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## 1127 A note on the coral reef degradation in some islands of Gulf of Mannar

The coral reefs of Gulf of Mannar are facing increasing threats from anthropogenic impacts like sedimentation, illegal coral mining, fishing and pollution. It was found that the northern side of islands of Manauli, Hare and southern side of Pullivasal island which had rich coral populations earlier has been totally destroyed.

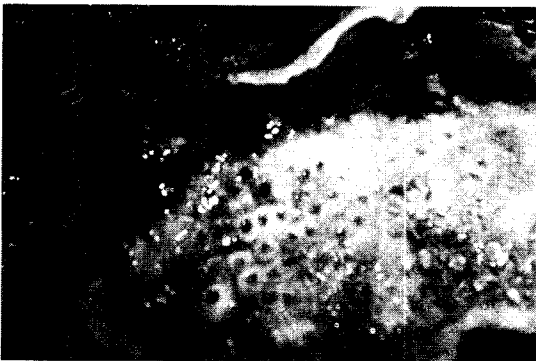


Fig. 1

Bleached *Echinopora* sp. and *Montipora* sp.



Fig. 2

The condition of the reef at Pullivasal island can be described as the worst affected among all the islands. The reef is now dominated by seaweeds and sea urchins. This reef is in an ecological successional stage with echinoderms and seaweeds taking precedence over corals. All *Acropora* sp. were found to be dead and attached with filamentous algae. Excessive sedimentation was observed on some live coral patches. Seaweeds were flourishing on dead corals. The major seaweeds which were seen on the corals belong to *Sargassum* sp., *Caulerpa* sp. and



Fig. 3 *Montipora* sp. with Black Band disease

*Montipora* and *Echinopora*.(Fig. 1&2). Long patches of dead corals were noticed in and around the islands of Manauli, Hare and Appa islands. Occurrence of Black band disease on corals was noticed in *Montipora* sp. (Fig.3) in Manauli Island. Black band disease is described as a striking microbial assemblage that formed a band which moved across healthy coral colonies, actively destroying coral tissue and leaving behind the bare coral skeleton. Identification of the Black band disease pathogen has proved to be challenging and is still the subject of ongoing

investigation.

The coral – algal phase shift phenomenon in coral reefs is generally believed to be the result of gradual increase in stress due to loss of herbivory (overfishing) or increase in nutrient levels (pollution). The southern side of Manauli, Krusadai and Shingle islands are found to be still bordered by healthy reefs which need to be protected from such damages.

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