Reduced survival of juvenile Stellar sea lions (SSLs) is thought to limit population growth in western Alaska (west of 144° W). Therefore, recent attention has focused on potential differences in the at-sea distribution and foraging capabilities of juvenile SSLs in the decreasing western population (WP; Prince William Sound, Kodiak, Aleutian Islands, Alaska) and the increasing eastern population (EP; Southeast Alaska). Furthermore, factors affecting the at-sea distribution of this age class are important in evaluating the potential competitive exclusion that has been suggested between commercial fisheries and SSLs. To explore these questions, we deployed 103 satellite transmitters (29 WP; 74 EP) on pup (1.6 - 11.9 mo) and juvenile (12.0 - 35.1 mo) SSLs between 1998 and 2001. We found that at-sea trip distance, duration, and dive depth increased with age. However, the majority (85%) of sea lions remained within 15 km of haulouts and spent 67 - 100% of their time at depth between 4 and 50 m. Additionally, sea lions exhibited multiple central place foraging patterns and seasonal use of some haulout sites. Such developmental limitations of diving and foraging activities and potential prey selection suggest that common features of marine habitats might exist among at-sea locations and primary haulout sites used (i.e. non-random selection of habitats). Indeed, the at-sea locations of pup and juvenile SSLs exhibited clumped distributions and cluster analysis identified particular haulout sites that were most often used in association with one another. For example, in Prince William Sound, the concentration of at-sea locations in nearshore regions (< 10 km) is consistent with other sympatrically occurring piscivorous species. Particular marine habitats surrounding haulouts provide not only important prey resources for the developing dependent juvenile, but also for newly weaned juveniles who can reduce travel time and energy expenditure by resting near accessible prey resources.
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