



WORLD OCEAN CONFERENCE

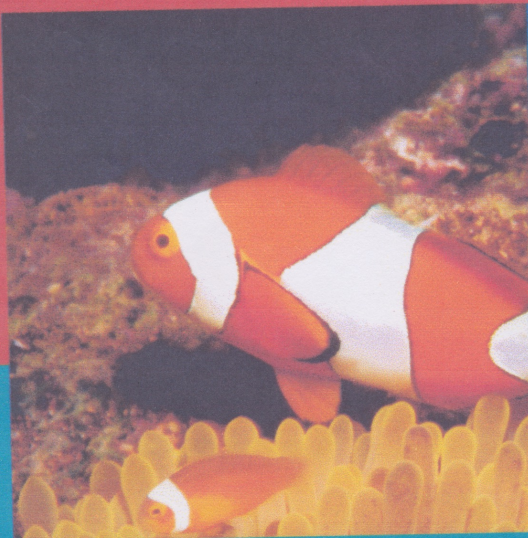


CORAL TRIANGLE
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ABSTRACTS

mangrove area through the harvesting of mangrove plants for firewood and construction materials. Besides its function as habitat for many tidal living organisms, mangroves can be used as natural protection from natural disturbances such as tidal waves and storms. This study evaluates the existing programs aimed at sustainable mangrove conservation leading to rural participatory coastal mitigation. These programs include mudcrab culture, integrated shrimp and polychaete aquaculture, shrimp paste industry, and mangrove farming.

Genetic Connectivity of Coral Populations between Two Biodiversity Hotspots: Indonesia and the Philippines

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Southeast Asia is the global center of species diversity for reef-building corals. The processes by which this diversity has accumulated in the Coral Triangle are unknown for most coral families. By taking a population genetic approach, barriers to larval dispersal within the Coral Triangle have been identified together with the geographic and/or oceanographic mechanisms that may drive diversification and eventually speciation in this region. Genetic diversity was assessed in two model species in the coral family Pocilloporidae. *Pocillopora damicornis* and *Seriatopora hystrix* represent opposite ends of the coral genetic diversity spectrum. *P. damicornis* populations are typically more open and less genetically structured than those of *S. hystrix*, which show more restricted patterns of gene flow and higher genetic diversity. Results indicate that genetic breaks exist in the Moluccas Strait in Indonesia for both species, consistent with genetic breaks previously observed in stomatopod shrimp. This observation supports the hypothesis that the Halmahera Eddy may act as an important barrier to the transport of marine invertebrate larvae across Indonesia. Genetic breaks were also observed in the Philippines between populations in Southern Luzon and Bolinao in the north, indicating limits to larval dispersal somewhere along the coast of Luzon. The results are also applicable to marine protected area design and management, and several recommendations for Indonesia and the Philippines are presented.