

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

Question No: 40
Hearing: Supplementary Budget Estimates
Outcome: Outcome 1.1
Programme: Biodiversity Conservation Division (BCD)
Topic: Crown of Thorns Starfish - eradication program
Hansard Page: N/A
Question Date: 21 October 2015
Question Type: Written

Senator Urquhart asked:

1. How many Crown-of-Thorns Starfish were destroyed last financial year?
2. How much did this cost?
3. How many vessels and crew were involved in the eradication program?
4. What other programs are available for managing the Crown of Thorns Starfish problem?
5. Does the department view the eradication program as cost effective given the environmental gain?
6. My understanding is the cost of operating one vessel is \$2 million a year. Minister Hunt announced \$7 million of funding over three years. Isn't this a reduction on the 2012/13 financial year?
7. How will the reduction in funding affect the amount of starfish killed and the coverage of the operational area?
8. Given the success of the program and lack of other methods of eradication, why then has the Government reduced the funding for the eradication of the starfish?
9. Given Minister Hunt assured the 39th World Heritage Forum that funding had been increased for the eradication of the starfish in the Government's plea to them not to list the GBR on the endangered list, why has the Government reduced the funding?

Answer:

The Great Barrier Reef Marine Park Authority has advised that, with Australian Government funding, 92,313 adult crown-of-thorns starfish were culled in 2014-15. \$4.6 million was expended by the Great Barrier Reef Marine Park Authority and the Reef and Rainforest Research Centre, including \$800,000 for the Reef and Rainforest Research Centre to secure a suitable vessel and crew for crown-of-thorns starfish control activities scheduled to commence.

The question on how many vessels and the number of crew members involved in the eradication programme was asked and answered during the hearing – refer to page 41 of the Hansard.

Direct control of the crown-of-thorns starfish is only one of a holistic and integrated approach that the Australian and Queensland Governments are utilising to address the current outbreak of crown-of-thorns starfish in the Great Barrier Reef. There are multiple initiatives across governments that are helping to address crown-of-thorns starfish outbreaks on the Great Barrier Reef through, including:

- Direct management of crown-of-thorns starfish through culling starfish on specified high tourism and biodiversity value reefs to provide short-term protection of coral cover and maintain the biodiversity of these reefs – managed by the Great Barrier Reef Marine Park Authority.
- The Commonwealth Department of the Environment provides funding for research to inform improvements in crown-of-thorns starfish management, including understanding the biology and spread of crown-of-thorns starfish, investigations into repellents and attractants and development of integrated management approaches to minimize the opportunities for crown-of-thorns starfish reaching outbreak proportions. The single injection crown-of-thorns starfish culling process is just one outcome of this research.
- Great Barrier Reef Marine Park Authority is building public awareness of the causes of crown-of-thorns starfish outbreaks and building industry capacity to manage crown-of-thorns starfish on a business-as-usual basis.
- As part of the Reef 2050 Plan, the Australian and Queensland Government are addressing poor water quality, a significant factor that increases the frequency of crown-of-thorns starfish outbreaks, through encouraging land managers to reduce sediment, nutrient and pesticide losses from their land.
- Managing fisheries and other marine harvesting industries.

This integrated approach is essential to provide short and long term management responses for this naturally occurring coral predator.

The focus of the culling program is on protecting the coral cover on the targeted high value sites rather than focusing on the catch per unit effort. To date the culling work has resulted in average coral cover remaining above critical ecological thresholds at 98% of the control sites. Given that the current outbreak is now well established, advice from the scientific community is that the best course of action is to focus culling activities on the 21 high priority reefs already identified.

Through continued management of these specific sites, it is not expected that a consistent number of crown-of-thorns starfish will be culled at each site or on an annual basis. The number of crown-of-thorns starfish culled in each year has varied as a result of:

- the effectiveness of culling techniques (this was greatly enhanced by the single injection method)
- the abundance of starfish on individual reefs (which varies significantly as individual reefs vary greatly in size)
- the availability of surveillance information to target culling campaigns
- weather conditions (cyclones and high winds can limit safe diving), and
- the number of vessels and trained divers available.

The increase in crown-of-thorns starfish culled between the first and second year of investment was largely a result of the introduction of a one-shot method for crown-of-thorns starfish control using Ox-bile salts and the extensive surveillance work undertaken by the Great Barrier Reef Marine Park Authority and Queensland Parks and Wildlife Service Joint Field Management Program.

Question (7) about the cost of operating one vessel was asked and answered with additional information on funding tabled during the hearing – refer to pages 33 to 35 and 103 of the Hansard transcript.

The dedicated surveillance vessel should greatly increase the management effort by effectively and efficiently targeting the control vessel and informing research to improve crown-of-thorns starfish management.

The 2013 Reef Water Quality Protection Plan Scientific Consensus Statement identifies that the optimum long term strategy to help minimise the frequency of crown-of-thorns starfish outbreaks is through improved water quality.

Priorities for managing the crown-of-thorns starfish from this holistic approach – prevention, control, surveillance, and research and development – will continue to be considered and implemented by the Australian and Queensland Governments in the context of the Reef 2050 Plan.