
The use of stable isotopes and stomach contents to identify dietary components of the spotted rose snapper, Lutjanus guttatus (Steindachner, 1869), off the eastern coast of the southern Gulf of California

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The food habits of the spotted rose snapper, Lutjanus guttatus (Steindachner, 1869), living off the Eastern coast of the Southern Gulf of California (off the coast of Nayarit) are described based on their stomach contents and isotopic analysis. Fish were collected from the bycatch of shrimp trawling during the 2005-2007 shrimp fishing seasons. Twenty-six taxa were identified in the stomach contents and the geometric importance index suggested xanthid crabs and engraulidae fish are the most important species in the L. guttatus diet. Isotopic analysis and mixing models also led to the identification of crustaceans as important species in diets, but fish were considered only as secondary prey in these models. Notably, the diet and trophic level of the spotted rose snapper tend to change as it matures; young fish mainly feed on crustaceans, while larger L. guttatus can incorporate fish into their diets. Furthermore, Morisita-Horn index suggests that there are significant differences between the diets of juvenile and adult fish. The estimates of the trophic level for L. guttatus from stomach contents (TL<sub>sc</sub> = 3.7) and isotopic analysis (TL<sub>iso</sub> = 3.5) are very similar.

Palabras clave: feeding habits, Specialist, Lutjanus guttatus, stable isotopes, stomach contents

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