long-term research would be conducted for more than 25 years to monitor and investigate (1) abundance and distribution, (2) population dynamics, (3) life history parameters, (4) foraging ecology, (5) reproductive success and attendance behavior, and (6) energetics of the above-listed species.

The Center is requesting authorization to harass, capture, handle, administer drugs to, measure, weigh, sample, perform diagnostics (i.e., ultrasound blubber depth) on, collect digestive contents from, mark/tag, and attach instruments to various numbers of individuals of each species. It proposes to conduct those activities on 200 Antarctic fur seal juveniles or adults, 600 Antarctic fur seal pups, 50 leopard seal juveniles or adults, 50 southern elephant seal juveniles or adults, 100 southern elephant seal pups, 30 Weddell seal adults or juveniles, and 20 Weddell seal pups per year. Researchers under the permit would collect blood, milk, hair, vibrissae, nail clippings, muscle, blubber, skin, and feces and analyze them for diet (i.e., stable isotope and fatty acid signatures) and disease/pathology purposes. In addition, teeth would be extracted from juvenile and adult fur seals. Tooth extraction has been performed since 2000 without any incident or loss of an animal. The Center also would administer doubly-labelled water to 30 juvenile and 30 mom-pup fur seal pairs to study energy intake and expenditure rates. Researchers would mark the seals with dye or latex paint, passive integrated transponders, and flipper tags. They also would instrument animals with VHF transmitters, satellite tags, time-depth recorders, platform terminal transmitters, and/or geolocation-light loggers. Animals could be recaptured multiple times for additional sampling or to remove instruments.

The Center proposes to conduct daily census and ground surveys to resight marked or tagged individuals at Cape Shirreff. It also would conduct two regional census surveys of pups during the five-year permit to estimate the Antarctic fur seal population at numerous breeding colonies within in the South Shetland Islands. Researchers would collect spew and feces both systematically and opportunistically during both surveys. In addition, as possible, they would use unmanned aerial vehicles to estimate abundance of the Antarctic fur seal population based on aerial photographs of numerous inaccessible islands and rocks throughout the South Shetland Islands and Western Antarctic Peninsula. The Vertical Take Off and Landing aircraft to be used would be equipped with GPS navigation, is smaller than the size of a large petrel, and much quieter than fixed-wing aircraft. As such, the researchers would operate the aircraft via manual remote control, keeping it at an altitude of at least 30.5 m to avoid causing disturbance. During the course of the research activities, the researchers may encounter pinniped and cetacean carcasses. They would collect tissue samples from the carcasses and import them into the United States. The Center's proposed activities would harass 23,000 Antarctic fur seals, 1,100 southern elephant seals, 100 leopard seals, 200 Weddell seals, 100 crabeater seals, and 5 Ross seals per year incidental to the proposed activities. It also requests to take 3 Antarctic fur seal juveniles or adults, 2 Antarctic fur seal pups, 2 leopard seal juveniles or adults, 2 southern elephant seal juveniles or adults, 2 southern elephant seal pups, 2 Weddell seal adults or juveniles, and 2 Weddell seal pups per year by unintentional mortality.

Mr. P. Michael Payne
15 August 2011
Page 3

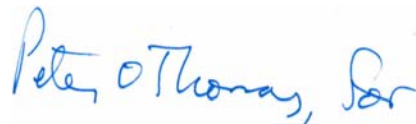
To conduct certain studies, the researchers would inject the subject animals with various sedatives. Dosages would be based on the size class and species to be sedated. The Center has not indicated if a veterinarian would be present to administer the drugs and monitor the animals. To address this uncertainty, the Marine Mammal Commission recommends that the National Marine Fisheries Service condition the permit to require the Center to (1) have an experienced marine mammal veterinarian present to ensure proper dosages and protocols for use of sedatives and anesthesia and to direct emergency responses, or (2) if—despite all reasonable efforts—a marine mammal veterinarian or another experienced veterinarian is not available, ensure that the researchers have been instructed in procedures for sedating pinnipeds by an experienced marine mammal veterinarian and their protocols and equipment for animal handling, sedation, and emergency response have been reviewed by that veterinarian prior to conducting the proposed activities. The Service has indicated that the Center's Institutional Animal Care and Use Committee is reviewing the proposed activities in accordance with the requirements of section 2.31 of the Animal and Plant Health Inspection Service's Animal Welfare Act regulations. The Marine Mammal Commission recommends that the National Marine Fisheries Service advise the Center of the need to obtain approval from its Institutional Animal Care and Use Committee prior to conducting the proposed activities. In addition, the Marine Mammal Commission recommends that the National Marine Fisheries Service advise the Center of the need to obtain all necessary permits under the Convention on International Trade in Endangered Species of Wild Fauna and Flora before importing any marine mammal part.

The Commission and the Service have discussed some discrepancies between the information contained within the text of the permit and the take table. The Service has indicated that those discrepancies will be corrected before the permit is issued.

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 regarding the Commission's recommendations.

Sincerely,

A handwritten signature in blue ink that reads "Peter O'Thomas, Sr".

Timothy J. Ragen, Ph.D.
Executive Director