



MARINE MAMMAL COMMISSION

7 November 2018

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. 85339C
(Karyn Rode, 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. Rode proposes to conduct research on captive polar bears—permit 95406A authorized previous research activities on captive polar bears.

Dr. Rode proposes to conduct research on captive polar bears at multiple facilities on a year-round basis. Adult polar bears of either sex would be marked with dye, provided isotopically-labeled food and water¹, and sampled² at various intervals throughout the year (see the research proposals for specifics). The purpose of the proposed research is to investigate nutrients and hair growth in captive polar bears. The U.S. Geological Survey's Institutional Animal Care and Use Committee has reviewed and approved the research protocols.

Inappropriate authorization of activities

Dr. Rode originally submitted her application to the U.S. Fish and Wildlife Service (FWS) in April 2018, and that application³ was provided to the Commission for review in October 2018. The Commission's review found that the application and related documents were missing necessary information and included inconsistent information. However, before the Commission was able to provide FWS with its comments and raise specific questions regarding various deficiencies in the application, FWS independently determined that a research permit was unnecessary under either the MMPA or the Endangered Species Act (the ESA) and sent Dr. Rode a letter on 18 October 2018

¹ Food would be dosed with glycine and water would be dosed with deuterium oxide.

² Including blood, hair, and urine.

³ And specific questions that FWS had as well.

authorizing her to obtain blood and hair samples⁴. The Commission disagrees with FWS's determination that no permit is needed and with the appropriateness of the authorization letter.

First, FWS hinged its determination on whether the proposed procedures constitute 'intrusive research,' applying the National Marine Fisheries Service's (NMFS) definition of that term⁵ (50 C.F.R. § 216.3). Under NMFS's regulations, intrusive research on captive animals specifically does not include procedures (1) conducted by the professional staff of the holding facility or an attending veterinarian for purposes of animal husbandry, care, maintenance, or treatment, or a routine medical procedure that, in the reasonable judgment of the attending veterinarian, would not constitute a risk to the health or welfare of the captive animal or (2) involving either the introduction of a substance or object (i.e., as described in this definition) or a stimulus directed at animals that, in the reasonable judgment of the attending veterinarian, would not involve a risk to the health or welfare of the captive animal. Arguably, Dr. Rode's request to obtain 20 mL of blood collected during routine husbandry activities for use in the nutrient study would fit under the first criterion. However, the proposed procedures for conducting the hair growth study would not.

Polar bears would be marked at various time intervals⁶ and provided isotopically-labeled food or water for two weeks every two months. Hair would be plucked at least every week⁷ and 10 mL of blood would be collected each week for three weeks every two months⁸. Marking and hair and blood collection would require that the bears are trained to allow the procedures to be conducted. Thus, collection of those samples should not be considered routine husbandry activities, part of periodic health assessments, or routine medical procedures. Regarding the criterion involving introduction of a substance, Dr. Rode noted in the research proposal that there are potential challenges with limiting captive bears to a single water source for a two-week timeframe and that the researchers will attempt to determine a minimum time period and frequency for dosing and the degree to which bears can be allowed access to alternative water sources. Similar concerns for the bears avoiding the dosed food were not mentioned in the application, but the Commission believes they exist. Thus, the Commission doesn't believe that the second criterion would be met for those activities either. As such, the proposed procedures⁹ for the hair growth study would require Dr. Rode to obtain a research permit under the MMPA¹⁰.

Second, FWS did not acknowledge that Dr. Rode had proposed to mark animals, collect blood, or administer isotopically-labeled food and water as part of the hair growth study. None of those procedures were mentioned or specifically authorized in FWS's 18 October 2018 letter. The Commission notes that this may be an artifact of the content of Dr. Rode's application—the take

⁴ The Commission did provide its informal comments and questions on the application and related documents the following day.

⁵ FWS has yet to define intrusive research in its implementing regulations at 50 C.F.R. § 18.3.

⁶ The frequency of which were not detailed in the application or research proposal, which is one of the omissions noted in the Commission's informal comments.

⁷ Sometimes twice per week, two days back-to-back.

⁸ Urine also would be collected opportunistically from the enclosure, not directly from the animals.

⁹ Although urine collection would not explicitly require Dr. Rode to obtain a research permit, the samples are being collected to measure and monitor the various isotopes. Collecting urine absent the animals being dosed would have no utility. Thus, urine collection should be included in the proposed procedures associated with the overall study.

¹⁰ Although the procedures would constitute taking under the ESA, an ESA permit likely would not be necessary given the regulations applicable to polar bears under section 4(d) of the ESA (50 C.F.R. § 17.40(q)(2)).

table only included blood collection as part of the nutrient study and hair collection¹¹. Thus, FWS's letter only authorized Dr. Rode to obtain 900 mL of blood¹². In addition, the letter does not explicitly authorize Dr. Rode to collect hair samples and mentions that only 52 samples would be collected, when Table 1 in the research proposal indicates that many more are to be collected. For all these reasons, the Commission recommends that FWS (1) retract its 18 October 2018 letter authorizing Dr. Rode to obtain limited numbers of samples for both the nutrient and hair growth studies, (2) authorize the nutrient study in a revised letter on an interim basis, and (3) continue processing Dr. Rode's original application for a research permit authorizing her to conduct the nutrient study on a long-term basis¹³ and the hair growth study in its totality. The Commission further recommends that FWS provide Dr. Rode with the Commission's informal comments and questions, along with FWS's comments and questions, and request that she address all of them in a revised application prior to taking further action on the application. The Commission notes that Dr. Rode made every effort to comply with the MMPA by submitting an application for a research permit sufficiently in advance of when she intended to begin the proposed activities. Thus, FWS should strive to complete its processing of this application without further delay.

Responses to Commission recommendations

As part of its responsibilities under sections 101(a)(1), 202(a)(2), and 203(c) of the MMPA, the Commission, in consultation with its Committee of Scientific Advisors, reviews permit applications and formulates recommendations. The MMPA requires that, if an agency does not implement the Commission's recommendations, the agency explain why it has not done so in a timely manner. Specifically, section 202(d) of the MMPA requires that FWS respond within 120 days after receipt of Commission recommendations and if any recommendations are not followed or adopted, a detailed explanation of the reasons why those recommendations were not followed or adopted must be provided. In recent years, FWS has been remiss in providing the Commission with the required responses in a timely manner¹⁴. The Commission therefore requests that FWS provide responses to the Commission's outstanding recommendations in the near term, including detailed explanations for any decision not to follow or adopt any of those recommendations. The Commission trusts that FWS will respond to the recommendations in this and future letters within the statutorily-mandated 120-day timeframe.

¹¹ The Commission's informal comments noted several issues associated with these aspects of the take table. The number of bears from which blood would be collected was incorrect, as were the number of blood samples relative to the number of bears from which they would be collected and the number of hair samples to be collected from each bear. Further, these activities were incorrectly delineated as constituting Level B harassment when they should be considered Level A harassment.

¹² Which would be sufficient only for the nutrient study and would require 20 mL of blood from 45 polar bears.

¹³ Since Dr. Rode requested that her permit include authorization for obtaining and analyzing samples for the nutrient study, FWS should include those activities under the single permit.

¹⁴ Specifically, responses to its [5 July 2017](#), [25 October 2017](#), [23 January 2018](#), [2 July 2018](#), [3 July 2018](#), [3 July 2018](#), and [9 July 2018](#) letters.

Dr. Mary Cogliano
7 November 2018
Page 4

Kindly contact me if you have any questions regarding the Commission's concerns and recommendations.

Sincerely,

A handwritten signature in blue ink that reads "Peter O. Thomas". The signature is written in a cursive style with a large initial "P".

Peter O. Thomas, Ph.D.,
Executive Director