



2015/16 Aleutian Islands Steller Sea Lion Tracking Study

Report 5: March 23, 2016

Background

In the western and western-central Aleutian Islands, Steller sea lion populations have declined drastically compared to eastern Aleutian Island and other areas. Understanding where marine mammals forage to obtain energy needed for growth and reproduction is necessary to evaluate the potential for competition with other predators (including humans) for resources, and gathering this information is especially crucial in the western and central Aleutian Islands where controversial large-scale commercial fisheries restrictions were enacted. As part of a continuing study to track foraging behavior and habitat use during the winter and spring, and to assess their health and condition status, we worked with colleagues from the Alaska Department of Fish and Game and the University of Alaska Fairbanks to capture adult female sea lions during September – October 2015. This work was conducted under authority of ESA/MMPA Permit for Scientific Research No. 18528 issued to the NMFS/AFSC National Marine Mammal Laboratory, and Permit No. 18537 issued to the Alaska Department of Fish and Game. Metadata describing the collected data will be found at NMFS Enterprise Data Management Program InPort Metadata Catalog records [17918](#) and [27455](#).

Highlights

Of the four adult female sea lions captured, two continue to transmit location and dive behavior data (Table 1).

- Sea lion =34 remained close to Amchitka Island in relatively shallow waters during this tracking period (Figures 1, 2).
- Sea lion =36 mostly moved in nearshore waters around Kanaga Sound and the Ship Rock haulout (Figures 1, 2).

Table 1. Summary data as of March 21, 2016 for Steller sea lion adult females captured in the central Aleutian Islands during October 2015. Listings of active tags shown in bold font.					
Animal ID	Capture Date	Most recent data	Deployment duration (d)	Tag ID	Capture Location
=33	4-October	6-November	33	35222	Amchitka Island/East Cape
=34	5-October	21-March	166 (ongoing)	61088	Ulak/Hasgox Pt
=35	5-October	21-October	16	61081	Ulak/Hasgox Pt
=36	6-October	21-March	165 (ongoing)	61105	Kanaga/Ship Rock

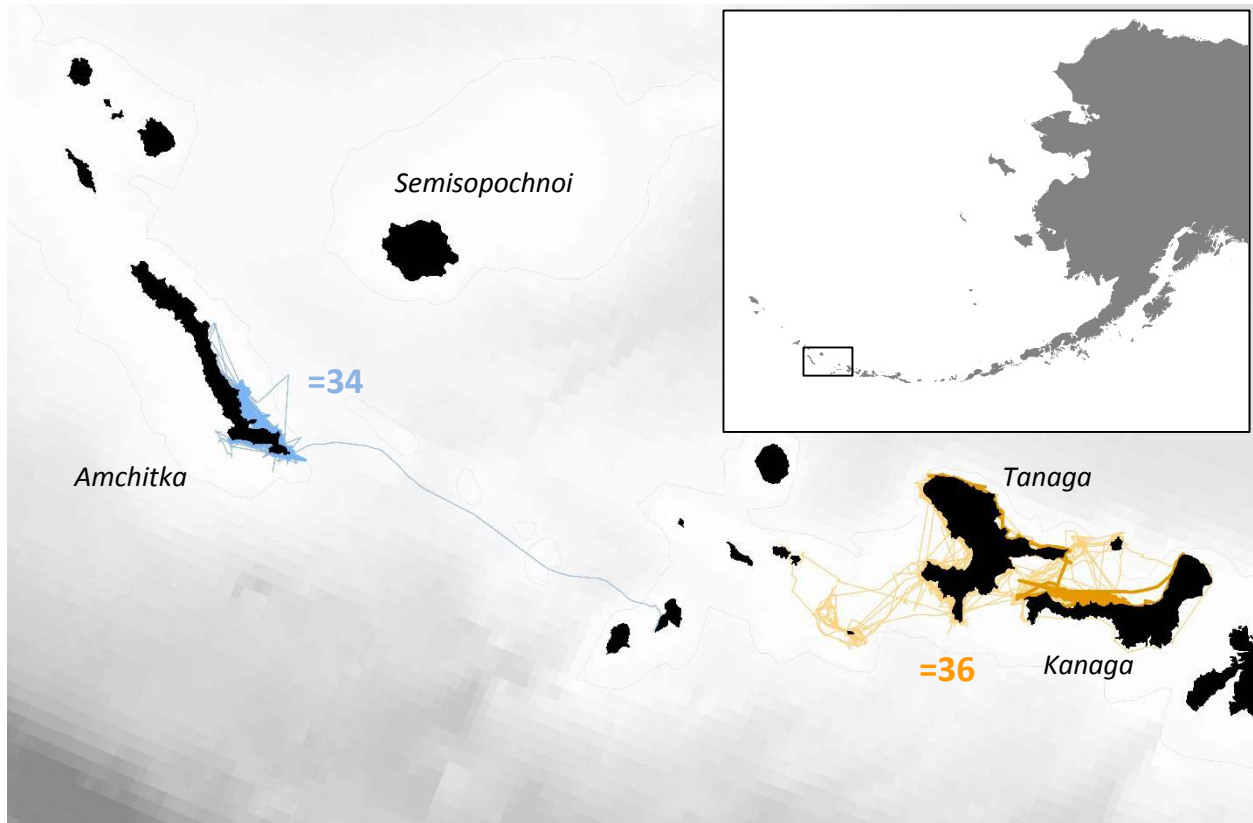


Figure 1. Estimated movement tracks of adult female Steller sea lions =34 (thick blue) and =36 (thick orange) for February 24, 2016 – March 21, 2016 overlaid on tracks for the entire deployment (thin lines). Tracks based on Service Argos and GPS position fixes. Shaded bathymetry with 500m contours indicated.

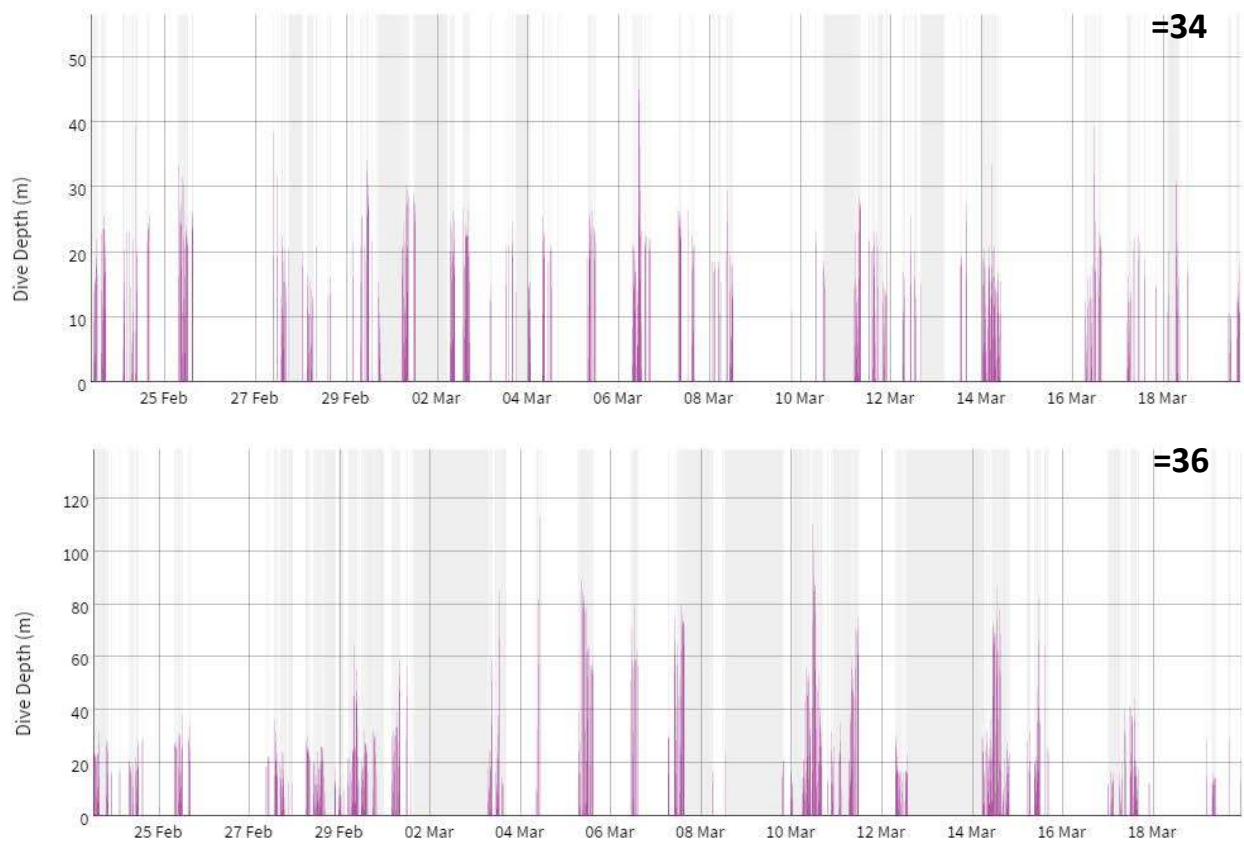


Figure 2. Maximum dive depths (magenta) for adult female Steller sea lion =34 (top) and = 36 (bottom) for February 24, 2016 – March 21, 2016. Note different depth scales (screen-captured output from Marine Wildlife Telemetry Explorer prototype).