

ANTIFUNGAL ACTIVITY OF BACTERIA ISOLATED FROM THE CORAL *Pocillopora* spp. OF THE GULF OF CALIFORNIA

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Corals are holobionts, a term that refers to the entire animal, including polyps, endosymbiotic zooxanthellae, and the associated community of other microorganisms (bacteria, archaea, viruses, fungi, and endolithic algae). Due to their structure, they offer a multifaceted habitat with diverse communities of bacteria residing in the skeleton, polyp tissue, and the mucous surface layer. However, the importance of the coral-associated bacterial community, its role in the ecosystem, its contribution to host well-being, and its potential biotechnological application are still incipient. In this research, the objective was to determine the diversity and biotechnological potential of 79 culturable bacteria isolated from the coral *Pocillopora* spp. from the southwestern Gulf of California. Antagonistic interaction assays were conducted between the strains isolated from corals and the phytopathogenic fungi *Fusarium sulawesiense* and *Penicillium implicatum* isolated from postharvest papaya and orange. The results showed 10 strains capable of inhibiting these fungi. These results demonstrate the importance of the bacterial community associated with corals. Several authors have highlighted the role of bacteria in determining the types of microbes that colonize corals, not only through niche occupation but also through antagonism toward other microbes. In this regard, it is important to investigate their biotechnological potential.