

A little side issue. On a recent visit to Rarotonga for home leave, I noticed a large increase in trochus abundance in the four marine protected areas (*ra'ui*) established there two years ago. It really was incredible how many large trochus could be found at some of these sites, though the sites were quite small. At one particular site, approaching the reef flat in Nikao, they were so abundant you had to be careful where you put your feet for fear of stepping on them. To me, this really confirms the value of having reserves for trochus and other marine animals. These *ra'ui* sites were established in Rarotonga on the initiative of local traditional leaders, and have been well respected by the community. I encourage other communities to take the initiative to establish small reserves where possible, and not wait for-

ever for governments to pass legislation. The breeding populations that thrive in such reserves will assist in replenishing stocks in other areas, leading to a more valuable fishery in what can sometimes be a remarkably short time.

On that final note, I will now step down from my soapbox, and wish you all the best in your marine resource management efforts in the new millennium. I would also like to wish Dr Lee all the best with his new role as Editor, and thank those of you who have assisted me in the past by making contributions.

Kelvin Passfield



ews from the Cook Islands

Trochus transshipment to Atiu, Mauke and Takutea islands, Cook Islands

Benjamin E. Ponia¹

The history of the trochus (*Trochus niloticus*) introduction in the Cook Islands has been one of success. It began in the late 1950s, when several hundred animals were transhipped from Fiji to Aitutaki. That population is now established at Aitutaki in numbers of hundreds of thousands. Since then, transhipments from the Aitutaki stock have resulted in subsequent populations becoming established in most of the islands in the Cook group.

The trochus is an important resource. On Aitutaki it is harvested commercially. On the main island of Rarotonga the trochus is one of the main subsistence fisheries and has become a substitute for traditional reef foods that are no longer abundant. Thus the introduction of trochus has the effect of relieving pressure on some food resources which may otherwise have been harvested into near

extinction. We are unaware of any wide-scale ecological impacts to the reef which are attributed to the introduction of trochus. This leaves one with the conclusion that the benefits of a trochus transplant outweigh the risks.

A current phase of trochus introduction has targeted the southern group islands. Transhipments from Rarotonga to the three islands of Mauke, Atiu and Takutea has recently occurred (Mitiaro and Mangaia are the next islands to be targeted), (refer Figure 1). The reef sites where the animals were transplanted often shared several common attributes. In particular, it was not extremely dry during low-tide periods and it was a habitat area frequented by *ariri* (Rough Turban-shell, *Turbo setosus*), as this animal shares a similar habitat preference. A summary of the transplants can be made as follows:

1. Director of Research, Ministry of Marine Resources, Cook Islands

1. Mauke (October 1997). A total of 500 animals (average basal length 8 cm) were airfreighted from Rarotonga. The population was deployed at three locations—200 animals at Aanga, a further 200 animals at Anaue and 100 along the passage of Taunganui landing. A television bulletin was run on the island for several nights to advise of the transhipment. Three days later, sites were revisited and the trochus found to be alive and in good health.
2. Atiu (May 1998). A total of 180 trochus (average basal length 12 cm) were airfreighted from Rarotonga. All the animals were resettled at

Te Vai site. A check five days later revealed the animals to be in a healthy condition.

3. Takutea (May 1998). The Takutea transhipment of 170 animals (average basal length: 12 cm) coincided with the Atiu trip. Takutea is an uninhabited island approximately 20 kilometres north-east of Atiu. The trochus targeted for Takutea were first airfreighted from Rarotonga to Atiu. They were then transported on a small boat to Takutea and all the animals deployed at Au Matangi site.

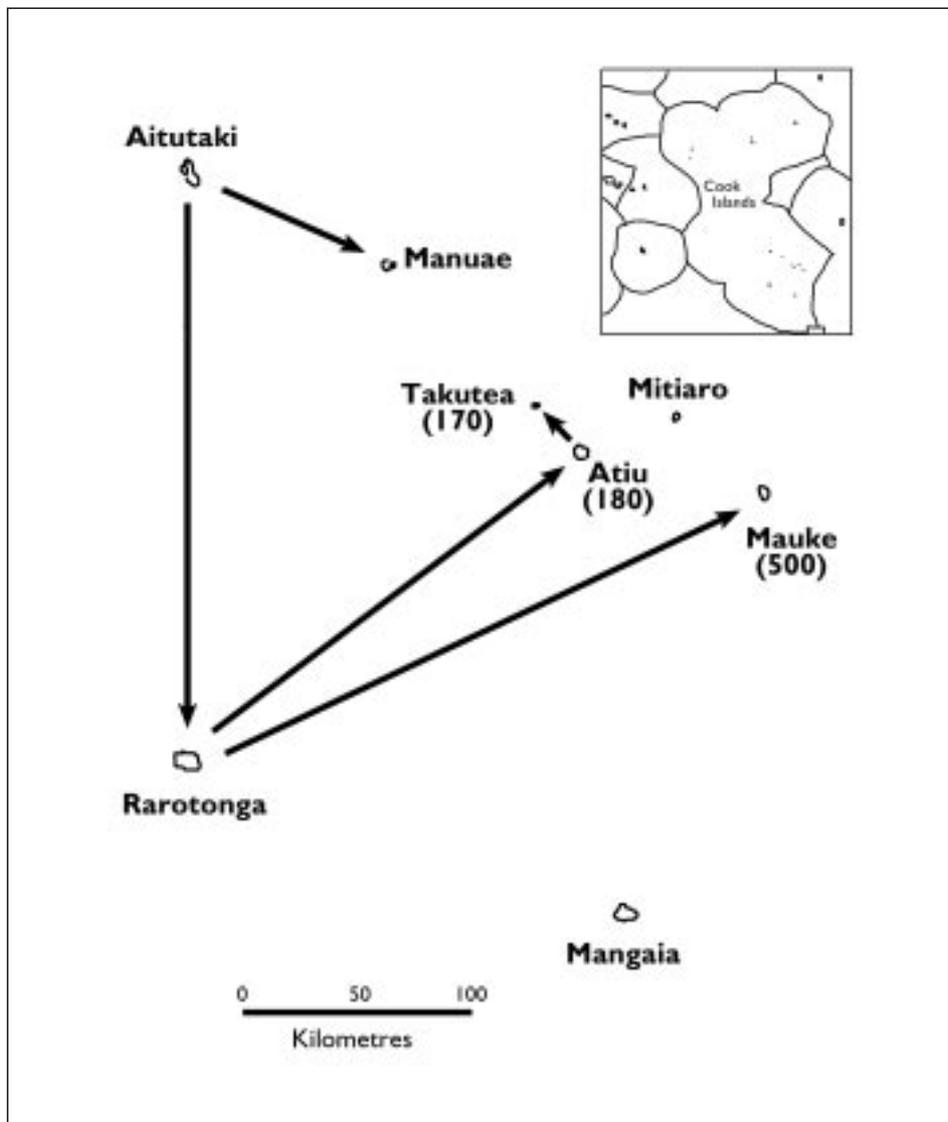


Figure 1

Map showing the history of trochus introduction in the Southern Cook Islands (the Manuae introduction was not successful). The recent phase of introductions has targeted Mauke, Atiu and Takutea. A further transhipment from Rarotonga to Mitiaro and Mangaia is planned.