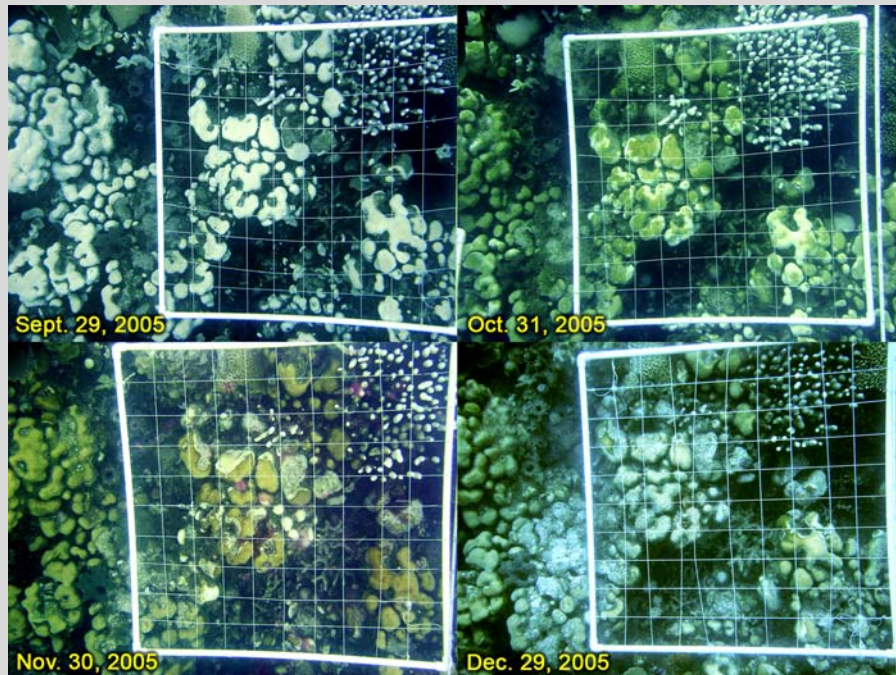


# Coral bleaching and disease combine to cause extensive mortality on reefs in US Virgin Islands

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**Fig. 1** Four-month time series of *Montastraea annularis* and *Porites porites*. Bleached condition on September 29, 2005. Partial color recovery by October 31, 2005. More color recovery but disease mortality on November 30, 2005. Mortality from disease spreads on December 29, 2005

Reefs in the US Virgin Islands experienced extensive bleaching in September 2005 with >90% coral cover bleached ( $n = 20$  video transects at each of five reef sites). Mean reef water temperatures from April 2005 to September 2005 were significantly higher than the previous 14 years. Corals began regaining color in October as water temperatures decreased, and minimal coral mortality was observed.

Monitoring from November 2005 to April 2006 revealed significant coral mortality following distinct White Plague disease signs, resulting in unprecedented 26–48% losses in coral cover (Fig. 1). Chronic mortality from this disease has occurred monthly at one monitoring site since 1997, but with prevalence rates not related to elevated temperatures or previous bleaching events (Miller et al. 2003).

While coral mortality from bleaching events has been well documented (Hoegh-Guldberg 1999) this study shows that only with frequent monitoring would these post-bleaching mortality patterns and presence of pathogenic disease be detected.

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Reef sites

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