



PACIFIC INVASIVES LEARNING NETWORK

SOUNDBITES | JUNE 2016



Pacific
**Invasive Species
BATTLE**

*Invasive Species Programme.
PO Box 240, Apia Samoa.
Tel. +685 21929. Fax. +685 20231.*

The quarterly electronic newsletter of the Pacific Invasives Learning Network (PILN) – reporting on invasive news from PILN teams and the Pacific region. Past issues are available online: <http://www.sprep.org/piln>

WELCOME TO YOUR SPECIAL JUNE 2016 EDITION FOCUSING ON THE GEF-PAS INVASIVE SPECIES PROJECT!

Greetings Invasive Species Battlers,
As we look ahead to the [1–5 August 2016 PILN meeting](#), to be held in Samoa, we want to capture the successes of PILN partners and share the lessons learned to improve future projects. Nine Pacific nations participated in the GEF-PAS IAS project, with many PILN members involved and their experiences also serving the entire PILN community. You can find more information about the project and [team](#) here: <http://www.sprep.org/ias>

ABOUT THE GEF-PAS IAS PROJECT

The ‘Prevention, Control and Management of Invasive Alien Species in the Pacific Islands’ project (IAS project) is a project under the Global Environment Facility – Pacific Alliance for Sustainability (GEFPAS) being implemented by the United Nations Environment Programme (UNEP) and executed by SPREP and national partner agencies. The IAS project goal is to ‘conserve ecosystems, species and genetic diversity in the Pacific Region’.
The GEF-PAS IAS project commenced in January 2011 and will conclude in 2016. The project structure follows the ‘[Guidelines for Invasive Species Management in the Pacific](#)’ with three major components: (i) Foundations; (ii) Problem Definition, Prioritisation and Decision-making; and (iii) Management Action.

GEF-PAS IAS COUNTRIES

*Cook Islands
Federated States of
Micronesia
Kiribati*

*Niue
Palau
Republic of the Marshall
Islands*

*Samoa
Tonga
Vanuatu*



ACTIVITIES UNDER GEF-PAS IAS

We would like to share a few examples of the project activities that have been accomplished already or are under way within the GEF-PAS IAS, arranged according to the themes in the '[Guidelines for Invasive Species Management in the Pacific](#)'. All of the documents produced by country teams will be available at the new [Battler Resource Base](#) on the PILN page.

Foundations (general support, capacity building, legislation and policy)



National Invasive Species Strategies and Action Plans (NISSAP) have been created for seven countries and reviewed for one, with separate action plans for different states (FSM) or island groups (Kiribati). NISSAPs support the National Biodiversity Strategy and Action Plan (NBSAP) and help incorporate invasive species issues into national legislation and community action. The new NISSAPs will be available at www.sprep.org/ias/resource-base

Engaging **posters** have been made by teams in Palau, Vanuatu, and the Cook Islands, helping local communities to interact with the idea of invasive species. Outreach is a vital component of battling invasive species because an educated, engaged community produces fast, effective action.

The 'Stop the Little Fire Ant' campaign has been used for **school challenges** in Samoa this year, with 17 schools actively involved. All the materials are [collected here](#) and can be used freely for school, community, or project activities. Remember the regional competition: [entries are due](#) 30 November.

Problem Definition, Prioritisation, Research & Decision Making (baseline & monitoring, prioritisation, research on priorities)

Desktop reviews that compile and present existing invasive species country information, and identify critical pathways and other relevant biodiversity information, have been completed for 7 countries. These reviews assist local stakeholders to prioritise efforts for invasive species management. Local information is added to the baseline studies which are a compilation of published data to create a true picture of invasive species management in the country. These reviews will be available in the Battler Resource Base.



Earth Day in Palau: getting the next generation excited about their environment





Survey of Palolo deep, Samoa

In-country surveys were also conducted for several locations. Fieldwork can be tough, time-consuming work, and we would like to acknowledge the great efforts made by staff and communities to gain direct information on the ground. Conservation areas were surveyed in Niue, on Malden island in the Line Islands of Kiribati, in the Toloa rainforest in Tonga, in lagoons of Samoa to survey seaweed and crown of thorns sea stars, on land in Samoa to measure myna bird populations, and on Vanuatu to measure populations of little fire ants.

The **Invasive Species Battler** series, to be released in August, presents **how-to guides** for practitioners. Many consultants and specialists contributed to these guides, and the guides were often written during or in response to activities in the GEF-PAS project. For example, Samoa produced an Emergency Response Plan, and we would like to highlight the Early Detection and Rapid Response booklet, prepared with contributions from James Stanford. Knowing what to do when a new species is found or reported is really important : all the policies, research, and guidelines have to be put together by staff who care and are confident to take action. Attendees of the PILN meeting will see the Battler series hot off the press, also available at the [Battler Resource Base](#).

Management (Biosecurity, Management of established invasives, Restoration)

A **workshop** on eradicating rodents from small islands was held in 2015, with participants from Kiribati, Wallis et Futuna, RMI and Tonga practicing the eradication techniques on Malinoa and Motutapu islands in Tonga. A recent assessment including day and night surveys for rats and rat sign, along with traps, [confirmed the successful eradication](#). The removal of the rats has already boosted bird populations, such as the fuleheu or wattled honey eater (*Foulehaio carunuculata*) and misi or Polynesian starlings (*Aplonis tabuensis*). Black-naped terns (*Sterna sumatrana*) were nesting and had eggs on the beaches of both islands. For further information, please contact [Viliami Hakaumotu](#).

The **rat eradication** process has been extremely beneficial, driving further efforts. Rats are the largest single driver of bird extinctions in Polynesia and Micronesia, and getting rid of rats has huge positive environmental effects. Hengahenga, or Tongan whistler, birds are [recovering on Mt Talau](#) following rat control. Most recently, Fangasito and Luahiapo islands underwent rat eradication by Tonga’s Ministry for the Environment, Service de L’Environnement, Wallis et Futuna, and VEPA assisted by SPREP and Island Conservation. Look for two rodent eradication guides



Saia from Tonga and Sosefo from Wallis et Futuna set a rat trap to determine whether the eradication on Motutapu Island was successful. Monitoring consists of setting rat traps and looking for rat sign all over the island. It takes about 8 months for the rat population to build up to a detectable level on small islands following the eradication operation.



in the upcoming Battler series to assist with your own rodent control.

Managing pigs is a balance between cultural or food needs and environmental needs. Domestic pigs are kept in pens as an important food source, but pigs that get out of pens cause a lot of damage. Hunters Glen Osborne and Peter Peeti from New Zealand travelled to Niue to support local hunters and provided trained dogs to keep the hunting going in the future. Continued support and attention to hunting will help Niue manage a healthy environment even with pigs present on the island, aligned with Niue's pig management plan. You can contact [Huggard Tongatule](#) for more information.

Kiribati is celebrating the successful **eradication of myna** birds after a final control effort in Betio. An experienced hunter was brought to remove the last remaining jungle myna and common myna. Trapping and baiting often result in some birds learning to avoid the traps and bait devices, making hunting a necessary tool. After a series of surveys in Kiribati, the final birds in Betio were followed for a week to prepare for the final eradication, so the hunter could efficiently remove this invasive with little time or disturbance of the local community or other species. For more information, you can [contact Marii Marae](#).

An 8-day **study tour** of restored sites in the Auckland region was held in March 2015 for



Polynesian countries that have existing or upcoming restoration projects, with participants from Samoa, American Samoa, Niue, and Tonga. The goal was to view successful restoration projects and learn about how and why they were successful. Honest talks with the people who carried out the work provides motivation, shows that restoration can be done, and gives ideas to take back home. Sites included Rangitoto Island, Tiritiri

Matangi Island, and Tawharanui regional park, and spanned island sanctuaries, mainland reserves, and urban reserves.

PILN TEAMS & COUNTRY UPDATES

We have requested updates of PILN country teams as we prepare for the upcoming PILN meeting (1–5 August, held in Samoa). The SPREP Invasive Species programme welcomes Ms. Huia Lloyd, on secondment from NZ Department of Conservation, who will be coordinating the PILN meeting and will be your [point of contact](#) for PILN team updates and meeting questions.

The SPREP Invasive Species programme also welcomes Ms. Natasha Doherty, who is assisting the GEF-PAS invasive project and using project outputs to begin to populate the Battler Resource Base, which will be accessible from the PILN website. Many of you will remember Ms. Doherty from the Pacific Invasives Initiative (PII).

Soundbites wishes Dr Posa Skelton, previous PILN Coordinator and the voice behind previous *Soundbites*, a fond farewell. The *Soundbites* remain an important way to maintain awareness and



contact within PILN. You will be receiving a [story submission guide](#) to help you quickly and easily share your news with PILN members, and we ask that you consider contributing regularly. Hearing from PILN members is what the network is all about!

REGIONAL BITES

PILN MEETING 2016: The Pacific Invasives Learning Network ([PILN](#)) exists to help provide a network of support to invasive species battlers. Communication via email and other social media is invaluable to maintain this support; however, face-to-face meetings remain the best way to strengthen and build critical mass among the invasive species practitioners in the Pacific. [PILN2016](#) will be held at Manusina, Lepā, in Samoa and provides the opportunity to talk with like-minded practitioners, share learning, workshop new methods and look at common issues for further assessment, investment and resolution.

Places are limited, so if any of your PILN members would like to attend PILN2016, please [contact the meeting coordinator](#) before 30 June 2016. Even if you cannot attend, track [#piln2016](#) for news updates.

‘ŌHI‘A TREE DEATHS IN HAWAI‘I



← Before rapid
‘ōhi‘a death

→
After rapid
‘ōhi‘a death



Lowland wet forest, east Hawai‘i Island, before (2005) and after (2015) Rapid ‘Ōhi‘a Death moved through the area. Photos: JB Friday

A new fungal disease is killing the dominant native tree, ‘ōhi‘a (*Metrosideros polymorpha*, family Myrtaceae) on Hawai‘i Island. Throughout the state of Hawai‘i, USA, ‘ōhi‘a-dominated forests occupy more than 1 million acres; Hawai‘i Island contains more than 50% of those forests. ‘Ōhi‘a trees have significant biological and cultural value. These trees are among the first plants to colonise fresh lava flows. They provide shelter and food for native animals (such as Hawaiian honeycreepers, native snails, and insects) and native plants in Hawaiian wet forests. They also create the watersheds that replenish Hawai‘i’s aquifers.

The infection process may occur over one or more years. However, the final appearance of tree death occurs over several weeks, or even days; tree crowns turn yellow and then brown. The



fungal pathogen *Ceratocystis fimbriata* was identified as the cause of the disease in 2014. The disease earned the name “Rapid ‘Ōhi‘a Death” because trees died so quickly. The fungus kills trees by growing into the water-conducting vessels and impeding water flow from the roots to the crown.

Initial reports of dying ‘ōhi‘a trees as far back as 2010 did not cause much alarm because ‘ōhi‘a die from various causes on a regular basis. It became evident that there was a new disease by 2013 when many homeowners were calling and all reports were coming from the same area on Hawai‘i Island. Early remote-sensing surveys of this area, the lower Puna District on Hawai‘i Island’s east side, detected about 2,200 acres of land with more than 10% ‘ōhi‘a mortality. By 2014, the affected area increased to 15,000 acres. **Today, more than 34,000 acres of forest are affected, and hundreds of thousands of ‘ōhi‘a have died.**



Dark fungal staining around the sapwood of a slice of dead ‘ōhi‘a trunk. Photo: JB Friday

There are currently many efforts to understand and prevent the spread of Rapid ‘Ōhi‘a Death, but there is still a lot of work to do. Intensive studies are being carried out to understand *C. fimbriata* biology and molecular genetics and to diagnose disease. Work also includes extensive aerial surveys, establishment of forest plots for long-term monitoring, and field studies of disease transmission. There is also a team of people working on education and outreach.

There are many people and organisations working together. The researchers first involved (and who are still considered the core of the research team) were [Drs. Lisa Keith, Flint Hughes, and JB Friday](#). Collaborating organisations include the US Department of Agriculture, US Forest Service, US National Park Service, US Geological Survey, University of Hawai‘i College of Tropical Agriculture and Human Resources, Hawai‘i Department of Agriculture, Hawai‘i State Division of Land and Natural Resources, Hawai‘i State Department of Transportation, Hawai‘i Invasive Species Council and Invasive Species Committees, The Nature Conservancy, and Iowa State University.

The disease Rapid ‘Ōhi‘a Death is so far isolated to the state of Hawai‘i; however, many *Metrosideros* species exist in forests of the Pacific, particularly in New Zealand and New Caledonia.

For more information and for outreach materials, visit www.rapidohiadeath.org and our Facebook page <https://www.facebook.com/RapidOhiaDeath/>

– Submitted by [Corie Yanger](#) and [JB Friday](#)

HOT ON THE INTERNET!



Have a question or comment for the PILN members? [E-mail it in](#) and look for it in the next *Soundbites* newsletter or on the PILN list-serve. You can submit stories using the form available [here](#):

If you have done successful restoration work on your island, please share some of the lessons with the team. If you are looking at restoring some of your natural areas and are interested in developing an Operational Plan, do get in touch.

INVASIVE OPPORTUNITIES

[The Rapid Response Facility \(RRF\)](#)

RRF invites small grant applications for UNESCO natural World Heritage sites and tentative sites facing emergency threats to their biodiversity. The RRF is a unique small grant programme jointly operated by Fauna & Flora International and UNESCO World Heritage Centre. With a target processing time for grant applications of just 8 working days, the RRF provides rapid support to enable conservation practitioners to respond quickly and effectively to emergencies in some of the world's most important sites for biodiversity. Visit www.rapidresponse.org

[Craig S. Harrison Conservation Grants – Pacific Seabird Group](#)

The objective of the Conservation Fund is to advance the conservation of seabirds by providing funds or supplies to individuals from or working in developing countries, primarily in or bordering the Pacific Ocean, (1) for conservation and restoration activities that benefit seabirds in the Pacific Ocean and (2) to help develop within-country seabird expertise in developing countries within or bordering the Pacific Ocean. Email [Verena Gill](#) and [Craig Harrison](#) briefly explaining what you want to propose and where you want to do the work. That way, you can get a rapid determination from them of whether your proposal is eligible for consideration for funding. If they determine that your study is eligible, then fill out and send the application form, the proposal/budget, and the letter of reference to Verena Gill and Craig Harrison. Please note that applications/proposals may be submitted at any time—there is no fixed deadline. All proposals will be evaluated as they are submitted.

[SPREP \(Secretariat of the Pacific Regional Environment Programme\)](#)

SPREP has a number of vacancies and tender opportunities available. Please check out SPREP's [Job Vacancies page](#) for further information.

[SPC \(Secretariat of the Pacific Community\)](#)

SPC has vacancies and consultancy opportunities. Please check out the SPC's website for further information (www.spc.int/job.html) or contact Christine Croombes (recruit@spc.int).

Have a job listing or course option? [E-mail it in](#) and use PILN to reach out.

UPCOMING EVENTS



2016	Event	Participating Partner
1–5 August	PILN meeting, Samoa	SPREP
8–12 August	Proposed Aichi Target 9 Capacity Development workshop	CBD, SPREP, SPC
1–10 September	World Conservation Congress	IUCN
12–15 September	20 th Australasian Weeds Conference	
4–17 December	13 th COP to the Convention on Biological Diversity	CBD

WHO IS PILN?

There are currently 22 teams from 19 Pacific island countries and territories:

- American Samoa
- Northern Marianas
- Fiji
- French Polynesia
- Guam
- Hawai'i
- Gilbert Islands, Kiribati
- Line Islands, Kiribati
- Kosrae State, Federated States of Micronesia
- Marshall Islands
- New Caledonia
- Niue
- Palau
- Pohnpei State, Federated States of Micronesia
- Samoa
- Solomon Islands
- Tokelau
- Tonga
- Tuvalu
- Vanuatu
- Wallis & Futuna
- Yap State, Federated States of Micronesia

Disclaimer: Articles contained within this or other PILN Soundbites do not necessarily reflect the views of PILN teams, SPREP or the Pacific Invasives Partnership. [Contact the PILN Coordinator](#) for further information.

