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INTERNATIONAL
WHALING COMMISSION

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PROJECT OVERVIEW

In 2015, NOAA Fisheries Southwest Fisheries Science Center (SWFSC) undertook a Collaborative Large Whale Survey (CLaWS) from 9 July through 9 November aboard NOAA Ship Reuben Lasker. The survey was a collaborative effort between SWFSC and NOAA Fisheries Alaska Fisheries Science Center. The study was conducted in U.S. and Canadian waters of the eastern North Pacific (ENP) between Kodiak Island, Alaska and San Diego, California. The survey was separated into five legs, ranging from 15 to 25 days each. The fourth leg of the survey occurred in Canadian Pacific coastal waters between 28 September and 22 October and was a collaborative effort with Dr. John Ford of the Cetacean Research Program, Pacific Biological Station, Fisheries and Oceans Canada.

The survey had three major research components, including: (1) the first range-wide assessment of gray whales (*Eschrichtius robustus*) that summer south of the Aleutian Islands, (2) a dedicated visual line-transect and acoustics survey for endangered North Pacific right whales (*Eubalaena japonica*) in the Gulf of Alaska (see SC/66b/BRG/01), and (3) sampling (photographic and biopsy) of blue (*Balaenoptera musculus*), humpback (*Megaptera novaeangliae*) and fin whales (*Balaenoptera physalus*).

METHODS

Sightings - A team of three observers stood watch on the flying bridge of the Reuben Lasker using 25 x 150 (big-eye) binoculars to search for marine mammals during daylight hours. When marine mammals were sighted, the date, time, position (via 25 x 150 binocular bearing/reticle and Latitude/Longitude), species, and number of animals were entered into a computer database running the SWFSC survey software WinCruz.

Photo-identification - When whales were sighted and conditions allowed, a 6.7 m rigid hulled inflatable boat (RHIB) was launched from the ship to photograph animals and collect biopsy and fecal samples. Photographs of whales were taken using digital SLR cameras at distances of approximately 10-20 m.

Biopsy sampling - tissue samples were collected using a low-powered crossbow that fired a customized dart fitted with a sterilized 7 mm x 40 mm stainless steel biopsy tip. Biopsy samples were stored in liquid nitrogen. Fecal samples were collected opportunistically using a 100- μ m mesh net. All biological samples are presently stored at -80°C in the SWFSC, Marine Mammal and Turtle Molecular Research Sample Collection.

SUMMARY RESULTS

During the 106-day survey, visual observers recorded more than 3,000 cetacean sightings and collected well over 10,000 photographs and 139 tissue/genetic samples. Summary reports for each of the five legs are available on the SWFSC website.¹

Gray whales - A catalog of 140 unique gray whales photo-identified was compiled during the study. This catalog will be used to examine intra- and inter-annual movements and mixing patterns. Tissue/biopsy samples collected will be used to examine gray whale population structure and internal recruitment within the Pacific Coast Feeding Group.

¹ <https://swfsc.noaa.gov/textblock.aspx?Division=PRD&ParentMenuId=276&id=20861&cmsMode=Preview&langtype=1033>

Right Whales - Despite extensive search effort in a portion of the Gulf of Alaska known to have been of historical importance to North Pacific right whales, no visual sightings were made but four distinct acoustic localizations of calling whales were recorded (see SC/66b/BRG/01).

Blue Whales – Thirteen sightings of blue whales (13 individuals), and additional acoustic detections, were documented in offshore waters of the Gulf of Alaska (see SC/66b/BRG/01).

NEXT STEPS

Development and synthesis of data collected during CLaWS are presently underway and additional funding is being sought for associated genetic and photo-identification analyses. Results pertinent to gray whales, and large whales in general, will be used to refine stock assessments produced by the U.S. National Marine Fisheries Service and to inform ongoing deliberations of the International Whaling Commission. The management and conservation of North Pacific right whales would greatly benefit from additional research, particularly in portions of the Gulf of Alaska.

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