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## Rocky reef fish assemblages in San Jose Island, Mexico

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We analyzed the composition, diversity, and abundance of marine fish at rocky reefs off San Jose island, Mexico between October 2001 and August 2002. Fish species were recorded using a visual census in five sampling areas of 50 by 5 meters at two depths, shallow (1-3 meters) and intermediate (5-7 meters). A total of 26,946 organisms were counted, belonging to 84 species. The families Serranidae (9 species), Labridae (8), Pomacentridae (7), and Haemulidae (6) were the most representative. We measured the rugosity of the bottom surface, which showed a positive relationship with abundance, richness, and fish diversity. The ocean bottom off San Jose island is covered with various size rocks that offer more feeding and refuge areas to fish assemblages than other areas. The ecological index increased during the warm season. Diversity and richness showed significant variations ( $P < 0.05$ ) by depth, with the highest values in exposed locations around the island (Conejo, Pardito, and San Francisquito). The biological value index indicated that the most representative fish species were *Stegastes rectifraenum*, *Abudefduf troschelii*, *Thalassoma lucasanum*, *Scarus ghobban*, and *Mulloidichthys dentatus*. The depth and wave exposure were the two environmental variables with the most influence on the structure of rocky-reef fish assemblages.

Palabras clave: Specialist, La Paz, rocky reef, Fish diversity

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