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A comparison of indexes for prey importance inferred from otoliths and cephalopod beaks recovered from pinniped scats

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In this study a similar data set was used to compare results produced by using four indexes used for quantifying the California sea lion prey. Hard structures like Sagita otoliths and cephalopod beaks have traditionally been used in pinniped diet analices. They are important since their shape and inner feature can be species or genus specific and aid in the identification of prey. Scats are currently the most used sample type in pinniped diet analices because they can be easily collected are abundant, noninvasive and prive enough otoliths and cephalopod beaks. Traditionally, food habit Studies of the California sea lion *Zalophus californianus* base on scats have considered the Percent Number and Percent Ocurrance as mesasure to determine prey importante. There are two other lesser-used indexes: Split-Sample Frecuency of Ocurrance and Index of Importance that have also been used for quantifying the California sea lion prey. A total of 251 hard structures (fish otoliths and cephalopod beaks) recovered from California sea lion scats collected at Isla San Pedro Mártir in the Gulf of California, México, were examined. Prey taxa were identified using voucher specimen material. The California sea lion diet was estimated using the four indices described above and the results were compared using X^2 tests and correlation coefficients. Results obtained from fouor measurements were consistent in ranking the three main prey taxa but different in relative importante. A Sorong correlation was found hmong indexes, but the standardized residual indicated that linear regresión was not and adequate model to describe the relationship between PN and any other indexes. Representing the diet using a single measurement such as IIMP can facilitate the interpretation of results, allow comparisons and promote consistency in pinniped diet Studies base don scats.

Palabras clave: california sea lion, zalophus californianus, diet, producción pesquera

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