

**Inter-population movements of Steller sea lions in Alaska with implications for population separation.**

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Based on genetic studies, Steller sea lions have been divided into 2 populations with the dividing line between populations at 144° W. These populations have been separated for thousands of years with very little exchange. During the past 15-30 years, the gap between the breeding ranges of the populations has closed with the formation of new rookeries with founders from each population. Our study is based on sightings of >3000 sea lions marked as pups in both the western and eastern populations; sea lions were marked from 2000-2009 and sighted from 2000-2010. One hundred-seven (of 1995 marked) sea lions from the eastern population were observed in the range of the western population; only 2 were females. Seventy-seven (of 2193 marked) from the western population were observed in the range of the eastern population, with approximately equal numbers of each sex. Some males from each population travel to the opposite range, where they can remain for several years, or they make repeated movements between populations; most of these eventually return to their natal population during the breeding season. Steller sea lion males typically cannot occupy breeding territories until 9-10 years of age, so only the oldest of our marked males are capable of holding breeding territories. One western population male occupied a breeding territory within the range of the eastern population; no eastern population males have been seen holding territories in the west. Eastern population females almost never move to the west. In contrast, western population females have traveled east, where at least 7 have given birth at eastern rookeries. Establishment of rookeries near the population boundary of the 2 populations seems to have been driven by larger shifts in distribution of western population females compared with eastern population females.



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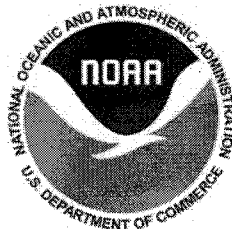
ON

## THE BIOLOGY OF MARINE MAMMALS

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