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Ecological regionalization of *Zalophus californianus* rookeries, as a tool for conservation in the Gulf of California

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There are 13 rookeries of California sea lions (*Zalophus c. californianus*) in the Gulf of California, 6 of which reflected the existence of 3 genetically distinct groups, Northern, Central and Southern. Up to now, however, the sea lion population of Mexico has been treated as a single unit. The aim of the present study was to explore the existence of a regionalized spatial pattern of *Zalophus c. californianus* rookeries in the Gulf, in order to contribute to their conservation and management. The following 9 ecologic-biogeochemical parameter databases were analyzed: population censuses, metal content in bone, *Leptospira* spp., stable isotopes ($d^{15}N$ and $d^{13}C$), osteoarthritis, diet and 2 environmental variables (local SST and Chl-a concentration). The exploration involved examining the geographic distribution of each variable, recompiling the regional structure discovered in previous studies and applying multivariate analysis. Using individual variables, the rookeries could be structured into 2 or 3 groups. Using *Leptospira* and the environmental parameters, the northern rookeries associated with those of the central Gulf, leaving the south as another group. The metals and diet yielded a segregation of the northern rookeries and a regrouping of those in the central and southern Gulf. Osteoarthritis and stable isotopes distributions also lead to a center-south association, but with 2 groups in the north.

Palabras clave: *zalophus californianus*, Body growth, Regionalization, ecological parameters

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