

RECOLONIZATION OF A CORAL REEF DAMAGED BY A STORM ON PHUKET ISLAND, THAILAND

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ABSTRACT

In May 1986, a shallow water reef on the south east end of Phuket Island was damaged by a storm surge from the south at the beginning of the southwest monsoon. Immediately after the storm, no living corals could be found in the upper zone of the reef, and only a few could be found in the lower zone. Sixteen months after the storm, live coral coverage was still zero along a transect in the upper reef zone but had recovered to 16.9 % in the lower reef zone. During the initial recovery, two years after the storm damage, the live coral coverage had increased to 2.9 % and 20.5 % in the upper and lower reef zones, respectively. *Acropora*, *Pocillopora*, *Montipora*, *Porites* and *Favites* were the major genera and the first three had fastest growth rate. Recovery in the upper zone occurred as a result of coral larval resettlement, while both resettlement and regeneration played a role in the lower zone.

Today, 5 years after the damage, the reef has recovered with live corals in 52.3 % and 43.6 % of the upper and lower zone transects, respectively. *Acropora formosa* and *A. hyacinthus* have been the only successful species in the upper zone, while the lower zone harbours more species. It is suggested that 6-7 years are needed for the reef to recover to a good condition.