8 September 2015

Ms. Jolie Harrison, 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. 18903
(Peter Tyack, Ph.D.,
Woods Hole Oceanographic Institution)

Dear Ms. Harrison:

The Marine Mammal Commission (the 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 MMPA). Dr. Tyack is seeking to renew his permit to conduct research on odontocetes in the North Atlantic and North Pacific Oceans and Mediterranean Sea during a five-year period—permit 14241 authorized the same procedures.

Dr. Tyack and co-investigators propose to conduct research on numerous species of odontocetes[1], primarily from March to October of each year in various locations (see the Take Tables). The purpose of the research activities is to (1) determine how odontocetes produce and use sound to communicate, forage, and orient in their environment, (2) investigate responses of odontocetes to anthropogenic sound, and (3) investigate indicators for mass stranding and monitor behavior of stranded animals that then are released. Dr. Tyack would harass, observe/track[2], photograph/videotape, mark with zinc oxide, record acoustically[3], conduct playback studies[4] and photogrammetry on, sample[5], and/or instrument[6] numerous odontocetes of both sexes and various age classes (see the Take Tables). He would not biopsy sample or tag neonate calves or females with neonate calves. However, he could biopsy sample and tag lactating females with dependent non-neonate[7] calves. Female-calf pairs would not be approached more than three times in a given day. Dr. Tyack would not conduct playback studies on groups of animals with neonate calves. Various species of marine mammals could be harassed incidental to the proposed activities (see the Take Tables).

[1] All of which are not listed under the Endangered Species Act.
[2] Including conducting focal follows.
[3] Prey fields also would be mapped with echosounders.
[4] Using a sound source that emits sonar-like signals, killer whale calls, and pseudo-random noise with a maximum source level of 197.4 dB re 1 μPa at 1 m. The sound source would be active for a maximum of 30 minutes.
[5] Including biopsy sampling and collecting sloughed skin. Samples could be imported or exported for analysis.
[6] With suction-cup and dart tags (i.e., LIMPET tags).
[7] Calves lacking obvious fetal folds.

To minimize impacts during tagging attempts and playback studies, Dr. Tyack would cease his activities if animals exhibit a strong adverse reaction to the activity or the vessel (e.g., breaching, tail lobbing, underwater exhalation, or disassociation from the group). Tagging efforts would be ceased if a female-calf pair begins to be separated or show other signs of disturbance during tagging attempts. To minimize repeat playbacks on tagged individuals, Dr. Tyack would crosscheck the photo-identification catalog before tagging and conducting playback studies on individuals. If endangered whales[8] are detected within a few kilometers of the playback activities, transmissions would be suspended. He also would implement ramp-up procedures and would suspend any playback activities if an animal comes within 10 m of the source. Dr. Tyack would coordinate and collaborate with the Cape Cod Stranding Network, International Fund for Animal Welfare, Bahamas Marine Mammal Research Organization, Southwest Fisheries Science Center, National Marine Mammal Laboratory, Cascadia Research Collective, and various European researchers. Various Institutional Animal Care and Use Committees have reviewed and approved the research protocols.

Regarding conducting activities on non-neonate calves, Dr. Tyack indicated that if he could assess age reliably, he would use an age criterion (such as less than one year of age). He did note that it is important to be cautious to avoid disrupting the critical female-calf bond in young calves. However, there is little information on females with calves, including biological information on the behavioral mechanisms used to maintain contact between females and older dependent calves and how exposure to anthropogenic sounds may affect the ability of the female and an older calf to maintain contact. Dr. Tyack indicated that older calves are much less vulnerable than neonate calves to temporary disturbances or even separation from females that could be associated with close approaches for tag attachment. In recent years, the Commission has allowed additional leeway in working with females with younger calves and is aware of no reports indicating that strong adverse effects have occurred when researchers have studied female-calf pairs under various research permits. Therefore, the Commission believes it is reasonable to allow flexibility in working with those pairs, provided that the researcher undertakes appropriate monitoring and reporting. Therefore, the Commission recommends that the National Marine Fisheries Service (NMFS) condition the permit to allow Dr. Tyack to conduct the proposed activities on the requested species for all but neonate calves (i.e., calves with fetal folds) and require him to report any adverse effects of those activities on the female-calf pairs to NMFS.

The Commission believes that the proposed activities are consistent with the purposes and policies of the MMPA. Kindly contact me if you have any questions concerning the Commission's recommendation.

Sincerely,

Rebecca J. Lent

Rebecca J. Lent, Ph.D.
Executive Director

[8] In addition, playbacks of killer whale calls would not occur in Hawaii in the season when humpbacks are present.