

DISTRIBUTION, REPRODUCTIVE CYCLE AND MORPHOMETRIC RELATIONSHIPS OF
ACANTHASTER PLANCI (ECHINODERMATA : ASTEROIDEA) IN NEW CALEDONIA,
WESTERN TROPICAL PACIFIC

(ABSTRACT)

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This study of the crown-of-thorns starfish *Acanthaster planci* in New Caledonia enables us to compare its biological parameters with other areas in the Indopacific. *Acanthaster* has been observed in about fifty locations on the Grande Terre and Loyalty Islands. The density of populations was usually below 0.5 individuals per hundred square meters. However a few locations with higher densities were found which should be monitored.

A monthly sampling of the population was conducted for fifteen months at Maître Islet, the station with the highest density (3.3 per 100 m²). Morphometric relationships and the reproductive cycle were defined. Breeding occurred during the warm season, from November to February. The allometric growth of the gonads showed that the forty-centimeter specimens may have up to sixty times more oocytes than twenty-five-centimeter ones and can produce up to sixty million oocytes per spawning season.

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