

*Gulf of Alaska - Marine Mammals*

**Mark-Resight Estimates of Age-Specific Weaning Probabilities for  
Juvenile Steller Sea Lions**

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Some young Steller sea lions are not weaned until their second or third year of life. We use mark-resight models to estimate the probability of young Steller sea lions being weaned during their first, second and third years of life while accounting for misclassification of weaning status. Estimates of the probability of being weaned during the first year of life varied from 0.002 to 0.185, ranged from 0.153 to 0.586 during the second year, and from 0.598 to 1.000 during the third year; variation among estimates for the same age suggests cohort differences, but we found little evidence of differential weaning probability between sexes. Female Steller sea lions are annual breeders. We speculate that the high proportion of juvenile sea lions that continue to be dependent in their second and third years is the result of females experiencing reproductive failure (abortion), females rejecting their pup in favor of their juvenile, or females reuniting with their juvenile after the early death of their pup. Extended dependence reduces the reproductive potential of a population but may enhance the survival of juveniles during periods of suboptimal environmental conditions. We suggest that this is a life history strategy called “bet hedging” where females forfeit annual reproduction to enhance the survival of their juveniles in which they already have a substantial investment.



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