



# MARINE MAMMAL COMMISSION

17 May 2013

Mr. P. Michael Payne, Chief  
Permits and Conservation Division  
Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910-3225

Re: Permit Application No. 17845  
(Rachel Cartwright, Ph.D.,  
Keiki Kohola Project)

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 with regard to the goals, policies, and requirements of the Marine Mammal Protection Act. Dr. Cartwright proposes to conduct research on cetaceans in Hawaii, Alaska, and California during a five-year period. She is requesting to renew and amend permit 10018.

## **RECOMMENDATION**

The Marine Mammal Commission recommends that the National Marine Fisheries Service issue the permit, as requested.

## **RATIONALE**

Dr. Cartwright proposes to conduct research on cetaceans, primarily humpback whales, in waters of Hawaii, Alaska, and California year-round. The objectives of the proposed research are to study humpback whale habitat-use patterns, foraging ecology, and behavior of female-calf pairs and juveniles.

Dr. Cartwright proposes to observe, photograph, videotape, and conduct focal follows on up to 1,047 humpback whales per year in Hawaii. She could harass individuals of any age class and either sex. Dr. Cartwright would conduct line-transect surveys daily from December to May in waters off Maui, Lanai, or Kauai. Using an 8-m long vessel, Dr. Cartwright would approach the whales no closer than 30 m to photograph them (including the degree of furl for calf dorsal fins). She would conduct focal follows of groups of whales remaining at least 50 m from any calves and 20 m from the closest whale. A focal follow could continue up to one hour. At the end of a focal follow, a maximum of two divers would enter the water to obtain photographs and video of the whales. The divers would remain at least 9 m from the whales. Individual whales could be approached again up to two more times per year with at least three days between each approach. All activities would last approximately two hours. Because various species associate with humpback whales in Hawaii, Dr. Cartwright could photograph, videotape, or conduct focal follows of up to

240 spinner dolphins, 120 bottlenose dolphins, 60 false killer whales, and 60 unidentified whales (primarily long- or short-finned pilot whales or melon-headed whales) each year incidental to those activities. She also could conduct the proposed activities on those other species when humpback whales are not present.

Dr. Cartwright also proposes to have Mr. Ed Lyman attach suction-cup tags to 12 females with calves each year (six in mid-February and six in mid-March) using a pole or crossbow at a distance of 10 m. Mr. Lyman would teach Dr. Cartwright and her co-investigators how to tag females with calves safely, after which time they could tag the whales without his supervision. Suction-cup tags would be attached only to those females whose calves are one to three months of age (e.g., based on resight data) and would attempt to tag a female only twice during an encounter. However, individual females could be tagged twice within the five-year timeframe. The tags may include VHF transmitters and data loggers that would record and store time, depth, temperature, light levels, GPS locations, and swim speed. The tags also would include a mechanism to allow release after either (1) 24 hours (i.e., long enough to evaluate the response of the female-calf pair to tagging) or (2) two weeks (i.e., based on the battery life of the tag). A female-calf pair would be monitored for an additional 30 minutes to determine tag placement and to observe any effects of tagging. Monitoring could occur using underwater photography as well. To minimize disturbance, researchers would enter the water only when the pair is submerged, approaching from the line of sight and remaining at the surface (i.e., not diving below the surface).

In Alaska, Dr. Cartwright proposes to observe, photograph, videotape, and conduct focal follows on up to 630 humpback whales per year. She could harass individuals of all age classes and either sex. Each year she would conduct the proposed activities daily for six weeks during the period from May through September. She would conduct the activities in waters of Chatham Straits, Tenakee Inlet, Frederick Sound, Sumner Strait, Lynn Canal, and Icy Strait. Using a 13.7- or 4.2-m long vessel, Dr. Cartwright would approach the whales no closer than 50 m to obtain photographs of the whales. She would conduct focal follows of groups of whales remaining at least 50 m from them. A focal follow could last for up to two hours. Individuals could be approached up to two more times per year and would be approached no more than two times in any one-week period. Dr. Cartwright would use an echosounder and hydrophone to document feeding behavior. She also would collect water samples and prey at least 100 m from any whale. She may use an underwater video camera to assist in prey identification. Dr. Cartwright could harass up to 120 Pacific white-sided dolphins, 120 Dall's porpoises, 48 Steller sea lions, 48 northern resident killer whales, and 48 transient killer whales incidental to the proposed activities in Alaska.

In California, Dr. Cartwright proposes to observe, photograph, videotape, and conduct focal follows on up to 480 humpback whales per year. She could harass individuals of all age classes and either sex. She would conduct activities daily for six weeks during the period from April to November. The activities would occur in waters of the Santa Barbara Channel and Channel Islands. Her methods are the same as described for activities in Alaska including using an echosounder and hydrophone and water and prey sampling. After being appropriately trained to attach suction-cup tags to females with calves, she and co-investigators would attach suction-cup tags to 12 humpback whales per year, including juveniles or adults of either sex. She could photograph or videotape up to 120 Pacific white-sided dolphins, 120 Risso's dolphins, 120 Dall's porpoises, 30 blue whales, 30 northern resident killer whales, 30 transient killer whales, and 60 minke whales per year during the

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humpback whale work. She also could harass up to 120 California sea lions incidental to those activities in California.

To minimize impacts to female-calf pairs, Dr. Cartwright would never place the vessel between the female and her calf. The vessel also would be positioned either behind or to the side of any group of whales so that the whales can move freely. If Dr. Cartwright observes any evidence of disturbance, she would increase the distance between the vessel and whales to at least 100 m. If a second attempt to approach the whales elicits the same response, she would discontinue her efforts. In addition, Dr. Cartwright would maintain a distance of at least 50 m with resting female-calf pairs and feeding whales. She would not begin a focal follow until the whales have established their direction of travel. Dr. Cartwright is collaborating and sharing data with researchers at the *Hawaiian Islands Humpback Whale National Marine Sanctuary* and Alaska Whale Research Foundation and plans to contact Dr. Robin Baird, Mr. John Calambokidis, and officials at the Channel Islands National Marine Sanctuary prior to commencing her activities. The Marine Mammal Commission believes those measures are prudent and recommends that the National Marine Fisheries Service issue the permit, as requested.

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 large initial 'T'.

Timothy J. Ragen, Ph.D.  
Executive Director