



# MARINE MAMMAL COMMISSION

19 February 2013

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

Re: Permit Renewal and Amendment Application No. MA801652  
(U.S. Geological Survey)

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. The U.S. Geological Survey is seeking to renew and amend permit MA801652 to conduct research on walrus in Alaska and surrounding waters during a five-year period.

## **RECOMMENDATION**

The Marine Mammal Commission recommends that the Fish and Wildlife Service issue the permit but require the Survey to (1) make observations sufficient to detect possible short- and long-term effects of biopsy sampling and tagging and report to the Service the effort made and the information collected and (2) report to the Service any instances of and circumstances behind stampede events.

## **RATIONALE**

The U.S. Geological Survey proposes to conduct research on walrus in Alaska year-round. The objectives are to continue long-term research investigating (1) abundance and distribution, (2) demographics, (3) population structure and trends, (4) movement patterns and habitat use, and (5) foraging ecology of walrus. In general, this work is of great potential value to the Fish and Wildlife Service managers responsible for conserving this species in the face of major changes in Arctic ecosystems caused by climate disruption.

Researchers working under this permit would harass, capture, handle, restrain, administer drugs to, measure, sample, and conduct biological impedance assays on up to 40 adult walrus each year of either sex. They would sedate walrus only if the animals are on land or on ice, but not in the water. They would approach a walrus from the downwind direction on land or ice and would select a walrus that is peripheral to a small group to minimize disturbance of other walrus. Researchers would use a compressed CO<sub>2</sub>-powered dart gun to remotely sedate the walrus at a

distance of 15 m. If the walrus enters the water after being darted, it would be tracked and darted immediately with a drug to reverse the sedative effect and thereby prevent the animal from drowning. Researchers would not conduct the proposed activities on pregnant females or females with dependent calves. They would collect blood, skin, blubber, and vibrissae samples from each walrus. In addition, they would instrument 25 of the sedated walruses with devices that include satellite-linked transmitters, time-depth recorders, satellite-linked time-depth recorders, VHF transmitters, and video cameras. Those devices would be attached to the walrus's tusk with metal bands (maximum of two devices that, together, would weigh less than 0.1 percent of the walrus's body mass). The researchers also could attach a satellite tag subdermally to each instrumented walrus. Individual walruses could be captured and handled up to two times during the course of the five-year permit. Instruments either would be removed when the animals are recaptured several weeks later or would be allowed to fall off approximately three months later.

The Survey also is requesting authorization to biopsy sample and attach satellite radio transmitters to walruses using crossbows. Researchers working on land, on ice, or in a small boat would biopsy sample 150 walruses per year that are at least one year of age using a crossbow from a distance of 15 m. One hundred of those animals that are at least six years of age would be biopsy sampled and tagged simultaneously by two researchers working on land or ice and using crossbows from a distance of 15 m. They would not biopsy sample or tag walruses that have been sampled previously and instrumented with tusk tags. To minimize disturbance of walruses during those activities, researchers would approach animals downwind, as quietly and stealthily as possible, for the shortest amount of time needed to complete the necessary activities, and would approach animals peripheral to a small group. In addition, they would back the boat away from the animals directly after they have deployed and/or retrieved the biopsy dart. Nevertheless, the Survey expects that its researchers would harass 1,500 walruses per year incidental to capture, biopsy sampling, and tagging activities.

The Survey also proposes to conduct vessel-based surveys to assess age and sex ratios of walruses in the Chukchi Sea. Moving at 3 to 4 knots from the downwind direction, the survey vessel would approach walrus groups of approximately 300 animals at a distance of 100 m. Researchers then would estimate the age and sex of each walrus in the group based on the dimensions of its snout and the presence/size of its tusks. Any disturbance that displaces walruses would reduce the number of animals available to be assessed, so the researchers have an incentive to avoid disturbing walruses to the greatest extent practicable. They would document and report the number of walruses harassed incidental to conducting all of the proposed activities.

In addition to the previously described activities involving live walruses, the Survey would collect an unlimited number of tissue samples, parts, and whole carcasses from dead beachcast walruses and walruses taken by subsistence hunters. Samples could be imported or exported for analysis, and the Survey is aware of the need to obtain the necessary permits under the Convention on International Trade in Endangered Species of Wild Fauna and Flora before importing or exporting any walrus part.

The Survey is requesting to kill, unintentionally, up to three walruses per year during anesthesia procedures or up to six walruses per year during any of the proposed activities. The

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current request is the same as has been authorized under prior permits. Researchers would perform necropsies if it is safe and feasible to do so.

The Survey has indicated that its Institutional Animal Care and Use Committee (IACUC) has reviewed and approved the proposed procedures in the past and that its IACUC will review the procedures again this spring. Survey researchers currently collaborate with researchers from the U.S. Fish and Wildlife Service, Alaska Department of Fish and Game, Pacific Walrus Conservation Fund, Russia, and Canada.

The Commission believes that assessing effects of the proposed activities is important when any applicant conducts research activities on any species. Doing so is particularly important for this walrus population given the marked changes occurring in its environment and its potential for serious decline as a result of those changes. Therefore, the Marine Mammal Commission recommends that the Fish and Wildlife Service issue the permit but require the Survey to (1) make observations sufficient to detect possible short- and long-term effects of biopsy sampling and tagging and report to the Service the effort made and the information collected and (2) report to the Service any instances of and circumstances behind stampede events.

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 prominent horizontal line at the beginning of the first name.

Timothy J. Ragen, Ph.D.  
Executive Director