



PACIFIC INVASIVES LEARNING NETWORK

SOUNDBITES

NOVEMBER & DECEMBER 2013

Pacific Invasives Learning Network

Secretariat of the Pacific Regional Environment Programme.

PO Box 240, Apia Samoa. Tel. +685 21929. Fax. +685 20231.

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>

Malo Invasive Battlers

YOUR PILN SOUNDBITES for November and December are combined in this end of the 2013 edition. It has been an incredibly busy year for all of you, so congratulations on all the successes and progress that you've made. The year also saw many interesting developments including the conclusion of the CEPF Micronesia/Polynesia and the start of the CEPF East Melanesia hotspot funding opportunities. We have had some fantastic opportunities to establish national invasive species cross-sectoral teams in Tonga, Vanuatu and the Solomon Islands, as well as the establishment of a network of invasive species battlers in French Polynesia and Choiseul Province, Solomon Islands. In the political sector, the issue of invasive species has been on the political radar with our Pacific Islands Forum Leaders consistently calling for further attention on invasive species. We take this moment to thank our friends at the Pacific Invasives Partnership and the Micronesia Regional Invasive Species Council for their efforts in bringing this important issue at the leaders fora. We also thank the Prime Minister of the Cook Islands (Hon. Henry Puna) and President of Palau (Excel. Remengesau) for championing invasive species. Here's wishing you and your families a safe and happy Christmas and a prosperous 2014. We look forward to keeping our islands, economy and people safe from invasive species.



9th PACIFIC ISLAND
CONFERENCE ON
NATURE CONSERVATION
AND PROTECTED AREAS

2-6 December 2013

PILN TEAMS AND COUNTRY UPDATES

Solomon Islands: Choiseul Province addresses Invasive Species



Participants of the Choiseul Province inaugural invasive species meetings

Choiseul Province lies to the western part of the Solomon Islands and a mere stone-throw away from Bougainville. It is a mega-diverse place with tropical rainforests teeming with native and endemic wildlife.

It is also a place where logging and mining prospecting are taking place and with these activities, invasive species are beginning to make an adverse impact to the local people and species.

SPREP and partners are currently implementing a project to enhance the resilience of the community and the environment to adverse impacts of climate change and other threats.

In mid November, SPREP's Invasive Species Programme team undertook a visit to Choiseul Province to assist the government with invasive species management. The visit included consultations with the various sectors on Taro Island (the provincial capital of Choiseul) and a site visit to community farming and invasive species infested sites.

Eleven participants discussed invasive species found in the province as well as those found throughout the Solomon Islands. While some serious invasive species are already present, including the little fire ants, rats and feral pigs,

others have recently arrived including cane toads and the giant African snail. These arrivals appear to be associated with logging equipment, according to some of the participants.

Many invasive species found in Honiara are not yet found on the island including the Polynesia paper mulberry and water hyacinth. The close proximity and historical movement of goods between Solomon Islands and neighbouring Bougainville (Papua New Guinea) provide a biosecurity challenge for the islands. There is no biosecurity inspection on Choiseul, so most of the goods coming in are not inspected for invasive species. While participants acknowledge this as a problem, the situation highlighted the challenge faced by remote communities where capacity and resources are limited.

One of the solutions was to empower communities with information so that they are aware of what's coming into the islands and who to report should they suspect a new species. SPREP will be working with partners to develop these awareness materials and to support the newly formed Choiseul Provincial Invasive Species Battlers taskforce.

The mission was part of the USAID funded Ecosystem Based Adaptation project currently being implemented by SPREP and partners.

Palau's Invasive Species Strategic Plan Endorsed



President Remengesau with members of the Palau National Invasive Species Committee.

This month Palau's Strategic Action Plan for Invasive Species received the endorsement of President Tommy E. Remengesau, Jr. This plan provides a clear course of action for prevention and management/control of invasive species in Palau for the years 2014-2017. The plan was developed by members of the National Invasive Species Committee (NISC), and representatives from several partner agencies, NGOs, and private individuals in a workshop conducted for this purpose from March 26-28 this year. A total of 27 people participated in the workshop, representing 17 agencies and organizations. These participants provided good representation of people and agencies working on invasive species in Palau.

The product of the workshop was compiled and edited by Dr. Joel Miles, the National Invasive Species Coordinator, and then went through a round of comments and input by workshop participants, and a subsequent round of comments by the NISC, prior to its adoption. This plan recently received the endorsement of the President.

Guam – battling the invasive brown tree snake from above (source: Daniel Vice



The brown tree snake causing harm to Guam

Through intensive management and methods development, impacts from the brown tree snake (BTS) on Guam have been significantly mitigated over the past decade. Effective containment, aimed at preventing the spread of the snake off-island, has slowed or stopped BTS arrivals in most at-risk locations. Management efforts aimed at reducing BTS impacts on native wildlife, human health and safety, and power transmission and distribution have to produce positive results. Available control tools, including snake traps, hand capture, and detector dogs effectively reduce BTS populations in discrete sites, intensive management will remain necessary as current technology is not adequate for reducing BTS populations across the entire island landscape.



A bait flagger floating down after application

To improve large scale control options for BTS on Guam, researchers with the U.S. Department of Agriculture's Wildlife Services, National Wildlife Research Center (WS, NWRC) began investigating oral toxicants for BTS in the late 1990's. Acetaminophen, a common over-the-counter pain killer, was ultimately found to be an effective BTS toxicant, with high toxicity for BTS and very limited risks to non-target species. A single 80 mg acetaminophen tablet, inserted into a dead neonate mouse, is 100% lethal to any BTS that ingests the bait. By 2004, acetaminophen was fully registered by the U.S. Environmental Protection Agency for field use on Guam, delivered via bait stations and aerial application. Ground-based application (via bait stations) provides an additional tool for controlling BTS on a smaller scale, but much like traps and hand capture, is limited by the need for access to habitat and the associated manpower needed to run bait stations. To overcome the logistic and spatial constraints of ground-based bait station

application, researchers began exploring aerial application of acetaminophen for BTS control. Challenges associated with aerial delivery revolved around the need for baits to hang in forest canopy, where they would be accessible to BTS and inaccessible to most other animals in the forest environment. As well, the baits needed to be affixed to a cheap, compact, and biodegradable floatation system that could be readily deployed from a helicopter. Through innovative methods development and field testing, a functional floatation system, comprised of accordion-folded tissue paper held between two small, rigid pieces of cardboard, was identified for operational use. A multi-year grant, from the U.S. Department of Defense's Environmental Security Technology Certification Program, was awarded to Wildlife Services to support the first large scale effort to control BTS using aerial delivery of oral toxicants. After several



A flagger hanging in a tree

years of planning, including intensive environmental reviews and site preparation, the joint research and operations project conducted its first aerial bait application in September 2013. To date, 5 aerial applications have been made on 2 – 55 ha study sites, one surrounded by a one-way BTS barrier, and another adjacent, unbounded forest plot, with approximately 10,000 baits applied in total. Within each application, a subset of baits have been fitted with radio transmitters to facilitate information on bait distribution and canopy hang-up rates, as well as final disposition of the baits. Intensive monitoring of BTS activity, through the use of non-toxic dead neonate mice placed in bait stations on both application sites as well as a nearby reference site, has already shown a reduction in BTS activity, particularly in the fenced forest plot. The project is expected to continue for another 12 months or longer, as bait application must continue intermittently over that time period to ensure any recently hatched BTS have reached a size where the acetaminophen baits are attractive to them.

Concurrent research underway through NWRC is exploring more efficient and scalable application processes, through automated bait device fabrication and automated application processes. It is hoped this technology will eventually facilitate larger-scale BTS control across much of Guam's uninhabited landscape, reducing the impacts of the island's significant BTS population.

SNITT mourns the loss of their Chairman – Taule'ale'ausumai La'avasa Malua



The late Taulealeausumai chairing a recent SNITT meeting

Members of the Samoa National Invasive Species Task-Team are mourning the sudden passing away of their chair who was also the Chief Executive Officer for the Ministry of Environment and Natural Resources, Mr Taulealeausumai Laavasa Malua.

Taule'ale'ausumai was recently involved in the 9th Pacific Islands Nature Conservation Conference where he chaired one of the panel sessions. His commitment to the environment was unwavering and he showed it through his active participation and

intervention at international and regional fora. He is sadly missed and our sincere condolences to his family.

Micronesia – Vanishing Islands on Youtube

Vanishing Islands is a seven minute video produced by LYON to highlight the challenges faced by the people of the Federated States of Micronesia. Sea-level rise due to climate change is happening very fast in many of the atolls of Micronesia. Communities and long-term visitors relived their experience and observation over the last 15 years or more and noted the encroachment by sea of taro plantations, fresh water wells and infrastructures. Fresh water is now primarily from rain-water, but with increasing severity of droughts, this is adding to the peoples woes. The fear that land will be lost including unique island biodiversity and that people are forced to move. For many, the islands define who they are as people, culture and spiritual connections.

Micronesia and many other small lying islands throughout the Pacific are at the frontline of the impacts of climate change. Communities must be supported to assist with coping with the impacts of these changes.

PACIFIC INVASIVES PARTNERSHIP (PIP) – NEWS

IUCN-ISSG identifies 100th world worst invasive species



The Giant Salvinia is the 100th worst invasive species globally

Experts identified a new addition to the world's 100 worst invasive species. The Giant Salvinia (*Salvinia molesta*) was chosen by the community of invasion biologists (over 650 experts from over 60 countries). This aquatic fern is native to south-eastern Brazil. It is a free floating plant that does not attach to the soil, but remains buoyant on the surface of a body of water. The fronds are up to 4 cm long and broad, with a bristly surface caused by the hair-like strands that join at the end to form eggbeater shapes. The Giant Salvinia is often grown as an ornamental plant but has escaped and become a noxious pest in many regions worldwide.

Pacific Invasives Partnership all banner up

A new banner has been prepared for the Pacific Invasives Partnership in time for the upcoming 9th Nature Conservation Conference, scheduled in Suva, Fiji from 2-6th December, 2013.

The new look banner highlights what PIP is and its role in supporting capacity building and regional coordination of invasive species management in the Pacific. PIP has been active in representing invasive species issues in regional forums including the Pacific Forum Leaders Meeting.

The banner is part of a series of banners to market invasive species efforts in the region.

CABI welcomes action to protect against invasive species

CABI welcomes action that the EU has recently taken to protect member states against the adverse impacts of invasive alien species. The draft regulation on the prevention and management of the introduction and spread of invasive alien species will help to coordinate management and preventative measures across the whole of the EU, leading to what will effectively be a joint battle against IAS – a problem that costs the EU at least 12 billion Euros each year. Read more on CABI ...cabiinvasives.wordpress.com

A RARE merge with TNC

The Nature Conservancy and Rare today announced their intent to merge, combining forces to accomplish greater conservation outcomes together than either organization could alone. Further information on this can be found on the Nature Conservancy website: www.nature.org

Pacific Invasives Initiative – read all about it!

The Pacific Invasives Initiative has released its quarterly Newsletter (Sept. 2013). There are many useful and interesting articles including the recently concluded Island Biosecurity Training, Tonga's National Invasive Species Strategy and Action Plan and more. A copy can be obtained from the PII team (pii@auckland.ac.nz).

Tropical rodent eradication review in Auckland

In late August, a Tropical rodent eradication review was launched with the convening of a meeting of an international group of experts at the University of Auckland, New Zealand. The goal of the review is to develop recommendations for improving the success rates of tropical island rodent eradications. More than 30 experts in island rodent eradications, island ecology, rodent ecology, and toxicology came together at the meeting to review historical data, analyse successful and unsuccessful projects, and discuss new ideas and approaches to increase the success rates of rodent eradications on tropical islands.

Eradicating invasive alien species from islands is a tool proven to protect biodiversity and help restore ecosystem processes. Worldwide, there have been more than 400 successful eradications of invasive rodents from islands and about 50 unsuccessful attempts. Analysis of historical eradications reveals that efforts to eradicate rodents from tropical islands have been less successful than projects in higher latitudes. “There is increasing demand for eradications to help counteract the growing extinction crisis, particularly in tropical areas where biodiversity is greatest, said Bill Waldman, CEO for Island Conservation. “This review will improve the rate of success by ensuring that the island restoration community has the best eradication advice from the world’s experts.”

The tropical rodent eradication review is being led by a consortium of groups including Island Conservation, Pacific Invasives Initiative (PII), Royal Society for the Protection of Birds (RSPB), BirdLife International, Conservación de Islas, New Zealand Department of Conservation and the US Department of Agriculture (USDA). The first stage in the review included an analysis of completed rodent eradications to evaluate the lessons of past projects. The review is expected to conclude with publication of recommended best practice guidelines for tropical rodent eradications that will also be made available through the PII Resource Kit (<http://www.pacificinvasivesinitiative.org/rk/>).

For more information please contact: Brad.Keitt@islandconservation.org - Brad Keitt, Director of Conservation, Island Conservation

VACANCY AND OTHER OPPORTUNITIES

Micronesia Conservation Trust

MCT is currently recruiting for a Conservation Program Manager. Closing date is November 11, 2013. For more information contact Lisa Andon – deputy@ourmicronesia.org.

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 whenever they are submitted.

SPREP (Secretariat of the Pacific Regional Environment Programme)

SPREP has a number of vacancies and tender opportunities available. 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).

INVASIVE NEWS GLOBAL

Montana Nearing End Of 10-Year Project To Remove Non-Native Trout In South Fork Flathead Drainage.

Montana Fish, Wildlife and Parks is now more than three-quarters finished with a 10-year project aimed at treating alpine lakes above the South Fork Flathead River drainage to purge the presence of non-native trout. Ecology: Gene tweaking for conservation: It is time to weigh up the pros and cons of using genetic engineering to rescue species from extinction, say Michael A. Thomas and colleagues. http://www.nature.com/news/ecology-gene-tweaking-for-conservation-1.13790?WT.ec_id=NATURE-20130926

Wildlife face 'Armageddon' as forests shrink

Species affected by rainforest fragmentation are likely to be wiped out more quickly than previously thought, scientists have warned. A study found that some small mammal species on forest islands, created by a hydroelectric reservoir, in Thailand became extinct in just five years. It also showed that populations in the fragmented habitats were also at risk from another threat - invasive species. <http://www.bbc.co.uk/news/science-environment-24229723>

New biological agent to fight invasive weed



University of Rhode Island's entomologists reached a milestone in their efforts to control the invasive weed swallow-wort this month with the first release of a biological agent to fight the pest. Swallow-wort is an aggressive invasive weed that forms dense patches in a wide variety of habitats and may have negative impacts on insects including the monarch butterfly.

Evidence-based policy in invasive species management

Hundreds of invasive species experts gathered last week, 23-27 October, in Qingdao China at the 2nd International Congress on Biological Invasions. High on the agenda was how policy makers can respond to the accelerating risk posed by invasive species as international trade increases and climate change opens up new opportunities for invasion. Read more on CABI's invasives blog (cabiinvasives.wordpress.com). The moth (*Hypena opulenta*) found in Ukraine was tested and found to be a suitable biocontrol for this weed. Read more on the University of Rhode Island website (2013, September 27).

Hunt is on for the tegu lizards in Florida



The Argentine tegu lizard doesn't grow nearly as big as a Burmese python but it may be a greater threat to South Florida's native animals. At a maximum size of four feet, a tegu can't gobble down a full-grown deer or alligator with its rapier-sharp teeth. But the invasive, black and white reptiles have the potential to cause even more ecological damage than the 18-foot snakes that have drawn international media attention in recent years. And now, scientists say, it's too late to eradicate them. Read more here: <http://www.miamiherald.com/2013/09/27/3654929/hunt-is-on-for-tegu-lizards-in.html#storylink=cpy>. Image by Mario Sacramento

International partners launch plan to tackle invasive lionfish

The International Coral Reef Initiative (ICRI), through its Regional Lionfish Committee, is urging Caribbean countries to adopt a regional roadmap to control the invasive lionfish. Regional Lionfish Committee co-chair and lead author Ricardo Gomez Lozano said a Regional Strategy for the Control of Invasive Lionfish in the Wider Caribbean had been developed to help control the introduced reef pest.

INVASIVE SPECIES PUBLICATIONS

- Macanawai, A.R. (2013). Impact of *Sphagneticola trilobata* on plant diversity in soils in south-east Viti Levu, Fiji. *Journal of Life Sciences* 7 (6): 635-642.

UPCOMING EVENTS

2013	Event	Participating Partner
November		
14-17 Nov.	Asia-Park Congress. Japan	SPREP
20-22 Nov.	AWMS Annual Conference. Massey University, Palmerston North, NZ.	
20-22 Nov	Non-indigenous species in the North-East Atlantic (Ostend)	
25-29	Pacific World Heritage Workshop. Suva, Fiji	UNESCO
28-29	BirdLife Pacific – Technical Advisory Group Meeting (Suva, Fiji)	BirdLife, PII, IUCN, SPREP, PILN, USP and other partners
December		
2-6 Dec	9 th Pacific Island Conference on Nature Conservation and Protected Areas. Suva, Fiji	
9-13 Dec	Wrap-up meeting of 9 th Pacific Island Conference on Nature Conservation & PAs.	
	20 th Biennial Conference on the Biology of Marine Mammals. University of Otago, NZ	
13 Dec.	Fiji Invasive Species Taskforce	FIST
2013	Event	Participating Partner
December		
3-6 Mar	26 th Vertebrate Pest Conference (USA)	
24-28 Jun	2 nd Science Incubator – exploring weeds and their management from novel viewpoints (Hotel Hospital del Benasque, Pyrenees)	

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).