



MARINE MAMMAL COMMISSION

11 June 2012

Mr. P. Michael Payne, Chief
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3225

Re: Permit Application No. 16388
(Mark Baumgartner, Ph.D.,
Woods Hole Oceanographic Institution)

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. Dr. Baumgartner is seeking to renew permit 1058-1733 to allow him to study eight mysticete species in the northwest Atlantic, northeast Pacific, and Arctic Oceans during a five-year period.

RECOMMENDATIONS

The Marine Mammal Commission recommends that the National Marine Fisheries Service issue the permit but—

- condition the permit to require that Dr. Baumgartner make observations regarding possible short- and long-term effects of tagging on all age and sex classes, but particularly on mother-calf pairs, and report the effort made and the information collected to the Service;
- ensure that tagging activities to be conducted under this permit and those of other permit holders who might be tagging the same species in the same areas are coordinated and, as possible, data and samples are shared to avoid duplicative research and unnecessary disturbance of animals;
- allow the requested number of incidental harassment takes as long as the other approach restrictions are clearly stipulated in the permit; and
- advise Dr. Baumgartner of the need to have his Institutional Animal Care and Use Committee (IACUC) review and approve all research protocols prior to implementing them in the field.

RATIONALE

Dr. Baumgartner proposes to conduct research on mysticetes in U.S. and international waters in the (1) northwest Atlantic Ocean from Florida to Maine and areas north of Newfoundland, (2) northeast Pacific Ocean from California to Washington, and (3) Arctic Ocean including the Bering, Chukchi and Beaufort Seas. The proposed activities would occur from March

through November of each year. The purposes of the proposed research are to (1) characterize diving and foraging behavior and the oceanographic and acoustic environment in which those activities occur, (2) describe day-night cycles of foraging behavior (3) characterize the environmental factors that influence diving behavior for all size and age classes, and (4) identify preferred prey species and their oceanographic environment to develop a predictive model of mysticete distribution.

To accomplish those objectives, Dr. Baumgartner proposes to observe, instrument with tags, photograph, and record acoustically blue, humpback, sei, fin, bowhead, North Atlantic right, North Pacific right and gray whales each year (see the take table in the application, detailing the proposed taking). He would observe whales from a distance to determine whether they are good candidates for tagging with either dermal-attachment or suction-cup tags. Dermal-attachment tags may include acoustic transmitters, time-depth recorders, VHF radio transmitters, or data loggers that would record and store time, depth, temperature, light levels, wet/dry status, and GPS locations. Suction-cup tags may include time-depth recorders, pitch and roll sensors, acoustic transmitters, and VHF transmitters. He would deploy tags using a pneumatic projector or pole at a distance of 9–25 m.

Dr. Baumgartner would not instrument calves less than one year of age or females with those calves with the dermal-attachment tag. However, he would instrument calves estimated to be at least six months of age and females with calves with the suction-cup tag. He would not approach whales that are agitated (e.g., breaching, tail lobbing) or engaged in social behavior with other whales. Dr. Baumgartner would cease tagging attempts if (1) a female and her calf are separated by more than 50 m for longer than a few minutes, (2) a whale exhibits moderate to strong reactions to close approaches (e.g., forceful roll, tail slash, tail lob, breach), or (3) a whale exhibits continued evasion behavior during multiple close approaches.

The Service considers any animal approached within a certain distance (e.g., 100 m) as having been taken by incidental harassment (i.e., Level B harassment), regardless of whether the animal reacts to the approach or related research activities. Dr. Baumgartner estimated the total number of takes per species for tagging activities based on all anticipated approaches, including successful tagging of an individual, tagging misses (i.e., the tag misses the animal and hits the water), unsuccessful tagging attempts (i.e., the tag does not adhere to the animal or the animal dives before the tag can be attached), and limited attachment duration (i.e., attachments holding for less than one hour). As a result, the number of individuals successfully tagged (i.e., 15 whales of each species in each locale per year using dermal-attachment tags and 30 whales of each species in each locale per year using suction-cup tags) would comprise a subset of the requested takes.

After a whale is tagged, Dr. Baumgartner would photograph the whale and monitor it visually at a distance of 100 m or greater. During nighttime tracking, he would monitor whales using night-vision equipment. He also would monitor them acoustically using a hand-held directional hydrophone or a four-element, free-floating hydrophone array deployed 600–800 m from the vessel. Dr. Baumgartner would sample the water column near tagged whales using a vertical profiler that contains a conductivity-temperature-depth instrument, fluorometer, optical plankton counter, and

video plankton recorder. After a few hours or days, corrosive release mechanisms would cause the tags to fall off the whales and Dr. Baumgartner would retrieve them.

Data regarding the behavior of females accompanied by calves would be useful, but such data should not be collected if it involves excessive risk to the calves. In the past few years, the Commission has recommended that the Service adopt a policy authorizing a slow and graduated increase in activities involving female-calf pairs, coupled with careful monitoring and reporting of potential adverse effects. The Commission is not aware of any reports indicating strong adverse effects from studies of female-calf pairs. Therefore, the Commission believes it is reasonable to allow additional flexibility in working with those pairs, provided that the researcher is required to monitor and report whale responses to such activities.

Although the Commission believes that mother-calf pairs warrant special attention, it also believes that it is important to document short- and long-term effects of tagging on all sex and age classes. For that reason, the Marine Mammal Commission recommends that the National Marine Fisheries Service issue the permit but condition it to require that Dr. Baumgartner make observations regarding possible short- and long-term effects of tagging on all age and sex classes, but particularly on mother-calf pairs, and report the effort made and the information collected to the Service. In addition, Dr. Baumgartner indicated that he would share photographs of tagged whales with the appropriate entities, but he did not indicate whether he would coordinate his tagging activities with other researchers. To that end, the Marine Mammal Commission recommends that the National Marine Fisheries Service ensure that tagging activities to be conducted under this permit and those of other permit holders who might be tagging the same species in the same areas are coordinated and, as possible, data and samples are shared to avoid duplicative research and unnecessary disturbance of animals.

Based on the Service's approach criterion for determining takes, Dr. Baumgartner requested authorization to harass incidentally up to 800 whales of each target species at each location per year. Those takes could include the same animals being harassed over the course of multiple days (i.e., 80 animals harassed during a 10-day period equating to 800 takes per year) or 800 individuals taken once per year. When the Service requested additional information to justify the number of incidental harassment takes, Dr. Baumgartner responded that, for all species except North Pacific right whales, he could work with an aggregation of 50 whales during a 10-day cruise, which would be counted as 500 takes. He indicated that he would be willing to reduce the incidental harassment takes for North Pacific and North Atlantic right whales if the Service considered it necessary as long as he would be able to conduct the proposed activities as specified. Given the Service's approach for counting takes (which the Commission believes is reasonable), the Commission believes that the originally requested number of takes is acceptable as long as Dr. Baumgartner adheres to the approach restrictions he described in his application. The Commission understands the Service's need to define takes based on approach distance, but also appreciates that implementing that definition may require the allocation of additional takes to complete a proposed research study. As such, the Marine Mammal Commission recommends that the National Marine Fisheries Service allow the requested number of incidental harassment takes as long as the other approach restrictions are clearly stipulated in the permit.

Mr. P. Michael Payne
11 June 2012
Page 4

Dr. Baumgartner's IACUC has reviewed and approved the dermal-attachment tagging protocols. However, it is unclear if his IACUC reviewed and approved the other research protocols (e.g., suction-cup tagging). Therefore, the Marine Mammal Commission recommends that the National Marine Fisheries Service advise Dr. Baumgartner of the need to have his IACUC review and approve all research protocols prior to implementing them in the field.

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,

A handwritten signature in blue ink that reads "Timothy J. Ragen". The signature is written in a cursive style with a long horizontal stroke at the beginning.

Timothy J. Ragen, Ph.D.
Executive Director