

TRANSLATION

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SOUTH PACIFIC COMMISSION

**TWENTY-FIFTH REGIONAL TECHNICAL MEETING ON FISHERIES
(Noumea, New Caledonia, 14-18 March 1994)**

**THE SPINY LOBSTER FISHERY ON LIFOU
(Philippe Grandin & Claude Chauvet)**

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THE SPINY LOBSTER FISHERY ON LIFOU

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In the past, lobster traps made of woven plant fibres and baited with sea urchins were used in the Loyalty Islands. Since the introduction of underwater flashlights, fishing for spiny lobsters has been done by hand at night by diving to depths of up to 5 m on the fringing reefs surrounding Lifou.

A fishing party is normally composed of 3 people (occasionally 2): 2 divers and a third person who carries a sack containing up to 25 kg lobsters. The fishermen are males from 15 to 50 years old, grouped within their tribe according to family ties and social status. Family men go out more regularly than young men. There are also part-time fishermen who fish in addition to doing a full-time paid job. Although there are no fishermen on Lifou whose sole source of income is lobster fishing, the sale of lobsters is an important source of income.

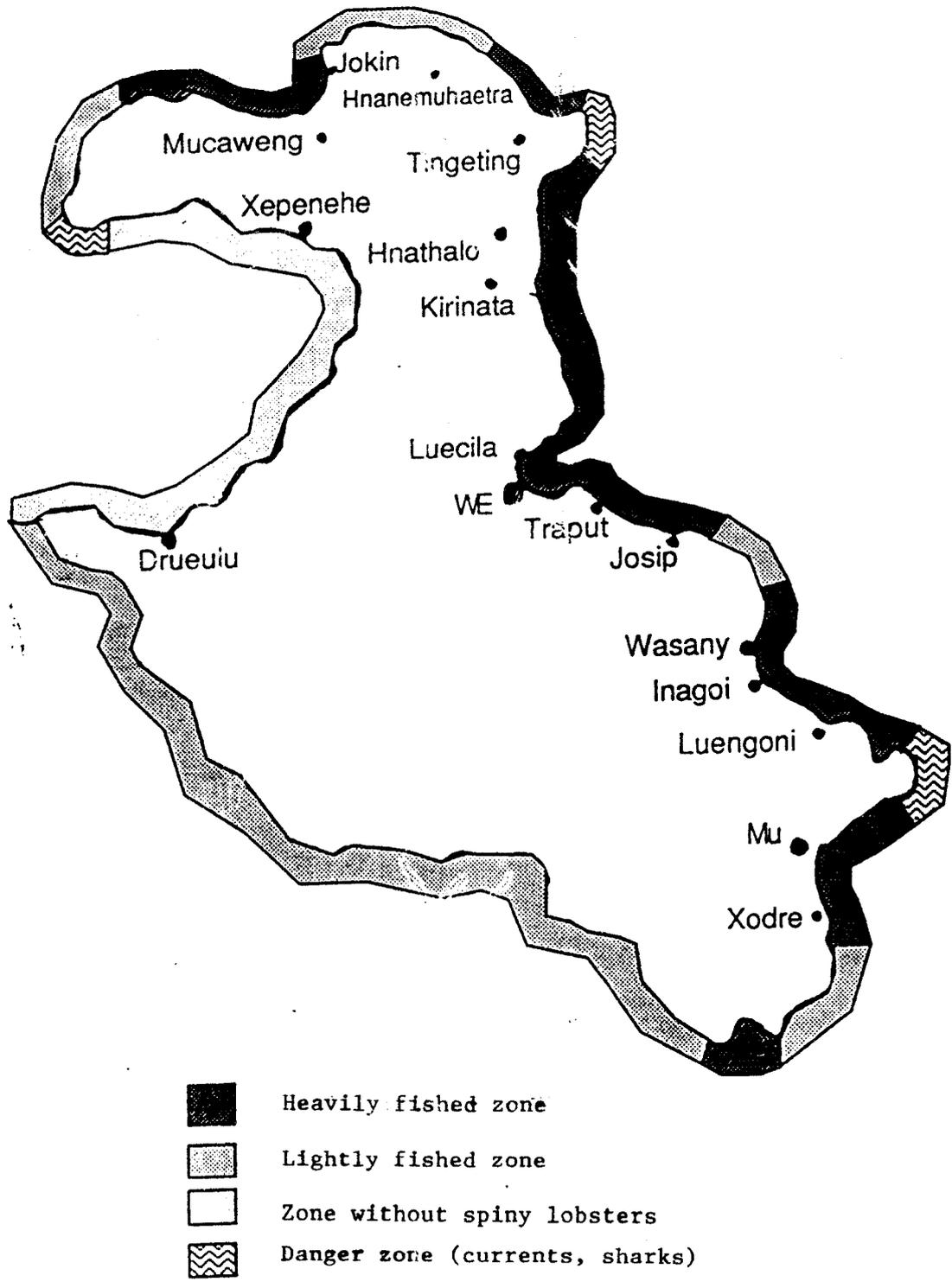
Few fishermen have a boat, so most fishing is done near the shore. Moreover, many shoreline areas are difficult, if not impossible to reach, so very little fishing is done in certain parts of the coast. To this constraint must be added winds, which rule out the intertidal zones of the fringing reefs (it should be noted that *Panulirus penicillatus* prefers intertidal areas). In addition, given the fishing techniques used, tidal, lunar and phenological rhythms each make many days each year unsuitable for fishing.

Market demand is always higher than supply. When a fisherman occasionally needs a large amount of money for some reason, he contacts a restaurant in Noumea to sell his catch. Demand fluctuations influence the prices in winter (marriages) or the amount of fishing in summer (village fairs).

The fishing zones are marked on the map. The species harvested are mainly *P. penicillatus* (>80% of the harvest) and *P. longipes* (≈15%), *P. versicolor* is only harvested in summer as is *P. ornatus*, which is only rarely caught and then, it would seem, only in Santal Bay.

The mean individual size of captures is 1 cm larger than that on the Isle of Pines (*P. penicillatus*, 10.7 cm compared to 9.8 cm), which would indicate a weaker fishing pressure on Lifou. The catch per unit of effort (CPUE) is 4.73 kg ± 1.75 per diver per trip (1 trip being equal to 1½ hours of fishing). The number of divers is estimated at 70 with an average of 4 trips per month. Given the uncertainties associated with these figures, total annual harvest is 16 mt ± 6 mt.

A cohort analysis carried out on the species *P. penicillatus* suggests that the accessible portion of the natural stock is 410,000 lobsters (± 80,000) or in terms of biomass 1,230 mt (± 20%). Captures, estimated at 15,000 lobsters in 1993, therefore represent less than 5% of the stock available to such fishing techniques as are used on Lifou.



SPINY LOBSTER FISHING ZONES ON THE ISLAND OF LIFOU