CEPF SMALL GRANT FINAL PROJECT COMPLETION REPORT

Organization Legal Name:	Coral Reef Research Foundation
Project Title:	Tourist-introduced Threats in Marine Lakes: Assessing the Effect of Sunblock on Jellyfish Health to Inform Sustainable Management
Date of Report:	31 March 2013
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CEPF Region: Polynesia-Micronesia Biodiversity Hotspot

Strategic Direction:
(2) Strengthen the conservation status and management of 60 key biodiversity areas.
(2.2) Improve the management of existing protected areas that are priority site outcomes.

Grant Amount: $8,000

Project Dates: 14 Aug 2012 – 31 Jan 2013.

Implementation Partners for this Project (please explain the level of involvement for each partner): Koror State Government and Koror State Department of Conservation and Law Enforcement supported the research in Ongeim'l Tketau during the project period and were integrally involved with the original design of the information booklet.

Conservation Impacts

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

The project has "empower[ed] the stewards of the biodiversity of the Polynesia-Micronesia Hotspot … to conserve biodiversity more effectively" (CEPF Ecosystem Profile Conclusion) by developing [1] a method by which additional information can be gathered by/for Koror State Department of Conservation and Law Enforcement on the magnitude of the threat to the jellyfish lake ecosystem by introduction of sunblock, [2] media to increase awareness in visitors to the region of the threats that they may unwittingly carry, and [3] further training to a Palauan marine scientist.

In terms of links to the CEPF Investment Strategy, we met each of the following goals:
1. "Strengthen defenses against the introduction and spread of invasive species and pathogens that threaten biodiversity" (CEPF investment strategy 1.1) by raising public awareness through public posters and a brochure and developing techniques that can be used to measure sunblock pollution which has been linked to increased levels of disease in corals.
2. "Perform research, provide training in management techniques, and develop rapid

response capacity" (CEPF investment strategy 1.3) by developing methods for measuring sunblock pollution, and continuing training of Ms. Gerda Ucharm in marine science.

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

[1] Investigation of sunscreen pollution.

1. Quantify the levels of sunblock contamination of water and of jellyfish tissues.
– Methods have been developed and are being finalized by the Water Pollution Control Laboratory at the California Department of Fish and Game.
2. Quantify the incidence of necrotic tissues using random transect design.
– We have not been able to undertake this aspect of the project due to the time needed for collecting samples; surveys may be completed when Dawson visits Palau under the auspices of a different grant later this year.
3. With collaborators at no cost to this project, incidence of disease organisms in necrotic vs. normal tissues of *Mastigias* jellyfish in a marine lake that is (Ongeim'l Tketau) and is not (Clear Lake) visited by tourists.
– Dawson and colleagues have been holding regular meetings to discuss these methods and upcoming research.

[2] Public awareness about threats to Jellyfish Lake.

September 2012: Hired Ms Etsuko Seid, a professional Japanese translator, to do the English – Japanese translation of the previously printed Jellyfish Lake booklet done in English.
November 2012: Contacted PIE Printing in Koror about printing the Japanese version of the booklet. Etsuko and Lori Colin worked with PIE to edit and format this version for final printing.
Dec 2012: Booklet went to the printer in Taiwan.
Jan 2013: Received printed Japanese version of Jellyfish Lake booklet. Original quoted price was $3.00/copy, so the grant covered $1,500 or 500 copies. Koror State contributed $500 additional funds to allow a cost of $2.00/copy for a total of 2,000 copies printed.
– Koror State held 50 copies for their use.
– To date, 300 copies each given to the two largest (and reliable) Japanese tour companies to include in the welcome packets of tourists who have purchased the Koror State Jellyfish Lake permit: Rock Island Tour Company (Mr. Kikuchi), and Impac Tours (Mr. Sugawara). Balance of booklets will be given to RITC and Impac once they request more.
Response to date: Customers have said that the booklets are very informative and useful [to the Japanese tourists], and a good education tool.
1 Feb 2012: Japanese version of booklet mailed to CEPF in Samoa.

Please provide the following information where relevant:

Hectares Protected: No additional area (not a goal of the project).
Species Conserved: Species to which this effort contributes protection include *Mastigias papua etpisoni*, an endemic subspecies of jellyfish. .
Corridors Created: None (not a goal of the project).

Describe the success or challenges of the project toward achieving its short-term and long-term impact objectives.
The project was successful in developing methods for studying potential sunblock pollution in Ongeim'l Tketau.

Were there any unexpected impacts (positive or negative)?
No.

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.

Project Design Process: (aspects of the project design that contributed to its success/shortcomings). Prior knowledge of tourist patterns helped design a study which preliminary results from method-development stages suggest will be informative. Preliminary results from method development also have helped us modify experimental design to also sample water very recently in close proximity to tourists and water farther away within Ongeim'l Tketau, thus allowing us to examine local dispersion.

Project Implementation: (aspects of the project execution that contributed to its success/shortcomings) Development of methods has proceeded more-or-less as planned. Establishing necessary collaborations before the project allowed us to make use of available opportunities to ship samples from Palau to California when they arose.

Other lessons learned relevant to conservation community:

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
The David & Lucile Packard Foundation Western Pacific Program	A	$1,000	Salary support for Ms. Gerda Ucharm, boat fuel & rental.
Koror State	A	$500	Purchase additional information booklets

***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.

Methods are replicable. Experience gained in collecting samples, shipping from Palau to California, and techniques for analyses can be applied again in the future.

Summarize any unplanned sustainability or replicability achieved.

None.

Safeguard Policy Assessment

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

None.

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 Feb 1, 2009 to Jan 31, 2010.
1. Did your project strengthen management of a protected area guided by a sustainable management plan? Please indicate number of hectares improved.	N/A	N/A	N/A	
2. How many hectares of new and/or expanded protected areas did your project help establish through a legal declaration or community agreement?	N/A	N/A	N/A	
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.	yes	Potentially strengthened existing 55000 sq.m.	Potentially strengthened existing 55000 sq.m.	Putatively have increased awareness of threats from introduced species and potentially from sunblock. Impact has not been quantified in terms of # of people with raised awareness.
4. Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares.	maybe	not quantified	not quantified	May have generally raised awareness of threats from introduced species and potentially from sunblock. Visitors to Palau may return to their home nations with increased awareness, and apply this knowledge to their own neighborhoods.
5. If your project promotes the sustainable use of natural resources, how many local communities accrued tangible socioeconomic benefits? Please complete Table 1below.	N/A	N/A	N/A	

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:

Additional Comments/Recommendations

Thank you for supporting our conservation research and outreach.

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.

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