

# PRISMSS Triannual Newsletter - 04 April 2023



Invasive species are the leading driver of biodiversity loss in the Pacific. They have a significant impact on ecosystem resilience leading to a loss of ecosystem services and a reduced ability to adapt to climate change.

PRISMSS aims to assist the Pacific in stepping up on-the-ground management of invasive species.

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## PRISMSS Update

The PRISMSS team and partners have had a very busy start to 2023, with borders now open and allowing the delivery of in-country operational and technical support in the region.

A one-week meeting was held at the PRISMSS headquarters at SPREP, Apia, which brought together the PRISMSS partners and affiliates to discuss key risks, issues, and opportunities for PRISMSS, and share an understanding of partners roles and responsibilities moving forward.

With those matters being scrutinized, 2023 is already looking very exciting and we are looking forward to connecting again with the Battlers on the ground to address their priority needs in the invasive species management space.



The PRISMSS Team and Partners at their 7th PRISMSS Meeting in Samoa.



## Protect Our Islands

“Prevent the arrival, establishment and spread of invasive species”

In the last newsletter we mentioned the clean boats, clean ports framework to guide the implementation of the Protect our Islands programme. A Battler Guide is underway, and in the meantime you can [read more](#) about the framework. New Zealand Department of Conservation (NZ DoC) have now published their guidance for inter-island biosecurity.

Protect our Islands “buddies” are a clean boats, clean ports initiative to assist countries and territories according to individual needs. With PRISMSS Partner NZ DoC and funded by NZ Ministry of Foreign Affairs and Trade, we are developing a pilot to trial “buddies” in countries this year. Contact [PRISMSS](#) to find out more.

Palau's Ministry of Agriculture, Fisheries and Environment (MAFE) is executing an extensive GEF 6 funded project to increase resilience to invasive species threats. PRISMSS partners Island Conservation and Pacific Biosecurity are supporting MAFE's development of national Early Detection and Rapid Response (EDRR) and inter-state and inter-island biosecurity frameworks.

Palau benefits from existing PRISMSS regional resources, and in turn lessons learned in Palau will inform improving the regional resources. This is another great example of inter-project collaboration and resource-sharing that the PRISMSS partnership was designed

for.

The Solomon Islands is expecting increased travel and movement as the region converges for the Safe and Green Games – the 17th Pacific Games, which will take place in Honiara later this year. The Pacific Community is assisting with surveillance activities before, during and after the games, in collaboration with Australia Department of Agriculture Fisheries and Forestry, NZ Ministry of Primary Industries and PHAMA Plus. Solo, the 2023 Pacific Games mascot, highlights turtle conservation in the region.



Solo and Solo, the 2023 Pacific Games Mascots raising awareness for endangered turtle species.



## Predator Free Pacific

"Removal of invasive mammalian predators from Islands"

The PFP programme is poised to make significant strides in 2023, with efforts already underway to eliminate invasive species, such as rats, from islands in Palau and RMI. Despite the daunting challenge of removing rats from inhabited islands, the programme is committed to working closely with island communities to address potential concerns and mitigate risks that may compromise the success of the operation.

The anticipated benefits of the programme are many, with the restoration of healthier and more resilient ecosystems, the recovery of biodiversity, and the improvement of food security among the key rewards that justify the significant effort and resources expended. While the process of eliminating invasive species may be complex and time-consuming,

the far-reaching impact on both the environment and human communities warrants unwavering commitment to this important cause.

As we look ahead to the rest of 2023, the PFP programme's dedication to restoring natural ecosystems and promoting sustainable practices remains a vital component of global conservation efforts.



## War On Weeds

"Management of high priority weeds"

The ongoing War on Weeds program has recently taken significant strides forward, as evidenced by the successful delivery of agrichemicals and equipment to the Department of Environment in Niue, Tonga, and Tuvalu. These deliveries were made as part of the GEF6 Regional Invasives Project, which aims to address the issue of invasive plant species in the Pacific region.

To further the cause, the War on Weeds Technical Lead travelled to Tonga to conduct chainsaw training, launch an eradication program for the problematic wedelia plant species, *Sphagneticola trilobata* on Tongatapu, evaluate the effectiveness of the *Castilla elastica* eradication program aimed at the Panama Rubber Tree, and test a new herbicide on the invasive Kotia plant species, *Cordia alliodora*.

The War on Weeds program owes its success to the generous support and cooperation of the Department of Environment in Tonga. The results of these efforts hold great promise for the continued success of the War on Weeds initiative in the Pacific region.



DoE Field Team in Tonga at the *Cordia allidora* trial site.



## Natural Enemies - Natural Solutions

"Biological control of widespread weeds"

### Solving a Prickly Problem

*Solanum torvum*, known by many names including pico and prickly solanum, is a shrub growing up to 6 meter tall. Native to the Antilles, *S. torvum* has become an invasive species throughout much of Sub-Saharan Africa, South and South-East Asia, Australia, and the Pacific region. A major problem in pastures, roadsides and wasteland, this prickly shrub can form dense impenetrable thickets.

The Natural Enemies – Natural Solutions team was asked to look for natural enemies for Vanuatu where this weed is having a major impact on the beef industry. Our recently completed molecular study has shown populations of *S. torvum* in the Pacific are genetically very similar and originate from the Antilles, confirming the Carribean to be the best place to look for natural enemies. Testing of a beetle (*Leptinotarsa undecimlineata*) obtained from Jamaica has also concluded.

Since the beetle is both damaging and highly host specific, an import risk assessment is now being prepared for Vanuatu.

This work is funded by the New Zealand Ministry of Foreign Affairs and Trade.



*Solanum torvum*  
(pico or prickly solanum)



*Leptinotarsa undecimlineata*  
(Colorado potato Beetle)



## Resilient Ecosystems - Resilient Communities

"Priority area ecological restoration"

The Resilient Ecosystems Resilient Communities (RERC) Programme started the year with a priority site determination exercise in Tonga. Guided by a newly developed site prioritization tool, the consultation aimed to identify sites of national significance in relation to biodiversity, climate resilience, social, economic, health and cultural outcomes. Nine priority sites were identified and rated by stakeholders from the Environment, Tourism, Agriculture, Quarantine, and Infrastructure sector. These sites will be the basis of the Tongan Resilient Ecosystems-Resilient Ecosystems national plan which identifies sites which Tonga would like PRISMSS to assist with.

Site visits included Mount Talau where active rat, pig and weed management have seen the threatened Tongan whistler population significantly increase and expand to locations throughout Vava'u.

Whilst in the Kingdom, more than 80 interviews were conducted to help understand the relationship between humans and invasive species, contributing to the research being carried out within the RERC programme.



Seedling regeneration observed with soil surface intact inside the protected zone

Feral pigs' impact on soil limiting natural regeneration

Pig fence on Mount Talau protecting the site from feral pigs.



## PRISMSS Partners



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