

2 October 2012 Last updated at 12:58 GMT

# Half of Great Barrier Reef coral lost in last 27 years



Various factors, from cyclones to the Crown of Thorns starfish, are being blamed for the loss of the reef

Australia's Great Barrier Reef has lost more than half its coral cover in the past 27 years, a new study shows.

Researchers analysed data on the condition of 217 individual reefs that make up the World Heritage Site.

The results show that coral cover declined from 28.0% to 13.8% between 1985 and 2012.

They attribute the decline to storms, a coral-feeding starfish and bleaching linked to climate change.

The research is published in the Proceedings of the National Academy of Sciences journal.

Glen De'ath from the Australian Institute of Marine Science (AIMS) and colleagues determined that tropical cyclones - 34 in total since 1985 - were responsible for 48% of the damage, while outbreaks of the coral-feeding crown-of-thorns starfish accounted for 42%.

Two severe coral bleaching events in 1998 and 2002 due to ocean warming also had "major

detrimental impacts" on the central and northern parts of the reef, the study found, putting the impact at 10%.

"This loss of over half of initial cover is of great concern, signifying habitat loss for the tens of thousands of species associated with tropical coral reefs," the authors wrote in their study.

Co-author Hugh Sweatman said the findings, which were drawn from the world's largest ever reef monitoring project involving 2,258 separate surveys over 27 years, showed that coral could recover from such trauma.

"But recovery takes 10-20 years. At present, the intervals between the disturbances are generally too short for full recovery and that's causing the long-term losses," Sweatman said.

John Gunn, head of AIMS, said it was difficult to stop the storms and bleaching but researchers could focus their short-term efforts on the crown-of-thorns starfish, which feasts on coral polyps and can devastate reef cover.

The study said improving water quality was key to controlling starfish outbreaks, with increased agricultural run-off such as fertiliser along the reef coast causing algal blooms that starfish larvae feed on.