



MARINE MAMMAL COMMISSION

29 August 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 20910-3225

Re: Permit Application No. 16094
(Alaska Department of Fish and Game)

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. The Alaska Department of Fish and Game is seeking to renew and amend permit 358-1787 to conduct research on harbor seals in Alaska during a five-year period.

RECOMMENDATIONS

The Marine Mammal Commission recommends that the National Marine Fisheries Service—

- condition the permit to require the Department to consult with the Service and the Commission regarding possible changes to the harbor seal capture protocols if two or more harbor porpoises are killed in one year or five harbor porpoises are killed incidental to those activities during the five-year period; and
- advise the applicant of the need to obtain approval from its Institutional Animal Care and Use Committee (IACUC) before initiating the proposed activities.

RATIONALE

The Department proposes to conduct research on harbor seals year-round throughout their range in Alaska, including Southeast Alaska, the Gulf of Alaska, Lake Iliamna, and the Bering Sea. The research would continue studies of more than 20 years to monitor, characterize, and/or assess population trends, movement patterns, foraging ecology, physiology, haul-out behavior, life history parameters, demography, pupping and molting phenology, genetic structure, prevalence of infectious disease, and vulnerability to disturbance. The Department would use that information to guide its management and conservation strategies.

The Department proposes to harass, capture, handle, restrain, administer drugs to, measure, weigh, sample, mark/tag, perform diagnostics on (i.e., ultrasound blubber depth), and attach instruments to various numbers of harbor seals (Table 1). Researchers would capture the seals using

a modified seine net or monofilament tangle net in the water or a salmon net on shore. The researchers would observe the nets constantly and not leave them unattended. They would remove seals from the nets immediately after capture and then transfer them to a research vessel or to land for further handling. They would collect various samples from the seals, including blood, blubber, hair, skin, milk, teeth, vibrissae, swabs, stomach contents, and muscle from various age classes and sexes of seals (see the application's attachment—Table 1). Finally, they would tag each seal with two flipper tags and one passive integrated transponder (PIT) tag.

Table 1. Requested annual takes by activity.

Activity	Number of harbor seals taken per year
Capture, restrain, sample, sedate, weigh, measure, flipper tag, PIT tag, and ultrasound	350
Attach VHF transmitters, satellite tags, time-depth recorders, heart rate temperature recorders, and/or heart rate transmitters and electrodes	150
Incidentally harass instrumented seals during vessel approaches ¹	50
Incidentally harass during capture activities	7,000
Incidentally harass during vessel surveys	4,000
Incidentally harass during aerial surveys	180,000
Incidentally harass during ground surveys	10,000

¹Seals would be approached no more than five times per year with approximately four days between each approach.

The researchers may attach multiple instruments to an individual seal but the total weight of the instruments would not exceed 600 g. They would use epoxy to attach the instruments to the pelage of the head or between the shoulders, or they would attach the instruments using flipper tags. Instruments attached to the pelage would remain attached until the next molt. The researchers would use a vessel to approach instrumented seals as a way to gather information about the seals' energetic costs from vessel-related disturbance. The approaches would last 1–10 minutes, with the vessel ceasing its approach after the seal enters the water. Researchers would not approach the seals between 1 and 25 June to minimize disturbance to mother-pup pairs.

The Department also would conduct vessel surveys to track and observe behaviors of instrumented seals. In addition, the Department would conduct annual aerial surveys to track seals instrumented with VHF transmitters and to assess abundance and population trends. Those aerial surveys would be flown in collaboration with the National Marine Mammal Laboratory. Finally, the Department would conduct ground surveys to photo-identify individuals, collect scat samples, count seals at haul-out sites, and observe the behavior of individual seals.

Each year of the permit subsistence hunters would send to the Department samples collected from up to 1,750 seals that were hunted for subsistence purposes or died of other causes. The Department would share some samples with other researchers, export some to Canada for analysis, and archive others. In addition, the Department requests authorization to export samples to any other country if additional analyses are warranted.

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The Department is requesting permission to kill unintentionally up to four seals per year, not to exceed 10 seals during the five-year period. The Department is requesting authorization to humanely euthanize up to two seals per year, not to exceed five seals during the five-year period. Euthanasia might be required if a seal is seriously injured during the proposed activities.

Recently, one harbor porpoise became entangled in the Department's capture nets and was released unharmed. To prepare for such situations, the Department is requesting permission to harass incidentally five harbor porpoises per year and to kill unintentionally three harbor porpoises per year during the proposed harbor seal capture activities. To minimize harbor porpoise mortality, the Marine Mammal Commission recommends that the National Marine Fisheries Service condition the permit to require the Department to consult with the Service and the Commission regarding possible changes to the harbor seal capture protocols if two or more harbor porpoises are killed incidental to those activities in one year or five harbor porpoises are killed during the five-year period.

The Department has indicated that its IACUC has reviewed and approved similar procedures and activities authorized under its previous permit. However, the Commission understands that the Department's IACUC will not review the proposed activities until it has secured a permit for those activities. Therefore, the Marine Mammal Commission recommends that the National Marine Fisheries Service advise the applicant of the need to obtain approval from its IACUC before initiating the proposed activities.

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 recommendations.

Sincerely,



Timothy J. Ragen, Ph.D.
Executive Director