



TE IPUKAREA SOCIETY

*Caring for our Environment
Taporoporo i to tatou Ao Rangi*

**Kia Orana e te katoatoa. Teia te nuti no Mē 2020.
Welcome to the May 2020 edition of our
newsletter.**

Save the Date! World Oceans Day



BEACH CLEAN UP
BOATS TO THE MOTU
SAUSAGE SIZZLE
SPOT PRIZES

WORLD OCEANS DAY

8.30AM - 12PM
SAT 20TH JUNE

RAROTONGAN SAILING
CLUB - MURI

On Saturday 20th June we will again be celebrating [World Oceans Day](#), by hosting a family friendly, beach clean-up with fun boat trips to the motu. Divers will also help clean the tita from the deeper waters around the Avana Jetty. June is a special month for us in Rarotonga because Ponu the rescue turtle, is also being released the same week.

Stay afterwards for a free sausage sizzle, kindly donated by TIS Gold Corporate Sponsor, CITC. If you wish to get

involved or donate spot prizes please [contact us](#) at the TIS office.



TIS Technical Director Kelvin with just some of the rubbish collected by volunteers at a recent harbour clean up near Trader Jacks, organised by Ministry of Marine Resources

Working with Youth

One of our favourite and most regular activities is getting involved with our tamariki to learn about reducing waste, growing vegetables and looking after their worm and compost bins.

This month we visited Apii Avarua and Apii Te Uki Ou, to revive their hungry worm bins. Meitaki ma'ata to TIS Bronze corporate member, Hinano Macquarie for contributing some compost worms from her impressive [Maire Nui](#) organic garden worm bins.



Esme and Kayla were keen to get their hands dirty and find some worms!

Our staff once again had the unenviable task of judging the charming entries into the CITC school colouring competition. This is no easy job!

We helped present some fabulous prizes to 40 students across Rarotonga. This competition is usually linked to the excellent annual CITC 'Keeping it Green Expo' which showcases locally available eco-friendly products and services. Sadly, this event was cancelled this year due to Covid19. Bring on 2021!



Alanna assists Jane Wichman from CITC to present prizes for some of the 40 competition winners

Tereora College has now started its new sustainability module this term, a brainchild of TIS member and science teacher, Chris Whitaker. Alanna spoke to the students about plastic and oceans.

In response to some of the students' concerns about the magnitude of the plastic problem, we have been inspired to initiate a [Plastic Free July](#) campaign. Check out the webpage or contact us for ideas to inspire you, your family, school or business to join us and pledge to give up at least one single use plastic item for the month of July.

We have also been working hard preparing for our new 'Environment through the Eyes of Youth' nature photography project with senior school students in Rarotonga, Aitutaki & Atiu. The cameras and equipment have now arrived and we have lined up some great field trips and environmental experts to share their skills. This is all thanks to funding from the [US Embassy in New Zealand](#). More on this next month!

Last but not least, TIS attended the 'Cook Islands Youth Policy' stakeholder meeting, organised by the Ministry of Internal Affairs. This review will help inform the development of youth policy for the next 5 years. Naturally, our interest is as always, to ensure that the future of our youth is fundamentally integrated with protecting our precious environment. They are both and the same.

TIS Interns and Volunteers

Our capacity to do a lot of our non-funded projects and work with schools, is hugely increased by the assistance we receive from our paid interns, TIS members and volunteers.

The talented Charlee McLean has now completed her internship with TIS. What was supposed to be 3 months turned into 16 months! - which just goes to show what an impact she has on us all. Charlee has now taken up an exciting internship at Ministry of Marine Resources, which will extend her knowledge in this field in which she hopes to pursue her university study and career. Check out Charlee's infectious energy in these videos of her working with TIS in schools [here](#) and [here](#).



Thanks for being an awesome TIS intern Charlee, says Mr Toka

Our volunteers are TIS members who put their hand up to give their time and expertise across a range of activities, from our executive committee to scientists, to anyone who cares enough to just muck in.

One of our long time TIS volunteers and executive member Sabine Janneck & her partner Sasha have been using the recent downturn to work on their awesome collection of furniture recycled from pallets plus wallets, purses, bags, and other creative items that are made out of recycled materials such as packets of chips and coffee sachets.

Sabine's latest project is a collaboration with TIS to make bags out of inflatable pool floaties which have sprung air leaks. Check out their work [here](#).



TIS volunteer Sabine shows Luca a purse she made from a popped donut pool floatie

This past couple of weeks we have had musician [Jim Perkins](#) brighten up our office with his music and supply of great coffee! Jim is volunteering his time and skills to help us pull together a video for our [Plastic Free July](#) campaign, coming soon to a screen near you!



TIS volunteer, Jim Perkins – keen to rid the Cook Islands of single use plastic

Now is a great time to join or renew your TIS [membership](#) and why not ask us about volunteer opportunities? Call us or pop in anytime for a chat.

Deep Sea Mining

There has been a recent renewed interest in what the Cook Islands are doing with respect to deep sea mining. The loss of tourism revenue during this pandemic has created a sense of urgency for the Cook Islands to seek a more diversified income.

At the same time a [recent report](#) released from Mining Watch Canada has strengthened calls for a 10 year moratorium to allow for adequate research into the possible effects on biodiversity.

The Cook Islands Government's response to this report was to deny the benefits of a moratorium by claiming that it would bring research on our mineral resources to a standstill. Calling out this blatant untruth is former head of Marae Moana and Goldman Environment Prize award winner, Jacqueline Evans:

"The call for a moratorium by Civil Society Organisations is because of their concern over the government proceeding with mining without sufficient research to prevent environmental impacts. Holding off mining until we have further information through research should not be classified as "fear of the unknown"; it is acting in accordance with the precautionary principle"

Government is correct, we all need information. The problem is the Government appear to prioritise obtaining information about the quantity and value of the minerals that can be harvested rather than information about the deep sea life and ecosystems that may be destroyed in the mining process.

TIS are currently preparing a response to the [Draft Seabed Minerals \(Exploration\) Regulations 2020](#) which is due on 5 June. We are grateful for the input we have received from our local and international partners on this matter.

Congratulations and Welcome Home Mary

TIS Finance Manager, Mary McDonald is one of 12 Pacific Island graduates from the 9 month Pacific Ocean Finance Fellowship.



Mary McDonald (centre back) with some of her fellow Pacific Ocean Finance Fellowship graduates

Mary focused her research on how to secure 'non-restricted' funds for Te Ipukarea Society. As many project grants do not include funding for staff time, securing non restricted funds is an essential but often difficult task.

Mary says *"The ocean is an important part of our culture, identity and heritage and it is up to us as Pacific Islanders to ensure we learn ways to ensure best conservation management practices are being carried out."*

We also want to wish Mary a very big welcome home as she has been absent from the Cook Islands for 3 months, having been locked out during the Covid19 border closure. Finally released from 2 weeks self isolation and a month-long quarantine, we are very glad to have her back.

Go Local - Grow Local



Tehahawai reminding us of what's important with a 'Go Local' message made from Turbinaria seaweed

We have been using this slow down period in Covid19 getting on with building our TIS office keyhole veggie garden, boosting our compost bins, researching DIY worm bins and making homemade seaweed fertiliser.

There are several species of seaweed found commonly in our lagoon such as Turbinaria and Boodlea which contain trace elements useful in gardening. Rinsed first, it can be used directly as a mulch or brew a concentrated liquid tonic after soaking the seaweed in a container of freshwater with a loose-fitting lid for six to eight weeks.

For more information on our seaweed fertiliser experiment check out our article [here](#) and footage of our Cook Island TV News article on [Homemade Seaweed Fertiliser](#). We also did a TV interview on [Worm Farming](#).

Alternatives to Insecticide sprays for Mozzies

TIS member, Melinda Morris-Ponga is concerned about the effects of spraying insecticide spray for mosquito control. In a [recent article](#) Melinda outlined the need to only use Deltamethrin spray in areas away from humans, animals and especially pregnant woman, and the importance of wearing proper protective clothing for workers.

With lethal effects on fish and marine life it is not recommended near waterways. Being a neurotoxin it impacts the human nervous and immune systems with varied sensitivity on individuals.

Te Marae Ora also uses the much safer, non toxic larvicide called Bacillus thuringiensis israelensis (BTI), with the brand name Vectobac. BTI is a bacteria found naturally in soil that kills mosquito larvae. Larviciding is generally known to be more effective than sprays and is used in pooled water and also on ground debris. It is reportedly safe for bees, fish, animals and humans – so much safer for the people using it.

Unfortunately, Vectobac is expensive but if used in correct dosage, a cost comparison is promising. We are currently looking into possible cost cutting measures by sourcing direct bulk supply.

Melinda has shared with us what she calls the 'Papa Tom Wichman larvae trap method'. This is basically just leaving dark containers of shallow water around for mosquitoes to lay eggs in, but emptying them every 2-7 days (once the eggs have hatched) to break the breeding cycle.



Melinda's daughter and grandchildren learning about setting mosquito larvae traps

Details of this trap method can be found on the [TIS Facebook](#) page or download a PDF [here](#).



Here Allen's self sufficient organic garden

Long time Te Ipukarea Society supporter Here Allen, lives in the middle of her own very productive organic garden in Tikioki, Rarotonga. TIS staff were invited by Here's daughter June Hosking for a tour of this enviable tropical food basket. It was truly amazing what was growing, seemingly with very little effort although clearly the labour of love.

We found different varieties of kumara, rukau, rukau viti, Chinese cabbages, wing beans, strawberries, garlic chives, kumara, among many others, all growing for easy picking on the deck. They were thriving in different shaped and sized containers, most that had been recycled from what most people would consider plastic rubbish. These included old polystyrene foam chilly bins, plastic 20 litre oil drums cut in half, as well as several commercial type pots.

The garden deck overlooks the rest of the shaded garden that surrounds the family house, where there are a variety of fruit trees growing. These include avocado and the sapodilla, a large fruit with brown skin and flesh similar in colour to the dark orange of Hawaiian pawpaw. Some of the mango trees have little walls around them into which organic material is thrown to 'feed' the tree. In other places the trees are fed from several compost bins, of course made from recycled materials like old

washing machines, placed strategically around the garden.

Also in the garden we found the unusual and versatile vegetable known as choko, which is like a vegetable pear and grows on a vine. It can be used in a variety of recipes from savoury to sweet. There was also the herb Pi, which is used to give the pleasant smell to the famous miracle oil from Mauke, Akari Pi oil.

There is also a chicken coop, providing a great additional source of protein to the diet, without ever having to leave home! June says that for her mother, the hens will kindly lay their eggs in regular locations or in other easy to find nests. The hens afford no such courtesy to June at her home in Mauke, making her hunt high and low to locate her breakfast.

The natural cycle of life is evident here. The plants drop leaves which are left to break down to feed the earth which in turn then feeds the plants. June points out that "humans interfere with this cycle by raking supposed rubbish away from the trees, and then often times burning it!".



Here Allen with her productive deck garden

Of course, Here's garden is not all about food, it is also full of beautiful flowers. June pulls back a bush with green roses to surprise us with a deep red bromeliad inflorescence.

We leave grateful for the charming experience and also for the armfuls of bright pink rau ti and some vegetable plant cuttings for us to grow in the TIS office garden.

Meitaki ma'ata for reading our newsletter. From all of us at Te Ipukarea Society

MEITAKI

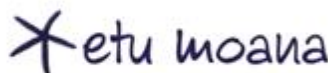
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