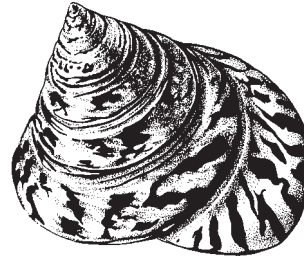


# T R O C H U S I N F O



## **The January 1995 transplantation of trochus from Fiji to Tonga**

*by Robert Gillett*

This article describes transplantation of trochus from the Lau Group in Fiji to Ha'apai, Tonga. Work started in early December with preparations with three airlines, with the divers on Lakeba island in Lau, and with the purchasing of gear. To avoid the difficulties encountered in previous trochus work, the Suva-based organisers traveled to Lakeba on two different flights and arrangements for the trochus cargo were negotiated directly with the Chief Executive Officer of Air Pacific.

The first flight to Lakeba was made on 5 January 1995. Final confirmation was made that evening with divers from four villages: Tubou, Nasagalau, Nukunuku and Vakano. The flight the following day carrying the second Suva-based organiser was, however, cancelled. The fallback arrangement for the charter of an aircraft was pursued, but fortunately the regular carrier put on an extra flight the following day.

Trochus diving commenced on 6 January. Targeting a specific number of trochus dictated by a rigid budget is difficult, as there is a risk of obtaining too many or too few trochus. To resolve this difficulty, a quota of 130 trochus per village was established. Because of the credibility established by paying the villagers in cash for two previous operations (May 1994, August 1992), the collection proceeded ahead of schedule. By the end of 6 January more than enough trochus (594) had been collected. Most were medium-sized shells, with few of the very large ones encountered on previous trips to Lakeba.

The trochus were placed in seven plastic net bags and hung off a skiff at the Lakeba wharf in deep water. A few hours before the flight to Suva, the trochus were retrieved and exam-

ined for signs of mortality. The bags were weighed, individually covered with thick plastic sheeting, placed in a thick plastic bag, sealed with inner-tube rubber, placed in another plastic bag, sealed similarly, and finally placed in a waxed fish export carton sealed with duct tape. The total weight of each of the seven boxes ranged from 15.5 to 17 kg. Six of the boxes contained 85 trochus and one contained 81, for a total of 591 live trochus.

One dead trochus was detected (by smell) on the afternoon of 8 January and two were found when the shells were being packaged on the morning of 9 January.

Although the flight from Lakeba to Nausori was delayed, the shipment arrived in time to make the flight to Tonga. At 2200 hrs (Fiji time) the trochus were unpacked and placed in tanks of circulating water. The shells were inspected the following day at noon and no mortality was detected. Four live trochus were donated to the JICA aquaculture project. The shells were re-packaged and taken to the airport for the flight to Ha'apai. They were all placed at about 1600 hrs (Fiji time) on the north side of Ava Auhanga Mea between Uoleva and Tataga islands. The location as determined by GPS equipment was 19°51'S, 174°25'W. The habitat was chosen during a survey carried out in March 1994.

In summary, the 587 trochus placed in Ha'apai spent from 3 to 4.5 days out of the reef habitat. They were held dry in transit on the first occasion for 32.5 hours, followed by 14 hours in tanks of circulating aerated seawater, and finally held dry again for 5.5 hours. Three trochus died after collection in Lakeba but there was no mortality during transportation.