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Intraspecific comparison of California sea lion (*Zalophus californianus*) diet assessed using fecal and stable isotope analyses

A.J. Orr, G.R. VanBlaricom, R.L. DeLong, Víctor Hugo Cruz Escalona & S.D. Newsome

The diet of juvenile and adult female California sea lions (*Zalophus californianus* (Lesson, 1828)) at San Miguel Island, California, was estimated and compared using fecal and stable isotope analyses to determine dietary differences by age. Fecal samples were collected during 2002-2006 and prey hard parts were identified. Stable carbon ($d^{13}C$) and nitrogen ($d^{15}N$) isotope values were determined from plasma and fur obtained from yearlings, 2- to 3-yr old juveniles, and adult females during 2005 and 2006. Juveniles ate more than 15 prey taxa, whereas adult females consumed more than 33 prey taxa. Relative importance of prey was determined using percent frequency of occurrence (%FO). *Engraulis mordax* (Girard, 1854), *Sardinops sagax* Jenyns, 1842), *Merluccius productus* (Ayres, 1855), *Sebastes* spp. (Cuvier, 1829), and *Loligo opalescens* (Berry, 1911) were the most frequently occurring (> 10%) prey in the fecal samples of both juvenile and adult female sea lions, although their importance varied between age groups. Only yearlings had significantly different isotopic values than older conspecifics, indicating that older juveniles were feeding at a similar trophic level, and in similar habitats, as adult females. Whereas each method had biases and uncertainties, combining the two methods provided a better understanding of the diet of California sea lions and intraspecific differences.

Palabras clave: california sea lion, San Miguel Island, stable isotope analyses, fecal analysis

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