

*Session SSL-6: Steller Sea Lion Biology and Ecology
Population Status and Dispersal*

Dispersal and movement patterns of juvenile Steller sea lions in Alaska

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Recent developments in capture techniques have permitted broad-scale deployments of satellite transmitters to study the at-sea distribution and movement patterns of juvenile Steller sea lions (*Eumetopias jubatus*). These developments are particularly important because reduced juvenile survival is hypothesized to be one of the primary factors contributing to the decline of Steller sea lions in western Alaska (west of 144° W). We examined the relationship of at-sea trip duration, distance, and interhaulout movements with age, sex, stock, and season in the decreasing western stock (WS; Prince William Sound, Kodiak, Aleutian Islands, Alaska) and the increasing eastern stock (ES; Southeast Alaska). We deployed 103 satellite transmitters (29 WS, 74 ES) on juvenile (1.6 – 35.1 mo) Steller sea lions (46 male, 57 female) between March 1998 and November 2001. Deployment length averaged 66 d for all animals, 75 d (range 10 -144 d) in the WS and 62 d (range 3 -190 d) in the ES. Sea lions were tracked during all months of the year from March 1998 through March 2002 (excluding Sept.-Oct. 1998 and April-July 1999). Overall, at-sea trip duration, distance, and interhaulout movements increased with increasing age. Pups dispersed from rookeries to other haulouts (up to 120 km away) as early as 2.5 mo. During central-place trips (to and from the same haulout), the majority (81%) were of short range (< 15 km) and short duration (< 20 h). In contrast, individual movements between haulouts ranged from 3 to 511 km. Although interhaulout movement was variable in all seasons, dispersal and movement among haulouts as well as at-sea trip duration and distance all increased during spring and early summer (April through July). We found no significant difference in at-sea distribution or movements between western and eastern stocks.

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