



MARINE MAMMAL COMMISSION

9 May 2022

Dr. Mary Cogliano, Chief
Branch of Permits, MS: IA
Division of Management Authority
U.S. Fish and Wildlife Service
5275 Leesburg Pike
Falls Church, Virginia 22041-3803

Re: Permit Application No. 0030527
(Anthony Pagano, Ph.D.,
U.S. Geological Survey)

Dear Dr. Cogliano:

The Marine Mammal Commission (the 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 MMPA). Dr. Pagano is requesting authorization to renew his permit to conduct research on two captive polar bears for up to five years.

Dr. Pagano proposes to continue an energetics study on two captive female polar bears at the Oregon Zoo. The purpose of the study is to estimate energy demands and better understand how polar bears in the wild are responding to loss of sea ice. Oxygen consumption via open-flow respirometry, acceleration via collar-mounted tri-axial accelerometers, and body composition via deuterated water administration and serial blood sampling would be measured on each bear (see the application for the study schedule). Dr. Pagano would use various measures to minimize impacts on the polar bears and would be required to abide by the Fish and Wildlife Service's (FWS) standard permit conditions. The Oregon Zoo holds Exhibitor's License 92-C-0001, issued by the U.S. Department of Agriculture under the Animal Welfare Act (AWA).

During its informal review of the application, the Commission noted that Dr. Pagano had not provided research protocols to be reviewed by the Institutional Animal Care and Use Committees (IACUC) at the U.S. Geological Survey (USGS) and University of California Santa Cruz (UCSC) nor indicated the status of their approval¹. In response, FWS indicated that "It was determined that applicant was not required to provide any additional information." The Commission disagrees with this determination. The majority of Dr. Pagano's proposed activities are considered invasive and require IACUC review and approval. Furthermore, Dr. Pagano's previous permit application for the same activities² included his research protocols and documentation of their approval by IACUCs at both USGS and UCSC. Other permittees, including those affiliated with the

¹ As required by Item 33 in FWS's 2020 application instructions and for AWA compliance.

² Permit 77245B.

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same institutions as Dr. Pagano who conduct similar activities on captive polar bears (e.g., Dr. Karyn Rode, USGS) or other marine mammals (e.g., Dr. Terrie Williams, UCSC³), also have their research protocols reviewed and approved by the relevant IACUC prior to conducting any of the activities. The Commission recommends that FWS issue the permit but ensure that Dr. Pagano's research protocols are reviewed and approved by IACUCs at USGS and UCSC before he conducts the procedures.

The Commission believes that the proposed activities are consistent with the purposes and policies of the MMPA. Please contact me if you have any questions regarding the Commission's recommendation.

Sincerely,



Peter O. Thomas, Ph.D.
Executive Director

³ Who would also be a co-investigator under Dr. Pagano's permit.