

Acknowledgements

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Bibliography

- Brousse, J. 1974. L'anesthésie des poissons. Thèse de doctorat vétérinaire, Toulouse, n°40, 55 p.
- Erdmann, M.V. 1999. Clove oil: an 'eco-friendly' alternative to cyanide use in the live reef fish industry? SPC Live Reef fish Bulletin 5:4–7.
- Hicks, B. 1989. Anaesthetics: sweet dreams for fragile fish. Canadian Aquaculture, March–April 89:29–31.
- Keene, J.L., D.G. Noakes, R.D. Moccia and C.G. Soto. 1998. The efficacy of clove oil as an anaesthetic for rainbow trout, *Onchorhynchus mykiss* (Walbaum). Aquaculture Research 29:89–101.
- Mc Farland, W.N. 1960. The use of anaesthetics for the handling and the transport of fishes. California Fish And Game, 46(4):407–431.
- Munday, P.L. and S.K. Wilson. 1997. Comparative efficacy of clove oil and other chemicals in anaesthetisation of *Pomacentrus amboinensis*, a coral reef fish. Journal of Fish Biology 51:931–938.
- Soto, C.G. and Burhanuddin. 1995. Clove oil as a fish anaesthetic for measuring length and weight of rabbitfish (*Siganus lineatus*). Aquaculture, 135:149–152.
- Taylor, P.W. and S.D. Roberts. 1999. Clove oil: an alternative anaesthetic for aquaculture. North American Journal of Aquaculture 61:150–155.



SPC Pacific Regional Live Reef Fish Trade Initiative

Being Yeeting¹

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Introduction

During the second quarter of 2001, several field activities were undertaken as part of SPC's Pacific Regional Live Reef Fish Trade Initiative. It was the first time that actual fieldwork was conducted since funding was approved for this initiative from the Asian Development Bank (ADB) in December 2000.

Ujae and Lae (Marshall Islands) ciguatera fish poisoning surveys

Ciguatera fish poisoning is a serious problem for many Pacific Island countries. It is a major threat to local fishing communities that depend heavily on coastal fish resources, as well as to those countries that wish to develop reef fish export trades to generate income. A better understanding of the situation and extent of the problem in the region is imperative, both for local communities and entrepreneurs.

In the Marshall Islands, ciguatera fish poisoning is a common threat to fisherfolk. Some atolls, such as Ujae and Lae Atolls, however, are uninfected or have at least insignificant incidences of poisoning.

In June 2000, due to the sudden increase of ciguatera cases on Ujae and Lae, the mayor and senators of the two atolls requested SPC to look at the problem. Between 08 and 22 March 2001, we visited the atolls and conducted a survey.

With logistical support from the Marshall Islands Marine Resources Authority (MIMRA), algae samples were collected from various sites within the atolls (20 samples from Ujae and 16 samples from Lae). These samples were processed on site and taken back for counting and analysis. Historical information on ciguatera poisoning came from interviews with local communities, and medical reports of past fish poisoning incidences came from the Health Department in Majuro.

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After spending time with the island communities, it became apparent that there was generally a poor understanding about ciguatera fish poisoning, especially its causes and effects. Community meetings were, therefore, organised to give a simple explanation of the technical aspects of ciguatera and its implications to fish and people. To facilitate dialogue, a ciguatera poster, produced by the SPC Fisheries Information Section in collaboration with the French Institute of Research for Development (IRD), was used. The poster helped tremendously, but fact sheets or information leaflets about ciguatera fish poisoning, which people could take home to use as a reference or a reminder, would also have been useful. This would also give local fishers the opportunity to read and study the contents of the fact sheets on their own time.

A report describing the results of the survey is being prepared, and will include recommendations and strategies for minimising the incidences of ciguatera fish poisoning. The report will also detail a ciguatera monitoring program for MIMRA.

Papua New Guinea LRFFT Awareness Workshop

The workshop was held at the Mohonia Na Dari Research Station, Kimbe Bay, West New Britain, PNG, and was organised by The Nature Conservancy (TNC). It was the first step in the live reef food fish trade (LRFFT) awareness activities in the region. The main purpose of the workshop was to bring together fisheries officers, information specialists and others to discuss the issue of awareness regarding the LRFFT. The primary aims were to determine the main message and the most effective way to deliver that message, and to identify the target audience.

Participants of the workshop included staff from the Secretariat of the Pacific Community (SPC), the International Marine Life Alliance (IMA), The Nature Conservancy (TNC), the Papua New Guinea National Fisheries Authority (NFA) the World Wildlife Fund (Solomon Islands), the PNG Divers Association, and Mahonia Na Dari – PNG.

At the end of the workshop a list of awareness materials to be developed was agreed on. The list includes:

1. Two information sheets, giving a simplified overview of the LRFFT and describing some simple concepts of resource management and the biology of fish targeted by the trade.
2. Several fact sheets: Simplified overview of trade; Management options and monitoring; Resource biology/ecology – simplified; Chain of custody and pricing issues; Talking points to quiz industry; and Monitoring and enforcement.
3. A 5–10 minute video targeting government decision-makers. This video will use interviews with heads of regional fisheries departments and regional NGOs representatives who have been confronted with the trade. Video footage will include fishermen using destructive techniques as well as some of the bad practices of the trade.
4. A video showing a theatrical play by Wan Smolbag, a Vanuatu group. This video will target communities. Wan Smol Bag team was met by Steve Why prior to our workshop. They were looking for fisheries-related subjects, and told Steve that they had money to produce videos and theatrical plays.
5. A feltboard kit that would include all materials, instructions on how to assemble, how to use, and a number of prepared stories for awareness. This would be used mostly for school kids.
6. A 10-minute Powerpoint presentation that can be used for government officials, boards, etc.
7. Fish ID Cards for field workers, fishermen and industry staff:
 - A-4 size page with 10-15 main target LRFFT species with scientific name, common name and a blank space for local names to be added by locals. (waterproof); and
 - Flip cards – all above and also biological and ecological facts, one species per card (waterproof).
8. Manuals in form of a series. Three to start with but list to be added:
 - Best practices targeting industry and community leaders;
 - Monitoring targeting government; and
 - Management options and guidelines.
9. Fish poster summarising the information given on the flip cards.

All these materials are in preparation and will eventually be available through the SPC Fisheries Information Section (see address on cover page of this bulletin).

