



*A colonial tunicate smothers corals and coralline algae
on the Great Astrolabe Reef, Fiji*

The encrusting colonial tunicate *Diplosoma simile* (Sluiter, 1909) ranges from grey-green through teal to indigo-blue in color (upper overview photograph) and has an extremely wide range in the tropical western Pacific, where it is extremely common (Mather, personal communication; Kott 1981). It overgrows large areas of live corals (mostly *Acropora*, lower right) and coralline algae (primarily *Hydrolithon*, lower left) on pristine fringing reefs of the Great Astrolabe Reef. This obligate *Diplosoma-Prochloron* symbiosis tends to spread upwards from cryptic shaded coral bases into direct sunlight, with the stages of dead, dying, or live host sub-

strata correlated with the degree of overgrowth. Mortality of the reef-building hosts appears to be high, presumably owing to smothering. Overgrown recently dead coral and coralline substrata during February 1995 was estimated at about 15% of the shallow outer reef edges of Dravuni and Namara Islands, indicating substantial tunicate-induced mortality.

Coral mortality resulting from overgrowth has been known for decades and is well documented for epizoic algae (e.g., Glynn 1973; Birkeland 1977), sponges (e.g., Bryan 1973; Rützler and Muzik 1993), and other corals (e.g., Antonius 1977). The destructive role of ascidians is not well documented at a reefal scale and could be ecologically important on some natural reef systems.

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