Abstract

This study describes the severity of the 2005 bleaching event at 15 reef sites across Venezuela and compares the 1998 and 2005 bleaching events at one of them. During August and September 2005, bleached corals were first observed on oceanic reefs rather than coastal reefs, affecting 1 to 4% of coral colonies in the community (3 reef sites, n=736 colonies). At that time, however, no bleached corals were recorded along the eastern coast of Venezuela, an area of seasonal upwelling (3 reefs, n=181 colonies). On coastal reefs, bleaching started in October but highest levels were reached in November 2005 and January 2006, when 16% of corals were affected among a wide range of taxa (e.g. scleractinians, octocorals, Millepora and zoanthids). In the Acropora habitats of Los Roques (an oceanic reef), no bleached was recorded in 2005 (four sites, n=643 colonies). At Cayo Sombrero, a coastal reef site, bleaching was less severe in 1998 than in 2005 (9% of the coral colonies involving 2 species vs. 26% involving 23 species, respectively). Our results indicate that bleaching was more severe in 2005 than in 1998 on Venezuelan reefs; however, no mass mortality was observed in either of these two events. Rev. Biol. Trop. 58 (Suppl. 3): 189-196. Epub 2010 October 01.

Keywords

Coral reefs, stress, global warming, bleaching.