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The Pacific environment, sustaining our livelihoods and natural heritage in harmony with our cultures.



PACIFIC INVASIVES LEARNING NETWORK

SOUNDBITES | SEPTEMBER-OCTOBER 2014

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

WELCOME TO YOUR SEPTEMBER-OCTOBER PILN SOUNDBITES

Bonjour Invasive Battlers and Friends,

Another busy couple of months. Some of the teams have also been busy with biocontrol activities, preparation for the upcoming World Parks Congress to be held in our region, including the Pacific Voyage to highlight the vulnerabilities of our islands, and the issue of access and benefit sharing under the Nagoya Protocol of the Convention on Biological Diversity. The BirdLife International - Pacific programme meeting of partners and its technical advisory group is another great highlight as is the partnership with CABI to build capacity in the invasive species compendium. A great effort to all our teams and partners and we look forward to a fruitful ending of the year with an action packed invasive species activities.

PILN TEAMS & COUNTRY UPDATES

American Samoa. Meet the new invasive battlers

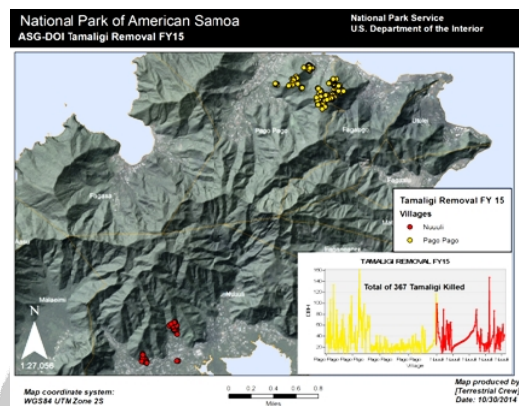


The National Park Service of American Samoa successfully obtained a USD300,000 grant from the US Office of Insular Affairs for its Rainforest Partnership with the Office of the Governor, Government of American Samoa to remove Tamaligi population from Tutuila (approx. 5,500 acres coverage and about 4,000 tamaligi trees). The funding is also to restore several acres of disturbed land with 5,000 native trees. According to Mr Tavita Togia, "the idea is that we replace each Tamaligi tree we killed with one or more useful indigenous plants".

In addition the team aims to link the agroforestry project to the American Samoa Department of Education's science, technology, engineering and mathematics curriculum through establishing a native tree botanical plantation next to Fagasa school. The native botanical garden will serve as a "living laboratory" for students to study Samoan tree species and their importance to the environment, wildlife, Samoan culture and language.

The project started on Sept 29, 2014. Progress so far, included removal of 367 Tamaligi trees in Pago Pago and Nuu'uli villages, transplanted 3,000 native trees, staff completed and passed the American Samoa Pesticide Applicator's Training Course. Additional benefits from this new partnership include 1) Twelve crew members earn 8 hours of A/L and S/L, 2) Staff earn much better wages, 3) good economics - \$\$\$ stays here & help local economy, 4) help improve relationship w/ ASG, 5) access to ASG resources and support services such as village mayors - they are employed by ASG Office of Samoan Affairs. A map of Tamaligi trees being targeted (see left).

New invasive battlers include: Loia Tagoai (Crew leader), Bencasey Malaga, Mathew Tuinei (Crew leader), Josh Puni (Field asst.) Tamafaiga Sagapolutele (NPS-ASG Overall Field Leader), Roman Vaoga. Back row left to right: Kananafou Savea, Tavita Togia (Supervisor), Sani Lefaoaseu, Pentateuch Vaki, Filipina Mamea, Fuatino Sagapolutele, Alex Mata'u, Kiliona Atanoa, Elama Faatonu . Photo credit: NPS Samuel Meleisea



New Caledonia.

The BirdLife International Partnership meeting was held in Farino, New Caledonia from 15-17th October. This was a fantastic opportunity to catch up with our invasive battlers in New Caledonia - especially our friends at the Société Calédonienne d'Ornithologie and . See some of the images from the meeting further down in this issue.

Niue. Moving forward to address invasive issues



Following the completion of Niue's NISSAP late last year, actions are now taking place to address the range of invasive species issues that threaten the biodiversity and lifestyle of Niuean community. Two recent activities aimed at achieving this were the planning of the control for feral pigs and priority weeds.

The draft Niue Pig Management Plan will focus on reducing the feral pig population from 2015, by training local hunters with new techniques. The plan will also address the issue of pigs being released from piggeries. Jack Crow from Koru Biosecurity in New Zealand, who is drafting up the plan, suggests that this will need to be an ongoing operation aimed at keeping feral pig numbers low rather than an eradication due to the ongoing release of pigs into the wider environment. Feral pigs negatively affect the biodiversity of Niue, particularly the coconut crab which is favoured by both locals and tourists alike.

Niue's GEPAS Invasive Species Coordinator (Huggard) directed the project team to favourable sites for pigs. In Niue the abundance of wild food such as coconuts provides plentiful food to maintain high numbers of pigs.

Niue has prioritized within their NISSAP the target weeds Singapore daisy (*Wedelia trilobata*), chain of hearts (*Antigonon leptopus*), Honolulu rose (*Clerodendrum chinense*), bronzed-leaved Clerodendrum (*Clerodendrum quadriloculare*), giant sensitive plant (*Mimosa diplotricha*) Taro vine (*Epipremnum pinnatum*) for immediate action. Other identified priorities for the future are fuesaina (*Mikania micrantha*), fuevao (*Merremia peltata*) and Hawaiian wood rose (*Merremia tuberosa*). These three weeds are more widespread and will be addressed on an ongoing basis.

Whilst planning the control operation for the six species to be addressed first, several obstacles needed to be addressed. The first was ensuring that the herbicides required were available and that they could be applied safely minimizing risks to people and the environment. This is particularly relevant on Niue where potable water comes from a water pan beneath the surface of a very porous limestone based rock. Murray Beare of Educhem Limited and SPREP's Invasive Species Adviser (David Moverley) trained the Niue government's Department of Agriculture, Forestry and Fisheries and the Department of Environment on the United Nations Global Harmonized System of Classification and Labeling of Chemicals (GHS). They also analyzed current herbicides used and those required to complete the operation successfully.

Murray Beare (Educhem Limited) discusses the use of surfactants to increase the effectiveness and efficiency of the herbicides that will be used with Huggard Tongatule (MoE).

During the analysis alternative agrichemicals were sought where risk to people and the environment could be lowered. The analysis allowed current best practice for managing and using agrichemicals to be introduced to Niue and this will be reflected in the herbicides, methods and equipment they use for their control operations.

The next step is to procure all the equipment required to implement the control operation. This will include storage facilities, equipment and herbicides compliant with the New Zealand Standard NZS:8409 "management of Agrichemicals" and ship it all to Niue. The control operations will be recorded on a state of the art weed management database which will provide indicators of success during project implementation. (image of Niue flag and island by Darwinek)

Tuvalu. Tuvalu recently released their Fenui - Tala mai Tuvalu newsletter. Tuvalu remains one of the key countries to work with in addressing invasive species. Fenui reported that breadfruit and products from Tuvalu are no longer accepted into New Zealand or Australia due to the risk of fruit flies. Samoa is the other country where breadfruit shipment was been banned from entering NZ and Australia. New certified treatment plants for breadfruit in Samoa will allow limited cooked breadfruit to be imported to New Zealand.

PACIFIC INVASIVES PARTNERSHIP & REGIONAL BITES

All about Herbicides (by David Moverley)

Herbicides are a necessary tool in most invasive plant control projects and they provide an effective and efficient means. When used correctly they greatly improve the efficiency and effectiveness of the project. The Global Harmonized System of Classification and Labeling of Chemicals (GHS) is an internationally agreed-upon system created by the United Nations to replace the various classification and labeling standards used in different countries by using consistent criteria for classification and labeling on a global level.

However at this stage only one country has fully adopted the system providing risk classifications for human toxicity, human risk and environmental risk. This information provides much clearer information on the risks and provides guidance on the safe use of herbicides.



In the Pacific herbicides originate from many different countries with different requirements for the notification of these risks. SPREP is aiming to prepare guidelines on the safe use of herbicides for the majority of the herbicides used in the Pacific for invasive plant management.

To produce these guidelines comprehensively we would like to request that you email in the brand names of the herbicides you use.

The list will be analyzed and recommendations produced in a useable format.

The Pacific Invasives Partnership has produced a report, titled "On the verge of a biological crisis: the state of invasive species in the Pacific". The report was prepared for the 45th Pacific Islands Forum Leaders meeting in Palau through a request made by the Micronesia Chief Executives. An electronic copy of the report can be made available on request.

Battling invasive species on the agenda of the Pacific.

The Pacific Invasive Alien Species Advisory Group is being formed to help ensure enhanced plans of action for battling invasive species across the region and across different sectors. A Terms of Reference for the Advisory Group was drafted by the



Secretariat of the Pacific Regional Environment Programme (SPREP), Secretariat of the Pacific Community (SPC) and the United Nations Environment Programme (UNEP) in the UNEP sub-regional office. This Advisory group was requested by the Pacific Island Forum Leaders and once established will strengthen collaboration between the Council of Regional Agencies of the Pacific to provide cross-sector advice to the Leaders as invasive species management is naturally across-cutting issue. The new UNEP sub regional office will enable SPREP and UNEP to work in closer collaboration on regional invasive species initiatives such as those defined in the Samoa Pathway document, approved in Samoa at the Small Island Developing States Conference. This document is the first to originate from a SIDS

conference with invasive species having its own specific section.

GLISPA October Newsletter out. Items included Ring-necked Parakeet eradication continues | Cinnamon and strawberry guava control started in the Vallee de Mai | Training for Aldabra biosecurity plan | and much more. Contact Jessica Robbins for a copy (jessica.robbins@glispa.org).

SPREP - Climate Change Video. The Pacific Adaptation to Climate Change - Samoa has released a video - Vital Coast that you can view via Yout-Tub: <https://www.youtube.com/watch?v=9rpB9PjBcaQ&feature=youtu.be>

GMOs advocates visit SPREP. Two members of the local NGO - STOP-OGM Pacifique visited Samoa to raise awareness on genetically modified organisms. They visited SPREP and gave a presentation to staff on their work. If you wish to learn more about GMOs or this local NGO - please contact stopogmpacifique@hotmail.fr - www.stopogmpacifique.org

CABI Invasive Species Compendium Training

CABI in partnership with SPC and SPREP/PILN run the second and final workshop on the Invasive Species Compendium in Suva, Fiji Islands. The



Compendium workshop was a follow up to the 2012 training. Now over 40 Pacific Islanders have been trained in how to use the Compendium. The recent training was held from 27-31 October, 2014 and was facilitated by Martin Parr, Soetikno and Posa Skelton. Two participants from the 2012 training attended the 2014 workshop and were able to be resource persons to the new participants. The workshop was funded by the European Community. Topics covered included the history of the development of the Compendium (including other CABI compendia).

Detailed pages of the Compendium were also covered including the data components and sources, searching the compendium, datasheet exploration and reporting. The range of available information and helpful tools including the bibliographic database were also discussed. Hands on training on the use of the Compendium and group exercises involving analysis of sample datasheets, quality of datasheets and constraints to accurately completing datasheets. Participants also discussed the next steps after the completion of the project and heard from CABI on their plan to focus on Invasive Species and their impacts to People and their Livelihood.



Images of participants and resource persons at the last CABI Invasive Species Compendium workshop in Suva, Fiji.

BirdLife International - a plea for help!



As we prepare to splash big for the Christmas holidays - here's a suggestion from our friends at BirdLife International - Pacific Office - why don't you spare "a gift for nature this Christmas". While many are celebrating the joy that comes with end of the year festivities - our birds continue to face extinctions head-on. Since people arrived on the islands - half of all the bird species are now extinct. This tragedy continues with 81 more species threatened with extinction today. What's even more sad - is that we know that this is happening right under our nose. Removing invasive species including rats will help rescue some of the birds from extinctions. French Polynesia - an archipelago with stunning picture-perfect islands - is perhaps most at risk of losing their bird species due to rats and goats. You can help stop this madness. BirdLife and partners are looking at restoring these islands so that the critically endangered Tuamotu sandpiper and the Polynesian ground-dove can walk and fly again. They however, need your gift for nature to secure the last hurdle of USD\$200k towards securing boats, helicopters and human-power (capacity) to undertake this hard work. The cost of the operation is about USD\$1million - but the good news is that the bulk of the funding has been secured. Just USD\$200k needing to ensure that we do this right. Every gift counts...so give nature a gift this Christmas. For more information contact Steve Cranwell - steve@birdlifepacific.org.fj

Hot on the internet-wire!

Traps for lion

Franck Gourdin from the Specially Protected Areas and Wildlife - Regional Activity Centre in Guadeloupe is looking for traps that specifically target lionfish. If you know of any trap, anyone working in this area please contact Franck (franck.gourdin.carspaw@guadeloupe-parcnational.fr)

Invasive Terrorism?

Fred Schueler asked "Are there instances of political terrorists attacking an area by releasing an invasive species?"

INVASIVE OPPORTUNITIES

The Rapid Response Facility (RRF)

Invites small grant applications for UNESCO inscribed 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. For more information visit – www.rapid-response.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 developing countries as well as those from elsewhere working in those 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. Send an email to Verena Gill (verena.gill@gmail.com) and Craig Harrison (charrison@hunton.com), 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, as described below, to Verena Gill and Craig Harrison. Please note that applications/proposals may be submitted at any time—there is no fixed deadline for submission. All applications / 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. Currently, SPREP is looking for a Pacific Ecosystem-based Adaptation to Climate Change - Solomon Islands Country Manager and a Pacific Ecosystem-based Adaptation to Climate Change Vanuatu Country Manager. Applications close on 28th November, 2014. Please check out the SPREP's Job Vacancies page for further information.

<http://www.sprep.org/Human-Resources/Job-Vacancy/>

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).

GLOBAL INVASIVE BITES

Invasive mosquito hits USA. A new aggressive day-time biting mosquito capable of transmitting debilitating and possibly deadly viruses has been found in the Los Angeles region. Known as yellow fever mosquitoes, the insects were found in Commerce and Pico Rivera, according to the Greater Los Angeles County Vector Control District.

Tilapia male woos their females with pheromone

Scientists have identified a signal molecule in the urine of male Mozambique tilapia that boosts hormone production and accelerates oocyte maturation in reproductive females. Tilapia has been farmed in many Pacific islands over the last 60 years and their introduction and release into native waters have caused negative impacts to native biodiversity. The use of the pheromones could also help to control the invasive behaviour of Tilapia, which threatens the ecological balance of many ecosystems. [See publications section for more info about this study.](#)

Efforts underway to eradicate plants in Saint Lucia

Two plants - *Callista fragrans* and *Tradescantia zehriana* - are on the menu for eradication by the Office of the Pitons Management Area in Soufriere, Saint Lucia. The project recognised that eradication could only be achieved and sustainable in the long term if it was accompanied by a well-organised community education and awareness programme that informs and seeks to change attitudes and behaviour.

INVASIVE SPECIES PUBLICATION

Keller-Costa, T., Hubbard, P.C., Paetz, C., Nakamura, Y., da Silva, J.P., Rato, A., Barata, E.N., Schneider, B., Canario, A.V. 2014. Identity of a Tilapia Pheromone Released by Dominant Males that Primes Females for Reproduction. *Current Biology*, 2014; DOI:10.1016/j.cub.2014.07.049LD.

The Weed's News October edition is out. The Weed's News is a place to hear the latest about weed research and share information about preventing and/or working with weeds. Read more on <http://www.weedsnetwork.com>

UPCOMING EVENTS

2014	Event	Participating Partner
November		
3-8 Nov.	NEOBIOTA 2014. Biological invasions: from understanding to action. (Antalya-Turkey)	http://neobiota2014.org/
12-19 Nov.	IUCN World Parks Congress (Sydney, Australia)	http://worldparkscongress.org/
17-21 Nov.	Society for Ecological Restoration Australasia Conference (New Caledonia)	http://www.seraustralasia.com/pages/conference.html
24-27 Nov.	World Biodiversity Congress (Colombo, Sri Lanka)	http://www.wbc2014.in
28 Nov.	ChemFree Working with Weeds Workshop (Melbourne, Australia)	http://www.eventbee.com/v/chemfree2014
December		
2-4 Dec.	Australasian Wildlife Management Conference (Brisbane, Australia)	http://www.awms.org.au/conference



Images from New Caledonia: Some of the participants and native life on New Caledonia during the BirdLife International - Pacific partnership meeting. The Cagou is an interesting bird.

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 (posas@sprep.org).