

Pearl culture is highlighted as Australia's leading aquaculture industry in one article, yet another perspective suggests that the Australian industry may be due for a vigorous shake-out, with expanded hatchery production of *P. maxima* and growing competition from the new culture areas in South-East Asia. And almost inevitably, as if to complete the picture, another article yet again raises the spectre of artificial pearl production – only this time the bogeymen are biotechnology's bold new gene-splicers, rather than the old adversaries from the plastics industry.

These widely contrasting perspectives and wildly differing scenarios underline the obvious message that the industry is undergoing a dramatic restructuring. The traditional areas of pearl production are meeting more competition, from new countries and new island groups with unsullied resources, cheaper production costs or better market access.

Increased access to pearl culture technology and wider availability of hatchery methods will mean increasingly rapid growth. This will produce changes in the areas where pearl farming is feasible, in the availability of beads and the technicians to seed them, and in the established avenues by which pearls are graded and sold. The industry restructuring could mean either a massive slump is imminent, or a resounding boom is about to occur. There are two things that reinforce my optimism. These might be worth remembering as you sort

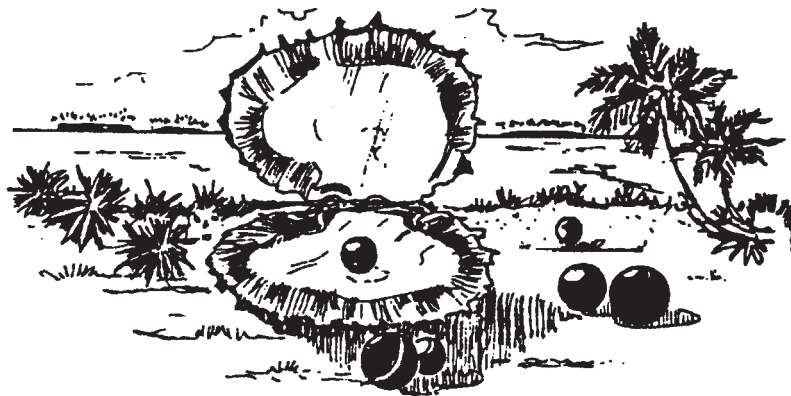
your way through the melange of this issue. The first is to dig right back to *Pearl Oyster Information Bulletin* #2, to Seamus McElroy's article on the pearl market – still the only serious market study on South Pacific pearls to be published. 'Some producers believe the acceptability of black pearls on the market depends on an annual output of at least 1,000 kg jewellery-grade pearls per year being attained.' (p. 7).

According to McElroy, the market was constrained by a lack of consumer awareness about the product. Martin Coeroli points out in this issue (p. 7) that French Polynesian production has already reached this level, but that prices are still falling. These markets shifts should begin to show some benefits soon, as the world moves out of recession. South Pacific pearls may then be somewhat less expensive, but this will make them affordable to a wider market. There may also be more black pearls out there, but this should increase the market awareness.

The second thing you might want to do is to pick up a fashion magazine or similar fashionable rag the next time you are in the dentist's or doctor's waiting room. As you thumb through it, count the number of full-page glossy advertisements for De Beers and their diamonds. At the same time, count the number of advertisements for pearls. Then think about how much room there is yet to grow.

Neil A. Sims

NEWS FROM MEMBERS



The need for protocols for the transfer of pearl oysters throughout the Pacific: adding weight to the arguments for care and consideration

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With the gathering momentum of pearl culture development across the Pacific, and the wider availability of hatchery culture techniques, there is increasing interest in transferring pearl oysters to new culture areas.

This option may appear to be commercially attractive, but history suggests that careful consideration is needed: the long-term detriments often far outweigh any short-term benefits. This has been repeatedly demonstrated for introductions of bivalves and other marine species around the world, with diseases or parasites from introduced stocks often

decimating local species, or with hybridisation or genetic blurring of local varieties (Sindermann, 1986).

Cultured pearl oysters are particularly vulnerable to diseases, and the causative agents are usually not identifiable.

It is therefore virtually impossible to guarantee that introduced stocks are 'disease-free'. Even pearl oyster movements within island groups or areas can result in disease problems: e.g. shipments of *P. maxima* within N.W. Australia (Dybdahl & Pass, 1985) and transfer of *P. margaritifera* spat between islands in French Polynesia (Cabral, 1989).

There is accumulating evidence that there are genetically discrete stocks of bivalves across the Pacific (Benzie & Williams, in press). This is significant for pearl culturists: as hatchery methods become more widely available, cross-breeding experiments might well produce faster-growing, better coloured, deeper-valved or more disease-resistant strains. The potential gains from cross-breeding would be seriously impaired if the different populations of pearl oysters became melded into one genetic gumbo.

In addressing these issues, it is worth considering the codes of practice employed for similar tropical bivalves. The pearl culture community should take note of the protocols established by the giant clam culture fraternity. Excerpts from two recent initiatives by the ACIAR and ICLARM Giant Clam Projects are presented below: a working paper

presented to the 1991 SPC Regional Technical Meeting on Fisheries, and a report from the 1992 Giant Clam Genetics Workshop, held in Manila.

Despite our own best intentions, some of us are still faced with political pressures or arguments of economic expediency. In presenting the case for care and caution in pearl oyster transfers, these protocols are a useful reference. They are also a good starting point for discussion. It could well suit the Pacific pearl industry's long-term interests to adopt similar protocols.

References

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Consideration related to the transfer of biological material from aquaculture facilities

Source: South Pacific Commission
23rd Regional Technical Meeting on Fisheries
Working Paper #13

Issues arising from the ACIAR Giant Clam Project Leaders Meeting February 1991

At a recent (February 1991) meeting of project leaders from the ACIAR Giant Clam Project, at which five Pacific Island countries (Fiji, Tonga, Tuvalu, Kiribati, Cook Islands) were represented, a number of issues and concerns related to the transfer of giant clams were discussed.

During this exchange, several regional initiatives were suggested that called for the specific involvement of the South Pacific Commission or which required the broader consideration of all Pacific Island countries. The South Pacific Commission has graciously consented to the introduction of these proposals to the RTMF for consideration and possible action.

1. Update of the RTMF interim guidelines for the introduction and translocation of giant clams

In 1985, within a broad-ranging discussion of recent developments in pearl culture and the then embryonic giant clam mariculture in the Pacific Islands, the 17th RTMF considered at some length the potential hazards associated with the introduction and translocation of exotic species.

It was broadly agreed that there was a clear need for more detailed examination of the subject, covering both the disease and genetic impact aspects of such transfers, with a view to developing appropriate protocols to transfers of all aquatic biological