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## Indirect evidences on the connectivity of coral reefs of the Gulf of Mexico and the mexican caribbean

Alejandra Chávez Hidalgo, Gustavo De La Cruz Agüero & Ernesto Aarón Chávez Ortiz

Coral reef connectivity results from the export and import of species or reproductive product between localities. Possible exchange pathways between the reef ecosystems in the country are not known; such knowledge about coral reef connectivity could contribute to its management and conservation. The connectivity between reefs of the Gulf of Mexico and Mexican Caribbean was evaluated based on patterns of similarity. Information for 48 stony coral species in 19 localities was compiled from different sources. Species richness suggests that the highest coral biodiversity is located around Cozumel on the Caribbean with 33 species. Cluster analysis based on biological similarity between localities shows that the Veracruz Reef System (VRS) is more similar to the reefs of the Mexican Caribbean than those on the Campeche Bank. Correlation (Mantel test) of biological similarity with geographical distance, days of transport by currents and environment variables, was negative and highly significant, corroborating that biological similarity decreases with increasing distances. The hypothesis that the reefs of the VRS and the Caribbean are more similar because these areas are less affected by hurricanes is proposed. This environmental stability would lead to an accumulation of Caribbean coral species that makes VRS more similar to the Caribbean than to those reefs in the Northern Veracruz or those in the Yucatan shelf.

Palabras clave: dispersion, Connectivity, Coral reefs, Similarity

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