



# MARINE MAMMAL COMMISSION

30 August 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. 17152  
(PRBO Conservation Science)

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. PRBO Conservation Science (formerly Point Reyes Bird Observatory and referred to herein as PRBO) is seeking to renew permit 373-1868 for research on pinnipeds along the central California coast during a five-year period.

## **RECOMMENDATION**

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

## **RATIONALE**

PRBO proposes to conduct research on harbor seals, northern elephant seals, California sea lions, northern fur seals, and Steller sea lions year-round from Año Nuevo Island to the Russian River, California. The objectives are to continue research of more than 30 years investigating (1) abundance and distribution, (2) survival and reproductive success, (3) movement patterns and habitat use, (4) foraging ecology and fisheries interactions, (5) disease and health, and (6) effects of human disturbance on pinnipeds. PRBO, the National Park Service (i.e., Point Reyes National Seashore), and U.S. Fish and Wildlife Service (i.e., Farallon National Wildlife Refuge) have integrated their pinniped monitoring efforts for the past 10 years.

### **Harbor seal research activities**

PRBO would harass, capture, handle, restrain, administer drugs to, measure, weigh, mark/tag, sample, and instrument 325 harbor seals each year of any age class or either sex. Those seals would be captured at Point Reyes Peninsula, San Francisco Bay, and the Russian River from June through February. By avoiding the pupping season, researchers would not capture lactating females and their dependent pups or pregnant females in the third trimester. In general, researchers would use salmon, seine, or hoop nets to capture the seals. They also may capture, or harass incidental to capture efforts, up to 2,900 harbor seals per year. Because the capture methods and

skittish nature of the animals preclude capturing only single, specific individuals, researchers would release (unsampled) other seals obtained during a capture event. Up to five seals could be recaptured one additional time each year for resampling and reattachment of instruments. PRBO researchers would mark each harbor seal with plastic flipper and passive integrated transponder tags to allow identification of individual seals. If the researchers recaptured a seal, they would reattach or implant new tags only if the original tags were lost or damaged, or if the seal was not tagged during previous captures. The researchers would collect blood, hair, blubber, skin, swabs, urine, and feces from each seal and would sample up to 40 harbor seals that are one month of age or older using lavage or an enema.

Regarding the 325 harbor seals that could be instrumented, PRBO researchers would attach the instruments to the pelage of the head or between the shoulders using loctite or epoxy. The instruments could include plastic hat tags (i.e., a type of marking device that does not store or transmit data), VHF transmitters, radio-frequency identification transmitters, satellite transmitters, GPS transmitters, and time-depth recorders. Instruments either would be removed when the animals are recaptured several weeks later or would be left to fall off during the next molt. Several of the instruments could be implanted surgically either within the subcutaneous layer or under the blubber layer of up to 20 of the 325 seals per year. Scientists have implanted such instruments in harbor seals for more than 10 years with no obvious negative consequences. PRBO researchers would attach up to two instruments to each seal. The total weight of the instruments would not exceed 1 percent of the seal's body mass. Researchers would not instrument lactating females and their dependent pups or pregnant females in the third trimester.

The researchers also would conduct ground surveys using standard optical and photography equipment to assess abundance and document any disturbances (potential or actual) in the vicinity of harbor seal colonies year-round. They would characterize seal responses and use that information to assess whether seal population numbers, distribution, and productivity are correlated to the source and frequency of the disturbances. During the ground surveys researchers would not approach seals closer than 30.5 m or harass them. However, they could harass up to 2,100 harbor seals per year during collection of scats to assess feeding habits. Scat collection could occur at anytime throughout the year except during the pupping season.

If a harbor seal is injured during the proposed research activities, researchers would transport it to The Marine Mammal Center for medical assessment and appropriate treatment if possible. If however a harbor seal appears to be mortally injured during the proposed research activities, a veterinarian may have to administer drugs to euthanize it in the field. PRBO is requesting to take by mortality up to 10 harbor seals during the five-year period.

### **Other pinniped research activities**

The applicant would conduct research activities on northern elephant seals at South Farallon Island, Point Reyes Peninsula, San Francisco Bay, and the Russian River year-round. Some of those activities therefore would occur primarily during the breeding season (i.e., December through March). Researchers would harass, capture, handle, restrain, measure, weigh, mark/tag, and/or sample up to 250 weaned pups each year (see take table for details). Pups would be captured using hoop nets and physical restraint. Researchers would mark each pup with flipper tags and hair dye

Mr. P. Michael Payne  
30 August 2012  
Page 3

and could collect blood and swabs. In addition, each year up to 2,250 elephant seals of all age classes and either sex would be marked with flipper tags and hair dye (see take table for details). Researchers conduct marking activities without capturing or restraining seals when they are asleep or resting on shore, thereby causing minimal disturbance. Lactating females and their dependent pups would not be marked with either flipper tags or hair dye. However, researchers would mark with hair dye only up to 150 pregnant females in the third trimester. They also could reattach flipper tags to up to 100 seals each year if the original tags have been lost or damaged. California sea lions, northern fur seals, and harbor seals could be harassed incidentally during those activities.

The researchers also would conduct ground surveys using standard optical and photography equipment at distances no closer than 30.5 m for elephant seals and 91.5 m for California sea lions, northern fur seals, and Steller sea lions. The latter surveys are conducted primarily from cliffs overlooking the pinniped colonies. Researchers are able to survey Steller sea lions at their isolated haul-out sites without being detected. However, they could harass up to 1,000 elephant seals, 2,000 California sea lions, 75 northern fur seals, and 500 harbor seals per year during the proposed research activities. Lactating females and their dependent pups would not be harassed, except for female elephant seals and their pups during elephant seal ground surveys.

PRBO and the Farallon National Wildlife Refuge do not have Institutional Animal Care and Use Committees (IACUCs) and the National Park Service is in the process of developing a national committee. In the interim, PRBO would use the Moss Landing Marine Laboratories' IACUC, which already has approved the same research protocols. PRBO also stated that the proposed research activities could occur in numerous protected areas. It has obtained the relevant authorizations to conduct research activities in those areas in the past and has or would secure all necessary authorizations in the future.

PRBO collaborates with researchers from the National Park Service, U.S. Fish and Wildlife Service, Moss Landing Marine Laboratories, The Marine Mammal Center, University of California Santa Cruz, National Marine Mammal Laboratory, and Southwest Fisheries Science Center. It indicated that it would contact researchers who work in the same areas and coordinate efforts with them. Therefore, the Marine Mammal Commission recommends that the National Marine Fisheries Service 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 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