Outbreak of coral disease in the Northwestern Hawaiian Islands

Received: 7 December 2004 / Accepted: 16 February 2005 / Published online: 15 June 2005 © Springer-Verlag 2005

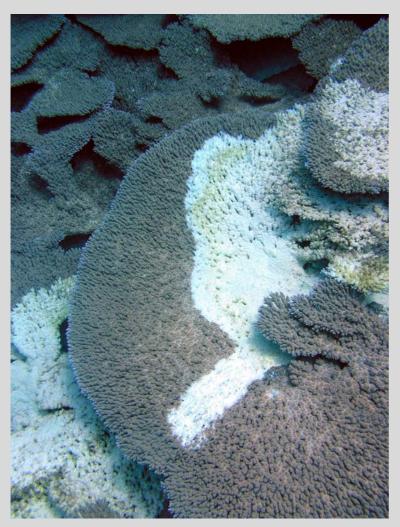


Fig. 1 Acropora cytherea with massive tissue loss at French Frigate Shoals, NWHI

An outbreak of coral disease resulting in significant tissue loss was observed affecting the table coral, Acropora cytherea, at French Frigate Shoals in the Northwestern Hawaiian Islands (NWHI) in July, 2003 (Fig. 1). This is the first report of disease causing extensive coral damage to any of the reefs in the NWHI. Affected colonies had large areas of irregular tissue loss with stark white skeletons remaining. Denuded coral skeletons were frequently colonized by filamentous algae but there was often a distinct band of white skeleton, not yet colonized by algae, separating living tissue from algal-colonized skeleton. Tissue loss on individual corals was visually estimated as ranging from 10% to 60% of the surface area. These disease signs are consistent with the disease, white syndrome, which has been reported from other reefs in the Indo-Pacific (Willis et al. 2004). Acanthaster predation, which can also cause extensive coral mortality, was considered and rejected as a probable cause based on the pattern of tissue loss and the absence of any Acanthaster in the area. Histological and molecular studies are currently underway to investigate the etiology of the disease.

Acknowledgements I thank the Northwestern Hawaiian Islands Ecosystem Reserve and Coral Reef Ecosystem Division, Pacific Islands Fisheries Science Center, NOAA Fisheries, for providing logistical support for this research. Thanks also to the officers and crews of NOAA's research vessels, Oscar E. Sette and Hi'alakai.

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G. S. Aeby

Division of Aquatic Resources, Hawaii Department of Land and Natural Resources, 1151 Punchbowl St, Honolulu, HI 96813, USA E-mail: greta@hawaii.edu

Tel.: +1-808-3864784 Fax: +1-808-5870115