CEPF SMALL GRANT FINAL PROJECT COMPLETION REPORT

Organization Legal Name:	Griffith University
Project Title:	Assessment of chytrid fungus prevalence amongst native amphibian populations (Family Ceratobranchidae) and introduced Cane Toad (Family Bufonidae) in the Polynesia-Micronesia Biodiversity Hotspot, including conservation knowledge enhancement of indigenous communities.
Date of Report:	30.11.12
Report Author and Contact Information	Dr. Edward Narayan (e.narayan@ga.griffith.edu.au)

CEPF Region: Polynesia and Micronesia Islands with native amphibian populations

Strategic Direction: 1. Prevent, control and eradicate invasive species in key biodiversity areas

Grant Amount: $19,990

Project Dates: 2011-2012

Implementation Partners for this Project (please explain the level of involvement for each partner):

(1) Environmental Futures Centre, Griffith University (70 %).
(2) Local stakeholders of Viwa Island, the people (30 %).

Conservation Impacts

Please explain/describe how your project has contributed to the implementation of the CEPF ecosystem profile.

This project has directly contributed to the implementation of the CEPF ecosystem profile by conducting innovative research in one of the primary strategic directions: prevent, control and eradicate invasive species in key biodiversity areas. Through this CEPF funded project we have been able to monitor the prevalence of a global pathogenic fungus (*Batrachochytrium dendrobatidis*) within populations of the endangered Fijian ground frog (*Platymantis vitiana*). The assessment of disease within native frog populations is important so that a sustained conservation management plan could be developed for this IUCN endangered species. Raising environmental awareness of communities about the vulnerability of native frogs to threatening environmental process (such as pathogenic disease and climate change) has been one of the major investment priorities of our project. Disease monitoring has been neglected in the Pacific Islands, especially due to the lack of public awareness and limited scientific tools. This pioneering knowledge about the prevalence of chytrid fungus in endemic frogs of Fiji will help towards directing future management priorities. Furthermore, this project also indirectly addressed CEPF's Strategic Direction #3 : Build awareness and participation of local leaders and community members (indigenous chiefs/villagers) in the implementation of protection and recovery plans for threatened species. Our project has increased public awareness concerning the protection of the threatened endemic frog fauna. It has assisted peer-learning network through the provision of information on species-focused action.

Please summarize the overall results/impact of your project against the expected results detailed in the approved proposal.

Overall results/impacts

- Baseline data on the chytrid fungus prevalence in native frog fauna of Polynesia and Micronesia biodiversity hotspot, using the endangered Fijian ground frog (*Platymantis vitiana*) as a model species.
- Increased knowledge of the abundance, habitat structure of native frog species on Viwa, Fiji.
- Identified actions for the community in how best to protect their native frog fauna.
- Increased community knowledge on the importance of frogs to them.
- Identified actions for future management and research priorities for native species.
- We have provided first-ever data related to chytrid fungus prevalence in the endangered Fijian ground frog (*Platymantis vitiana*). This work has been published in the peer reviewed international journal (*Acta Herpetologica*): See attached publication.
- We have data related to the annual breeding cycle of the endangered Fijian ground frog. Currently, we are writing a paper based on "Annual assessment of reproductive success of the endangered Fijian ground frog (*Platymantis vitiana*) during the exclusion of invasive cane toad (*Rhinella marina*) from natural breeding sites".

Please provide the following information where relevant:

Hectares Protected: N/A
Species Conserved: Fijian ground frog (*Platymantis vitiana*)
Corridors Created: N/A

Describe the success or challenges of the project toward achieving its short-term and long-term impact objectives.

Chytrid swabs were collected both during the breeding period and post-breeding period of the Fijian ground frog with the help of the local village members. The people of Viwa Island were very keen to take part in the field work. The people realised the importance of a Chytrid fungus survey as it was urgently needed for assessing the health status of the native and traditionally important amphibian species. Hence, the people of Viwa Island embraced the project objectives very strongly and participated actively in the field works.

Were there any unexpected impacts (positive or negative)?

The major benefits to the people of Viwa Island from this project were through income generated from field work participation. Furthermore, the population of FGF on Viwa Island is now known to be free of the deadly Chytrid fungus disease hence this creates opportunities for eco-tourism activities on Viwa Islands to showcase to tourists the healthy FGF population on the island.

Lessons Learned

Describe any lessons learned during the design and implementation of the project, as well as any related to organizational development and capacity building. Consider lessons that would inform projects designed or implemented by your organization or others, as well as lessons that might be considered by the global conservation community.

One of the key lessons learnt during the project design was the selection of the appropriate time for conducting the chytrid surveys. A monthly survey would have been more appropriate as this would increase our chances of detecting the fungus (it is affected by environmental conditions). However, we were only able to conduct surveys during summer due to budget constraints.

Project Design Process: (aspects of the project design that contributed to its success/shortcomings)

Our team comprised of scientists who have excellent knowledge of amphibian ecology and chytrid fungus. Furthermore, the chief scientist (Dr. Edward Narayan) has over many years of

experience working on Viwa Island. All of these factors contributed towards successful design and implementation of the project.

Project Implementation: (aspects of the project execution that contributed to its success/shortcomings)
One of the major shortcomings of this project was the lack of communication with conservation partners in Palau hence no field work could be done on this island. This was also due in part of limited funding as the laboratory and travel expenses were much more costly than we had anticipated.

Other lessons learned relevant to the conservation community:
Good communication between the scientists and field workers is important for smooth running of the project.
Long-term monitoring of diseases within native amphibian populations are required.

ADDITIONAL FUNDING

Provide details of any additional donors who supported this project and any funding secured for the project as a result of the CEPF grant or success of the project.

Donor	Type of Funding*	Amount	Notes
RSG	Small Grant	6000 pounds	Work Completed and the has been project closed.

***Additional funding should be reported using the following categories:**

A *Project co-financing (Other donors contribute to the direct costs of this CEPF project)*

B *Grantee and Partner leveraging (Other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF project.)*

C *Regional/Portfolio leveraging (Other donors make large investments in a region because of CEPF investment or successes related to this project.)*

Sustainability/Replicability

Summarize the success or challenge in achieving planned sustainability or replicability of project components or results.

- Good communication between the scientists and field workers is important for smooth running of the project.
- This project could be replicated in other small islands that have frogs, however the project will need to be planned in advanced through various communication between the scientists and local conservation partners.

Summarize any unplanned sustainability or replicability achieved.
N/A

Safeguard Policy Assessment

Provide a summary of the implementation of any required action toward the environmental and social safeguard policies within the project.
N/A

Additional Comments/Recommendations

- Future monitoring of pathogenic diseases within native amphibian fauna will be crucial towards understanding the current threats that are facing these fragile endemic species. It will also be important to monitor the health status of native amphibian species, in areas where any sort of management interventions are planned.

Information Sharing and CEPF Policy

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned, and results. Final project completion reports are made available on our Web site, www.cepf.net, and publicized in our newsletter and other communications.

Please include your full contact details below:

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*****If your grant has an end date other than JUNE 30, please complete the tables on the following pages*****

Performance Tracking Report Addendum

CEPF Global Targets

(Enter Grant Term)

Provide a numerical amount and brief description of the results achieved by your grant.
Please respond to only those questions that are relevant to your project.

Project Results	Is this question relevant?	If yes, provide your numerical response for results achieved during the annual period.	Provide your numerical response for project from inception of CEPF support to date.	Describe the principal results achieved from July 1, 2007 to June 30, 2008. (Attach annexes if necessary)
1. Did your project strengthen management of a protected area guided by a sustainable management plan? Please indicate number of hectares improved.				Please also include name of the protected area(s). If more than one, please include the number of hectares strengthened for each one.
2. How many hectares of new and/or expanded protected areas did your project help establish through a legal declaration or community agreement?				Please also include name of the protected area. If more than one, please include the number of hectares strengthened for each one.
3. Did your project strengthen biodiversity conservation and/or natural resources management inside a key biodiversity area identified in the CEPF ecosystem profile? If so, please indicate how many hectares.				
4. Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares.				
5. If your project promotes the sustainable use of natural resources, how many local communities accrued tangible socioeconomic benefits? Please complete Table 1below.				

If you answered yes to question 5, please complete the following table.

Table 1. Socioeconomic Benefits to Target Communities

Please complete this table if your project provided concrete socioeconomic benefits to local communities. List the name of each community in column one. In the subsequent columns under Community Characteristics and Nature of Socioeconomic Benefit, place an X in all relevant boxes. In the bottom row, provide the totals of the Xs for each column.

Name of Community	Community Characteristics								Nature of Socioeconomic Benefit													
									Increased Income due to:													
	Small landowners	Subsistence economy	Indigenous/ ethnic peoples	Pastoralists/nomadic peoples	Recent migrants	Urban communities	Communities falling below the poverty rate	Other	Adoption of sustainable natural resources management practices	Ecotourism revenues	Park management activities	Payment for environmental services	Increased food security due to the adoption of sustainable fishing, hunting, or agricultural practices	More secure access to water resources	Improved tenure in land or other natural resource due to titling, reduction of colonization, etc.	Reduced risk of natural disasters (fires, landslides, flooding, etc)	More secure sources of energy	Increased access to public services, such as education, health, or credit	Improved use of traditional knowledge for environmental management	More participatory decision-making due to strengthened civil society and governance.	Other
Total																						

If you marked "Other", please provide detail on the nature of the Community Characteristic and Socioeconomic Benefit: