

CEPF FINAL PROJECT COMPLETION REPORT

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| Organization Legal Name: | Pacific Expeditions Limited (plus Eco Oceania sub-grant) |
| Project Title: | Habitat Restoration of priority islands in the Phoenix Islands Protected Area (PIPA) |
| Date of Report: | 19 Feb 2013 |
| Report Author and Contact Information | Dr Graham Wragg (and Dr Ray Pierce) PO Box 3063, Rarotonga, Cook Islands Email: info@pacific-expeditions.com |

CEPF Region: Polynesia-Micronesia

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

Grant Amount \$ 292,000

Project Dates: November 1, 2009 to December 31, 2012

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

Pacific Expeditions Ltd (Dr Graham Wragg): Overall financial responsibility and grant holder. Shared logistical planning with Eco Oceania.

Eco Oceania (Dr Ray Pierce): Lead agency for Science, Liaison with Kiribati, Planning of Eradications in July 2011 and sourcing finance for future invasive species work at the Phoenix Islands.

Conservation Impacts

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

Please summarize the overall results/impact of your project.

Project Approach (500 words)

Background

The Phoenix Islands are a World Heritage Site and also have many other international designations including Key Biodiversity Area and Important Bird Area reflecting the exceptionally high diversity and abundance of marine and terrestrial biota. The terrestrial values include globally important seabird colonies spanning 19 species of petrels, storm-petrels, frigatebirds, boobies, tropicbirds and terns, including the Endangered Phoenix petrel and white-throated storm-petrel which are largely confined to Rawaki. However, a fundamental problem facing these seabirds (and terrestrial biodiversity in general) has been the presence of 1-3 invasive vertebrate species on each of the 8 islands, with only Rawaki not having been invaded by rats (Table 1).

| Island | Approx land area (in ha) | Habitat diversity | Seabird spp | Vertebrate invasives |
|------------|--------------------------|-------------------|-------------|-----------------------------|
| Rawaki | 47 | Moderate | 17 | Rabbit to 2008 |
| McKean | 21 | Moderate | 15+ | Asian rat 2001-2008 |
| Enderbury | 550 | High | 15+ | Pacific rat targeted 2011 |
| Birnie | 49 | Low | 10+ | Pacific rat targeted 2011 |
| Kanton | 900 | High | 10+ | Cat, black and Pacific rats |
| Manra | 500 | High | 10+ | Cat, black and Pacific rats |
| Orona | 600 | High | 10+ | Cat, Pacific rat |
| Nikumaroro | 400* | High | 8+ | Pacific rat |

Table 1 – Summary of island area, habitat, seabird and pest status (green shading = invasives removed, yellow = operational work to remove invasives completed)

A key turning point occurred in 2006 when a CEPF-funded conservation survey assessed the feasibility and priorities for terrestrial restoration work with Rawaki and McKean being considered the two top priority islands for pest removal. Table 2 summaries the ensuing approaches to remove the invasive vertebrate threats on the PIPA islands, beginning with the successful removal of rabbits and Asian rats from Rawaki and McKean Island respectively in 2008. This work was followed by planning for the eradication of Pacific rats on Enderbury and Birnie together with the improvement of biosecurity on vessels visiting or passing through the PIPA.

| Year | Funder | Key outcomes (and reference – see literature cited) |
|--------|-----------------------|--|
| 2006 | CEPF | Seven islands surveyed for restoration opportunities |
| 2007-8 | NEAq | Planning for pest eradications, management planning |
| 2008 | NZODA/MFAT/ NZDOC | Rabbits and Asian rats eradicated on Rawaki and McKean respectively |
| 2009 | CEPF | Rawaki and McKean eradications declared successful; restoration studies on Enderbury, Birnie, Orona, Kanton |
| 2010 | CEPF | Planning for Enderbury-Birnie rat eradications; PIPA biosecurity guidelines |
| 2011 | Packard, CEPF, GEF | Enderbury-Birnie rat eradications; biota and pest surveys of these atolls plus Rawaki, Manra, Kanton |
| 2013 | GEF, CEPF | Planned for May 2013, check on Enderbury-Birnie rat eradications, biota responses at these and other islands, planning for biosecurity and eradications at Kanton and southern islands of PIPA, assessment of past terrestrial biota |

Table 2 - A summary of terrestrial restoration work achieved at the PIPA to date

Note CEPF = Critical Ecosystem Partnership Fund, Packard = Packard Foundation, NZODA/NZAID = NZ Overseas Development Agency now a division of MFAT or Ministry of Foreign Affairs and Trade. Refer to Pierce and Brown 2011 for details of relevant reports.

2009-11 objectives

The objectives of the CEPF-funded work in 2009-2012 spanned the following:

- to assess success of McKean rat and Rawaki rabbit eradications of 2008
- to assess responses of biota on McKean and Rawaki post invasives
- to bait Pacific rats on Enderbury and Birnie Islands in 2011
- to build on existing baseline data on biota at Enderbury-Birnie
- to evaluate feasibility of eradicating invasives from Manra and Kanton
- to raise capacity of GOK to undertake invasive species and biodiversity recovery work at Phoenix Islands.

The approaches to this have been primarily field orientated involving chartering vessels to the PIPA and carrying out collaborative work between GOK staff (Wildlife and Biosecurity Divisions) and technical specialists (biota survey, invasive species specialists, helicopter pilots, GIS specialists, etc). There were two main parcels of work, the first involving surveys of invasives and biota at Rawaki and McKean to assess success of the 2008 operations, and the second involving eradications at Enderbury and Birnie and planning for further eradications and improved biosecurity. Both parcels of work included a focus on capacity building. The next PIPA visit is planned for May 2013, which will gauge the success of the Enderbury-Birnie rat eradication field work carried out in July 2011

Link to CEPF Investment Strategy

The eradications and improved biosecurity of World Heritage islands fit very well with the CEPF strategic approach of removing and excluding invasive species.

Planned Long-term Impacts - 3+ years (as stated in the approved proposal):

1. Protect globally important congregations of seabirds
2. Maintain and monitor intact biotic assemblages - ie whole island ecosystems
3. Key biodiversity islands will be identified and highlighted for subsequent habitat restoration via pest control.
4. Strategic links will be strengthened with other regional restoration initiatives e.g. Tokelau Islands and Samoa to the south, and Christmas Island to the east. Palmyra Atoll and Henderson Island World Heritage Site.
5. With climate change impacts looming, there are opportunities to establish stepping stones islands for biota to utilize in a worst case scenario.

Actual Progress towards Long-term Impacts at Completion:

1. Globally important populations of seabirds on Rawaki and McKean are now free of invasive species impacts. These include 18 species of seabirds, two of them endangered – Phoenix petrel and white-throated storm-petrel – and some of the largest populations globally of lesser frigatebirds, blue noddies, grey-backed tern and more widespread sp.
2. Entire atoll ecosystems on Rawaki and McKean are recovering and vegetation and bird assemblages being monitored. Some plant species at Rawaki (e.g. *Sida fallax*) have recovered after a long period of rabbit-impact.
3. At writing (Feb 2013) we still do not know the outcomes of the Enderbury-Birnie operations.
4. A draft operational plan for restoring the remaining PIPA islands has been developed.
5. Strategic links have been made with other projects at Tokelau (biosecurity and invasive species management), Kiribati Line Islands (especially Kiritimati), US Line Islands (especially Palmyra) and Pitcairn Group.

Planned Short-term Impacts - 1 to 3 years (as stated in the approved proposal):

This project will assist the Government of Kiribati to manage invasive alien species on key islands in the Phoenix Group and at Christmas Island. Short-term impacts will see the following:

1. Cat and rat survey of Orona Island
2. Development of a cat and rat eradication plan for Kanton
3. Biodiversity survey of Kanton
4. Survey of Rawaki Island to assess the success of the 2008 eradication work
5. Survey of McKean Island to assess the success of the 2008 eradication work
6. Further identification of key biodiversity areas that can (and should be) managed
7. The eradication of rats from Enderbury and Birnie Islands
8. Survey of Manra
9. Awareness raising about invasive species issues with national and international stakeholders in Tarawa and in Christmas Island

Actual progress toward short-term impacts at completion:

1. Intensive Orona survey completed (cats and rats)
2. Kanton eradication plan completed
3. Kanton biodiversity survey completed
4. Rawaki visited in 2009 to confirm rabbit eradication (successful eradication)
5. McKean visited in 2009 to confirm rat eradication (successful eradication)
6. Eradication plan extended to include Kanton, Manra, Orona and Nikumaroro
7. Enderbury and Birnie operational work completed in 2011, success to be assessed in May 2013
8. Manra surveyed in 2011 for cats and rats
9. Awareness raising at Tarawa and Kiritimati achieved, in conjunction with other agencies

Please provide the following information where relevant:

Hectares Protected: 70 ha (Rawaki, McKean), 650 ha (Enderbury & Birnie if de-ratting successful)
Species Conserved: 18 seabird species
Corridors Created: Stepping stone islands achieved

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

The key challenge was to be able to line up the funding in time in order to participate in collaborative 3-country operation (at Palmyra, PIPA, Henderson)

Were there any unexpected impacts (positive or negative)?

None.

Project Components

Project Components: *Please report on results by project component. Reporting should reference specific products/deliverables from the approved project design and other relevant information.*

Component 1 Planned:

Background planning for the 2009 Phoenix Islands Protected Area habitat restoration field season.

Component 1 Actual at Completion:

Completed successfully and on time. Involved planning for PIPA visit to survey biota including invasives and non-targets

Component 2 Planned: Carry out PIPA field work in Nov - Dec 2009
Endemic/Indigenous species conservation and reproduction.

Component 2 Actual at Completion:

Completed successfully and on time (SV Southern Cross expedition). Surveyed all 5 target islands

Component 3 Planned:

Report on findings of 2009 biodiversity survey.

Component 3 Actual at Completion:

Completed successfully and on time (see attached report).

Component 4 Planned:

Carry out Enderbury and Birnie field work in 2011 (or 2012)

Component 4 Actual at Completion:

Completed successfully and on time (in July 2011), with the RV Aquila and two helicopters (see attached Pierce & Brown report).

Component 5 Planned:

Report on findings of rat eradication on Enderbury and Birnie.

Component 5 Actual at Completion:

Planned for May 2013

Component 6 Planned:

Help strengthen biosecurity systems for all islands in Kiribati, but with a special focus on protecting the PIPA from invasion of alien species.

Component 6 Actual at Completion:

Biosecurity vigilance is an ongoing enterprise. Capacity building at Tarawa and Kiritimati is ongoing and will be continued in 2013 at Kiritimati (EcoOceania-PII workshop in March 2013) and Kanton (during May 2013 visit when Kiribati staff are expected to be in place)

Component 7 Planned:

Monitor sub grant to Eco Oceania

Component 7 Actual at Completion:

Completed (some residual funds to be used for May 2013 expedition - SV Southern Cross)

Were any components unrealized? If so, how has this affected the overall impact of the project? (All components where achieved)

Please describe and submit (electronically if possible) any tools, products, or methodologies that resulted from this project or contributed to the results.

Some adaptive management in rat eradication work on atolls (see Pierce and Brown 2011 report) plus other reports.

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)

Using technical experts proven in their field, including invasive species managers and helicopter pilots, throughout the planning period ensured the operational success.

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

As above – importance of continuity with technical expertise.

Other lessons learned relevant to conservation community:

See attached reports

Additional Funding

Provide details of any additional funding that supported this project and any funding secured for the project, organization, or the region, as a result of the CEPF investment in this project.

| Donor | Type of Funding* | Amount | Notes |
|--------------------|------------------|--------------|-----------------------|
| Packard Foundation | A | \$500,000 US | For 2011 eradications |

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

- A** Project co-financing (Other donors or your organization contribute to the direct costs of this 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 funded 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.

The islands are uninhabited (except Kanton) with few visitations so pest-free status in theory can be sustained. However, the isolation and low frequency of surveillance means that there is a challenge is to keep islands free of invasives, hence a big emphasis is being made on biosecurity both with domestic freighters and international vessels

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.

Potential non-target issues were identified well in advance and appropriate action taken as part of the AEE process

Additional Comments/Recommendations

None

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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Performance Tracking Report Addendum

CEPF Global Targets: Prevent, control, and eradicate invasive species in key biodiversity areas

(Enter Grant Term): November 1, 2009 to December 31, 2012

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 (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. | yes | n/a | 3000 | All eight atolls in the Phoenix Islands Protected Area were studied and invasive mammal operations completed on four – two successful, two results pending. Input was had to revised PIPA management plan. |
| 2. How many hectares of new and/or expanded protected areas did your project help establish through a legal declaration or community agreement? | yes | n/a | 3000 | We inputted on terrestrial biota to the successful application for World heritage status of the PIPA during this period |
| 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 | n/a | 70-720 ha | 70 ha confirmed free of invasives, 650 pending |
| 4. Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares. | yes | n/a | 3000 | Via improved biosecurity, 70-720 also via eradications |
| 5. If your project promotes the sustainable use of natural resources, how many local communities accrued tangible socioeconomic benefits? Please complete Table 1 below. | n/a | n/a | n/a | |