

Symposium on the Biology and Ecology of the Crown-of-Thorns Starfish, *Acanthaster planci* (L.): Introductory Remarks¹

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Since the Australian people first noticed the infestation of coral reefs by *Acanthaster* in the early sixties, the Queensland Government established a research team to investigate the extent of the problem, beginning in 1966. Mr. R. Pearson and Dr. R. Endean initiated basic surveys and studies on the problem on the Great Barrier Reef. At a similar time when the Australian workers were engaged in the preliminary studies, an infestation of the reefs around Guam was noticed in 1967. After the recognition of the infestation by participating members at the IBP meeting held on Palau and Guam in 1968, Dr. R. Chesher reported the severe damages of the reefs of Guam and called attention to a supposed expansion of *Acanthaster* infestations in the Pacific coral reefs. In the summer of 1969, Westinghouse survey teams made intensive surveys in the Trust Territory of the Pacific Islands.

These pioneer workers suggested *Acanthaster* infestations to be a possible man-induced phenomenon based on circumstantial evidence, evoking various responses among many marine scientists. The controversy about the *Acanthaster* problem had been extensive. However, it was unanimously recognized that we had very poor knowledge concerning the biology and ecology of coral reefs and coral reef organisms.

In the seventies, a new phase of activities began in many localities by many investigators. The University of Guam established a new marine laboratory and its members carried out intensive follow-up surveys (monitoring programs) on the populations of *Acanthaster* and damages to the coral reefs on many islands in the Trust Territory. This was summarized at the *Acanthaster* workshop held here last year. Fisheries biologists in the Trust Territory have continued further surveys on those islands where large populations of the starfish remained.

In Australia, the Queensland Government established a field laboratory at north Queensland in 1970 and a long-term study on the coral reef recovery and other projects continued. At the same time, workers at the University of Queensland were engaged in a similar project. The joint committee appointed by the Australian Commonwealth and Queensland Governments issued a report in 1971 recommending research funds be made available for *Acanthaster* and related prob-

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lems on coral reefs. Currently, many projects are supported and are in progress in Australia.

After several expeditions by the Cambridge group in the Red Sea, British scientists recently established a research laboratory at Port Sudan. They are currently engaged in various studies on *Acanthaster* and reef biology.

An aggregation of *Acanthaster* had been found in Hawaiian waters and a survey report was published. However, the aggregation of starfish was eradicated before more studies became available for the scientists there.

Eastern Pacific *Acanthaster* have been studied by a number of workers at the Gulf of California and Panama areas. They indicated that the aggregating populations of eastern Pacific *Acanthaster* did not cause over-grazing of the reef corals as was reported similarly for the Hawaiian population.

There are several earlier records of *Acanthaster* infestations in Okinawa waters in the fifties. A severe infestation was again noticed on the west coast of Okinawa Island in 1969 and the starfish are still advancing despite recent efforts at eradication. University of Ryukyus has established a new research laboratory in the vicinity of the infested area and research is in progress.

As is well recognized in many coral reef organisms, *Acanthaster* has a very wide geographic distribution. This provides us opportunities to tackle various problems simultaneously at many localities. Our overall knowledge on coral reefs will increase to a great extent through efforts directed to the *Acanthaster* problem.