



Background

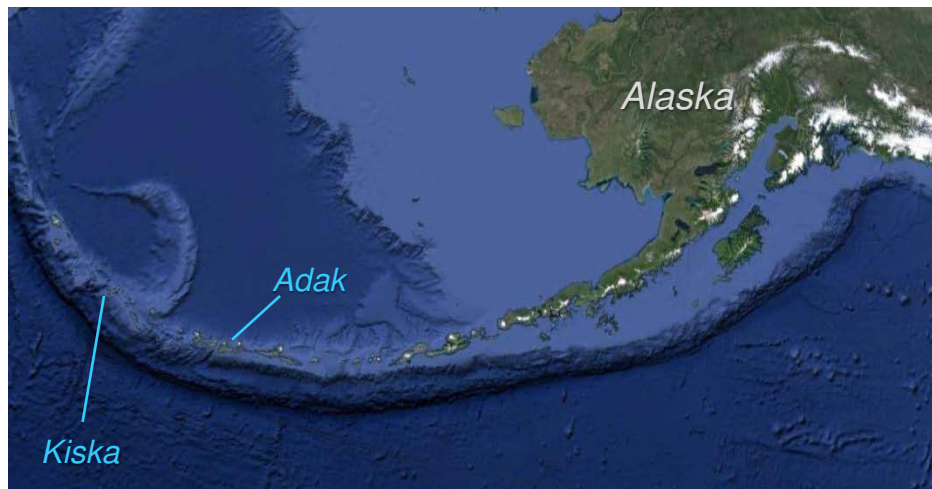
As part of a continuing study to understand adult female Steller sea lion foraging ecology and movements around the western and western-central Aleutian Islands, researchers from the National Marine Mammal Laboratory, Alaska Department of Fish and Game, University of Alaska Fairbanks, and the Vancouver Aquarium outfitted three adult female Steller sea lions with satellite-linked location and behavioral data transmitters during October 2014. These sea lions supplement previous instrument deployments in 2012 (5 animals) and 2011 (1 animal).

Maps show estimated positions from [Argos](#) or GPS positions determined through processing of data collected by the deployed tag. These maps are for informational purposes only; positions and track-lines are subject to change. Updates will be distributed throughout the tag deployment period.

Capture methods

Sites were accessed via skiffs operating off the R/V [Norseman](#). Captures and tag deployments were successful at two rookery sites on Kiska Island, and at the Lake Point rookery on Adak Island (see Google Earth map at right for island locations).

All captures were of adult females with dependent offspring, using dart-delivered sedatives. Sedated sea lions were approached and anesthetized with isoflurane gas delivered through a field-portable anesthesia unit.



The image at left shows sample collection from an anesthetized sea lion while preparing to attach the satellite-linked transmitter on top of her head. Sea lions were measured, weighed and sampled to assess their health and condition status.

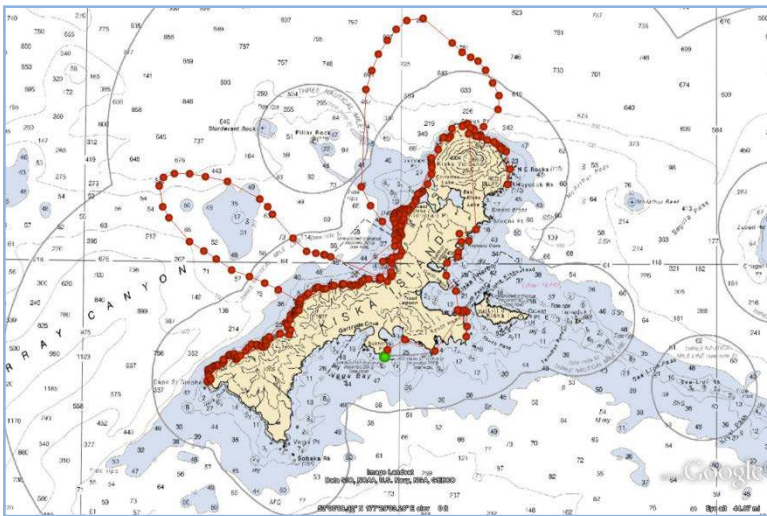
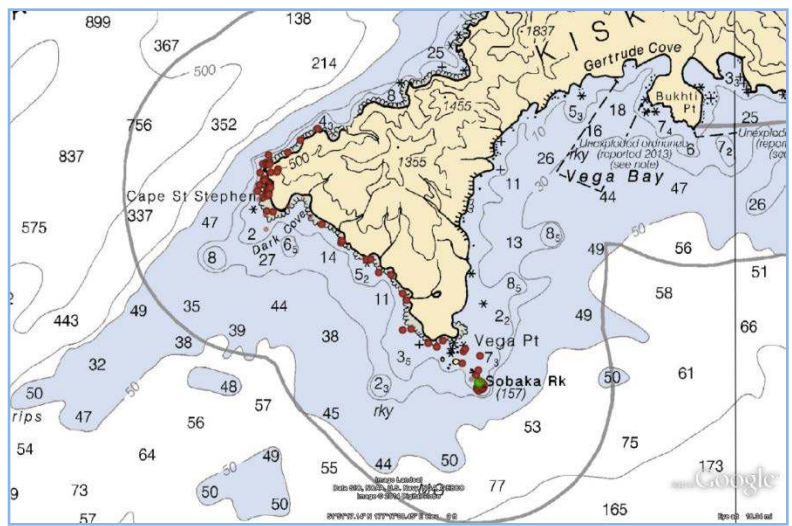
Each sea lion was outfitted with a SPLASH10-AF Argos-transmitting tag (manufactured by [Wildlife Computers](#), Redmond, WA) that provide position estimates through Argos and collect fast-GPS snapshots (which convert to location estimates during data processing) in addition to measures of dive behavior.

All work was conducted under authority of ESA/MMPA Permit for Scientific Research No. 18528 issued to the National Marine Mammal Laboratory.

Use of trade names does not imply endorsement by the National Marine Fisheries Service, NOAA.

Kiska sea lion '=30'

Our first capture was near the Cape Saint Stephen rookery site at Kiska Island on October 3rd. This adult female is identified as '=30' and weighed 352 kg. The map on the right shows GPS locations obtained during October 3-17. She has made several trips to Vega Point and Sobaka Rock (her last location at the time of writing is indicated in green) on the southeast side of Kiska Island.



Kiska sea lion '=31'

Our second capture was at the Lief Cove rookery site on the west side of Kiska Island on October 4th. This adult female weighed 354 kg and is identified as '=31'. The map at left shows GPS locations obtained during October 4-17, with her last location at Bukhti Point indicated in green. She visited several haulouts along the west and north sides of Kiska, and made two offshore trips before heading to the eastside of the island.

Adak sea lion '=32'

Our final capture was at the Lake Point rookery on the southwest side of Adak Island on October 8th. This 365 kg adult female, identified as '=32', was observed nursing a yearling. In addition to the head-mount tag which will begin transmitting in December, she carries a [newly-developed tag](#) that measures fluorescence to estimate primary productivity (inset photo). The map at right shows Argos-estimated locations and her most recent location offshore near Lake Point indicated in green. She spent several days along the south side of Kanaga Island.

