

CEPF SMALL GRANT FINAL PROJECT COMPLETION REPORT

Organization Legal Name:	Simon Fraser University
Project Title:	Restoration of Breeding Habitat for the Endangered Tuamotu Sandpiper <i>Prosobonia cancellata</i> on Toreauta and Kotuetue Islets (Tahanea Atoll, Tuamotu Archipelago, French Polynesia) and Assessment of the Feasibility of Reintroductions Elsewhere
Date of Report:	November 28, 2011
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CEPF Region: Polynesia-Micronesia

Strategic Direction: This project targets all three primary strategic directions, primarily:

“Prevent, control and eradicate invasive species in key biodiversity areas”

Grant Amount: USD 19,745

Project Dates: Field part: May 17 – October 09, 2011
Report writing: October 10 – December 31, 2011

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

1. Island Conservation:

Strong involvement

Provided protocol, personal and gear for the rat removal.

2. Société d'Ornithologie de Polynésie (SOP) “Manu”:

Light involvement (logistics and local liaison)

Hired by SFU to buy, package and ship food to field site.

Provided essential assistance with liaison with local authorities.

3. Direction Régionale de l'Environnement de Polynésie:

Light involvement (bureaucratic)

Issued permits

4.) US Fish and Wildlife Service

Light involvement

Provided funding and logistical support.

Conservation Impacts

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

CEPF priority 1.2, as stated in the CEPF ecosystem profile, aims to “control or eradicate invasive species in key biodiversity areas, particularly where they threaten native species with extinction”. Our project aimed at eradicating the invasive Polynesian rat from an islet in a key biodiversity area (Tuamotu Archipelago, French Polynesia) where they threaten native Tuamotu Sandpipers (priority 2) with extinction.

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

We believe that the eradication was successful and that the result and impact will be as stated in our proposal, i.e. 1/ absence of rats on the islets of Toreauta (Tahanea Atoll) and 2/ dramatic increase in the number of Tuamotu Sandpipers present on the islet, including territorial (reproductive) birds.

Note: The islet of Kotuetue (1.5 ha), next to Toreauta and mentioned in our proposal turned out to be rat free. It was nonetheless treated with the same protocol as Toreauta for safety purposes, but as of 2011, rats were already absent and Tuamotu Sandpipers were already at the density we would expect on a rat free islet with similar habitat.

1/ Absence of rats:

We do not know at this point whether the eradication on Toreauta was successful, though preliminary observations strongly suggest it was: two months after its completion, attempts to detect rats on the islet through trapping, deployment of chew sticks and night observations all failed. A follow up visit at a later date (spring 2012 or later) will be needed to confirm the success of the operation, as rats might still have been present at a very low density in our post eradication visit.

2/ Increase in Tuamotu Sandpipers density:

Visits following rat removal did not show any change in numbers of Tuamotu Sandpipers present on Toreauta. Two months is a short period and visits at a later date would be more informative. More importantly, however, an unusual strong swell hit French Polynesia in the middle of a drought on August 27 2011. This caused the entry of salt water into the islets water tables, resulting in plants drying out and Tuamotu Sandpiper starving to death. We estimate that 55% of the Tahanea population of Tuamotu Sandpipers disappeared in the month following the swell event. Further monitoring was impossible to conduct as the planned field season reached its end. This dramatic demographic incident occurred between the rat removal and our following visits on Toreauta and it is likely to have confounded the effect of the eradication.

We are planning on returning to Tahanea in 2012 to confirm that the rat eradication of Toreauta was successful, to see how the Tuamotu Sandpiper population is doing several months after the overwash -a particularly crucial conservation point considering there are only 4 populations of Tuamotu Sandpipers left- and to measure the effect of the eradication on the Toreauta density. We applied for a large (\$44,154) CEPF grant in October 2011 to fund part of this visit.

Please provide the following information where relevant:

Hectares Protected:

6.7 ha (+1.5 ha confirmed to be rat free).

Species Conserved:

Targeted species: Tuamotu Sandpiper *Prosobonia cancellata* (Priority Rank 2).

Other landbirds (Tuamotu Reed-Warbler, Spotless Crake, Atoll Fruit-Dove) and many plants will also benefit from the rat removal.

Corridors Created:

The islet of Toreauta lies in the middle of a rat free zone on the South East of Tahanea and had Polynesian rats. This eradication expanded the area of contiguous rat free islets in the southern portion of the atoll.

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

Success: the rat eradication per se was easy to implement directly from the ground by a small crew and seems to have been successful (see above for details).

Challenges: limiting the risks of side-poisoning any Tuamotu Sandpiper was a challenging task requiring the capture of individuals and holding them in captivity for up to three weeks and releasing some of them on safe islets without their outer primaries to prevent them from visiting Toreauta and Kotuetue during the poison active phase. Movements of Tuamotu Sandpipers between islets mean that even when all local birds are caught, other birds might still be at risk of getting poisoned, thus making an absolutely risk free operation impossible. All birds caught and kept in captivity did fine though and the risk of killing a couple of individuals is outweighed by the anticipated long-term benefits of the rat removal.

Were there any unexpected impacts (positive or negative)?

Side-kills: we suspect that one young male Tuamotu Sandpiper was poisoned in the eradication process. One dead Spotless Crake was found with obvious signs of poisoning and it is likely that other crakes were poisoned. The species is very common on the atoll though and individuals will recolonize Toreauta easily from other close islets. Ultimately, the rat removal will benefit this species too. Note that these impacts were not unexpected.

There were no unexpected impacts that we could tell.

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.

We learned several practical lessons during the course of this project, all of which will be useful for future stages of the conservation of the Tuamotu Sandpiper and the restoration of the Tahanea Atoll:

- Tuamotu Sandpipers can safely be kept in captivity for several weeks. This is very important for future rat eradications on Tahanea and elsewhere where the species is present as well as for translocations of Tuamotu Sandpipers

- Crab density on Tahanea was lower than expected, allowing reduced poison quantities. These new data will allow better planning of further rat removal on Tahanea and possibly elsewhere in the Tuamotu
- Tuamotu Sandpipers are very attracted by the bait used for rat removal, as was demonstrated by birds feeding on inert pellets deployed for training purposes, making it very important to have a plan to protect the species from side-poisoning.

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

Island Conservation has built strong experience in rat removal on Pacific islands and their experts developed the protocol for this eradication.

For details on design, please refer to the attached detailed report written by our Island Conservation collaborators Pott and Griffiths 2011.

Project Implementation: (aspects of the project execution that contributed to its success/shortcomings)

Implementation of the eradication followed Island Conservation protocol and was supervised by one IC personal.

For details on design, please refer to the attached detailed report written by our Island Conservation collaborators Pott and Griffiths 2011.

Other lessons learned relevant to conservation community:

Equipment or poison left unattended in situ should be packed and stored with the utmost caution as unexpected events (such as the overwash event we witnessed) could cause loss or ecological accident.

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
Island Conservation	B	US\$ 66,106	Leveraged due to CEPF grant. Provided supplies, technical expertise, personal
Simon Fraser University	A	US \$ 22,838	Provided personnel, organization, supplies
US Fish and Wildlife Service	A	US \$14,218	Provided financial and logistic support

***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.

Results of this project could be replicated elsewhere, either within Tahanea or outside.

These results are sustainable if no rats are reintroduced. To prevent reintroductions, we worked with the local community of Faaite Atoll which owns the land in Tahanea and visits it occasionally. We hired a member of this community to participate in the eradication as a way to educate and bring awareness to the issue of rat introduction to this community. We also had conversations with the mayor and inhabitants of Faaite. Rats being the vector of leptospirosis in French Polynesia and due to their impact on copra production, they are considered a pest and people are willing to cooperate in trying to prevent their spread. The Faaite community is a very isolated one, but working with them over the past few years has contributed to their awareness that their land sustains rare species and that these species hold some value that could become profitable (i.e. through ecotourism) – and are thus worth preserving.

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.

To prevent accidental poisoning of the highly infrequent visitors to these uninhabited islets, multilingual signs were posted warning against consumption of invertebrates for 6 months following the removal operation (see Potts and Griffiths, 2011).

Additional Comments/Recommendations

Reference to or partner Island Conservation's technical report, submitted to CEPF with this final report:

M. Potts and R. Griffiths 2011. Post-Operational Report: Tahanea Atoll 2011: The Restoration of Toreauta, Kotuetue and Toreauta It, within Tahanea Atoll, French Polynesia. Internal Island Conservation Report. Contact Richard.Griffiths@islandconservation.org

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

\$19,745

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.	No			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?	No			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.	Yes	6.7 ha	6.7 ha	No results between 2007 and 2008, but 6.7 ha inside a key biodiversity area identified by the CEPF ecosystem profile became rat free in 2011.
4. Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares.	Yes	6.7 ha	6.7 ha	No results between 2007 and 2008, but 6.7 ha outside protected areas became rat free in 2011.
5. If your project promotes the sustainable use of natural resources, how many local communities accrued tangible socioeconomic benefits? Please complete Table 1 below.	No			

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

Note on socioeconomics:

Removal of rats will increase copra production on Toreaute. The copra is currently not harvested, so this may not have any impact on the community at this point. But Toreaute has a small (1.5 ha) coconut plantation and rats are well known to impact copra production.

Rats in French Polynesia also are the vector of leptospirosis, a disease quite prevalent in French Polynesia (Coudert et al. 2007). Removal of rats anywhere can only help reduce the prevalence of the disease. On an islet as little as Toreaute which is only occasionally visited by people from the local community of Faaite, this effect is likely to be negligible though.

Reference:

C Coudert, F Beau, A Berlioz-Arthaud, G Melix, F Devaud, E Boyeau, C Jaomeau, P Lablee, P Jarno . 2007. Human leptospirosis in French Polynesia. Epidemiological, clinical and bacteriological features. *Medecine tropicale revue du Corps de sante colonial*. 67(2):137-144

