

**Senate Standing Committee on Environment and Communications**  
**Legislation Committee**  
Answers to questions on notice  
**Environment portfolio**

**Question No:** 168  
**Hearing:** Supplementary Budget Estimates  
**Outcome:** Agency  
**Programme:** Great Barrier Reef Marine Park Authority (GBRMPA)  
**Topic:** Crown-of-Thorns Starfish - spread  
**Hansard Page:** N/A  
**Question Date:** 4 November 2015  
**Question Type:** Written

**Senator McLucas asked:**

1. What is the current spread of Crown of Thorns starfish and what proportion of the Great Barrier Reef Marine Park do they cover? Please estimate coverage if data is unavailable.

**Answer:**

Crown-of-thorns starfish are a naturally occurring coral predator found on coral reefs across the Indo-Pacific. Their biology means that under ideal conditions their population can increase to plague like proportions that can rapidly and severely reduce coral cover on affected reefs.

Based upon observations from the joint Field Management Program, reef health surveys conducted by the Queensland Parks and Wildlife Service, and the crown-of-thorns starfish control programmes, there is a high degree of certainty that there is a severe outbreak currently affecting reefs between Cooktown and Innisfail. Less frequent but more spatially extensive surveys from the Field Management Program, Eye on the Reef network and Australian Institute of Marine Science indicate that adult starfish at outbreak proportions are affecting some reefs as far north as Lockhart River and as far south as off-shore from Townsville.

Crown-of-thorns starfish are typically cryptic when they are small and hence they are difficult to detect on underwater survey until they mature. This, coupled with the sheer size of the Great Barrier Reef, the dynamics of the outbreak and Reef-wide surveillance capacity, limit the degree to which outbreak dynamics and its impact can be estimated.

The Field Management Program, the tourism industry, the Association of Marine Park Tourism Operators and the community play an active role in providing sightings information and reef health surveys by submitting data into the Eye on the Reef database. The below map derived from the Eye on the Reef database shows where crown-of-thorns starfish were observed within the Great Barrier Reef between 1 July 2014 and 6 November 2015.

**Overview of spatial extent of the current crown-of-thorns starfish in the Great Barrier Reef Marine Park.**

The yellow shaded polygons indicate reefs where starfish were observed during surveys between July 2014 and November 2015. The concentration of observations between Cooktown and Cairns highlights the intensity of surveillance under the current crown-of-thorns starfish control programme. Ongoing broad-scale surveillance capacity is provided by the Joint Field Management Program.

