



MARINE MAMMAL COMMISSION

24 July 2012

Mr. Timothy J. Van Norman
Chief, Branch of Permits
Division of Management Authority
U.S. Fish and Wildlife Service
4401 North Fairfax Drive
Arlington, VA 22203

Re: Request for Amendment, Permit No. MA045447
(Terrie M. Williams, Ph.D.,
University of California Santa Cruz)

Dear Mr. Van Norman:

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. Permit MA045447 authorizes Dr. Williams to conduct research on sea otters that are deemed non-releasable or are undergoing rehabilitation at the Monterey Bay Aquarium's Sea Otter and Conservation Program. The current permit expires on 21 September 2013. Dr. Williams is requesting to add the use of Evans blue dye and serial blood sampling to the current permit.

RECOMMENDATION

The Marine Mammal Commission recommends that the Fish and Wildlife Service issue the permit amendment, provided that the conditions contained in the current permit remain in effect.

RATIONALE

The purpose of the Dr. William's research is to study sea otter physiology, energetics, diving behavior, and thermoregulation. The studies involve harassing, observing, sampling, and monitoring vital rates. Dr. Williams is requesting to add the Evans blue dye technique to her permit. That technique would enable her to determine blood volume that could then be used in conjunction with other permitted procedures to calculate the physiological capacity for various age classes of sea otters. She requests to sample up to 15 sea otters of any age class up to two times each for the duration of the permit. However, sea otters less than 2 kg (approximately two days old) would not be sampled and sampling of any animal would be at the discretion of the attending veterinarian. Sea otters would be brought to the Aquarium's veterinary lab and sedated with fentanyl and midazolam. All blood samples (including an initial sample and up to three serial samples) and injections of the dye would occur via a jugular catheter. Once the samples are obtained, researchers would inject the sea otters with naltrexone to reverse the sedation effects and return them to their holding tanks.

Dr. William's Institutional Animal Care and Use Committee reviewed and approved the proposed amendments to her research protocols. The Marine Mammal Commission believes the

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proposed technique is reasonable and recommends that the Fish and Wildlife Service issue the permit amendment, provided that the conditions contained in the current permit remain in effect.

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 recommendation.

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