



MARINE MAMMAL COMMISSION

1 July 2010

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

Re: Request for Amendment of Permit No. PRT-067925
(Alaska Science Center, U.S. Geological Survey)

Dear Mr. Van Norman:

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.

RECOMMENDATION

The Marine Mammal Commission recommends that the Fish and Wildlife Service approve the amendment request, provided that the conditions currently contained in the permit remain in effect.

RATIONALE

The permit holder is authorized to capture, immobilize, measure, collect various samples, flipper-tag, inject with subcutaneous transponder chips, surgically implant with VHF radio transmitters and time-depth recorders, recapture animals for instrument removal, administer drugs, including oxytocin, and conduct plasma volume measurements on a total of 80, 180, and 200 northern sea otters over five years from the southeast, south-central, and southwest Alaska stocks, respectively. The permit also authorizes the harassment (i.e., capture and release without processing) of up to 20, 30, and 50 otters from the three stocks, respectively, over five years. The permit holder also is authorized to import annually up to 30 sea otter tissue samples from each of three countries, Russia, Canada, and Japan; to collect salvaged specimens, carcasses, and samples from carcasses; and to conduct aerial surveys to estimate the number of otters.

The permit holder is requesting that the permit be amended to authorize an increase in the number of animals that could be captured and sampled over the remainder of the permit period (i.e., three years) from 80 to 140 for the southeast Alaska stock, 60 to 210 for the south-central stock, and 120 to 210 for the southwest stock. Of those, the permit holder expects to capture and release without sampling up to 20, 30, and 20 animals from the three stocks, respectively. In addition, the permit holder has requested an additional 210 takes from the Washington stock, which was not included in the original permit. Of those, the permit holder is expecting to capture and release without sampling up to 30 otters. Further, the permit holder is requesting authorization to import an additional number of samples (from 30 to 60 annually) from Canada and Russia. Finally, the permit

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holder is requesting that the permit be amended to specify blood collection amounts in terms of a percentage of total body weight or as a percentage of blood volume rather than as a set volume. The permit holder's Institutional Animal Care and Use Committee has reviewed and approved the proposed research.

The permit holder offered the following explanation for the requested amendment.

Nearshore ecosystems in general and sea otter populations in particular face increasing threats from human activities. In 2009 three USGS Science Centers as well as the Minerals Management Service (MMS), National Park Service (NPS), U.S. Fish and Wildlife Service (FWS), Exxon Valdez Oil Spill Trustee Council, (EVOS), North Pacific Research Board (NPRB), and the Monterey Bay Aquarium collaborated to develop and implement a new study to evaluate North Pacific nearshore ecosystems. The objective of the study is to improve our understanding of the factors currently affecting the health and productivity of six separate sea otter populations from California to the Katmai coast of Alaska. The study design incorporates ecosystem productivity, watershed inputs, and diet and nutrition as primary factors potentially influencing nearshore ecosystems and regulating sea otter population abundance and growth rates. Ecosystem productivity will be estimated through 1) growth rates of nearshore fishes and 2) satellite imagery (e.g., chlorophyll and temperature) and remotely sensed data (e.g., oceanographic stations). Watershed modifications and inputs into the nearshore will be estimated through satellite imagery (e.g. Landsat & MODIS) and hydrographic stations. Sea otter diet and nutrition will be estimated through direct observation of foraging otters. Concurrently, we will evaluate the health of the nearshore ecosystem as reflected in the expression of genes (as novel biomarkers) specific to 1) organic pollutants, 2) metals, 3) parasites, 4) bacterial infection, 5) viral infection, and 6) thermal stress in each sea otter population. The combined data sets on 1) nearshore productivity, 2) watershed inputs, 3) sea otter diet and nutrition, and 4) sea otter gene expression will support a multivariate analysis of empirical factors likely responsible for directing the present status and trend of geographically distinct sea otter populations and, by inference, nearshore ecosystems more generally.

The major changes requested in this amendment involve increased numbers of animals sampled and the addition of the Washington stock. The Marine Mammal Commission appreciates the potential value of the proposed study and thus the requested increase in sample size. The primary concern with regard to the increase in sample size would be an increase in the number of subjects that are injured or killed in the course of the study. Because the animals will be tracked closely in this study, and because the permit holder has not requested an increase in the number of allowed serious injuries or deaths, the Commission has no objection to the permit amendment as long as previously established permit conditions remain in effect. Therefore, the Marine Mammal Commission recommends that the Fish and Wildlife Service approve the amendment request, provided that the conditions currently contained in the permit remain in effect.

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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 and the Endangered Species Act.

Please contact me if you have any questions concerning this recommendation.

Sincerely,



Timothy J. Ragen, Ph.D.
Executive Director