## Determining weaning status: comparing observational records with stable isotope analysis in Steller sea lions

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Observations of Steller sea lions in Southeast Alaska have indicated that many pups continue to suckle past one year of age. It is uncertain how often these suckling interactions occur and what proportion of this continued nursing contributes to the diet of these individuals. We compared stable isotope  $(C^{13}, C^{13})$  $N^{15}$ ) analysis of sectioned whisker samples with observational records of branded animals post capture. Initial results are presented here on 25 individuals, aged between 5 and 29 months, observed suckling multiple times post capture. Stable isotope analysis of pups less than one year of age (n=7) showed no indications of supplementing and comparison with observational records confirmed the status 'nursing'. Three juveniles aged 17months and two aged 20 months also showed no indications of supplementing and appeared to be solely nursing. Evidence of nursing with indications of supplementing to varying extents (n=4) and supplementing possibly weaned (n=5) classification was indicated in juveniles aged 14-29 months. One 22 month old male appeared to be weaned or heavily supplementing was observed suckling repeatedly post capture. Three additional females captured at 23 months and included in analysis indicated a 'weaned' status; observational records for these individuals confirmed no signs of suckling post capture, however they were observed to give birth within the following 18 months. It is unlikely juveniles can meet the energy requirements for growth and maintenance on milk reserves alone. There is some lack of conformity between suckling observations and stable isotope analysis which raises further questions as to the continued interaction between mother and pup past the expected age to wean.



