

Tsunami Damage to Coral Reefs in Sri Lanka

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Abstract

Coral reefs were surveyed for Tsunami damage at selected locations in the southern, western and eastern coastal waters of Sri Lanka. The impact of the Tsunami was highly varied. Almost all the damage observed was on shallow coral habitats. There was no serious impact on sandstone/limestone reef habitats. Some fringing coral reefs were almost unaffected whilst others were severely damaged. Most damage observed was mechanical, with breakage of fragile corals, notably *Acropora* and *Montipora* spp., and larger massive coral colonies toppling over and shifting of coral rubble formed after the 1998 coral bleaching event. Smothering by sediment was low and where present was mainly due to resuspended marine sediments. In some locations live corals have been smothered by sand. The impact on fringing coral habitats in the southern and western coast was low to high. Extreme damage was observed in the Dutch Bay at Trincomalee. The hard coral cover has been reduced in the Dutch Bay by about 78%, in the Hikkaduwa National Park by 20% and Kapparatota, Weligama by 38%. The Tsunami had not damaged coral habitats in the Gulf of Mannar region.