

Chasing land crabs on Christmas Island

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Christmas Island, or 'Kiritimati', is the world's largest coral atoll. It is located in the Line Island group, some 3240 km (2015 miles) from Tarawa, Kiribati's main island. About 4810 people (2002 figures) live scattered around the atoll, mainly in four villages on the eastern side. The atoll covers 575 square km (222 square miles), but land resources are very limited. The food resources that support the people come mainly from the lagoon system and its surrounding coastal reef. Reef and pelagic fish constitute the most important food source, as indicated by a high average-per-capita consumption of 143 kg (315 lb) of fresh fish per year.²

Most of the land area is covered by coconut trees planted after 1882. These coconut forests are home to the land crab *Cardisoma carnifex* (Thomas 1999), called 'te manai' in the local language. Land crabs live in burrows but need to remain wet while hidden. On Christmas Island, regardless of the time of day, large numbers of crabs seem to move everywhere through the coconut forests and are easily seen.

One early morning while we were on the island, our host family in the village of Tabakea took us on a major land crab hunt. The entire family drove by truck to the nearby coconut forest. Men, women and children equipped themselves with empty flour sacks or buckets and started a competition to capture the most and the largest land crabs. The hunt lasted about 20 minutes. Mostly the family targeted the areas around established coconut trees, where the ground was covered with old fallen fronds. The fronds were quickly lifted and the land crabs disturbed. The alarmed crabs ran for their burrows but were expertly caught and collected. A 30-litre (7-gallon) plastic bucket was filled with live land crabs in less than 15 minutes. A coconut was placed on top of the catch to prevent any of the crabs from escaping.

During the 10-minute drive back to the village, the crabs' front claws and legs were broken off. Back home all parts of the crabs were soaked and rinsed in fresh water. With the last rinse, the crabs were drained by blowing any remaining water and sediment out of their bodies. The front claws and bodies were later cooked for the family's lunch (five adults and two children).

While the hunt was undertaken by all, including the men, preparation of the crabs was exclusively the

women's business. This is interesting because generally Christmas Island women do not take part in any kind of fisheries, not even the collection of shellfish. The ease of the hunt suggests that land crab resources on Christmas Island are in good condition and not at risk. However, surveys done elsewhere have revealed that the exploitation of land crabs can reach critical levels. For instance, in Pelilin, Palau (Matthews 2002; Olkeriil & Matthews 2003), the facts that land crabs are a commodity, collection targets are mainly gravid females and export volume is not monitored have resulted in a call for conservation efforts and management strategies.



While land crabs are not a commodity among Christmas Islanders and are not targeted for export, future demographic development of the island's community (including immigration), the lack of alternative protein sources to fish, high living costs and a very limited supply of imported canned or frozen meat products may result in increasing pressure on the atoll's land crab resource in the future.

References

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2. Data are sourced from a socio-economic survey done in the framework of the European Union-funded PROCFish/C project that is currently being implemented by SPC's Reef Fisheries Observatory.