MARINE MAMMAL COMMISSION

3 February 2014

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. 16591
(Darlene Ketten, Ph.D.,
Woods Hole Oceanographic Institution)

Dear Mr. Payne:

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. Ketten is requesting authorization to receive, possess, import, and export samples from any species under National Marine Fisheries Service (NMFS) jurisdiction for purposes of scientific research during a five-year period. She is seeking to renew permit 493-1848.

RECOMMENDATION

The Marine Mammal Commission recommends that the National Marine Fisheries Service issue the permit, as requested.

RATIONALE

Dr. Ketten proposes to receive, possess, import, and export samples from up to 20 dead individuals per year of any species under NMFS jurisdiction worldwide. All age classes and both sexes could be sampled. The objectives of the proposed research are to investigate hearing capabilities and loss in marine mammals, primarily by determining sound reception pathways and generating estimates of auditory sensitivity in marine mammals.

Dr. Ketten proposes to obtain whole carcasses, heads, and temporal bones from dead stranded and captive animals and animals that have been killed during legal subsistence hunts or incidental to legal fishery operations. Samples would be collected by authorized individuals in the United States and foreign countries. She would analyze the samples using computed tomography (CT) and magnetic resonance imaging (MRI) technology. Some samples then would be dissected, decalcified, processed for histology, sectioned, digitized, and reconstructed. Finite element modeling and atomic force microscopy would be used to calculate the position and geometry of tissues for sound pathways and to estimate frequency distribution maps for each ear examined. Dr. Ketten would return the samples that are analyzed using only CT and MRI to the lending facility, institution,

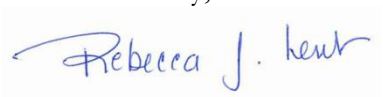
or researcher. She would obtain the necessary authorizations under the Convention on International Trade in Endangered Species prior to importing or exporting any sample.

The Commission believes the research would provide relevant information regarding hearing capabilities and loss in marine mammals and therefore recommends that NMFS 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 MMPA.

The Commission appreciates the opportunity to comment on this permit application. Kindly contact me if you have any questions concerning the Commission's recommendation.

Sincerely,



Rebecca J. Lent, Ph.D.
Executive Director