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Woods Hole Oceanographic Institution

Biology Department Seminar

Thursday, December 6, 2012

Redfield Auditorium - 12:00 Noon

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Is the Great Barrier Reef still great? 20 years of monitoring coral reef communities

Mike Emslie

Experimental Scientist

Australian Institute of Marine Science

Coral reefs are among the world's most diverse and iconic ecosystems. Over recent decades, ecologists have documented alarming declines in reef health in many regions, largely due to a myriad of stressors, including crown-of-thorns starfish (COTS), coral bleaching, tropical storms, coral disease, overfishing, coastal runoff and development. Globally, Australia's Great Barrier Reef (GBR) is considered one of the least stressed and best managed coral reef systems, yet long term monitoring has shown GBR-wide coral cover has declined over the last 27 years, largely due to COTS and tropical storms. However, such broad-scale summaries mask small-scale sub-regional changes, including evidence of coral recovery. Other positive results have also emerged: a recent increase in the area of no-take marine reserves has boosted the density and biomass of fishery targeted species, and the majority of disturbed reefs appear resilient changes to alternate stable states. I review some results from two decades of monitoring by the Australian Institute of Marine Science and assess the status of the GBR.