

Darwin Initiative

Annual Report

1. Darwin Project Information

Project Ref. Number	EIDP10
Project Title	Bat Conservation Madagascar
Country(ies)	United Kingdom and Madagascar
UK Contractor	University of Aberdeen
Partner Organisation(s)	Department of Animal Biology, University of Antananarivo, Madagascar
Darwin Grant Value	£71,800
Start/End dates	1 April 2005 31 March 2007
Reporting period	1 April 2005 to 31 March 2006, Report number 1
Project website	N/A
Author(s), date	Richard K. B. Jenkins and Paul A. Racey

2. Project Background

- Briefly describe the location and circumstances of the project and the problem that the project aims to address.

Darwin Initiative grants to the University of Aberdeen to train Malagasy students in techniques to study the conservation biology of fruit bats (1999-2000) and insectivorous bats (2001-2004) were highly successful and more than 18 trainees graduated from host country universities from bat conservation and research projects. The maximum potential legacy of these projects could not be realised however because of the absence of any institution capable or willing to house a permanent bat conservation team.

Towards the end of 2004 it became clear that without a clear strategy to create a permanent Malagasy bat conservation team, the Darwin Assistants, who are the most experienced bat biologists in the country, would find it exceedingly difficult to secure permanent employment as bat conservationists. Discussions with partners in Madagascar confirmed this notion and we were encouraged to establish a new conservation organization as there was no other group dedicated to protecting and researching the island's bats. This approach was consistent with a new national strategy to develop and support Malagasy specialist groups.

3. Project Purpose and Outputs

- State the purpose and outputs of the project. Please include your project logical framework as an appendix and report achievements and progress against it (or, if applicable, against the latest version of the logframe).

Logical framework is attached.

Our main purpose was to consolidate the team of Darwin Assistants, who, over the course of five years on Darwin Initiative funded bat conservation projects, have established themselves as the country's only group with the capacity to conserve the island's bats. By creating a new Malagasy conservation organization we aimed to continue and expand our conservation, research and education programme and give the team the sound foundation from where further funding opportunities could be developed.

Other main project outputs include (i) Malagasy biologists trained in GIS, English language and scientific research (ii) bat conservation management under development for three protected areas (iii) national media coverage (iv) scientific publications (v) review of IUCN Red List (vi) Malagasy masters students graduated (vi) an expanding education programme at both local and national levels.

Additional details of these are presented in the appropriate section below (section 9).

- Have the outputs or proposed operational plan been modified over the last year, for what reason, and have these changes been approved by the Darwin Secretariat? (Please note that any intended modifications should be discussed with the Secretariat directly rather than making suggestions in this report).

There have been no major or significant changes to the proposed operational plan over the last year. Minor modifications have been made to the project to reflect emerging conservation issues – as would be expected of any national conservation organisation.

4. Progress

- Please provide a brief history of the project to the beginning of this reporting period. (1 para)

This is a follow-up project awarded on the basis of two previous Darwin Initiative grants to the University of Aberdeen for bat conservation and capacity building in Madagascar. The lack of a long-term foundation and structure within which Malagasy Darwin Trainees/Assistants could function after the end of Darwin Initiative funding was seen by our host country partners as a severe impediment to bat conservation in the future and a major inhibitor of the potential Darwin legacy. The follow-up project was therefore designed to consolidate the existing Darwin Initiative team, consisting of one British and four Malagasy researchers, by creating a new national conservation organisation as a sustainable platform from which bat conservation activities could be undertaken.

- Summarise progress over the last year against the agreed baseline timetable for the period and the logical framework (complete Annex 1). Explain differences including any slippage or additional outputs and activities.

Logical framework is attached. Changes (slippage and addition) to outputs are described in Section 9. All main activity targets for Year 1 have been met (new NGO, board of trustees appointed, first meeting, training courses for staff and DEA students).

- Provide an account of the project's achievements during the last year. This should include concise discussion on methodologies and approaches by the

project (e.g. research, training, planning, assessment, monitoring) and their consequences and impacts as well as results. Please **summarise** content on methodologies and approaches, and, if necessary, provide more detailed information in appendices (this may include cross-references to attached publications).

Research

We conducted a number of field projects in 2005/06 aimed at studying the role of endemic fruit bats in pollination and assessing forest dependency in microchiropterans

For six weeks during June and July 2005 we studied the impact of habitat degradation on the pollination of the endangered baobab tree *Adansonia grandidieri* in Parc National Kirindy-Mitea. We made the first known observations of *Pteropus rufus* (Madagascar Flying Fox) taking nectar from baobab flowers and preliminary results show that in degraded areas, where lemurs are rare, fruit bats are the only viable pollinators

We visited Station Forestière Tampolo in February and August 2005 and February 2006 to investigate habitat use by bats using radio tracking and acoustic sampling. We followed Madagascar sucker-footed bats *Myzopoda aurita* to their forest roost sites in Traveler's Trees *Ravenala madagascariensis*– although these bats have been assumed to roost in *R. madagascariensis*, ours were the first observations since a single one in 1948.

In May and December 2005 we conducted an acoustic sampling survey of the littoral forests near Fort Dauphin in south-eastern Madagascar. Other new data on the ecology of *M. aurita* were collected.

From January to the present we have collected faecal samples from a roost site of *Rousettus madagascariensis* – Madagascar's smallest fruit bat. We found very few seeds in the diet and observed that this species feeds frequently on the nectar of banana flowers. From March to April we also radio tracked five *R. madagascariensis* to investigate habitat use.

During October and November 2005 we conducted a detailed survey of the forests and caves of Parc National Tsingy de Bemaraha. Using mist nets and acoustic sampling we assessed the use of forest habitats by feeding bats and have collected data that challenges the Red List status of at least one endemic bat species

Conservation

We developed our conservation programme for *P. rufus* in the Alaotra-Mangoro Region with our local partners, ACCE (Arongampanihy-culture, communication et environnement). Our monthly monitoring visits at seven roost sites continued and provided quality data on roost occupancy and population size as well as an early-warning system to potential threats. Twice during the year, once in May because of agricultural expansion and once in December because of plantation harvesting, our local volunteers alerted the authorities to potential threats to the roost sites.

In December 2005 we finalised seven community contracts for the conservation of *P. rufus* roosts in the region. As a result, 10 roosts and over 4,000 bats are now protected by rules that were created by the local community. In many parts of rural Madagascar these rules (*dina*) are more closely respected than national legislation.

Training

Three new Darwin Trainees were engaged in bat conservation field projects:

- (i) Irma Raharinantenaina (Département de Biologie Animale, Faculté des Sciences, Université d'Antananarivo): Microchiropterans of Littoral Forests in South-eastern Madagascar (writing up)
- (ii) Volana Nasolo Rahaingodrahety (Ecole Supérieure des Sciences Agronomiques, Département des Eaux et Forêt, Université d'Antananarivo): Conservation of *Pteropus rufus* in Anosy Région (writing up)
- (iii) Hanta Julie Razafimanahaka (Ecole Supérieure des Sciences Agronomiques, Département des Eaux et Forêt, Université d'Antananarivo): Foraging ecology and behaviour of *Hipposideros commersoni* in Tampolo littoral forest (field work is ongoing)

Education

- (i) In December 2005 we submitted a draft booklet to the Ministry of Education as the first step in producing a teachers' guide for incorporation into the national curriculum for primary schools and distribution throughout the country. This booklet is now being developed into three levels (4-7 yrs, 7-10 yrs, > 10 yrs) in a series of training events and tests led by the Darwin team in collaboration with the *Bureau Programme Environmental Education* (Ministry of Education).
- (ii) In April 2005 we organised a three-day workshop on 'Integrating Bat Conservation into Primary School Teaching in Madagascar'. This was attended by more than 30 people including members of a fruit bat conservation NGO from the Comoros Islands
- (iii) In September and December 2005 we conducted school visits to seven primary schools to pupils and teachers to bat conservation. Each school visited was located close to a bat roost. Teachers first received a day of training before introducing the children to the lessons, costumes and games about bat conservation
- (iv) In December 2005, Daudet Andriafidison gave a lecture to the teachers and students at the Centre Ecologie de Libanona on 'Bat Conservation in Madagascar'
- (v) In collaboration with host country biologists from other institutions, Richard Jenkins, prepared a teaching module for Malagasy institutions on 'The Characteristics of Threatened Species'

Assessments

In April 2005 three Malagasy members of the Madagasikara Voakajy team attended the five-day *IUCN/Global Mammal Assessment* workshop in Antananarivo. At the workshop the chiropteran assessment group also consisted of two former Darwin Trainees and one of our current partner organisations from eastern Madagascar. The Red List status of all Malagasy bat species was assessed and we displayed five colour posters about our work throughout the workshop.

- Discuss any significant difficulties encountered during the year and steps taken to overcome them

Not applicable

- Has the design of the project been enhanced over the last year, e.g. refining methods, indicators for measuring achievements, exit strategy?

Following preliminary workshops at the onset of discussions on how to change from a project to a national organisation a considerable amount of time was devoted to debating whether we should restrict our activities to bat conservation. We decided to broaden the remit of Madagasikara Voakajy, to include other endemic vertebrates, whilst at the same time maintaining bat conservation at the centre of our mission.

- Present a timetable (workplan) for the next reporting period.

April

Chiropteran survey of Lac Kinkony

Radio tracking *Hipposideros commersoni* in littoral forest

Assessing forest dependency in *Triaenops* bats

Radio tracking fruit bats in Alaotra-Mangoro Region

May

Meeting of the Madagasikara Voakajy Board of Trustees

Bat conservation poster submitted to Parc National Tsingy de Bemaraha

Training workshop for primary school teachers

June

Field research on seed dispersal in by fruit bats in Parc National Tsingy de Bemaraha

Field research on baobab pollination by fruit bats

July

Chiroptera survey of Anjohibe

August

Two Malagasy students to graduate

September

Darwin Assistant to visit US for training in molecular techniques

5. Actions taken in response to previous reviews (if applicable)

- Have you responded to issues raised in the review of your last year's annual report? Have you discussed the review with your collaborators? Briefly describe what actions have been taken as a result of recommendations from last year's review.

Not applicable

6. Partnerships

- Describe collaboration between UK and host country partner(s) over the last year. Are there difficulties or unforeseen problems or advantages of these relationships?

As a follow-up project we already had firm collaborations with our host country partners. This was an advantage during the creation of Madagasikara Voakajy because senior staff from WWF, the Ministry of the Environment, ANGAP (Madagascar National Parks Service), Durrell Wildlife Conservation Trust and the University of Antananarivo agreed to join our Board of Trustees.

- Has the project been able to collaborate with similar projects (Darwin or other) in the host country or other regions, or establish new links with / between local or international organisations involved in biodiversity conservation?

We continue to work with all original host country partners and we have also established a new link with the Department of Geography, University of Antananarivo and work closer with international NGOs such as Conservation International, Birdlife International and Durrell Wildlife Conservation Trust.

7. Impact and Sustainability

- Discuss the profile of the project within the country and what efforts have been made during the year to promote the work. What evidence is there for increasing interest and capacity for biodiversity resulting from the project? Is there a satisfactory exit strategy for the project in place?

This year has been one of transition for the team and has seen us change our name, logo, mission statement and legal status. Our colleagues in host country partner institutions and other organisations are gradually becoming used to our new name. We have retained our identity as Madagascar's only bat conservation team and proof for this comes from invitations to conduct bat surveys and referrals from individuals or organisations.

Evidence for increasing interest in our capacity comes from our inclusion within regional conservation planning meetings and through receiving funding from host country institutions.

8. Post-Project Follow up Activities (max 300 words)

Not applicable.

9. Outputs, Outcomes and Dissemination

- Explain differences in actual outputs against those agreed in the initial 'Project Implementation Timetable' and the 'Project Outputs Schedule', i.e. what outputs were not or only partly achieved? Were additional outputs achieved?

Outputs/proof sent to DEFRA*

Achieved in full and on time

Participation in IUCN Global Mammal Assessment

Two new Darwin Assistants and a Darwin Trainee (Volana Rahaingodrahety) recruited

Field surveys in littoral and deciduous forests

*New name (Madagasikara Voakajy) and status for conservation organization legalized by Malagasy government

First meeting of new organization's Board of Trustees (Conseil d'Administration)

Pilot study on fruit bats as crop pests

Bat conservation awareness activities in three sites

*Three Malagasy DEA (Masters) students graduated (Tsibara Mbohoahy and Mahefatiana Ralisata)

Six papers submitted for publication (Oryx, Journal of Tropical Ecology, Acta Chiropterologica x 2, Mammalian Biology, Acta Theriologica)

*Coverage on national TV and radio for our flying fox conservation project

Teaching module for Malagasy universities finalized

- 1 GIS training (5 Darwin trainees, 3 Darwin Assistant and 1 partner), languages (English: 2 Darwin Trainees and 1 Project Administrator) and finance and administration (1 person), web-site design (2 Darwin Assistants, 1 Darwin Trainees), course on PowerPoint (5 people)

Not implemented in 2005/06

Website – delayed to next FY

Public launch – during the series of meetings and workshops to create Madagasikara Voakajy we were advised that a launch would have maximum impact if accompanied by a major achievement. We therefore decided to delay the public launch to late 2006 to coincide with the planned opening of six rural primary schools adjacent to flying fox roosts that have been rehabilitated by funds levered by the Darwin Initiative

Assessment of bats as bushmeat – delayed, matching funding failed to materialise

Additional achievements

*Teachers' book in the Malagasy language submitted to government

*Seven community contracts signed for the protection of flying foxes

Two additional Darwin Trainees received supervision and support

*Darwin Assistant attended one week 'Advanced Acoustic Monitoring Course' in US

*Darwin Assistant and Trainee each attended month long Tropical Biological Association field course in Uganda and Madagascar

Darwin Trainee (Julie Razafimanahaka) awarded WWF Prince Bernhard Scholarship

Darwin Fellow received a Whitley Associate Award

Additional £59,400 raised to support our bat conservation activities

Member of Parliament for Moramanga pledged to discuss flying fox conservation, and specifically their status as 'game', in the National Assembly

*Two full research papers, one of which that describes a new species of bat to science, was published by the team

- Provide details of dissemination activities in the host country during the year, including information on target audiences. Will dissemination activities be continued by the host country when the project finishes, and how will this be funded and implemented?

Our flying fox conservation project has featured on 3-4 occasions on national TV, national radio and newspapers. Specific coverage was given to our workshop in April and community contracts in November. In addition, our 40 minute film on bat conservation in the Malagasy language that we produced in 2004 was shown on regional television

Our workshop in Moramanga on integrating bat conservation into primary schools disseminated important information to government (representatives of education and environment ministries), conservation organisations (Action Comoros, Parc Zoologique Ivoloina, The Peregrine Fund, Conservation International), local politicians (two members of parliament)

Our lecture at the Centre d'Ecologie de Libanona disseminated information on bats to 40 undergraduate students engaged in biodiversity and ecology degrees.

Public defences of Malagasy DEA students are attended by university teachers and other students

Following each field study we presented preliminary results to reserve staff

Our colour posters in the Global Mammal Assessment workshop informed participants (Malagasy and international mammalogists) on the activities of our organisation and the challenges facing bat conservation

- Please expand and complete Table 1. **Quantify** project outputs over the last year using the coding and format from the Darwin Initiative Standard Output Measures (see website for details) and give a brief description. Please list and report on appropriate Code Nos. only. The level of detail required is specified in the Guidance notes on Output Definitions, which accompanies the List of Standard Output Measures

Table 1. Project Outputs (According to Standard Output Measures)

Code No.	Quantity	Description
2	6	4 Malagasy, 1 Spanish and 1 French DEA (Masters) students graduated from Malagasy universities
3	5	8-day GIS course attended by 3 Malagasy Darwin Assistants 4 Trainees and 1 project partner
3	5	5 day PowerPoint course attended by five Malagasy Darwin Assistants and Trainees
	3	2 Darwin Assistants and 1 Trainee attended 7-day course on web-site design
3	1	Course on pensions and payroll attended by the Madagasikara Voakajy's Malagasy accountant
3	1	Five day course on financial administration and budget management provided by NGO MANGO (UK) and attended by Madagasikara Voakajy's Malagasy accountant
4A	1	One Malagasy Darwin Trainee
4B	3 months	Training in field and laboratory; academic supervision of research thesis

4C	2	Two Malagasy Darwin Trainees
4D	9 months	Training in field and laboratory; academic supervision of research thesis
5	2	Two new Malagasy Darwin Assistants receive extensive guidance and training in all aspects of project activities
6A	3	Two Malagasy Darwin Assistants and a Malagasy Darwin Trainee
6B	1 week	Advanced Acoustic Monitoring Course (USA) attended by Malagasy Darwin Assistant
6B	2 weeks	Earthwatch Fellowship (South Africa) for one Malagasy Darwin Assistant
6B	1 month	Tropical Biological Association field course (Uganda) attended by Malagasy Darwin Assistants
6B	1 month	Tropical Biological Association field course (Madagascar) attended by Malagasy Darwin Trainee
7	1	Preliminary version of a book for school teachers on bat conservation
8	21 weeks	Dr Richard Jenkins, Darwin Fellow, based in Madagascar for 20 of the 21 weeks
8	6 weeks	Professor Paul Racey, 4 weeks in Madagascar
11A	4	<p>A new species of <i>Scotophilus</i> (Chiroptera: Vespertilionidae) from western Madagascar. Steven M. Goodman, Fanja H. Ratrimomanarivo, and Félicien H. Randrianandrianina. <i>Acta Chiropterologica</i> (in press)</p> <p>Andriafidison, D. A., R. A. Andrianaivoarivelo, R. K. B. Jenkins, O. Ramilijaona, M. Razanahoera, J. MacKinnon and P. A. Racey. 2006 Nectarivory by endemic Malagasy fruit bats in the dry season. <i>Biotropica</i>. 38, 85-90</p> <p>Goodman, S. M., R. K. B. Jenkins and F. H. Ratrimomanarivo. 2005 A review of the genus <i>Scotophilus</i> (Chiroptera: Vespertilionidae) on Madagascar, with the description of a new species. <i>Zoosystema</i>. 27, 867-882</p> <p>Ifticene, E., J. H. Razafimanahaka and S. M. Goodman. 2005. <i>Les Chiroptères</i>. In J. Ratsiraron and S. M. Goodman (Eds.). <i>Suivi de la biodiversité de la Forêt Littorale de Tampolo</i>, pp. Recherches pour le Developpement.</p>
11B	6	<p>Fruit Diet and Seed Dispersal by <i>Eidolon dupreanum</i> (Pteropodidae) from a Rainforest Edge in Eastern Madagascar. Monica Picot, Richard K.B. Jenkins, Olga Ramilijaona, Paul A. Racey and Stephanie M. Carrière. <i>Acta Theriologica</i></p>

Habitat use by bats in rainforest and adjacent human-modified habitats in Eastern Madagascar. Felicien Randrianandrianina, Daudet Andriafidison, Richard K. B. Jenkins, Amyot F. Kofoky, Olga Ramilijaona¹, Fanja Ratrimomanarivo and P. A. Racey. **Acta Chiropterologica**

Not rare, but threatened: conservation of the endemic Madagascar Flying Fox (Pteropodidae: Pteropus rufus) in a fragmented landscape. Richard K. B. Jenkins, Daudet Andriafidison, H. Julie Razafimanahaka, Andriamanana Rabearivelo, Noromampiantra Razafindrakoto, Rabe H. Andrianandrasana, Emilienne Razafimahatratra and Paul A. Racey. **Oryx**

Patterns of morphological variation in Myzopoda (Myzopodidae: Chiroptera) and the description of a new species. Steven M. Goodman, Amyot Kofoky and Félix Rakotondraparany, **Mammalian Biology**

Records of Tree Roosting Bats from Western Madagascar. Daudet Andriafidison, Radosoa Andrianaivoarivelo and Richard Jenkins. **African Bat Conservation News**

The first roost of *Myzopoda* sp. from western Madagascar. Amyot Kofoky, Daudet Andriafidison and Richard Jenkins, **African Bat Conservation News**

14A	1	4-day workshop organised by Madagasikara Voakajy on bat conservation and education, April 05
14B	1	IUCN Global Mammal Assessment workshop, April 05
15A	23	Newspapers, French and Malagasy
17A	1	A forum for bat conservation was set up between two Malagasy organisations (Madagasikara Voakajy, ACCE) and Action Comoros.
18A	1	Two broadcasts on national TV6
21	1	A new Malagasy conservation organisation, called Madagasikara Voakajy, dedicated to the conservation of endemic Malagasy vertebrates and their habitats

- In Table 2, provide full details of all publications and material produced over the last year that can be publicly accessed, e.g. title, name of publisher, contact details, cost. Details will be recorded on the Darwin Monitoring Website Publications Database. Mark (*) all publications and other material that you have included with this report.

Table 2: Publications

Type * (e.g. journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (e.g. contact address, website)	Cost £
Scientific publication	Andriafidison, D. A., R. A. Andrianaivoarivelo, R. K. B. Jenkins, O. Ramilijaona, M. Razanahoera, J. MacKinnon and P. A. Racey. 2006 Nectarivory by endemic Malagasy fruit bats in the dry season. <i>Biotropica</i> . 38, 85-90	Blackwell	http://www.blackwell-synergy.com/doi/abs/10.1111/j.1744-7429.2006.00112.x	\$39.00
Scientific publication	Goodman, S. M., R. K. B. Jenkins and F. H. Ratrimomanarivo. 2005 A review of the genus <i>Scotophilus</i> (Chiroptera: Vespertilionidae) on Madagascar, with the description of a new species. <i>Zoosystema</i> . 27, 867-882	Muséum national d'Histoire naturelle Service des Publications Scientifiques	http://www.mnhn.fr/museum/front/media/s/publication/6897_z05n4a8.pdf	??

10. Project Expenditure

- Please expand and complete Table 3.

Table 3: Project expenditure during the reporting period (Defra Financial Year 01 April to 31 March)

Item	Budget (please indicate which document you refer to if other than your project schedule)	Expenditure	Balance
Rent, rates, heating, overheads etc	▼	▼	▼
Office costs (e.g. postage, telephone, stationery)	▼	▼	▼
Travel and subsistence	▼	▼	▼
Printing	▼	▼	▼

Deleted: 1000.00

Deleted: 1000.00

Deleted: 0.00

Deleted: 1000.00

Deleted: 896.86

Deleted: 103.14

Deleted: 7000.00

Deleted: 5699.41

Deleted: 1300.59

Deleted: 500.00

Deleted: 190.40

Deleted: 309.60

material, or on the Darwin website. As we will not be able to ask projects on an individual basis for their consent to publish the content of this section, please note the above agreement clause.

A new national conservation organisation, called Madagasikara Voakajy, was created which is dedicated to the conservation of bats and other endemic Malagasy vertebrates. This Darwin Initiative follow-up project has already made significant progress and is conducting a varied conservation programme that includes producing environmental education resources for primary schools, training young Malagasy bat ecologists, ecological research on seed dispersal and pollination by bats and the creation of protected areas for roosting fruit bats.

Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2005/2006

Project summary	Measurable Indicators	Progress and Achievements April 2005-Mar 2006	Actions required/planned for next period
<p>Goal: To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve</p> <ul style="list-style-type: none"> • The conservation of biological diversity, • The sustainable use of its components, and • The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources 			
<p>Purpose <i>(insert original project purpose statement)</i></p>	<p><i>(insert original purpose level indicators)</i></p>	<p><i>(report impacts and achievements resulting from the project against purpose indicators – if any)</i></p>	<p><i>(report any lessons learned resulting from the project & highlight key actions planning for next period)</i></p>
<p>Outputs</p>			
<p><i>(insert original outputs – one per line)</i></p>	<p><i>(insert original output level indicators)</i></p>	<p><i>(report completed activities and outcomes that contribute toward outputs and indicators)</i></p>	<p><i>(report any lessons learned resulting from the project & highlight key actions planning for next period)</i></p>
<p>A national conservation NGO for bats</p>	<p>Mission statement, website, brochure</p>	<p>A new NGO has been created and registered with government. A board of Malagasy trustees has been appointed. Additional funding has been acquired and the NGO is invited to participate in surveys</p>	<p>Significant amount of extra work for the Darwin Fellow to provide technical and financial reports to the board.</p>
<p>Student theses</p>	<p>Students graduated</p>	<p>Three students successfully obtained their DEA degree during the reporting period. Students also attended a range of additional</p>	<p>The average time from start of fieldwork to graduation for a DEA (masters) in Madagascar is</p>

		courses, ranging from GIS to English language	approximately 3 years
Bat conservation plans		Management plans in preparation for the Madagascar flying fox. Community contracts signed for seven areas to protected roosts	
Education and awareness	Posters, interpretation boards, media coverage	National media coverage on TV, radio and newspapers for three major activities Poster presentations at the Global Mammal Assessment workshop Leading a project to develop teaching materials for primary schools about bats	

Note: Please do NOT expand rows to include activities since their completion and outcomes should be reported under the column on progress and achievements at output and purpose levels.

LOGICAL FRAMEWORK

<i>Project summary</i>	<i>Measurable indicators</i>	<i>Means of verification</i>	<i>Important assumptions</i>
<p>Goal:</p> <p>To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve</p> <ul style="list-style-type: none"> • the conservation of biological diversity, • the sustainable use of its components, and • the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources 			
<p>Purpose</p> <p>To establish a national conservation organisation, specialising in bats, that is self-sufficient and maintains the Malagasy student training programme with research projects focussed on assessing forest dependency in bats and wider awareness raising activities</p>	<p>Public launch</p> <p>New legal status as NGO & board of advisors appointed</p> <p>Darwin Trainees engaged on bat conservation research projects</p> <p>Bats kept on the conservation agenda</p>	<p>Media coverage and legal documentation sent to Darwin</p> <p>Additional collaborations formed with new host-country partners</p> <p>Included in national biodiversity events as an NGO partner</p>	<p>Continued support of Malagasy staff</p> <p>Media interest</p> <p>Governmental approval</p> <p>Other NGOs accept us as a potential new partner</p> <p>The demand for trainees by this, and other organisations, does not outstrip availability</p> <p>Bat conservation is taken seriously and interest is matched by commitment</p>
<p>Outputs</p> <p>National Conservation NGO, for bats</p> <p>Student theses</p> <p>Bat conservation plans</p> <p>Education and awareness</p>	<p>Mission statement, website, brochure</p> <p>Students graduated</p> <p>Posters, interpretation boards and media coverage</p>	<p>All copies, recordings and photos sent to Darwin</p>	<p>Continued support from host-country partners in obtaining permission</p>
<p>Activities</p> <p>Establishing new NGO with sound financial management</p> <p>Darwin Trainee and Assistant training and development programme</p>	<p>Activity Milestones (Summary of Project Implementation Timetable)</p> <p>Yr 1: Change our legal status to NGO and to introduce a sound F&A system. Key staff to follow training courses. Launch of the new NGO with media coverage. Appointment of advisory board and first meeting held. Yr 2: The NGO active in bat conservation and participating at national, regional and local levels. Support given to local NGOs with an interest in bat conservation. Business plan produced, with host-country partners, to ensure long-term funding.</p> <p>Yr 1: Training courses attended. Two Darwin Trainees to conduct DEA research. Darwin Assistant to undertake conservation research and contribute to training. Presentations given to interested parties. Yr 2: One Darwin Trainee to conduct DEA research and follow training course, more to follow with additional funding. Yr 1 students to defend theses and graduate.</p>		

