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The food sources of *Selene peruviana* (actinopterygi: perciformes: carangidae) in the southern Gulf of California

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Background. The food and feeding habits of a fish are important for understanding not only the fish biology but also the role played by the species in the ecosystem. The Peruvian moonfish (known also as Pacific moonfish), Selene peruviana (Guichenot, 1866), is a relatively abundant species, with its biology poorly known along the Mexican Pacific zone. Therefore, the aim of this study was to determine the principal food items of the Peruvian moonfish by using stable isotopes and the stomach content analysis. Materials and methods. We analyzed stomachs of 204 moonfish collected by a shrimp fishing boat along the coast of Nayarit and south of Sinaloa, Mexico from September to March, within 2006–2007. We also took 11 muscle samples of moonfish and some organisms being potential previtems for stable isotope analysis. Examining the stomach contents we determined the most important prey species using the geometric index of importance. We also determined the feeding strategy of this predator using Amundsen plots and Levin's index and finally we calculated the trophic position. We also determined the principal preys using stable isotopes analy- sis along with mixing models, and based on those values we calculated the trophic position. Results. The stomachs of Selene peruviana contained chiefly engraulid fishes and crustaceans. The stable iso- topes analysis (SIA) helped to identify partly digested material as representing crustaceans of the family Portunidae. The trophic position found by both methods was between 3.7 and 3.9 and we also determined that this fish tended to feed near the coast. Conclusion. Selene peruviana is an opportunistic predator that consumes preys that are abundant in the zone. The stable isotopes analysis proved to be an efficient tool supplementing the stomach content analysis and helping to identify also partly digested items.

Palabras clave: feeding habits, stable isotopes, Selene peruviana, mixing models

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