

ACIAR project enters second phase

From Tarawa (Pacnews)

The research on pearl farming in Kiribati for future commercialisation is now entering its second phase. A report from the Fisheries Division notes that the first phase, which involved spawning, was completed in December last year, Radio Kiribati reports. It said although spawning was a success, the farming of the juvenile pearls is a problem, because most of the oysters got killed by other marine creatures, fish and other predators. The

report said that more than 2000 young pearls are now being cultivated inside tanks on land, and are reaching about 13 centimetres long. The second phase will now determine the best way to cultivate the pearls, and two options are to farm them in the sea inside iron cages or to nurse them in the tanks on land. Local fisheries officers involved in this project are now awaiting their consultants from the James Cook University, Townsville, Australia, who assisted in implementing this research, for the start of the next phase.



Pearling progress in Tonga

From the FAO/AusAID Review of the Fisheries Sector in Tonga, April 1998

Analysis of a number of aquaculture endeavours indicates that the pearl industry is the most promising aquaculture avenue.

It is therefore proposed that the Ministry focus on the following areas:

- improving inshore resource management,
- encouraging the growth of a tuna longline industry,
- helping the small-scale fisher,
- establishing stakeholder input into the Ministry, and
- encouraging the growth of a pearl industry.

Pearl industry to be developed

From Nuku'Alofa (Pacnews)

Tonga's pearl industry is being recommended as the most promising aquaculture venture to be developed. This is the outlook of consultants from FAO and the Australian aid agency AusAID who reviewed the fisheries sector in the Kingdom, Radio Tonga reports.

The eight consultants reviewed a number of aquaculture endeavours in the Kingdom and then recommended that the pearl industry should be developed. The Ministry of Fisheries has embarked on developing pearl farming in the country, with projects in Vava'u and other areas.

Pilot project on pearl farming begins

From Nuku'Alofa (Pacnews)

A Japanese pearling company has begun a pilot project in Tonga to determine the viability of farming blacklip pearl oyster in Tonga.

Tonga's Secretary for Fisheries, 'Akau'ola, says the government is interested in the proposal by Tahiti Shinju Company to set up the project in Tongatapu, Vava'u and Ha'apai, Radio Tonga reports.

'Akau'ola says Shinju Company wants to establish a branch in Tonga if the pilot project proves successful. Tonga's Ministry of Fisheries had embarked on a trial project on the winged oyster in Vava'u, which had shown some positive results. In addition, a recent joint FAO and AusAID review of Tonga's fisheries sector has recommended that pearl farming is the most promising aquaculture avenue.



Lessons learned in two years as a *P. margaritifera* farmer

by Jerry Myers

I gained most of the little I know from the daily operations and detailed record keeping at a 7000-shell farm in the Marshall Islands, and by reading pearl oyster reports.

Comparing statistics from other comparable farms would have made decision-making easier. My attempts have yielded:

Mortalities

A total population mortality rate of 10 per cent including, a 1.9 per cent rate for 50–100 mm juveniles in grow-out nets; a 29.5 per cent rate for older oysters or broodstock; and a wild stock transportation mortality rate of 1.2 per cent.

Spat collection

The most efficient spat collectors have been the grow-out panel nets, hung from a longline system, with a 33+ week cleaning interval, at approximately 3 m depth. They capture 2.3 to 3.0 oyster spat per net, dependent on cleaning interval. In a 2 km diameter lagoon with a diurnal tide, 21 m depth and a fairly constant 29.4°C sea surface temperature, we had a June–August spawn and probably year round also.

The next most efficient collector is a one-metre long black polypropylene 'Christmas tree line', deployed at 1.3 to 3 m depth, averaging one spat per 2.8 units. All styles of collectors were similar,

in that, the oyster spat comprised only two per cent of all the bivalves caught and a tiny portion of the total marine growth. In two years, a total of six hundred odd oyster spat have been harvested.

Predators

Damage by polychaete worms and boring sponge is the most prevalent. When an interval of more than 35 weeks between cleaning was practised, it resulted in heavy fouling, although the mortality rate was not affected and, only randomly, stunted finger growth. But the shell-damage rate from boring sponges increased greatly after a 14-week cleaning interval; a four per cent varying to 28 per cent live infestation rate occurred, depending on age, seeding category and the genetic characteristics of individual shells. A programme of an 11-week cleaning interval, a thorough shell cleaning to expose the sponge and a one-minute fresh water dip have produced about equal cases of 'new' versus 'in remission', in control groups. The search continues for a practical method of eradicating predators.



An open invitation from Kavieng

Dear Sir,

I wish to thank you for the *SPC Pearl Oyster Information Bulletin* No. 11 of May 1998.

Since I started receiving this information bulletin on pearl oyster, my interest has been aroused in tapping into this industry. Information extracted from the Fisheries Office here in New Ireland Province, confirms that a pearl farming industry is viable in this area of Mussau Island in the St Mathias Group.

Our island is rich with untouched marine resources and other available resources such as manpower, project sites and spat supply.

This project would not be a problem to undertake elsewhere. However, here in Papua New Guinea we have a common problem of lack of working

capital and expertise in this field. Therefore, we cannot tap into this industry.

I would like to submit this information to be printed in the Bulletin for other readers or farmers who might be interested and might want to invest here in Papua New Guinea. We would welcome them utilising these resources, which lying idle now.

I would be glad to submit any further information in the future with the assistance of the Fisheries Department in this Province, regarding this request.

Yours faithfully

Tamalu Simion
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Research on *Pinctada radiata* in the Red Sea

Mr Yassein is currently working towards a PhD in the fishery and biology of *P. radiata* in the Red Sea. This study includes catch, effort and CPUE; and reproductive biology, including maturation stages, determination of spawning season and gametogenesis of this species. Further, Mr Yassein intends to use the complete ELEFAN or

FiSAT to analyse age and growth data, mortalities, and yield per recruit.

For more information, please contact: Mohammed Hamed Yassein, National Institute of Oceanography and Fisheries, Suez Branch, P.O. Box 182, Suez, A.R. of Egypt

