

PILN SOUNDBITES - SEPTEMBER 2011

Pacific Invasives Learning Network



*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

Kosrae

Marshall Islands

New Caledonia

Niue

Palau

Pohnpei

Samoa

Yap

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: www.sprep.org/piln.

PILN Teams and Country Updates

Fiji

Biosecurity Authority of Fiji launches surveillance boat to strengthen border security

The Minister for Primary Industries Mr Jeketani Cokanasiga launched the Biosecurity Authority of Fiji's (BAF) surveillance boat- the BIOSECURITY1 at the Vudapoint Marina in Nadi today.

While launching the \$240,000 surveillance boat, Mr Cokanasiga said the BIOSECURITY1 marked another milestone for the authority, which accomplished a number of key achievements in the past eight months since the reform of BAF from the Quarantine and Inspection Division of Agriculture Department began.

"During the past eight months, BAF accomplished a number of key achievements among which were opening of the glass house at the Koronivia Research Station in 2011 that will enhance plant research," Mr Cokanasiga said.

"In July this year, BAF implemented its revised fees and charges which were endorsed by Cabinet in May. The revised fees and charges are designed to ensure that BAF improves its services delivery and in the long-term become self funding."

BIOSECURITY1 will be used to conduct surveillance and monitoring in the Yasawas and Mamanucas because they are both prime tourist spots for Fiji.

BAF chief executive Mr Elvis Silvestrini said BIOSECURITY1 would strengthen our border security and also help us maintain our existing export markets and enhance our access to new markets.

"Our biosecurity officers will inspect incoming yachts to see no live animals and fresh fruits and vegetables are brought into the country to prevent invasion of exotic pests and diseases in Fiji," Mr. Silvestrini said.

"Foreign yachts sometimes have on them dogs, other live animals, food containing animal products, plants, fruits and vegetables which the tourists can easily bring to the shore and with that risk introducing exotic pests and diseases such as Rabies, Foot and Mouth, New Castle diseases.

"New pests and diseases can damage agriculture or horticultural production and affect trade in international markets. It is essential that we have a robust surveillance and monitoring system to prevent new incursions."

BAF will also be putting fruit fly traps in the Yasawas and Mamanucas. Fruit flies are a major concern for biosecurity as they cause damage to fruits and vegetables thus hindering production and decrease in exports.

Mr Silvestrini added BAF's function was not only to protect Fiji against introduction and spread of animal and plant pests and diseases but also to facilitate access to viable agro-export markets and ensure compliance of Fiji's agricultural exports to overseas market requirements.

He said BAF is serious about ensuring that Fiji has a strong export industry for our product by maintaining existing trade markets and find new ones adding that BAF will be investing in more boats to conduct similar surveillance in other parts of the country.

FIST meeting

Fiji Invasive Species Taskforce will meet on October 7th to update and progress some of the activities agreed to in their last meeting held in February 2011.

French Polynesia

Introduction of biocontrol for *Miconia calvescens*



Image of one of the sites, showing the understory dominated by native ferns

Jean-Yves Meyer and colleagues (Marie Fourdigniez and Ravahere Taputuarai) presented the latest update of their work on restoring habitat for native and endemic plants through the introduction of a fungal pathogen to control the alien invasive tree *Miconia calvescens* in Tahiti, at the 13th International Symposium on Biological Control of Weeds in Kona, Hawaii. The essence of their research is to assess the positive changes to native biodiversity following the release of a biological agent. *Miconia calvescens* has seriously impacted Tahiti over decades, which led to the release of the defoliating fungal pathogen *Collectotrichum gloeosporioides* f. sp. *miconiae*. After five years of monitoring, the researchers found partial defoliation of between 6-36% of *Miconia* canopy which culminated in an increase in native flora

coverage on all sites. The reduction in *Miconia* foliage has led to a significant recruitment of light-demanding pioneer rare species but also some semi-shade and shade tolerant rare endemic species. Native ferns and angiosperms were dominant (about 80 % cover) in the forest understory. The researchers conclude that biological control may be considered a tool for partial habitat restoration and recover of native and endemic species, but long-term monitoring is needed to confirm the stability and resilience of the 'novel plant assemblage'. [source: Jean-Yves Meyer]

Guam

Moving People and Technology toward a Common Goal on Guam

For the past 25 years, Brown Tree Snake (BTS) research and management have focused on developing better tools and strategies to ensure the snake does not establish in other areas, particularly Hawaii and other Pacific islands. Comprehensive interdiction programs have utilized traps, hand removals with spotlights, and snake-detector dogs to remove snakes from cargo and port areas. BTS control programs have also been launched in high-risk receiving areas such as CNMI and Hawaii.

The latest breakthrough in control technology is the registration of acetaminophen, an oral toxicant, for the control of BTS. In 2012, acetaminophen-laced dead neonate mice will be delivered aerially over 47 hectares of native forest in northern Guam.

With the pending military buildup on Guam, and the associated increase in cargo and vessels leaving Guam, the risk of BTS spreading to other areas is increased. The increased efforts to contain the snake and the associated costs make eradication, or wide-scale suppression, a viable alternative to limited cargo/port area control. Large-scale population suppression across broad landscapes will support interdiction efforts and benefit Guam socially, economically, and ecologically. However, it will not be feasible without the support of Guam residents. To support population suppression efforts, Guam residents need to recognize the benefits of snake suppression. Recent efforts to eradicate rodents on Cocos Island indicate that the general public is somewhat chemo-phobic, leery of Federal Government actions on Guam, and protective of their private property rights. All three issues are likely to impede the implementation of large-scale snake suppression on Guam.

To garner the public support necessary to implement broad-scale snake suppression on Guam, a public awareness campaign led by Guam's Department of Agriculture, Division of Aquatic and Wildlife Resources will be geared towards raising awareness of the benefits of broad-scale snake suppression, changing attitudes towards federal actions on Guam, and promoting behaviors that benefit the snake suppression effort.

The support of an informed public will allow BTS suppression efforts on Guam to move forward. The eventual broad-scale suppression of BTS on Guam will reduce the impacts of BTS to Guam residents and assist efforts to protect and restore Guam's native wildlife from invasive species. The campaign will complement other invasive species awareness efforts on Guam, such as Go Native!, Ko'ko' for Cocos, Listen Up Guam!, CRB Eradication Project, and the newly established invasive species hotline 475-PEST. In the long term, these efforts will help protect the natural resources on Guam for future generations. Increased public awareness and local pride in Guam's natural heritage will assist with guarding against accidental or intentional releases of unwanted species, supporting maintenance of quarantine procedures and preserving pest-free areas. It is expected that public appreciation of Guam's natural resources can influence future policy decisions affecting private and public resources and funding.

Hawaii.

Hawaii invasive species spending cuts have effect

HONOLULU (AP) — Years of deep spending cuts to programs fighting invasive species are having consequences in Hawaii. On the Big Island, budget cuts denied invasive species experts the ability to identify and count their axis deer population. On Oahu, a spending squeeze is making it hard for workers to keep the fast growing miconia plant out of forests. The Hawaii Invasive Species Council had a budget of \$4 million in 2009. This year, it only has \$1.8 million to spend. The state Department of Agriculture slashed the number of inspectors it had checking for incoming pests at air at sea ports from 95 to 50. Governor Neil Abercrombie's administration has since announced it would restore 32 inspector positions around the state, but inspector numbers will still fall short of pre-recession strength. [source: Associated Press]

Fight to eradicate little fire ants lasting more than 12 years

KALIHIWAI — It's a kind of fire that does not cause smoke, but still burns pretty bad and the pain can last for weeks. It's the sting from the little fire ant, a tiny and highly invasive species that has found a home on at least two properties above Kalihiwai Beach, on Kaua'i's North Shore.

The Kaua'i Invasive Species Committee and the Hawai'i Department of Agricultural have for many years waged a war against the little fire ants on Kaua'i. The first infestation of little fire ants in the state was found in 1999, in Puna, Big Island, prompting HDOA to enforce quarantine regulations to prevent spreading the pest to other islands, according to University of Hawai'i's College of Tropical Agriculture and Human Resources.

KISC stated in its 2007 Action Plan that the assumption is that the ants arrived on the Big Island on plants from a Florida nursery. Sometime later, a container of ornamental plants was shipped to Kaua'i from Big Island to be used in landscaping a private property on Kalihiwai, on Kaua'i's North Shore. When the HDOA found out the container came from an infested Big Island nursery, a survey was conducted on the property, identifying little fire ants on Kaua'i for the first time. Staff from HDOA and the Hawai'i Department of Health Vector Control Branch initiated eradication efforts by applying a hydramethylnon-based hydrazone insecticide, which goes by a trade name of Amdro. Amdro, a delayed-toxicity food chain killer, is commonly used in the United States for fire ant control; the soldier ants carry the bait into the mound and feed it to the queen, killing her and the colony, according to Wikipedia. But the pesticide has its drawbacks: It cannot be used on food crops, the slow-working baits can take up to a month to be effective and it loses its effectiveness entirely if it rains or when the bait is moisturized, which could potentially bring a challenge in a wet place like Kaua'i's North Shore. In 2003, KISC and HDOA staff returned to the same site and found out the infestation had spread to an adjacent property, according the Action Plan. Amdro was applied to roughly five acres on both properties. Since then, biannual surveys are conducted in the area.

Kiribati

As a step forward in fighting invasive species such as rats, the Wildlife Conservation Unit carried out hand baiting on several important islets in Kiritimati Island. In mid-June 2011, a 12 hectare land locked lagoon was treated with Brodifacoum. After the treatment the islet known as a Lesser Frigate Islet was observed to have sea birds including Red Footed Boobies, Brown Boobies, Red Tailed Tropic Bird, Black Noddies and burrowing nesters such as the Wedge Tailed Shearwater. The Crested Tern was also observed roosting on the islet.

In late August, a Kiritimati Invasive Team (including members from the sea-port and airport authorities) met to discuss concerns with impacts of existing invasive. Mitigation and biosecurity measures were drawn from the discussion in order to safeguard Kiritimati Island from being invaded by other damaging invasive species. The Kiritimati Invasive Team will convene another meeting to discuss further mitigation measures.



Marshall Islands

A one-day seminar is being organised by the Office of Environmental Planning and Policy Coordination (OEPCC) and SPREP on Ballast Water Management. The Ballast Water Management seminar has been held in various parts of the Pacific Islands and is delivered by the SPREP's Marine Pollution Advisor, Mr Anthony Talouli. The seminar includes a

background on marine invaders, the international response, some ballast water management options and exploring legal and policies of Marshall Islands relating to ballast water management.

New Caledonia – Rat eradication success

As part of a David and Lucile Packard Foundation project Société Calédonienne d'Ornithologie (SCO) the BirdLife Partner in New Caledonia, undertook operations in 2008 to eradicate invasive Black Rats *Rattus rattus* and Pacific Rat *Rattus exulans* from three important seabird islands in New Caledonia. The latest follow up surveys has confirmed that Table, Double and Tiam'bouène islands are all officially rat-free, and the bird populations are already showing signs of recovery. The islands of Table (14 ha), Double (6 ha) and Tiam'bouène (17 ha) form part of the Îlots du Nord-Ouest Important Bird Areas (IBA) complex in Northwest New Caledonia. They are globally important for Wedge-tailed Shearwater *Puffinus pacificus*, Roseate Tern *Sterna dougallii*, Fairy Tern *Sterna nereis*, Dark-brown Honeyeater *Lichmera incana* and Green-backed White-eye *Zosterops xanthochroa* which were being predated by introduced rats.

In September 2008 SCO completed operations to remove rats from the three islands, and the most recent follow up survey in mid-July 2011 has formally declared these operations successful following 24 months of rat-free monitoring.

Already bird populations are showing signs of recovery, and [Vulnerable] Fairy Tern nested on the islands for the first time in 2010; Tiam'bouène hosting a colony of 28 active nests. Another very encouraging result is the first ever presence of [Near Threatened] Tahiti Petrel *Pseudobulweria rostrata* which was found breeding on Table Island in July 2011.

On each island, along with many new bird species being recorded, SCO report that the eco-systems are also showing positive signs of recovery. SCO are grateful for the support received from several individuals and organizations in completing these eradications and in particular thank the Pacific Invasives Initiative, the New Zealand Department of Conservation, and BirdLife International for their assistance.

The removal of rats on these islands is therefore an important starting point for the management of IBA islands Northwest. It is also an important action for the conservation of Fairy Tern in New Caledonia with between 70 and 90 pairs now found in the IBA out of a total of 130 pairs in the country.

Next steps are to continue monitoring the biodiversity recovery of the islands, seek the creation of nature reserves to protect the tern colonies from human disturbance, and to expand rat eradication to additional islands included within the IBAs complex. [source: Birdlife International]

Pacific Invasives Partnership News:

Pacific Invasives Partnership increases its membership

The Pacific Invasives Partnership has increased its membership to 30 organisations and individuals. The latest members to join include Ray Nias who recently took on the post of the SW Pacific Regional Programme Director for Island Conservation. The other new members are Dr Ken Werner from USDA APHIS (Animal and Plant Health Inspection Service) Pacific Safeguarding Initiative based in Hawaii, and Sally Jennings from the Ministry of Agriculture and Fisheries Biosecurity New Zealand.

CBD – SBSTTA 15 – Invasive Alien Species Expert Kiosk

The Convention on Biological Diversity (CBD) recognized the urgent need to minimize the spread and impact of invasive alien species (IAS). IAS are one of the leading threats to natural ecosystems and biodiversity worldwide. Geographically and evolutionarily isolated ecosystems, such as Small Island Developing States, are especially vulnerable to IAS. CBD Secretariat invites Parties to build their capacity to address IAS by actively participating in the IAS Experts Kiosk at the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA15). On Monday, 7 November to Wednesday, 9 November from 10:00 am to 1:00 pm, experts on IAS will be available to assist Parties at the IAS Kiosk located in the ICAO foyer.

*Parties are particularly encouraged to seek support on drafting national IAS strategies and and/or incorporating IAS into NBSAPs.

*Parties may also wish to seek scientific and technical support in advance of the SBSTTA discussion on IAS issues scheduled for Tuesday, 8 November from 3:00 pm to 6:00 pm.

The Secretariat encourages Parties to come prepared for substantive discussions with the IAS experts. Access to this Kiosk, which is free of charge, provides a valuable opportunity for gaining scientific and technical advice. Experts will include representatives from Non-Governmental Organizations and Inter-Governmental Organizations with a substantial focus on IAS, including Dr. Jamie K. Reaser, former Executive Director of the Global Invasive Species Programme (GISP). Dr. Reaser is currently providing scientific and technical support to the Secretariat's work on IAS through the Smithsonian Institution.

Experts interested in providing assistance at the IAS Kiosk, should contact the Secretariat at secretariat@cbd.int with a copy to Dr. Jamie K. Reaser at ecos@nelsoncable.com.

Pacific Island Ecosystems at RISK (PIER) update

A new edition of the Pacific Island Ecosystems at Risk (PIER) website is now online. There is now information on over 1800 invasive and potentially invasive plant species of concern to the Pacific Islands. This edition also incorporates 185 new risk assessments; there are now over 1700 risk assessments listed. PIER can be accessed at:

<http://www.hear.org/pier/>

For further information or to report species that should be added to PIER, contact Jim Space (pier@hear.org).

IUCN-ISSG

Island Biodiversity database highlights threat of Invasive Species



The 22nd SPREP Meeting held from 12-15th September provided the opportunity to showcase the Island Biodiversity and the threat of Invasive Species (IBIS) database to meeting participants from around the Pacific region at a side-event which also highlighted the various biodiversity databases that are available for Pacific Island stakeholders on Pacific biodiversity and ecosystems .

Shyama Pagad the organizer of the side event described the IBIS as a thematic database focusing on the threat of Invasive Species on Island Biodiversity.

“The potential of IBIS to serve as a platform for the exchange of experiences and lessons learned by stakeholders involved in the conservation of threatened species and management of the invasive species threat is something that I’m highlighting here”, says Pagad.

“Credible knowledge and information underpins effective management of ecosystems and good decision making. Knowledge of species, state of ecosystems and services they provide, information on threats to biological diversity are essential to inform practice and policy at all levels”, Shyama adds.

The side-event was supported by the IUCN-Oceania, SPREP and PILN and it provided the opportunity for participants to ask questions on information and data that they would like to have featured and also what they could do to assist in making IBIS a comprehensive and up-to-date database.

IBIS is being developed by the Invasive Species Specialist Group of the SSC IUCN. The IBIS is supported through funds provided by CEPF, Conservation International, the US State Government, Forest Bureau of Taiwan and The University of Auckland, NZ.

Birdlife Pacific Invasive Species Programme

Technical Advisory Group to meet in Tahiti

The Birdlife Pacific Invasive Species Programme will hold its Technical Advisory Group’s inaugural meeting in Tahiti, French Polynesia on 4-5th November, 2011. The Invasive Species Programme focuses on reducing the spread and the environmental and socio-economic impacts of invasive alien species in SIDS/OCTs, through replicable models supporting the eradication and control of invasive alien species and enhancing local and inter-island biosecurity. The Technical Advisory Group is formed to provide management, technical and scientific advice to the programme as well as assist with dissemination and network opportunities. For more information about this – please contact Deborah Sue (Deborah@birdlifepacific.org.fj).

SPREP

Ballast Water Management awareness seminar in Tonga (by Anthony Talouli)

Another awareness raising seminar on Ships Ballast Water Management was held on the 24th August in Nuku’alofa, Tonga to help Tonga in addressing marine invasive species from ship’s ballast water and hull bio-fouling. The seminar was attended by 19 participants who developed a comprehensive action plan for Tonga to address the issues of shipping related invasive marine species. The action plan included a number of items such as: development of the Tonga National Strategy to address Shipping Related Marine Invasives and Action Plan; development of rapid risk assessment for shipping ballast water and hull bio-fouling; development of economic assessment of impacts from shipping ballast water and hull bio-fouling; adoption of a Ballast Water regulation under the Marine Pollution Prevention Act 2002; and ratification of the Ballast Water Management Convention. For more information please contact Anthony Talouli (anthonyt@sprep.org).

Vacancies, Scholarships & Consultancies:

Invasive Alien Species Specialist - Consolidation of Cape Verde's Protected Areas System

Cape Verde, a small insular and archipelagic country, exposed to economic and environmental vulnerabilities, requires appropriate strategies for the management of the nation's natural resources. Cape Verde has ratified the Convention on Biological Diversity in 1995 and in 1999 drafted the national strategy and action plan on Biodiversity. On 24 February 2003 the Decree-Law No. 3/2003 on the legal regime of natural areas was published, which creates 47 protected areas, subdivided into 6 categories: national park, Natural Park, natural reserves, protected landscape, natural monument and sites of scientific interest. With the legal mandate to protect natural areas, guaranteed by that decree, there is a need to elaborate appropriate management tools, which are fundamental to sound management of natural and cultural resources in a sustainable manner. - Period of assignment/services (if applicable): 45 days, from 1.10.2011. Further details, including ToRs and Contract conditions are available from: <http://www.un.cv/anuncios.php>

Natural Resource Manager: Christmas Island National Parks

The Manager is responsible for development and coordination of ecological management program particularly invasive species management and threatened species recovery programs. The successful applicant will have a high level of experience relevant to natural resource and ecological management and monitoring programs, project and financial management skills as well as proven leadership skills and ability to build and maintain productive teams. Applications must be received by 11.30pm on 10 October, 2011. Applications should be made through the department's online recruitment system - note a 350 word limit applies to each criteria:

<http://www.environment.gov.au/jobs/opportunities/index.html>

Further information regarding the position can be obtained by contacting Mike Misso, Manager Christmas Island and Pulu Keeling National Park, on: 08 9164 8700 or at: Michael.Misso@environment.gov.au

Coastal Environmental Advisor, RMI Environmental Protection Authority

Location: Majuro, Marshall Islands. Post is to provide general scientific and technical advice on the range of technical issues related to environmental including managing the overall operation of the Coastal and Land Management Division of the National Environmental Protection Authority. Contact Deborah Barker-Manase (deb.manase@gmail.com) for further information

Palmyra Program Director, TNC

Location: Honolulu, HI

The Palmyra Program Office located in Honolulu, Hawaii is hiring a Program Director who will be responsible for the oversight, management, strategic planning, and implementation of a conservation, fundraising, and agency relations program that secures the human, financial and political resources needed to support the Palmyra program. This position requires the ability to work with and influence others in leadership positions both within and outside of the Conservancy, including TNC local, regional and national staff; Conservancy leadership; members of local and national Boards of Trustees; high level donors; government agencies; researchers; and leaders of research institutions. The Palmyra Program Director is responsible for program funding and budget administration. S/he will report to the Marine Program Director and will supervise staff, interns, and volunteers. To apply, you will need to complete an online application at www.nature.org/careers - by Oct. 7, 2011.

Project Manager – Mangrove EcoSystems for Climate Change – IUCN

Location: Suva, Fiji

The International Union for Conservation of Nature (IUCN) is seeking a highly motivated Project Manager to lead its Mangrove EcoSystems for Climate Change and Livelihood (MESCAL) project. This innovative project is based in the IUCN Oceania Regional Office in Suva, Fiji is working in 5 countries in the Pacific. This position offers the successful candidate the opportunity to work across the region in addressing ecosystem-based adaptation and mitigation to climate change while working to enhance both community and mangrove resilience to threats including climate change. The position is currently available and will operate until the end of 2013. Applicants are requested to email their application (indicating the Position title), Curriculum Vitae and the names of two referees no later than September 30th 2011 to ulamila.bulamaibau@iucn.org. Late applications will not be accepted

Meeting, conference and training announcements:

These announcements are for activities taking place in September. More events can be found on our webpage: <http://www.sprep.org/PILN/Calendar.htm>

3-7 October, 2011. How to investigate illegal discharges from ships (Marshall Islands)

3-7 October, 2011. Regional review of NBSAPs

4th October - World Habitat Day (Global)

26-28 October, 2011. Global R&D Forum and Exhibition on Ballast Water Management – compliance monitoring and enforcement – the next R&D challenge and opportunity. Istanbul, Turkey. Details: www.uma.gov.tr

The Forum and Exhibition will bring together the international community engaged in a variety of aspects of ballast water management. The main scope of this year's Forum is Compliance Monitoring and Enforcement (CME) activities and provides an opportunity to share the latest R&D efforts. The Forum will provide an open debate between some of the world's largest maritime organizations involved in shipping, ship building and design, maritime R&D institutes, technology developers, environmental organizations and academia to discuss the cutting edge issues in ballast water management.

8-11 October 2012. 18th Australasian Weeds Conference 2012. The Sebel and Citigate Albert Park, Melbourne, Victoria. *Developing solutions to evolving weed problems*. The conference welcomes contribution to the programme through oral or poster presentations. Deadline for abstract submission is 30 November 2011. A number of sub-themes are available including sources and spread of new weed, weed management in cropping system, future of weed R&D and weed control and food security to list just a few. Please refer to the Conference Website: www.18awc.com for registration and other information.

Conservation Training by Durrell



Durrell is a British species-led conservation organisation specialising in the recovery of threatened species. This is achieved using a wide range of tools including intensive species management, habitat restoration, invasive species management, habitat protection, diplomacy, community conservation and capacity building. Due to their often high biodiversity and endemism levels, islands are the focus of many of our projects, including the Mascarenes, the Comoros, the Galápagos, and several Caribbean islands. Through our capacity building work, we have been training conservation professionals for over 30 years. Combined with our long-term proven experience of conservation issues specific to islands, we are able to offer a variety of specialist training courses for conservationists working on islands.

Everyone trained by Durrell has the opportunity to join a growing learning network to receive continuing support and peer-to-peer communication, as well as the opportunity to apply for annual grants.

For full details of Durrell's training programme, please see our course prospectus (www.durrell.org/training/). Relevant courses currently on offer include:

- **Project Management Skills for Conservation Professionals (November 2011)**
A five day course drawing on the principles of project management theory and the practice of project delivery within the conservation world. You will be equipped with the knowledge and problem-solving skills needed to efficiently manage and run your own conservation projects.
- **Facilitation Skills for Conservation Managers (April 2012)**
Effective conservation requires good communication and collaboration between stakeholders. This five day course is designed to develop the skills needed to facilitate meetings within your own organisation or run workshops involving multiple stakeholders with potentially conflicting interests.
- **GIS Skills for Conservation Managers (April 2012)**
Most of the great issues confronting modern conservation have a spatial element. This five day course is designed to provide participants with an understanding of Geographic Information Systems (GIS), and how it can underpin conservation action, allowing information about species, habitats and landscapes to be described, analysed, and graphically represented.

Much of our training is carried out at our headquarters in Jersey, but we also run courses throughout the world, including Pacific islands. Further details of our invasive species management and island-based conservation capacity building will appear in the next issue of PII News. In the meantime, for further information see our website (www.durrell.org/training/) or email us at itc@durrell.org.

Pesticide Risk Reduction Education

Short course for Oahu: November 15-17. Pearly City. Registration deadline: October 17. Registration fee: \$100/person. Study packet fee: \$35 (if you need one)

Please refer inquiries to me/and or to our webpage: <http://pestworld.stjohn.hawaii.edu/pat/schedule.html>. If there is any other information, don't hesitate to write to Charles Nagamine: cynagami@hawaii.edu.

Charles Nagamine, Pesticide Risk Reduction Education. Cooperative Extension Service, College of Tropical Agriculture and Human Resources University of Hawaii at Manoa

Conservation Conflict Resolution – transforming conflict to create sustainable solutions for people and wildlife

4-day Human Wildlife Conflict Collaboration (HWCC) – November 1-4 2011. Hawaii Kilauea Military Camp, Hawaii Volcanoes National Park, The Big Island. Cost \$1200 per person. Deadlines – early registration May 31st; late registration Sept. 30th. This training is useful for those working with communities on conservation. For more information please visit the website: www.humanwildlifeconflict.org or email Francine Madden (Francine@humanwildlifeconflict.org).

Funding opportunities:

CEPF – 5th call for proposals, and summary of investment strategy, eligibility criteria and application process Sept 1, 2011 – Oct 14 2011

Dear colleagues and friends,

The Critical Ecosystem Partnership Fund (CEPF) for terrestrial conservation projects in the Polynesia-Micronesia hotspot was launched in September 2008. Please find attached a summary of the investment strategy, criteria and application process for the current call for proposals (CFP) in English and French. This five year investment programme (2008-2013) is being managed by CEPF and CI Pacific with help of a number of partners.

The fifth funding window will be open from **Sept 1 to October 14, 2011**, and this is the final funding window for the five year investment period. This fifth round of funding has specific targeted areas for support that are explained in the attached CFP document. All eligible stakeholders in the 14 eligible countries and territories of the Polynesia-Micronesia hotspot are invited to submit an application form called an LOI (Letter of Inquiry).

Please read the CFP document as applications must meet the criteria to be eligible.

The LOI application form in English and French or can be downloaded from <http://www.cepf.net/grants/apply/Pages/default.aspx>

If you have any questions, or need further information regarding the CEPF investment for the Polynesia-Micronesia hotspot, kindly contact the CI-Pacific Regional Implementation Team at: cipacific@conservation.org or Leilani Duffy lduff@conservation.org. It is preferable that LOIs be submitted in English, but proposals in French are also accepted.

Sound Approach Bird Fund

The Sound Approach Bird Fund offers funding up to \$10,000 to bird conservation projects around the world. Projects must have a significant conservation benefit, making a real impact on the survival of threatened species. Research projects that aim to identify threats to bird populations; projects which aim to eradicate or minimise identified threats; practical projects to protect and assist endangered birds, such as safeguarding sites, habitat restoration, etc.; surveys and other investigative work to assess the status of threatened species and identify new species. The Sound Approach Bird Fund is looking for small, grassroots groups and projects which are difficult to raise funds for. There are no deadlines; applications are reviewed on a rolling basis. We aim to get a decision to you within 2 months of your application. For an application form please email birdfund@soundapproach.co.uk. We are happy to discuss project ideas before you submit a formal application. For example, if your project does not meet the criteria listed above, but you feel that it may be an exceptional case (e.g. you plan to study a newly described and probably threatened species), we suggest you send a summary of your project first.

Conservation Leadership Programme

BP Conservation Leadership Programme. The Conservation Leadership Programme is offering Future Conservationist Awards of up to \$12,500 to high potential teams who aim to develop their skills through practical conservation projects. <http://www.conservationleadershipprogramme.org/FutureConservationistAward.asp>. **The deadline for proposal submission is November 14th and award winners will be announced in April 2012.**

SeaWorld Busch Gardens Conservation Fund

SeaWorld Busch Gardens Conservation Fund. The Fund supports research in one of four areas: 1) Species research, 2) Animal rescue and rehabilitation, 3) Habitat protection, 4) Conservation education. It has no set minimum or maximum grant amount but in the past it has supported projects ranging from \$5,000 to \$25,000 for a one-year term. See: <http://www.swbg-conservationfund.org/grantInfo.htm> No deadline - SeaWorld & Busch Gardens Conservation Fund Animal Crisis Grants. For more information see: <http://www.swbg-conservationfund.org/animalCrisisGrants.htm>.

UNESCO: Pacific Youth Visioning for Island Living 2010 Small Grants

Youth Visioning for Island Living is a capacity building initiative that aims to empower young people in small islands to make a difference. The UNESCO Office for the Pacific states encourages young people and or youth organizations from member countries to submit applications to support a wide range of projects. If you are a young person or a youth organisation and would like to take part in this opportunity, feel free to contact Natalia Pereira (n.pereira@unesco.org)

Rapid Response Facility

The Rapid Response Facility (RRF) is an emergency small grants programme jointly operated by Fauna & Flora International (FFI), UNESCO World Heritage Centre, and the United Nations Foundation. With a target processing time for grant applications of just 8 working days, the RRF provides rapid support to enable conservation practitioners to tackle emergencies in some of the World's most important sites for biodiversity. To date it has supported 16 rapid interventions in 14 UNESCO designated natural World Heritage sites, responding to the conservation impacts of a range of emergencies such as natural disaster, armed conflict and sudden increases in illegal activity within these protected areas. Those interested in approaching the RRF for emergency funding should see www.rapid-response.org, which provides details on application procedures, funding criteria, and case studies of past RRF grants.

Invasive news and interesting links and websites

Cane Toads – The Conquest



Cane Toads: The Conquest is a comic yet provocative account of Australia's most notorious environmental blunder from filmmaker Mark Lewis.

Shot against the harsh and beautiful landscape of northern Australia, Cane Toads: The Conquest tracks the unstoppable journey of the toad across the continent. Director Mark Lewis (Cane Toads: An Unnatural History, The Natural History of the Chicken) injects his trademark irreverence and humor into the story as he follows a trail of human conflict, bizarre culture and extraordinary close encounters.

Filed with high-resolution 3D technology, Cane Toads is the first Australian digital 3D feature film. Custom designed equipment allows viewers to get up close and personal with these curious creatures like never before. The unique viewing experience is like being immersed in the world of the toad.

Biobullets receives 500k for pest control of water treatment plants



BioBullets Ltd (a spinoff from Cambridge University), has won a £500k grant from the Technology Strategy Board to advance commercialisation of its pest control technology for water treatment plants and power facilities.

The company estimates that zebra mussels fouling water treatment plants costs industry billions every year – \$5bn in the US alone. Other invasive species for which the company is developing pesticides cost the UK £2bn a year.

It has patented technologies for the environmentally-friendly control of the pests. BioBullets has produced and is currently testing a control product for fouling by invasive mussels in shrimp farms. Scientists call it a toxic Malteser. The products

greatly increase toxicity of active ingredients by microencapsulation in edible coatings that the mussels actively filter from the water. Uneaten material rapidly degrades to harmless concentrations.

Managing director Dave Aldridge has revealed that the mussels can cause chaos along waterways by clogging pipes in utility plants and dams, spreading rapidly because they have so few natural predators.

“Zebra mussels are recognized as one of the biggest invasive pests in the world. They like to attach to pipelines that carry raw water and can form crusts up to 15 centimeters in thickness. If the pipes are narrow, they can totally block them,” says Aldridge.

The industry solution, to blast them with chlorine, isn’t proving effective. The mussels get wise and will clamp shut for weeks until the threat disperses. BioBullet’s pellets hide poison inside an edible outer coating that the mussels eat. While it kills zebra mussels it doesn’t harm other organisms. [source: Business Weekly]

Crazy ant – *Anoplolepis gracilipes* removed from Arnhem Land

I'm sending this message as part of a funding requirement. I'm happy to announce that we have declared yellow crazy ant (*Anoplolepis gracilipes*) eradicated from another 5 sites, covering 22.4 ha in NE Arnhem Land, Australia. This brings the total number of sites fully assessed, and the ant declared eradicated, to 26 covering 77.4 ha.

These sites were of particular importance, because they were either nearby to isolated populations of the Threatened Gove crow butterfly, or were part of trials assessing the efficacy of an Insect Growth Regulator. In a nutshell, these results further demonstrate the efficacy of the triple treatment regime used in this program, and more importantly we are not dependent upon using only toxic products.

For those curious about non-target impacts within this program, there are no species of concern, and monitoring has shown over and over again that there is a complete recovery of the native ant fauna within 12 months (one breeding period). Indeed the impacts of yellow crazy ant are greater than the baiting program.

Ben Hoffman, Senior Research Scientist, CSIRO – ben.hoffmann@csiro.au

Florida number one in world for invasive reptiles

Florida has the world’s worst invasive amphibian and reptile problem, with 137 non-native species introduced into the state between 1863 and 2010.

“Most people in Florida don’t realize when they see an animal if it’s native or non-native and, unfortunately, quite a few of them don’t belong here and can cause harm,” says Kenneth Krysko, herpetology collection manager at the Florida Museum of Natural History at the University of Florida.

“No other area in the world has a problem like we do, and today’s laws simply cannot be enforced to stop current trends.”

Florida law prohibits the release of non-native species without a state permit, but offenders can’t be prosecuted unless they are caught in the act. To date, no one in Florida has been prosecuted for the establishment of a non-indigenous animal.

Lawmakers need to create enforceable policies before more species reproduce and become established, urges the study that names 56 established species: 43 lizards, five snakes, four turtles, three frogs, and a caiman, a close relative of the American alligator.

“The invasion of lizards is pretty drastic considering we only have 16 native species,” Krysko says. “Lizards can cause just as much damage as a python. They are quicker than snakes, can travel far, and are always moving around looking for the next meal.”

The U.S. Department of Agriculture defines invasive species as organisms “whose introduction causes or is likely to cause economic or environmental harm or harm to human health.”

While the impact of many of the introduced species has not been determined, Floridians have experienced some of the damage these animals can cause, Krysko says, including iguanas that destroy cement walls and Burmese pythons released in the Everglades that eat protected species.

The pet trade is the No. 1 cause of invasive species proliferation, according to the study, published in the journal *Zootaxa*. Until about 1940, nearly all non-native species arrived through accidental means onboard cargo ships, but the boom in popularity of exotic terrarium animals in the 1970s and 1980s led to the pet trade being accountable for 84 percent of the introductions, Krysko says. “It could take decades before we actually know the long-term effects these species will have,” Krysko adds.

One of the greatest obstacles pet owners face is how to feed and house an exotic animal that has become too large or difficult to handle, Krysko says. “The biggest example is the Burmese python. It’s a large constrictor and has definitely shown impact on native species, some you just can’t even find anymore.” [source: <http://www.futurity.org/earth-environment/florida-no-1-in-world-for-invasive-reptiles/>]



UOG entomologist receives new grant to combat the rhino beetle

The coconut rhinoceros beetle was first detected on Guam in 2007. Biocontrol measures to control this invasive species have not been successful to date. Researchers on Guam have employed pheromone-baited bucket traps, canines to sniff out breeding sites, acoustic detection technology, and a biocontrol virus to eradicate the coconut rhinoceros beetle (CRB) on Guam with the beetles showing a high rate of resistance to these tactics. USDA has given Guam an infusion of cash to assist in efforts to contain the rhino beetle population on island. Aubrey Moore, entomologist and researcher with the University of Guam, recently received a grant for \$205,500 from USDA APHIS and \$200,000 from USDA Forest Service for the control of the seemingly invincible rhino beetle. These grants come at a critical time for Guam's coconut trees, as biocontrol measures to control this invasive species have not been successful to date.

"The biocontrol virus released in June 2010 has failed to have the desired effect of suppressing the population. We are not sure if the rhino beetles on Guam are resistant to the strain of virus released or whether there was a problem with the virus itself and we are currently trying to determine the reason for the failure," says Moore.

Moore's CRB work is extremely important and timely as the beetle, which was once limited to the northwest coast of the island is now found all over northern and central Guam.

"The number of beetles caught in bucket traps has leveled off but we are still in need of finding a biocontrol agent to control these invasive beetles," says Moore.

New Publications:

Scientific Journals

J. C. Z. Woinarski A B E, S. Ward A, T. Mahney A, J. Bradley C, K. Brennan A, M. Ziemicki A D and A. Fisher A. 2011. The mammal fauna of the Sir Edward Pellew island group, Northern Territory, Australia: refuge and death-trap. *Wildlife Research* 38(4) 307-322 <http://dx.doi.org/10.1071/WR10184>

K. E. Moseby A B C and B. M. Hill B. 2011. The use of poison baits to control feral cats and red foxes in arid South Australia I. Aerial baiting trials. *Wildlife Research* 38(4) 338-349 <http://dx.doi.org/10.1071/WR10235>

K. E. Moseby A B C, J. L. Read A B, B. Galbraith B, N. Munro B, J. Newport B and B. M. Hill B. 2011. The use of poison baits to control feral cats and red foxes in arid South Australia II. Bait type, placement, lures and non-target uptake. *Wildlife Research* 38(4) 350-358 <http://dx.doi.org/10.1071/WR10236>

J.M. Diez, P.E. Hulme, R.P. Duncan. 2011. Using prior information to build probabilistic invasive species risk assessment. *Biological Invasions*. DOI 10.1007/s10530-011-0109-5.

K.L. Krysko, J.P. Burgess, M.R. Rochford, C.R. Gillette, D. Cueva, K.M. Enge, L.A. Somma, J.L. Stabile, D.C. Smith, J.A. Wasilewski, G.N. Kieckhefer III, M.C. Granatosky, & S.V. Nielsen. 2011. Verified non-indigenous amphibians and reptiles in Florida from 1863 through 2010: Outlining the invasion process and identifying invasion pathways and stages. *Zootaxa* 3028 64 pp.; 30 cm.

P. Pyšek, V. Jarošík, & J. Pergl. 2011. Alien Plants Introduced by Different Pathways Differ in Invasion Success: Unintentional Introductions as a Threat to Natural Areas. *PLoS ONE* 6(9): e24890. doi:10.1371/journal.p[] [] <http://www.plosone.org/article/info:doi/10.1371/journal.pone.0024890>

D.C. Duffy & P. Capece. 2011. Biology and impacts of Pacific Island Invasive Species 7. The domestic cat (*Felis catus*). *Pacific Science* vol. 44, no. 2 (early view).

This paper reviews the biology, ecological effects, and management of the domestic cat (*Felis catus*) in the Pacific Basin. The cat is one of the most controversial invasive species in the Pacific region because of its complex relations with humans. At one extreme, well-fed domestic house pets are allowed outdoors where they may hunt native animals; at the other, unsocialized feral cats have replaced native predators as apex predators or occupy a new niche on oceanic islands, where they have devastated native faunas. In the middle are stray cats that are still socialized around humans. Feral and stray cats can be reservoirs of diseases that infect free-roaming domestic cats, humans and wildlife. Given these problems, the best response would be to keep domestic cats indoors, restrict cat breeding, and remove feral populations. However, most Pacific Basin societies have failed to reach a consensus on the cat problem, so solutions are ad hoc, often lacking in any scientific basis, and reflect our conflicting views. Compromise management might best fall into three broad classes: 1) Eradication of cats should be confined to islands and other areas of high native biodiversity where reintroduction can be prevented. 2) In a landscape of low or moderate biological value, efforts should be made to educate the public to reduce the impact of their cats on remaining wildlife, while excluding cats from "islands" of elevated biodiversity values or human sensitivity. 3) In drastically simplified urban ecosystems, management perhaps should occur only in response to local complaints.

Books & Newsletters

C.P.H. Mulder, W.B. Anderson, D.R. Towns & P.J. Bellingham (eds). 2011. *Seabird Islands. Ecology, Invasion and Restoration*, Oxford University Press.

The Seabird Islands and Introduced Predators (SEAPRE, www.seapre.uaf.edu) project has over the past years intensively studied the ecology of seabird islands and especially the impacts of introduced predators on seabird islands across case studies distributed worldwide. The synthesis of SEAPRE has now been published in the above mentioned book.

Contact for PILN SOUNDBITES:

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

DISCLAIMER: Efforts are made to ensure that the information presented in the PILN SOUNDBITES is accurate, up-to-date and from reliable sources. Materials within this SOUNDBITES do not necessarily imply the views of SPREP, PILN Country teams or PIP. Please contact the PILN Coordinator should you need further information regarding the PILN SOUNDBITES. Back issues of the SOUNDBITES can be downloaded from <http://www.sprep.org/PILN/topics/PILN-soundbites.htm>