MARINE MAMMAL COMMISSION

30 April 2014

Dr. Tammy Adams, Acting 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. 18691
(Terrie Williams, Ph.D.,
University of California, Santa Cruz)

Dear Dr. Adams:

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. Williams is seeking to renew permit 984-1814 to conduct research activities on Weddell seals in Antarctica during a five-year period.

RECOMMENDATION

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

RATIONALE

Dr. Williams proposes to conduct research on Weddell seals in McMurdo Sound, Antarctica, from July through December of each year. She would investigate navigation, orientation, and sensory modalities in Weddell seals.

Dr. Williams would harass, capture, handle, restrain, transport, sedate, measure, weigh, sample, conduct procedures on (i.e., ultrasound and metabolic chamber studies), and mark/tag up to 12 adult Weddell seals each year[1]. Seals would be captured individually using a purse net on the ice and transported via box sled to a field camp where various measurements and samples would be collected. A seal would be monitored continuously during transport and would be released quickly from the sled if it became agitated. Dr. Williams has been conducting the transport activities for more than 11 years with no adverse incidents. Each seal could be held for up to 18 hours[2]. Because nearly the entire population has been marked with flipper tags, those seals would be of known age and would have a known reproductive history. She would apply tags if an animal was not already

[1] Only 36 seals would be captured and processed during the five-year period.
[2] Up to 4 hours for metabolic measurements, 2 hours under sedation for sampling and instrumentation, and an overnight rest to recover fully from the anesthesia before diving.

tagged and reapply tags only if the original tags were lost, damaged, or unreadable. Dr. Williams would collect blood and metabolic measurements using a metabolic chamber. In addition, Dr. Williams would attach a video/data recorder to a neoprene patch glued to the head of up to 8 seals each year[3]. A battery pack, heart rate monitor, satellite transmitter, and VHF transmitter also would be attached to neoprene glued to the back of each seal. Each seal would be released at one of three isolated breathing holes (one with low magnetic relief and two with magnetic relief oriented at 45° angles to one another). After two to four days, the seal will haul out. At that time, researchers would recapture the seal, transport it to a different breathing hole/magnetic relief area, and change battery packs/assess the instruments to ensure operational status. Each seal would be recaptured up to three times, two times to relocate it to different breathing holes/magnetic relief areas and the third time to release it where they were captured originally. Each seal would be instrumented for up to 12 days.

During the course of the research activities, Dr. Williams may encounter pinniped carcasses. She would collect tissue and skeletal samples from up to five Weddell seal carcasses per year and import them into the United States. Dr. Williams' proposed activities could harass 15 adult and 5 juvenile Weddell seals per year incidental to the proposed activities. She also requests authorization for up to two unintentional mortalities per year and would perform a necropsy on any seal that dies during the course of the activities.

Because the activities would occur in late winter and early austral summer of most years, the majority of the activities would occur before the main portion of the pupping season[4]. In addition, pregnant and/or lactating adult females would not be captured intentionally. The Commission understands that, although Dr. Williams does not plan to capture pregnant or lactating females and has requested authorization for unintentional mortalities for adults only, the National Marine Fisheries Service (NMFS) may condition the permit to specify that the death of any unborn pup (i.e., a fetus of any age) would be counted against the authorized number of mortalities. The Commission notes that NMFS does not have a consistent policy with respect to when the death of a fetus will be considered a mortality under a permit or for determining when to include such a condition in its pinniped research permits. As such, the Commission is concerned that applicants may not factor the possible deaths of fetuses in their authorization requests and may be forced to suspend their activities if pregnant females are accidentally killed in the course of conducting the proposed research.

The Commission has commented on this matter in the past and has recommended that only third trimester fetuses should be counted towards any mortality limit. The Commission also has advised NMFS of the need to adopt a consistent approach that provides applicants with clear guidance about how and when to account for fetuses that may die as a result of a pregnant pinniped dying during research activities. Until such guidance is provided, NMFS should refrain from conditioning permits to count fetuses against any mortality limit unless it is clear that the applicant anticipated such a possibility. The Commission believes that it would be useful to meet with NMFS to discuss this matter and again requests that a meeting be scheduled. Depending on the issues to be discussed, it also might be useful to include veterinarians and pinniped researchers as well.

---

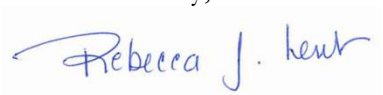
[3] Only 24 seals would be instrumented during the five-year period.
[4] During the pupping season, Dr. Williams would avoid capturing seals in areas where females give birth and nurse their pups.

Dr. Williams has indicated that her Institutional Animal Care and Use Committee has reviewed and approved the proposed procedures. She would collaborate with researchers at Texas A&M University, Montana State University, and the University of California, Santa Cruz. Therefore, the Commission 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