18 January 2012

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. 15240
(Pacific Islands 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 application with regard to the goals, policies, and requirements of the Marine Mammal Protection Act. The Pacific Islands Fisheries Science Center is requesting authorization to conduct research on 26 specified cetacean species, unidentified *Mesoplodon* spp., unidentified *Kogia* spp., other unidentified beaked whales, unidentified rorqual whales, and unidentified dolphins. Hawaiian monk seals also may be taken incidental to the research activities. The Center would conduct its research in all U.S. and international waters in the central and western Pacific Ocean during a five-year period.

RECOMMENDATIONS

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

- condition the permit to require the Center to minimize disturbance of the subject animals by exercising caution when approaching animals, particularly female/calf pairs, and stopping an approach if any evidence indicates that the activity is interfering with female/calf behavior, feeding, or other vital functions;
- condition the permit to allow tagging of females with all but neonate calves (e.g., calves with fetal folds) and require the Center to make observations sufficient to detect possible short- and long-term effects of biopsy sampling and tagging and report the effort made and the information collected to the Service;
- ensure that activities to be conducted under this permit and those of other permit holders who might be conducting research on the same species in the same areas are coordinated and, as possible, data and samples shared;
- verify the experience of each co-investigator and condition the permit to allow them to oversee certain procedures (e.g., biopsy sampling, suction-cup tag deployment, dart tag deployment) only if they have demonstrated proficiency with those procedures;

- advise the Center of the need to obtain permits under the Convention on International Trade in Endangered Species of Wild Fauna and Flora prior to importing or exporting parts from marine mammals listed in the Convention's appendices; and
- advise the Center of the need to consult with the relevant entity (e.g., National Marine Sanctuary, National Ocean Service, Marine National Monument) and obtain any required permits prior to conducting the proposed activities in a sanctuary or monument.

RATIONALE

The Pacific Islands Fisheries Science Center proposes to conduct research on cetaceans in the central and western Pacific Ocean, including both international waters and the waters of Hawaii, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and other U.S. territories. The purposes of the proposed research are to investigate cetacean (1) abundance; (2) stock structure; (3) demographic parameters and trends in recruitment; (4) range, movement patterns, and habitat use; and (5) dive behavior.

Observing, photographing, videotaping, and recording

The Center seeks authorization to observe, photograph, and acoustically record numerous individuals of various species or groups of cetaceans each year. (See the take table in the application.) Individuals of all age classes and either sex could be harassed. Researchers under this permit would use fixed-wing aircraft flown at an altitude of 213 m, and the survey aircraft would circle sighted animals for up to one hour to obtain good quality photographs and group size estimates. They also would conduct systematic line-transect surveys using small and large vessels. Researchers would approach animals at a minimum distance of 5 m for delphinids and 15 m for large whales when using small vessels and 300 m when using large vessels. They would collect environmental and standard survey data (i.e., species, number, distance/heading, behavior, etc.) during both aerial and vessel-based surveys. The large vessels also would tow a 300-m hydrophone array to obtain acoustic recordings of cetaceans. If an animal or group reacts adversely to the plane or vessel, the researchers would cease activities. The Center proposes to take up to 25 Hawaiian monk seals per year incidental to its vessel surveys.

Collecting samples

The researchers would biopsy sample most cetaceans using a non-tethered crossbow, adjustable-pressure modified airgun, or pole. They would use a tethered crossbow or airgun to biopsy sample bow-riding cetaceans. They would not biopsy sample calves of large cetacean species (i.e., all mysticete species, unidentified rorqual whales, and sperm whales) less than six months of age or small cetacean calves (i.e., all other species or groups) less than one year of age, but would biopsy sample females with such calves. They also would cease biopsy sampling activities if an individual or a group exhibits rapid changes in direction, prolonged diving, or other avoidance behaviors. In addition, researchers would collect sloughed skin, feces, and marine mammal remains using various types of nets. They would export and import blubber, skin, feces, and marine mammal remains for various analyses and archiving purposes.

Tagging cetaceans

The researchers would instrument numerous cetaceans using suction-cup and/or dart tags. (See the take table.) Suction-cup tags may include VHF transmitters and data loggers that would record and store time, depth, temperature, light levels, GPS locations, acoustic recordings, swim speed, video, and still images. The dart tags would include location-only transmitters and satellite-linked time-depth recorders and would be anchored in the skin at minimal depths. Tags would be deployed via pole, crossbow, or pneumatic projector at a distance of 2–30 m. The researchers would instrument individuals with two different types of tags simultaneously. They would not tag large cetacean calves less than six months of age or small cetacean calves less than one year of age, but propose to tag females with such calves. Tagging of females with calves would occur infrequently and primarily for pilot and false killer whales to understand movement patterns and behaviors of females accompanying calves. The researchers would make no more than four tagging attempts per individual per year. High-resolution photographs would be used to assess skin healing and tag placement.

Permit issuance

The Center noted that it would cease activities if any evidence indicated that its activities were interfering with pair bonding, nursing, reproduction, feeding, or other vital functions. The Commission concurs with the need for such restrictions and believes that the permit should include them explicitly, particularly for female-calf pairs. To that end, the Marine Mammal Commission recommends that the National Marine Fisheries Service issue the permit, but condition it to require the Center to minimize disturbance of the subject animals by exercising caution when approaching animals, particularly female/calf pairs, and stopping an approach if any evidence indicates that the activity is interfering with female/calf behavior, feeding, or other vital functions.

In addition, the Center is requesting to tag females with dependent calves of any age. Data regarding the behavior of females accompanying calves would be useful, but that data should not be collected at the expense of the calves. In the past few years, the Commission has based its tagging recommendations on the idea of a slow and graduated increase in activities involving female-calf pairs, coupled with careful monitoring and reporting of potential adverse effects. Until now, the Commission generally has recommended that researchers not tag females with dependent calves, particularly those likely to be less than six months of age. To date, the Commission is aware of no reports indicating strong adverse effects from researchers studying female-calf pairs. Therefore, it may be reasonable to allow some additional leeway in working with those pairs. On that basis, the Marine Mammal Commission recommends that the National Marine Fisheries Service condition the permit to allow tagging of females with all but neonate calves (e.g., calves with fetal folds) and require the Center to make observations sufficient to detect possible short- and long-term effects of biopsy sampling and tagging and report the effort made and the information collected to the Service.

To avoid unnecessary redundancy in research and related adverse effects, the Marine Mammal Commission recommends that the National Marine Fisheries Service ensure that activities to be conducted under this permit and those of other permit holders who might be conducting

research on the same species in the same areas are coordinated and, as possible, data and samples shared.

The Center has indicated that all co-investigators have been trained in proper biopsy sampling techniques and that most of them have many years of experience biopsy sampling cetaceans. The Center also stated that a subset of the co-investigators is able to oversee tagging activities and they would train other co-investigators as opportunities and needs arise. The training and qualifications of the co-investigators is particularly important if they are to be allowed to biopsy or tag females with calves. To ensure that the researchers are minimizing risk to study animals, the Marine Mammal Commission recommends that the National Marine Fisheries Service verify the experience of each co-investigator and condition the permit to allow them to oversee certain procedures (e.g., biopsy sampling, suction-cup tag deployment, dart tag deployment) only if they have clearly demonstrated proficiency with those procedures.

The Center's Institutional Animal Care and Use Committee reviewed and approved the research protocols before its application was submitted to the Service's Permit Office. In addition, the importation and exportation of marine mammal parts requires certain authorizations. To ensure all requirements are met, the Marine Mammal Commission recommends that the National Marine Fisheries Service advise the Center of the need to obtain permits under the Convention on International Trade in Endangered Species of Wild Fauna and Flora prior to importing or exporting parts from marine mammals listed in the Convention's appendices. The Center also stated that some of the research activities would occur in various national marine sanctuaries and monuments. That being the case, the Marine Mammal Commission also recommends that the National Marine Fisheries Service advise the Center of the need to consult with the relevant entity (e.g., National Marine Sanctuary, National Ocean Service, Marine National Monument) and obtain any required permits prior to conducting the proposed activities in a sanctuary or monument.

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 recommendations.

Sincerely,

Timothy J. Ragen

Timothy J. Ragen, Ph.D.
Executive Director