

**Assessing parrotfish abundance and implications for coral recovery and fishery management in the Gulf of Thailand**

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The severe coral bleaching events led to mass mortality of corals in the Gulf of Thailand and have been recognized as one of the severe impacts of global change on marine ecosystems. The coral bleaching may affect coral reef fish abundance, richness and biodiversity. The loss of live coral cover may have a profound impact on fish biodiversity and abundance. Parrotfish are important components of coral communities as they feed on macroalgae that would otherwise displace corals. This study examined spatial patterns of parrotfish abundance on coral communities in the Gulf of Thailand. The parrotfish abundance was observed by using a standard visual census technique in the belt-transects, 50x5 m for each. The high abundance of parrotfish was recorded at certain reef sites in the Western Gulf of Thailand. Many colonies of the massive *Porites* species complex, the most dominant corals in the Gulf of Thailand, showed a number of parrotfish grazing scars. This research implies the importance of parrotfish studies in the Gulf of Thailand, particularly their feeding behavior, population ecology, and relationships with coral community structure and coral recovery processes following major coral bleaching events and anthropogenic disturbances. We also provides baseline data for further studies and management of coral communities and fisheries in the Gulf of Thailand under multi-stressors of global change impacts.

**Keywords:** coral community, fishery, Gulf of Thailand, management, parrotfish

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