

A new chapter in aquaculture for Fiji

Pacific Ocean Culture Pte Ltd 'pond to plate' story – Pacific Ocean Culture Pte Ltd (POCPL)¹ is an integrated aquaculture company operating within the Central Region of Fiji that focuses on food security. POCPL's philosophy is to understand and manage the product from its source to the table, thus ensuring a positive impact on both the future of seafood and the quality of the food we eat.

POCPL established its marine hatchery in 2015 and has been undergoing discussions and research with academics and community stakeholders regarding the current depleted state of their *qoliqoli* areas and how to work together to improve the status of these ecosystems, for the future of Fiji and its communities. Work in the hatchery has been in response to the needs highlighted in the community.

POCPL's initial focus has been on enhancing the restocking efforts of several species of sea cucumbers; efforts that were internationally recognised when POCPL was finalist of the FISH 2.0 Sustainable Seafood Competition in 2015. In March 2016, POCPL undertook a Memorandum of Understanding with a research academic studying the genetic make-up of sandfish (*Holothuria scabra*) to ensure that restocking programmes are implemented with the most current information regarding their habitat and potential for successful restocking practices. The academic's PhD involves the neutral and adaptive genetic diversity of wild and captive brood stock populations of the species to determine whether any genetic structure is found in the region. Recent technological advances have made it relatively easier to read the actual genetic make-up of an animal through the analysis of its DNA sequences and diversity, rather than relying on proxies and low-resolution measurements such as allozymes, mtDNA and micro satellites to calculate genetic diversity. Comparing the genetic similarities and differences between local groups of sandfish thereby determines how related the local populations are, and consequently how they can be managed or manipulated.

The stocking of sandfish brood stock has been undertaken using samples from Vatulele, Suva Harbour, Raki Raki and Kadavu in Fiji, as well as from Wallis and Futuna.

In 2016, POCPL also successfully launched a breeding programme for the black tiger prawn (*Penaeus monodon*) and the Kuruma prawn (*P. japonicus*). By utilising brood stock supplied by communities, POCPL produce is providing stock back to small-scale farmers for grow-out and ultimately supplying the market with this popular seafood item. Orders of 35,000–50,000 post larvae per farmer are typical. This process involves a direct supply of the juveniles to the farms and advising them on grow-out techniques. The volumes of juveniles produced to date are at around 1,500,000/cycle. In addition, POCPL has selected



Pacific Ocean Culture Pte Ltd hatchery.

two small-scale farms to mentor through this process and is supporting them through the production stages in both farm development and technical capability. Biosecurity limitations on importation highlight the need to grow and produce this product locally in order to capture this great market opportunity. This income generation stream, which is fuelled by market prices of FJD 40–65/kg, will improve both the livelihood and capability of the community farmers.

With plans to expand into the production of other marine species, the POCPL marine hatchery is set to provide aquaculture products for restocking *qoliqoli* and marine park areas, as well as contributing to the commercial production of certified products. POCPL is also currently monitoring Vatulele as the sample area to trial the project. In a world of depleting fish stocks and nutritional food security issues, POCPL aims to produce a premium organically farmed product and promotes 'Fiji Made' products both domestically and internationally.

Pacific Ocean Culture's 'pond to plate' story creates long-term employment for people in a wide range of skill levels, which is a key ingredient for Fiji's success as well as ensuring the consumer receives the highest standards on their dinner plate now and into the future.

For more information:

Paul Christian Ryan
Managing Director, POCPL
paul@pacificoceanculture.com

¹ www.pacificoceanculture.com