

## Samoa Aquaculture Section team fully involved in giant clam farming

Since the official opening of the Samoa Fisheries Marine Multispecies Hatchery at Toloa in early 2014, the Aquaculture Section of the Fisheries Division, under the Ministry of Agriculture and Fisheries, has been very busy working on giant clam spawning and larvae rearing activities. In order to meet the Fisheries Division's annual targets and work plan related to giant clam spat production and distribution to coastal communities, the Aquaculture Section has carried out two successful spawning events after a first unsuccessful trial. At the same time, the aquaculture team staff have built their capacities and skills in hatchery operations and giant clam rearing during two training sessions run by Cletus Oengpepa, an international expert on giant clam farming and a long-time World Fish Center fellow, and Ruth Garcia Gomez, SPC Mariculture Officer. These spawning and training activities were also an opportunity for staff who were already involved in spawning activities in the past to share experiences and skills with newly recruited staff.

During and after these two practical trainings, the aquaculture team was able to successfully spawn smooth giant clam (*Tridacna derasa*) specimens on two occasions, achieving 30–60% survival rates and growth rates of 2–4 cm after 4 months, which can be considered as very promising results.

Broodstock of *Tridacna derasa* is owned by a community of Vaisala village on the big island of Savaii. The broodstock has been well looked after for more than 10 years within the village-owned fish reserves. After the trials, broodstock were transported to the Savaia village-owned fish reserve, where the Fisheries Division has been keeping its broodstock for many years. Surprisingly, although broodstock specimens have been maintained in a close and protected bay of Savaia village, no juveniles have been observed during the invertebrate stock assessments conducted in previous years. A thorough stock assessment is being conducted to assess the survival of juveniles at all clam nurseries established around Upolu Island. It will be interesting to discover whether juveniles are still absent from the Savaia village area.

The production and distribution of giant clam juveniles to coastal communities who have been involved in the protection and management of their fisheries resources under the community-based fisheries management program (CBFMP) is in line with one of the Fisheries Division's long term goals: to ensure national food and nutritional security by encouraging village level fish and shellfish nurseries. In addition, it should help enhance natural stocks in the lagoon and reefs of Samoa.



Villagers from Tafagamanu moving the brooders to the hatchery.

To conclude, future plans of the aquaculture team are to continue with giant clam spawning activities at the newly established marine multi-species hatchery; broadening the range of species being spawned to *Tridacna gigas* and *T. maxima*; improve current farming strategies and operations to increase fertilisation as well as survival and growth rates; and improve existing capacities and skills of technical staff involved in aquaculture-related activities.

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