



MARINE MAMMAL COMMISSION

2 March 2011

Mr. P. Michael Payne, Chief
Permits, Conservation, and Education Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

Re: Request for Amendment, Permit Application No. 14334
(Alaska SeaLife Center)

Dear Mr. Payne:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the above-referenced permit amendment request with regard to the goals, policies, and requirements of the Marine Mammal Protection Act. The Commission provides the following recommendation and rationale.

RECOMMENDATION

The Marine Mammal Commission recommends that National Marine Fisheries Service amend Permit No. 14334 as requested.

RATIONALE

Permit No. 14334 authorizes the Alaska SeaLife Center to take by harassment up to five captive adult Steller sea lions, including one male and four females. The purpose of the taking is to study the reproductive physiology of individuals from the eastern population and the survival, growth, and physiology of up to six captive-bred offspring of the captive animals. The permit also authorizes the attachment of biotelemetry instruments on the captive animals to develop and validate methods for monitoring wild Steller sea lions. In addition, the authorized research includes investigation of stress responses, endocrine and immune system function, and seasonal variations in normal biological parameters such as body mass and composition. The permit authorizes the unintentional death of two animals during the five-year duration of the permit.

The Alaska SeaLife Center is requesting three changes to the permit. First, the Center would like to obtain and import captive Steller sea lions from facilities in addition to those specified in the current permit. Based on communications after submission of the amendment request, the Center will be seeking permission to exchange sea lions only with Dolfinarium in Harderwijk, The Netherlands. Second, it would like permission to make minor changes and clarifications to the permit's take table as it pertains to the collection of semen. Third, the Center would like the Service to amend the permit to allow the incidental deaths of two additional sea lions during the term of the permit (through 31 August 2014). The first requested change often is necessary to ensure an adequate sample size for studies and, whenever breeding might be involved, to maintain genetic diversity in the captive population. The Commission assumes that the Center would meet all requirements for transportation and housing of such animals. The second request involves minor

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changes that do not involve significant additional risk to the subject animals. The third change is sought because one of the Center's captive females died in May 2010. The Service treated the event as two deaths because the female was carrying a near-term fetus. Thus, the Center cannot continue research without the risk of being non-compliant with the permit if an additional animal dies.

The Center reviewed its records on the adult female prior to her death and performed various postmortem procedures to determine cause of death. The review did not reveal any signs that might have led to medical intervention. Necropsy and pathology reports indicate that the adult female died from pancreatic cancer. Although little is known about pancreatic cancer in marine mammals, it tends to be rapidly progressive and highly lethal in humans. Unfortunately, a diagnosis of cancer in a marine mammal should not be surprising; evidence being collected from stranded California sea lions suggests that cancer may be relatively common in at least some marine mammal populations. Under these circumstances, the Commission sees no basis for attributing the deaths to research. The deaths were unfortunate but do not constitute a basis for halting further studies.

In its review of this request to allow two additional deaths, the Commission was mindful of changes in the Center's research protocols that reduce the impact of multiple studies on the same captive animals. In the past, the Commission has raised questions regarding the possible skewing of research results by using the same research subjects in multiple studies. For example, it is possible that stress from multiple handlings and procedures might alter reproductive physiology and skew the results of the Center's reproductive study. The Center's original application indicated that the subject animals would be used "in a variety of research [studies]...many of which are minimally invasive or voluntary in nature; yet all, whether invasive or not, are combined to the maximum extent possible during monthly health assessment exams in order to minimize impact on the animals."

To address the Commission's concern, the Center reviewed its science program, refocused its research on hypothesis-driven studies, limited the number of times that research animals are sampled under anesthesia (once every 60 days), and limited the duration of sampling procedures to one hour. Virtually all of the sampling is by collection of blood, feces, and mucous. The Center allows instrumentation during those procedures, but the instrumentation must occur during regular sampling—no additional periods of sedation are allowed. These changes address the Commission's concern about excessive sampling and potential skewing of scientific results.

Based on these findings, the Marine Mammal Commission recommends that the National Marine Fisheries Service amend Permit No. 14334 as requested.

Please contact me if you have any questions concerning the Commission's recommendation.

Sincerely,



Timothy J. Ragen, Ph.D.
Executive Director