



MARINE MAMMAL COMMISSION

8 March 2013

Mr. Timothy J. Van Norman
Chief, Branch of Permits
Division of Management Authority
Fish and Wildlife Service
4401 North Fairfax Drive
Arlington, VA 22203

Re: Permit Application No. 95406A
(U.S. Geological Survey,
Alaska Science Center)

Dear Mr. Van Norman:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the U.S. Geological Survey's application to conduct research activities on captive polar bears for a five-year period.

RECOMMENDATION

The Marine Mammal Commission recommends that the Fish and Wildlife Service issue the permit, as requested.

RATIONALE

The U.S. Geological Survey proposes to conduct feeding trials and an energetic study on four captive polar bears at the Alaska and Oregon Zoos. The purpose is to standardize field techniques on captive polar bears to (1) interpret diet data and energetic expenditures from wild polar bears to better understand ecosystem changes in the Arctic and (2) determine if the results from grizzly bear feeding trials are applicable to polar bears.

At the Alaska Zoo, husbandry staff and researchers would sample one adult female and one adult male polar bear no more than twice within a three-month period to monitor fatty acid and stable isotope signatures prior to and following a controlled feeding trial. All sampling would occur during routine health examinations. They would immobilize the bears with Telazol and dexmedetomidine injected using a remotely-fired dart. The drug effects would be reversed when research activities are concluded, which would allow for a faster recovery to normal activities. Researchers would collect blood, hair, and blubber during an approximate 15-minute period. In addition, the female polar bear would be instrumented with a satellite GPS collar fitted with an accelerometer to assess normal behaviors (e.g., *resting, feeding, walking, swimming, and running*). The collar would remain attached for the three-month period but could be triggered remotely to fall off the bear, if needed. The Alaska Zoo holds Exhibitor's License 96-C-0025, issued by the Department of Agriculture under the Animal Welfare Act

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At the Oregon Zoo, husbandry staff would sample one adult female and one adult male polar bear 10 times during a 30-week period (see application for sampling schedule). They have trained the polar bears to allow sampling without immobilization. Researchers would collect blood and hair, but not blubber from those bears. The female bear also would be trained to allow fitting and removal of the satellite GPS and accelerometer collar without immobilization. The collar would remain attached for the three-month period but could be triggered remotely to fall off the bear, if needed. Oregon Zoo holds Exhibitor's License 92-C-0001, also issued by the Department of Agriculture.

Samples would be exported to Canada for analysis. The Survey would obtain the relevant authorization from the Service under the Convention on International Trade in Endangered Species of Wild Fauna and Flora prior to exporting the samples. The Commission believes that ground-truthing field studies are important, especially for species that are affected by a changing ecosystem. Therefore, the Marine Mammal Commission supports the proposed research activities and recommends that the Fish and Wildlife Service issue the permit, as requested.

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,

A handwritten signature in blue ink that reads "Timothy J. Ragen". The signature is written in a cursive style with a long horizontal line extending from the end of the name.

Timothy J. Ragen, Ph.D.
Executive Director