



Pacific Invasives Learning Network.

Secretariat of the Pacific Regional Environment Programme

PO Box 240, Apia, Samoa

+685 21929 Fax: +685 20231

www.sprep.org

PILN Teams:

- American Samoa
- Commonwealth of Northern Mariana Islands
- Fiji
- French Polynesia
- Guam
- Hawaii
- Kiribati
- Kiritimati
- Kosrae
- Marshall Islands
- New Caledonia
- Niue
- Palau
- Pohnpei
- Samoa
- Yap



PACIFIC INVASIVES LEARNING NETWORK SOUNDBITES

FFBRUARY 2012

Network News

PILN SOUNDBITES is the monthly newsletter of the Pacific Invasives Learning Network: a participant-driven island network, reporting on news of PILN Teams and the Pacific Invasives Partnership. Past issues are available online: http://www.sprep.org/piln

3rd PILN Meeting 21-28th March 2012 Kiritimati Atoll **KIRIBATI**

PILN Teams and Country Updates

Fiji

FIST participates at the NBSAP planning meeting



The Fiji Invasive Species Taskforce (FIST) participated at the 2day planning meeting for the National Biodiversity Strategy and Action Plan (NBSAP) for 2012. The meeting was organised by the Department of Environment and it allowed the various NBSAP working groups to report on progress made in 2011 and plans for 2012. FIST was represented by its chair, Mr Ilaisa

Dakaica of Biosecurity Authority Fiji (BAF).

Snail fact-sheets nearing completion



Dr Gilianne Brodie from the University of the South Pacific Biology Department has been working diligently on her introduced land snail fact-sheets for Fiji in order to bring to light information on these often unappreciated invertebrates that can be a scourge to farmers

and conservationists alike. The first ten "high priority" fact-sheets will be released soon electronically and will be downloadable as portable document format (pdf). Once the 2nd instalment of factsheets is

completed in coming months, additional information on all twenty species will be published via USP Press in a guidebook for the general public. For further information about these fact-sheets and Fiji's introduced land snail fauna, please contact Dr Brodie at USP (brodie g@usp.ac.fj).



Bradvbaena similaris © Dr Gilianne Brodie

Guam

New thrips found

A thrip that has been found feeding on banana leaves as well as other vegetable crops such as tomato, egg-plant and sweet potato was identified as *Dinurothrips hookeri* by Dr Laurence Mound of CSIRO. According to Prof. Aubrey Moore of the University of Guam on PestNet, this discovery represents a new record for Guam and the Pacific. This further adds a biosecurity risk and extra stress on the work-load of invasive species managers on the island, where they are already dealing with fire ants, coconut rhinoceros beetles and the Asian cycad scale.

Hawaii

The State of Hawaii, Division of Aquatic Resources, Aquatic Invasive Species (AIS) team has expanded their invasive algae removal efforts to three large patch reefs in the Central section of Kane'ohe Bay, Oahu. These reefs have healthy coral populations, but are in danger of being smothered by a number of invasive algae species: *Kappaphycus* sp., *Eucheuma denticulatum*, *Gracilaria salicornia*. The invasive algae are removed via mechanical removal where the algae are then given to local farmers to be used as fertilizer. Upon removal of the bulk of the algae, native hatchery raised sea urchins are transplanted onto the reef to clean up any fragments and control the re-growth of algae. The AIS team has currently transplanted 5000 urchins onto the first of three reefs and will be outplanting another 1000 urchins every other week through April. The habitat of the reefs will be surveyed continuously to monitor for the re-growth of invasive algae, the re-growth of native algae to take its place, new coral recruits, and any changes in fish biomass and diversity. New hatchery methods are tested nonstop to increase the survival rate and overall output in hopes that a surplus of urchins will be produced and could be utilized on other reefs throughout the state suffering from invasive algal issues. Any questions, please contact Jono Blodgett, jb88@hawaii.edu, (808) 256-3095

Maui Invasive Species Council

MISC met on Friday 17^{th} February from 9am - 12pm to discuss: 1) Outreach and Education program, and 2) completing the assessment process for early detection plant species. The following contribution from Teya Penniman.

Public Outreach & Education:

I have attached a summary of our Maui News articles since we started writing these. This also gives me the opportunity to say, "Wow!" What a great job our PR Specialists (and occasional partners) have done with this forum. It's a lot of work but continues to provide an incredible opportunity to get our message out. Which brings up the question: what other topics or messages would we like to bring to the public? Are we missing any specific messages? We would love to get input from our committee members / partners, so please review the list and bring your ideas to the table.

Internet / Social Media: You might also review our Facebook page, which Abe is posting to on a regular basis, and the awesome blog http://mauiinvasive.org/ that Lissa initiated. Or check out the coqui-free and little fire ant websites:

www.coquifreemaui.org and www.lfa-hawaii.com Your input is needed! We welcome observations, suggestions, etc. for any of our Internet or social media efforts or other aspects of our Outreach / Education program.

Early Detection:

As a follow-up to our previous meeting, Forest and Kim have completed assessments for 55 plant species. We will use the second part of the MISC meeting to complete our review of the species and decide which ones should receive additional work, whether that means more delimitation or actual control work. Forest and Kim have proposed the following as the most likely candidates for Delimitation and Eradication. They note that some have already had all known individuals controlled and just require delimitation and follow-up monitoring / control. These aren't necessarily the same ones the standardized process determined as the highest priority. Proposed priorities by Forest & Kim:

* Acacia retinodes | * Erica lusitanica | * Gutierrezia sarothrae | * Nassella tenuissima | * Rubus ellipticus | * Silene armeria | * Torilis arvensis | * Verbascum thapsus

And a couple more that Forest & Kim aren't familiar with, that are apparently only known on Maui from Kahanu Gardens near Hana, that may warrant further investigation.

* Allophylus cobbe | * Dalbergia sissoo

Further information from: Teya Penniman and the Maui Invasive Species Committee

Kosrae

Kosrae's invasive species team continues with their suppression and eradication of *Leuceana* and *Clerodendrum*. There is significant reduction in biomass for both species. Out of the 67 infested sites, 31 have been successfully eradicated, 60,000 plus plants have been removed. Survey of the *Chromolaena odorata* has started at a community on the north-western side of the island, covering about 22 infested sites in 2.8 acres (approximately 30 percent of that community). This presents a huge challenge for the team.

Marshall Islands

A meeting was held between Marshall Island officials and James Standford regarding biosecurity, rapid response to invasive species incursions, and the upcoming pre-summit RISC meeting. The discussion focussed on the RISC's Strategic Action Plan (SAP) and the need to hold a pre-RISC meeting with national partners to discuss the SAP. This will provide input towards the SAP when RISC meets in Guam next month. The national partners consultation for Marshall Islands will take place in the next two weeks. Marshall Islands are also awaiting the transfer of funds from the GEF-PAS Invasive Species project to allow for two of its officials to attend the RISC meeting.

Pacific Invasives Partnership News:

IUCN – Invasive Species Specialist Group supports EU's move for a dedicated legislative instrument on invasive alien species

The IUCN-ISSG strongly supports the adoption of effective, although realistic, measures on invasive species, and thus encourage you to fill in the questionnaire circulated by the European Commission: http://ec.europa.eu/yourvoice/ipm/forms/dispatch?form=Invasives&lang=en

The survey asks the opinion of European citizens and stakeholders on specific choices in terms of prevention, early warning and rapid response, management and restoration. Suggested positions on the questions of the questionnaire, developed by the ISSG together with the IUCN Regional Office for Europe, are the following:

- prevention is the key response, also through the development of import restrictions, ideally on all alien species unless proven to be at low risk, or at least on all alien species that are proven to be harmful or potentially harmful;
 - o Specimen already in possession should be destroyed or kept under well controlled conditions
 - o Interned trade should be carefully assessed and regulated;
 - o The release of alien species in the environment should be strictly restricted (permitted only after a risk assessment is carried out):
 - A compulsory information system for buyers of ornamental plants should be established. Voluntary measures should be encouraged;
 - Regarding the risk of escape of pets, a compulsory labelling scheme for pets or at least for the most harmful species – should be developed; awareness raising campaign should be encouraged.;
 - o It should be explored the possibility to introduce cost recovery mechanisms for the sectors more at risk of causing invasions, to contribute to financing prevention, early warning and rapid response and/or management measures.
- Early warning and rapid response is a crucial element of a European policy on invasive species
 - Citizens should be given the opportunity to report observation of alien species; observation should be then verified by experts;
 - Surveillance should be in so far as possible linked to the monitoring already in place to comply with other legislation (e.g. habitats directive).
 - o If a new alien species is found in the environment, it should be removed as soon as possible;
 - o If an alien species is harmful to the environment, the best option is the eradication, whenever feasible;

 In some cases restoration can contribute to the resilience to invasive species, and in such cases it should be encouraged.

ISSG website: http://www.issg.org

National Invasive Species Council

Phil Andreozzi of the National Invasive Species Council provided the introductory remarks at the International Session on Invasive Species and the Green Economy, part of the National Invasive Species Awareness Week. The session was held on the 28th February at Yates Auditorium in Washington DC. Other notable speakers include Dr Celia Smith of the University of Hawaii discussing the impact of invasive algae on fishing, and Dr Jerry Cook on the potential link of some biofuels and invasive species.

SPC

Farewell Roy Masamdu

With heavy hearts we bid farewell to our friend and colleague, Roy Masamdu of SPC's Land Resources Division in Suva. Roy was part of the Biosecurity and Trade team, as the Biosecurity and Trade Facilitation officer. He represented SPC on the Pacific Invasives Partnership, and was also part of the sub-group established under the Roundtable for Nature Conservation tasked to provide assistance to the Fiji Invasive Species Taskforce. We will surely miss Roy and our heartfelt condolences to his family, friends and colleagues at SPC.

Tributes to Roy:



"It is a sad day for the Pacific to lose one of its sons who worked hard for it. Roy's contribution to his country PNG and to the region through his work at SPC will be sorely missed. Personally I will remember Roy for his gentle nature and willingness to help.' Souad Boudjelas (PIP Chair and Director PII).

"I echo Souad's sentiments. He has contributed tremendously over the years." Prof. Randy Thaman (USP)

"This is such terrible news. My heart is greatly saddened for his family. He was truly a wonderful man. I will always fondly remember Roy with the greatest appreciation for having known him." Kenneth Werner (Programme Manager, Pacific Safeguarding Initiative, APIS)

"Losing Roy is an enormous loss to all of us especially from those of us here in PNG. Roy and I worked and corresponded together since I first came to WNB and his friendship, enthusiasm and knowledge will be truly missed by me and everyone who knew him. We saw each other in Hawaii last year and he still retained his eye 'twinkle' and humour." Charles Dewhurst (Head of Etomology, PNG Oil Palm Research Association)

SPREP launches a new online look



SPREP launched its new look online last Friday 24 February 2012.

The new look compliments a range of corporate products including business cards that were unveiled at the SPREP compound. There is plan for a bigger launch at the SPREP annual meeting to be held in Nomuea, New Caledonia later this year.

The new website follows the strategic direction of SPREP and its member countries, as outlined in the SPREP Strategic Plan 2011-2015. The four main pillars of the regional organisation are climate change, biodiversity and ecosystem management, waste management and pollution control, and environmental monitoring and governance.

Vacancies and Opportunities:

Department of Agriculture and Food, Western Australia – Agricultural Resource Risk Management (Senior Research Officer)

A job opportunity for research position at the Department of Agriculture and Food Western Australia. Agricultural Resource Risk Management - Position Number: 20010003 - The Department is seeking a highly experienced Senior Research Officer with extensive, demonstrated research expertise in wildlife ecology, weed science or invasive species science to lead the Invasive Species Science team. This team includes a small group of dedicated research and technical staff which has been recognised nationally and internationally for their achievements in invasive species research and management. Discuss position: Viv Read (08) 9368 3561 or email viv.read@agric.wa.gov.au Link to job details http://search.jobs.wa.gov.au/page.php?pageID=160&windowUID=0&AdvertID=129367

Société d'Ornithologie de Polynésie

The Société d'Ornithologie de Polynésie are seeking a suitably experienced person to manage an invasive species project aimed at eradicating mammalian threats from islands in the Tuamotu and Gambier archipelago. For further information please contact Lucie Faulquier - lfguiquier@manu.pf

SPREP Vacancy

- Global Environment Facility Project Coordinator (GEF-PC)
- Adaptation Support Officer Climate Change (ASOCC)
- Climate Change Communications Officer (CCCO)
- Information Resource Centre & Archives Manager
- Publications Officer

Applications for the first three posts close Friday 16th March 2012. The applications for the last two posts (ICRAM and PBO) close on the 23rd March 2012. Please contact Luana Chan for further information (luanac@sprep.org)

Upcoming meeting, conference and training announcements:

These announcements are for activities taking place in 2012. If you would like to share an announcement with the Network, please send details to PILN Coordinator. More events can be found on our PILN webpage.

2012 calendar

early Feb	GEF-IBPOW Project Inception Workshop
February	Island Arks Symposium II
	Symposium to be held in Canberra, Australia. The Island Arks Symposium will bring together practitioners in terrestrial and marine ecology, coastal engineering, fire ecology, invasive species management, waste management, communication and marketing, and environmental economics to identify, discuss and resolve management challenges; identifying pathways for long-term conservation of island ecosystems including sustainable use. Further details: www.islandarks.com.au/
26 Feb – 3 Mar	United States national Invasive Awareness Week
27 Feb – 2 Mar	USGS Brown Tree-snake Rapid Response Office — Will be hosting a refresher training course on Brown Tree Snake
5-7 March	Pesticide Risk Reduction Education – short course for Hawaii Island: Hilo. Registration deadline – 10 Feb. Registration fee - \$100 per person. Study packet fee - \$35. See http://pestworld.stjoh.hawaii.edu/pat/schedule.html or call Charles Nagamine +1 808 956 - 6007
12-15 th March	Micronesia Chief Executives Summit, Guam
19-21 March	Pesticide Risk Reduction Education – short course for Maui. Registration deadline – 23

	Feb. Registration fee - \$100 per person. Study packet fee - \$35 (USD). Write to Charles Nagamine (cvnagami@hawaii.edu) for more info.
19-24 March	Pacific Ant Project – Taxonomy training (tentative dates). Venue: University of Guam, GUAM.
21-28 March	Pacific Invasives Learning Network Meeting
	The meeting will be held on Kiritimati Atoll, Kiribati. This is the 3 rd PILN meeting, bringing together invasive species management practitioners from around the Pacific. The meeting provides the forum for celebrating invasive species management successes, as well as sharing of lessons learned, resolving some of the challenges faced by teams, and to plan strategically for the future. Further details from the PILN Coordinator.
28-29 March	PIP Teleconference
16-20 April	Birdlife Pacific Partnership Meeting – Mt Ruapehu, New Zealand
24-27 April	Weeds Across Borders 2012 Conference: Meeting the challenges of the future. Cancun, Quintana Roo, Mexico. Visit: Weeds Across Borders website: http://www.weedcenter.org/wab/2012/index.html
14-25 May	Pacific Invasive Plant Management Training – Apia, Samoa
4-8 June	PIP Annual Meeting – tbc
13-17 June	International Symposium on Invasive Plants and Global Change – Urumqi, China. Website: http://lcbatunr.wordpress.com/2012/02/05/preliminary-announcement-international-symposium-on-invasive-plants-and-global-change/
26-28 June	Biological invasions during the first ISRivers Congress in Lyon (France)
18-20 July	NET2012 – Pests in our Diverse Landscapes: The pressure is on!
	NETS2012 is calling for papers for the upcoming conference. Whether you are involved in animal pests, weeds, biocontrol, marine biosecurity, insect invaders, community outreach or other biosecurity related issues, if you have something that you think would be of interest to others attending NETS2012, please submit your abstract. Abstracts for workshops also welcome. Closing date for abstract submissions is 16 February 2012. Please send abstracts to Carolyn Lewis, NETS2012 Conference Organiser, at carolyn.lewis@xtra.co.nz
6-15 Sept.	IUCN World Conservation Congress (Jeju, Korea)
12-14 Sept.	NEOBIOTA 2012 – Halting Biological Invasions in Europe: from Data to Decisions – 7 th Europena Conference on Biological Invasions. Pontevedra (Spain).
8-9 Oct.	CBD COP 11 (Hyderabad, India) – http://www.cbd.int/doc/notifications/2011/ntf-2011-124-cop-en.pdf
8-11 Oct.	8-11 October 2012. 18 th Australasian Weeds Conference 2012. The Sebel and Citigate Albert Park, Melbourne, Victoria. The conference will showcase recent advances in weed science, extension and policy across Australian and international communities and landscapes. The program will provide valuable information and networking opportunities for anyone with an interest in aspects of weed legislation and development of practical solutions to evolving weed problems.

Invasive news and interesting links and websites

Burma officials seize 10,000 snakes bound for China

YANGON — Forestry officials in central Burma have seized nearly 10,000 snakes in 400 crates that were to be smuggled to China. The weekly journal Modern reported Friday that 50 cobras were among the 9,176 snakes

seized in Pyin Oo Lwin district near Mandalay on Jan. 12. Wildlife smuggling is endemic in Asia, where exotic species are used for food and traditional medicine.

Tiger shrimp invasion of the Gulf of Mexico

A truly jumbo shrimp is causing big worries about the future of the Gulf of Mexico's ecosystem. The Asian tiger prawn, a foot-long crustacean with a voracious appetite and a proclivity for disease, has invaded the northern Gulf, threatening prized native species, from crabs and oysters to smaller brown and white shrimp. Though no one is sure what the ecological impact will be, scientists fear a tiger prawn takeover could knock nature's balance out of whack and turn a healthy, diverse marine habitat into one dominated by a single invasive species.

Biodiversity Convention gets a new Director

Secretary-General Ban Ki-moon has appointed Braulio Ferreira de Souza Dias, a national of Brazil, as Executive Secretary of the Secretariat of the United Nations Convention on Biological Diversity (CBD). Mr. Dias, who is currently the National Secretary for Biodiversity and Forests at the Brazilian Ministry of the Environment, was chosen for his extensive experience in policy-making and in coordinating the implementation of biodiversity policies, programmes and projects at a national and international level. He has also been directly responsible for overseeing several multi-institution programmes and has been deeply involved with the negotiations and implementation of the Convention since its origin and participated, as a member of the Brazilian delegation, in the Intergovernmental Negotiating Committee of the Convention on Biological Diversity.

Avocado threatens by new pathogen

Plant Pathologist, Liz Dann, has identified a new pathogen that could cause problems for avocado production. The finding has meant that action can be taken straight away to prevent issues for the next crop. The pathogen in question, *Calonectria ilicicola*, is already known to cause black rot in peanuts and collar root in papaya, but this is the first time it has been identified as an issue for avocado production.

"The use of clean planting material is the most critical step in successful prevention of black root rot disease, caused by *Calonectria ilicicola*, in avocado," Dr Dann said. "By confirming the pathogen status of *Calonectria ilicicola* with this research, the fungus can be added to the list of identified root pathogens. "Routine testing will alert nursery producers and growers about its presence or absence," she said.

Puerto Rico plans massacre of invasive iguanas, export of harvested meat

Puerto Rico has announced plans for a massive cull of an invasive species of iguana and for the sale of harvested meat, according to The Associated Press. The US territory hopes to eradicate the species with a population of four million, which the AP says outnumbers humans on the island and has long been considered an invasive nuisance.

Natives thriving since pests were voted off the island

In the middle of the vast Southern Ocean, halfway to Antarctica, a silent transformation is gaining pace -- with stunning results. Australia's southernmost territory, Macquarie Island, about 1500km south of Tasmania, is beginning to recover from years of assault by out-of-control rabbit, rat and mouse populations. A baiting program last year appeared to kill all the rodents and reduce 150,000 rabbits to tens. Official estimates that as few as three to six rabbits remain, while scientists are noticing the first benefits of their absence. Hillsides stripped bare by rabbits, introduced as food for sealers in 1877, are again blooming with unique mega-herbs and tussock. As well, there has been an increase in breeding by some of the burrowing petrels previously eaten by rats, which also arrived via ship in the early days of human interaction with this remote region. Things have gone so well that experts are considering bringing forward by a year a planned final monitoring stage. The \$24.6 million globally significant eradication program, of a scale and complexity never before attempted, first tackled the invaders with a baiting program, covering the entire 12,860 ha island. Since August, teams of specially trained hunting dogs, hunters and dog handlers have been mopping up the surviving rabbits.

Rare Fungus Kills Endangered Rattlesnakes in Southern Illinois

A small population of rattlesnakes that already is in decline in southern Illinois faces a new and unexpected threat in the form of a fungus rarely seen in the wild, researchers report. The Eastern Massasauga rattlesnake (*Sistrurus catenatus*), a candidate for protection under the federal Endangered Species Act, suffers

from habitat loss and environmental stresses wherever it is found, said University of Illinois comparative biosciences visiting instructor and wildlife veterinarian Matthew Allender, who led the health investigation. Long-term population studies of the snake -- in Illinois and elsewhere -- had never turned up evidence of debilitating fungal infections. But in 2008, biologists studying the snake reported to Allender that they had found three sick snakes in a park in southern Illinois, all with disfiguring lesions on their heads. The snakes died within three weeks of their discovery. A fourth snake with a similar syndrome was discovered in the same park in the spring of 2010. Allender conducted necropsies on the snakes and identified the pathogen that had killed them: *Chrysosporium*, a fungus that plagues portions of the pet reptile industry but is not normally seen in the wild, he said.

Introduction to Terrestrial Mollusc Tool

http://idtools.org/id/mollusc/index.php

The Terrestrial Mollusc Tool was specifically designed to assist in the identification of adult terrestrial slugs and snails of agricultural importance. The tool also includes species of quarantine significance as well as invasive and contaminant mollusc species commonly intercepted at U.S. ports of entry. This Lucid-based identification tool specifically targets federal, state and other agencies or organizations within the U.S. that are concerned with the detection and identification of molluscs of significance. This tool includes 33 families and 128 species. This resource also includes an interactive identification key, comparison chart, fact sheets, biological and ecological notes, a dissection tutorial, a glossary of commonly used terms, and a list of useful links and references. It should be noted that this dynamic tool is not inclusive of all mollusc pests, as new species of interest arise almost daily.

New Publications:

Scientific Articles

- Almeida, D. & Grossman, G. D. 2012. Utility of direct observational methods for assessing competitive interactions between non-native and native freshwater fishes. Fisheries Management and Ecology. doi: 10.1111/j.1365-2400.2012.00847.x
- Bernie R. Tershy, Donald A. Croll and Kelly M. Newton. Accomplishments and impact of the NGO, Island Conservation, over 15 years (1994–2009). Online First™, 7 February 2012. *Biodiversity Conservation*.
 DOI 10.1007/s10531-012-0231-4. http://www.springerlink.com/content/7877383353707181/fulltext.pdf
- Michael T. Burrows, David S. Schoeman, Lauren B. Buckley, Pippa Moore, Elvira S. Poloczanska, Keith M. Brander, Chris Brown, John F. Bruno, Carlos M. Duarte, Benjamin S. Halpern, Johnna Holding, Carrie V. Kappel, Wolfgang Kiessling, Mary I. O'Connor, John M. Pandolfi, Camille Parmesan, Franklin B. Schwing, William J. Sydeman, and Anthony J. Richardson. The Pace of Shifting Climate in Marine and Terrestrial Ecosystems. Science 4 November 2011: 334 (6056), 652-655. [DOI:10.1126/science.1210288] http://www.sciencemag.org/content/334/6056/652.full
- Michel Kulbicki, James Beets, Pascale Chabanet, Katherine Cure, Emily Darling, Sergio R. Floeter, René Galzin, Alison Green, Mireille Harmelin-Vivien, Mark Hixon, Yves Letourneur, Thierry Lison de Loma, Tim McClanahan, Jennifer McIlwain, Gérard MouTham, Robert Myers, Jennifer K. O'Leary, Serge Planes, Laurent Vigliola, Laurent Wantiez. Distributions of Indo-Pacific lionfishes *Pterois* spp. in their native ranges: implications for the Atlantic invasion. *Marine Ecology Progress Series*, Vol. 446: 189–205, 2012, doi: 10.3354/meps09442
- Panetta, F. D. & Cacho, O. J. 2012. Beyond fecundity control: which weeds are most containable?
 Journal of Applied Ecology. doi: 10.1111/j.1365-2664.2011.02105.x
- Ribeiro, F., & Leunda, P. M. 2012. Non-native fish impacts on Mediterranean freshwater ecosystems: current knowledge and research needs. *Fisheries Management and Ecology*. doi: 10.1111/j.1365-2400.2011.00842.x
- Spotswood, E. N., Meyer, J.-Y. & Bartolome, J. W. 2012. An invasive tree alters the structure of seed dispersal networks between birds and plants in French Polynesia. *Journal of Biogeography*. doi: 10.1111/j.1365-2699.2012.02688.x

- Murray, C.C., Therriault, T.W., & Martone, P.T. 2012. Adapted for invasion? Comparing attachment, drag and dislodgment of native and nonindigenous hull fouling species. *Biological Invasions*. Online First[™], 11 February 2012. DOI 10.1007/s10530-012-0178-0
- Cassey, P., & Henderson, W. 2012. Biosecurity threats of vertebrate pests in Australia. *Ecos Science for Sustainability*. Published 20 February 2012.
- Henderson, W., Bomford, M., & Cassey, P. 2011. Managing the risk of exotic vertebrate incursions in Australia. Wildlife Research 38: 501-508.

Books & Newsletters

- The **South Pacific Agricultural News** volume 37, no. 1 is now available for your reading pleasure. Some of the issues covered in the newsletter include Climate Change, dealing with pests with non-toxic alternatives and much more. Contact the PILN Coordinator for a copy.
- The Macquarie Dispatch Issue 10 February 12 is now available. This is the Macquarie Island Pest
 Eradication Project Newsletter covering a wide range of issues including the scarcity of rabbits since the
 initial removal phase. One of the consequences or removing some of the invasive species is increase in
 bird population. For further details and a cop of the Newsletter please contact them on
 mieradication@parks.tas.gov.au
- Julien, M., McFayden, R., & Cullen, J. (eds). Biological control of weed sin Australia. CSIRO Publication.
- Wolff, M.A. The Weed Book identifying and removing weeds and introduced species from your garden.
 CSIRO Publication.
- Smith, N. 2012. *Weeds of Northern Australia a field guide*. Environment Centre Northern Territory. Email: admin@ecnt.org
- Plants Invasoras en Cuba. Bissea, Vol. 6. Numero Especial 1. Febrero 2010.

Contact for PILN SOUNDBITES:

Dr. Posa A. Skelton, PILN Coordinator, SPREP, PO Box 240, Apia, SAMOA. Tel. +685 21929 ext. 276, Direct line: +685 66276, Fax. +685 20231, posas@sprep.org; www.sprep.org/piln

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