

March Issue # 14

Climate Change Cook Islands

Office of the Prime Minister

Rauti Para Tablet Training – Atiu Island

The SPC EU GCCA; PSIS Rauti Para tablet training continued on the island of Atiu from the 10-14 March. Partner to this project is the SRIC CC Adaptation Fund, with implementing partners Climate Change Cook Islands and ICT from the Office of the Prime Minister, Telecom Cook Islands and Rauti Para Kumiti (NGO). Thirteen seniors and one young person took advantage of the tablet training while 4 persons were recorded on video and 42 were interviewed via the questionnaire survey.



Participants at the tablet training in Atiu (Photo by Celine Dyer)

Participants embraced the tablet training with great enthusiasm and requested for more training in the *Pa Enua*. The climate change presentation in Maori by Dr Rongo also incited requests for more climate change awareness programs in the *Pa Enua*.



Atiu young people at the climate change presentation by Dr Teina Rongo 12 March 2014 (Photo by Celine Dyer)

Preliminary results from the video interviews and questionnaire survey were consistent with the Mangaia and Mitiaro findings that were recorded earlier which includes, climatic changes on land, loss of terrestrial and marine species, out of season fruiting of trees, the different taste of fruits and sea level rise. These findings substantiate the slow onset of climate change already occurring in the *Pa Enua*. Hence, people were adamant that they should be better informed and accorded training to enhance their preparations to climate change. To which they were thankful for the tablet training as a starter but requested for more training.



Senior Rauti Para class with the Rauti Para team 14 March 2014 (Photo by Celine Dyer)



Junior Rauti Para class with the Rauti Para team 14 March 2014 (Photo by Celine Dyer)

More photos from the Atiu training can be found on the Rauti Para face book page.

<https://www.facebook.com/#!/rautipara>

SPC EU GCCA Pearl Farm Project Manihiki- report by Tina Weier



Tina Weier is the Marine Biologist based in Manihiki working on the Manihiki Pearl Farmers project.

Part of the work in Manihiki entails helping fishermen with their proposal to apply for grants to obtain equipment such as ice boxes and VHF radios. Such equipment will assist them greatly with their fishing enterprise and better preservation of fish for the Rarotonga market and also with improved safety at sea.



Inspecting pearl farms to ensure farmers are following best practice is just another day at the office. According to Tina, farms that are properly spaced and maintained will be most resilient to the impact of climate change. Conducting on-site inspection of every farm ensures farmers are doing things correctly. This also provides an ideal

opportunity to give the correct advice on what aspect of their farm need improvement. In addition, by photographically documenting the findings, this makes it easier to explain to farmers why some practices are harmful to the lagoon which results in low-quality pearls.

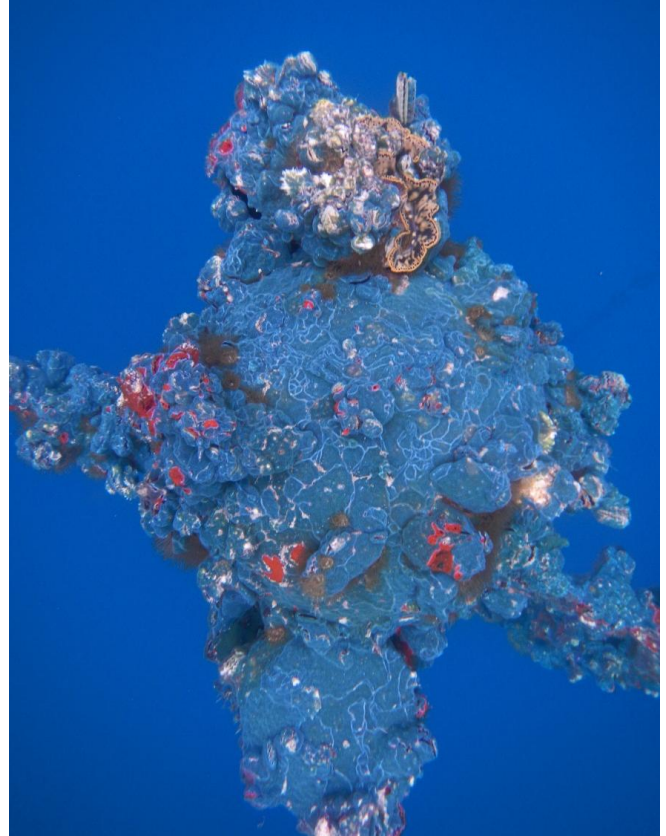


Photo provided by Tina Weier 2014

Accordingly, pearl oysters are very sensitive to environmental perturbations. By mapping all currently permitted farming areas within the Manihiki lagoon, including every individual line, this provided a visual view how farms are distributed in the lagoon. With this information it is possible to work towards reducing high density areas which creates hotspots for disease outbreaks. By also looking at the spatial distribution of farms in the lagoon as related to bathymetry farmers can be assisted to choose ideal locations to expand as their businesses grow.



Tina Weier conducting a public meeting in Manihiki (Photo by Tina Weier) 2014

Monthly public meetings with the farmers enabled the Ministry of Marine Resources (MMR) to keep in touch with the needs of the community and to focus efforts on areas of greatest need. The meetings also provide a forum for the exchange of ideas and the opportunity to discuss the practical aspects of how climate change may affect the pearl industry.



Manihiki young people learning about science 2014 (Photo by Tina Weier)

On remote atolls, as with everywhere else in the world, the youth are the future. By conducting marine science lessons with young people this ensures the raising of environmental consciousness as well as creating a framework for sustainable livelihoods for now and the future.

Record keeping is an important aspect of any business activity, and teaching farmers to keep records of their farming activities will develop a

baseline as reference for farmers to monitor the successes or failures of their farms.

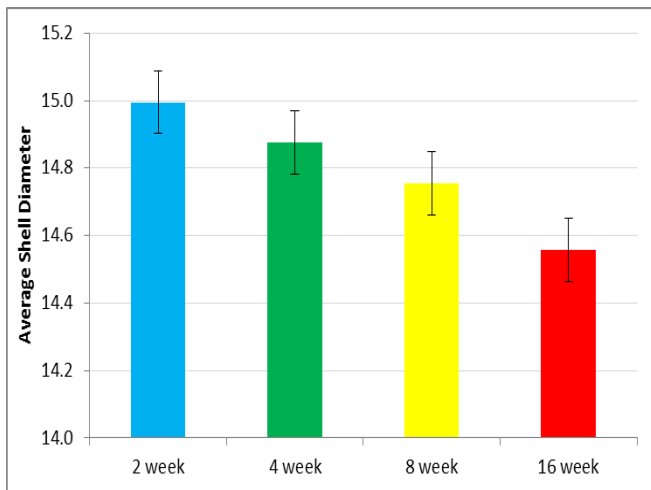
Trials were conducted on a novel technique for cleaning shells. Since the disease outbreak, farmers stopped cleaning their shells due to the high stress levels created during the chipping process. However, oyster shells left untouched in the lagoon for 12 to 18 months become host to large amount of organisms, some of which are directly harmful, like boring sponges and others which compete for the same food sources. Trials were initiated on virgin shells to investigate the possibility of a stress free cleaning regime for Manihiki pearl oysters which is conducted in the water as preventative maintenance. Shells are cleaned in-water by a SCUBA diver using wire brushes.



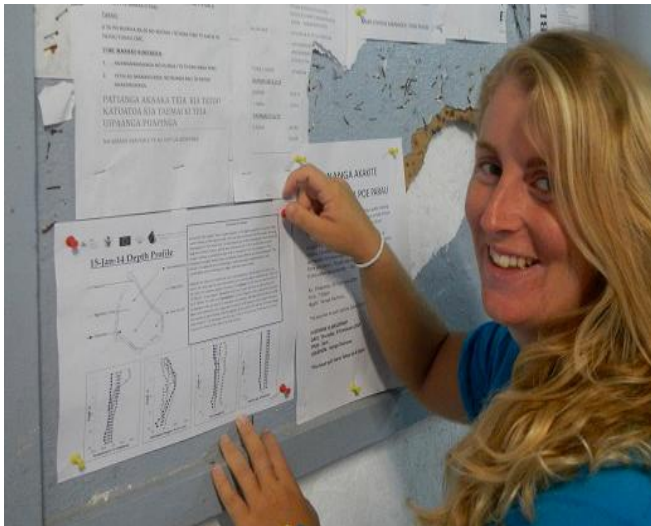
SCUBA diver cleaning shells in water with wire brushes 2014 (Photo by Tina Weier)

The figure below demonstrates the average shell diameter (cm) of each of the treatments with standard error bars. There is a strong relationship between cleaning frequency and shell diameter, with shells cleaned more frequently being more significantly larger than the un-cleaned shells.

Kura Tauī'anga Reva



This is a first step in demonstrating to farmers good farming methods rather than farmers blindly accepting recommendations given to them.



Tina Weier posting the water report on the community notice board 2014 (Photo provided by Tina Weier)

Water quality testing is conducted weekly with reports produced both in Maori and English and disseminated to stakeholders through email. Reports are also posted on the three (3) community notice boards on Manihiki for those who do not have access to email.

Kura – Kuriri

The Rauti Para team will be embarking on the island of Aitutaki from Monday 31st March to Friday 4th April to continue with the tablet training project.

More photos from the Atiu training



Ms Tupuna Makakea, Ms Mareta Tanga Atetu and Ms Teremoana Paratainga (Photo by Celine Dyer)



Mr Allan George at the training 2014 (Photo by Celine Dyer)



Ms Ada Nicholls (Rongomatane Ariki) 2014 (Photo by Celine Dyer)

Kura Tauī'anga Reva



Mr Upiri Matenga otherwise known as pillydakit 2014 (Photo by Celine Dyer)



Atiu youth at the climate change presentation..2014 (Photo by Celine Dyer)



Tamariki apii at the Rauti Para training... 2014 (Photo by Celine Dyer)



Enea Manu three musketeers....(Photo by Celine Dyer)



Ms Annah-Marie the SRIC Focal Point for Atiu (Photo by Celine Dyer)

Till next time...Kia Manuia