



2015 Aleutian Islands Steller Sea Lion Tracking Study

Report 3, January 22, 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](#) when published.

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 during this tracking period (Figures 1, 2).
- Sea lion =36 moved from the northwest to south side of Tanaga Island (Figures 1, 2).
- Tracks of these four sea lions are shown relative to tracks of the nine previously-captured adult females (Figure 3).

Table 1. Summary data as of January 22, 2016 for Steller sea lion adult females captured in the central Aleutian Islands during October 2015.					
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-January	109 (ongoing)	61088	Ulak/Hasgox Pt
=35	5-October	21-October	16	61081	Ulak/Hasgox Pt
=36	6-October	21-January	108 (ongoing)	61105	Kanaga/Ship Rock

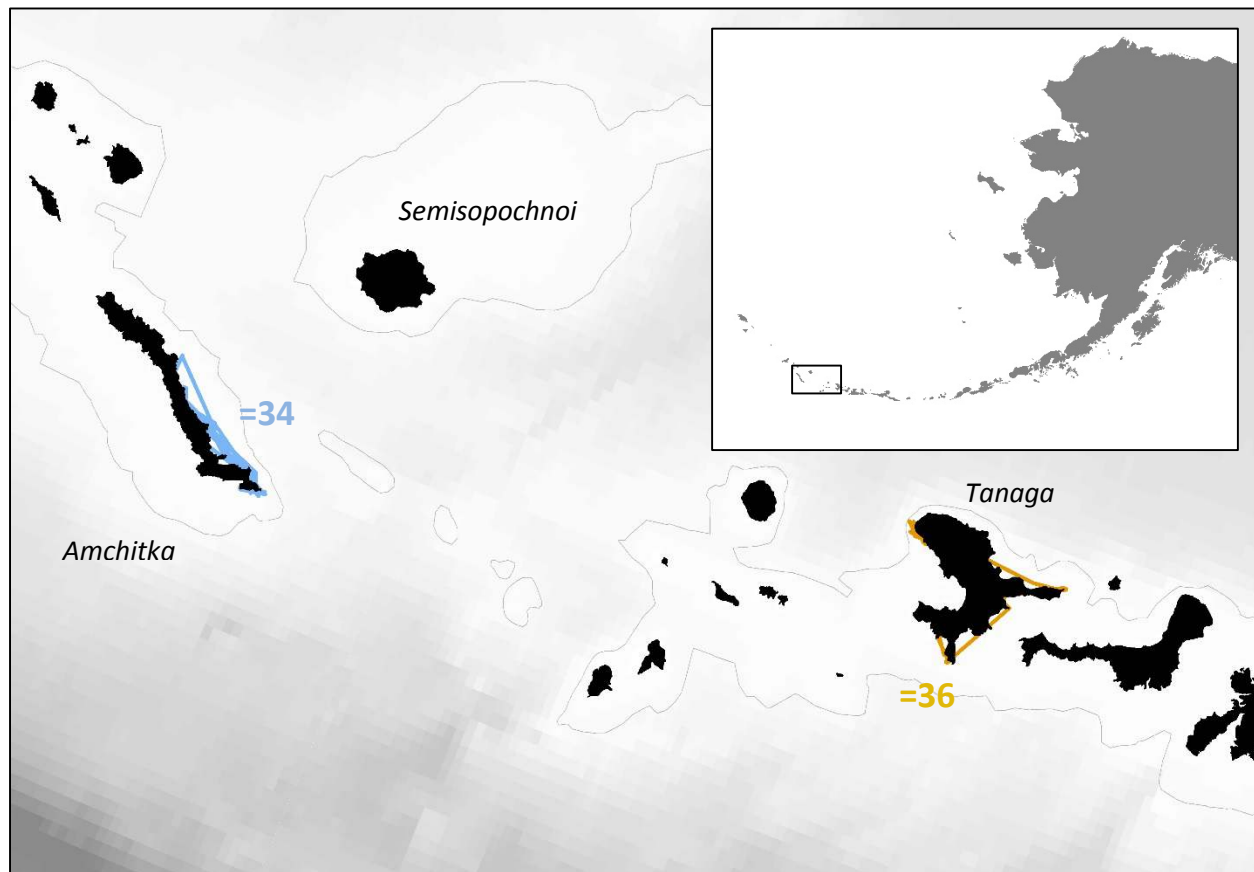


Figure 1. Estimated movement tracks of adult female Steller sea lions =34 (blue) and =36 (orange) for December 30, 2015 – January 21, 2016. Tracks based on Service Argos and GPS position fixes. Shaded bathymetry with 500m contours indicated.

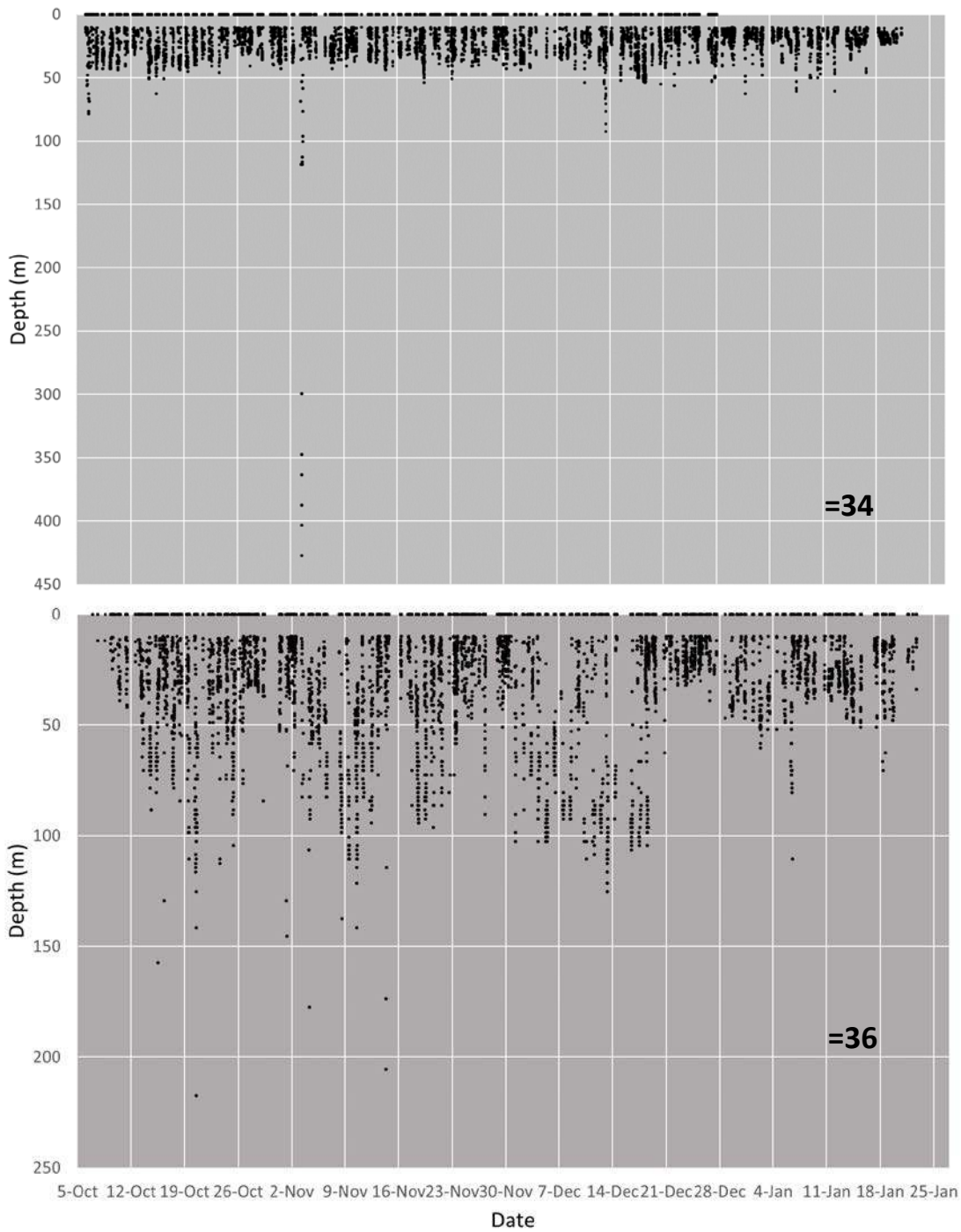


Figure 2. Maximum dive depths for adult female Steller sea lion =34 (top) and = 36 (bottom) for December 30, 2015 – January 21, 2016. Each point represents the maximum depth reached for an individual dive for dives >10 m deep.

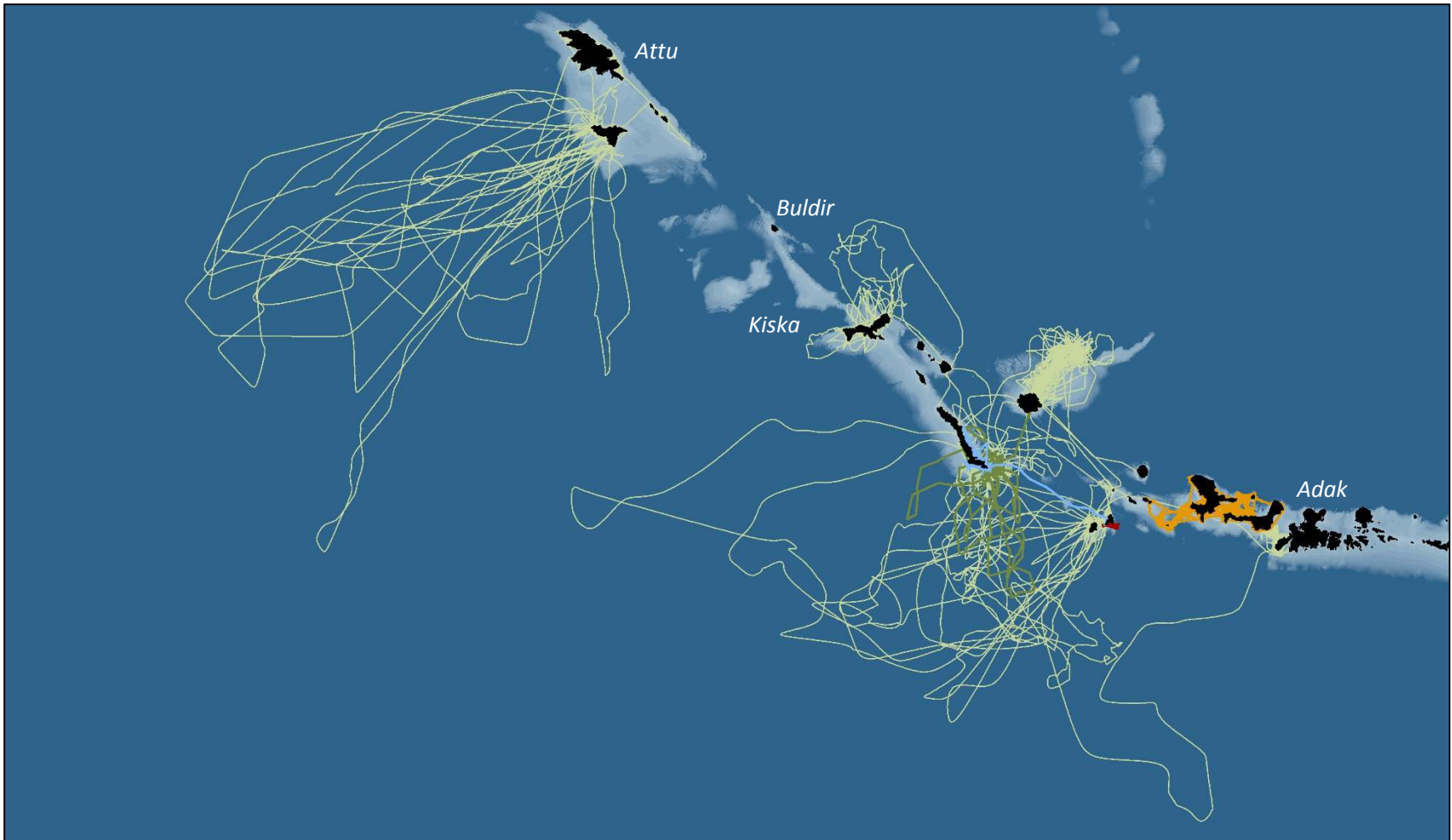


Figure 3. Tracks of adult female Steller sea lions captured in October 2015 (thick colored lines) relative to tracks of the nine adult females captured in 2011, 2012, and 2014 (thin lines). Water depths <500 m shaded in lighter shades.