

## ***Darwin Initiative Annual Report***

Submission deadline 30 April 2008

### **Darwin Project Information**

Project Ref Number	14-006
Project Title	Conservation of Small Vertebrates in Tsingy Bemaraha National Park, Madagascar
Country(ies)	Madagascar
UK Contract Holder Institution	University of Aberdeen
UK Partner Institution(s)	
Host country Partner Institution(s)	Association Nationale pour la Gestion des Aires Protegees
Darwin Grant Value	£161,100
Start/End dates of Project	1 October 2005 to 30 September 2008
Reporting period (1 Apr 200x to 31 Mar 200y) and annual report number (1,2,3..)	1 April 2007 to 31 March 2008, annual report 3
Project Leader Name	Paul A. Racey
Project website	<a href="http://www.madagasikara-voakajy.org/en/bemaraha_tsingy">www.madagasikara-voakajy.org/en/bemaraha_tsingy</a> <a href="http://www.madagasikara-voakajy.org/en/darwin_initiative">www.madagasikara-voakajy.org/en/darwin_initiative</a>
Author(s), date	Paul A. Racey and Richard K. B. Jenkins, 30/4/08

### **1. Project Background**

Tsingy Bemaraha National Park is an area of exceptional biodiversity even for a country such as Madagascar. The landscape in the park is impressive, consisting of dry deciduous forest and numerous canyons and caves in the limestone outcrops. Ongoing research is uncovering new endemic species to the park each year, in addition to the numerous small vertebrate species that are already known to depend on its forest for survival. The park received 6,894 tourists in 2006, making it the fourth most visited park on the island

This project began as an invitation from the park management's team to support conservation of its small vertebrate species. Since it was established as a national park and World Heritage Site in 1990 it has received significant financial support from the European Union. This funding was intended to establish the park as a new tourist destination and ended in 2007, one year later than planned. With significantly less resources available post-2006, but with the same responsibility, the park's director invited the University of Aberdeen's Darwin project team in 2004 to rationalise their species monitoring plan to focus on taxa of conservation priority and to recommend improvements to existing protocols that could be achieved using the resources that are available annually. A key aspect to this project was therefore that there would be very little post-project involvement by Darwin project staff in the park and that recommendations to existing protocols were to be designed within the available means.

## **2. Project Partnerships**

In Madagascar all project activities are undertaken by staff of a new Malagasy organisation, called Madagasikara Voakajy that was established in May 2005 with support from a Darwin Initiative follow-up award.

The host-country institution (ANGAP-Bemaraha) works very closely with the DI project team. ANGAP-Bemaraha has permanent staff stationed in and around the park as well as an office in the capital city, Antananarivo. All activities are planned in advance with the director of the park and specific project details worked out through the year with the director and his senior staff. This relationship has continued to develop and we are now planning a joint conservation education festival in rural primary schools for World Environment Day 2008. The DI project team is funding the festival and preparing the materials and the ANGAP-Bemaraha Education Officer is organising the activities and logistics. There is regular contact between both teams and the Darwin project team supports the ANGAP team in a number of areas, such as technical advice on GIS (to maintain the skills acquired during the DI funded training in 2005), reviewing research proposals for the park and providing copies of all new literature (e.g. the recently published Field Guide to the Amphibians and Reptiles of Madagascar). There is a real sense of a partnership between the Darwin project and ANGAP which is not always easy to create and maintain in Madagascar.

The project has developed its collaboration with the Département de Biologie Animale, Université d'Antananarivo, and a professor from this department ran a training course for the park guides to improve their ornithological field skills in November 2007. A professor and the head of department continue to provide supervision to two Malagasy students who undertook their field research training project in NP Tsingy de Bemaraha.

Our collaboration with Dr Frank Glaw (Zoologische Staatssammlung, München) is coming to fruition and a joint scientific publication on the reptiles and amphibians of the park is near completion.

The project has established contact with the Claudine Ramiarison the CBD focal point in Madagascar but does not yet have a close relationship.

## **3. Project progress**

### **3.1 Progress in carrying out project activities**

*Capacity building, ANGAP staff:-* We expanded our training programme for guides in 2007 following very positive feedback from the host-country partner on the 2006 capacity building programme. We ran an extended and advanced language training course for guide and park staff over 3 weeks in May/June 2007. This was attended by 19 park guides and 7 park staff. It was tailored to the request from the park director and focussed on improving oral skills in English and French as well as the etiquette of dealing with foreign tourists. The training consisted of classroom lessons as well as exercises in the forest to evaluate and improve the way that the guides interact with tourists. Five of the guides had significantly improved their English since the 2006 training using the books and CDs that were provided. All guides/staff are better in French than English but significant progress was made by everyone. The next step should consist of advanced lessons of those with the best English but this is not favoured by the park's director. All but three individuals who failed to attend the minimum number of sessions received books and CDs. In collaboration with the University d'Antananarivo, 23 guides attended a training course on ornithology that covered biology, conservation, identification (visual and acoustic). The attendees were pre-tested for the existing bird knowledge and then divided into two groups for classroom and field

lessons. Three guides showed exceptional interest and an impressive knowledge of birds and would be the ideal candidates to receive further training (and optical equipment) to provide the park with resident ornithologists to cater for bird tour groups. This approach is not favoured by the park director. The park has eight agents who function as tourist guides but also conduct management, education and monitoring activities. The bulk of the guiding is done by an independent association that is affiliated to the park. This is a common scenario in many of Madagascar's parks and is caused by the seasonal variation in tourism, with PN Tsingy Bemaraha the extreme because it is closed from December to May every year. The director of the park is reluctant to provide unequal opportunities to the guides because it risks destabilising the system that they have carefully nurtured. In other parks, certain guides are well known for being specialists (e.g. birds, plants, herpetofauna) and receive a greater income because of this.

*Capacity building, Malagasy students:*- There are currently four Malagasy DEA students involved in the project, two from the Département de Biologie Animale, Université d'Antananarivo and two from the Département de Biologie, Université de Toliara. Two of these students completed their research degrees and graduated in 2007/2008. The project continues to provide support to the two students from the Université d'Antananarivo who have completed draft theses but require additional assistance with incorporating the corrections required by their university supervisors. The two students who graduated have been involved in other projects with Madagasikara Voakajy (on bushmeat and chameleons) and therefore continue to develop their careers with the Darwin team.

*Capacity building, Madagasikara Voakajy staff (not in original proposal):*- The Malagasy Darwin Assistants on this project have developed into formidable conservation leaders. The project has provided them with the resource and responsibility to engage with the host country partner to plan activities. Other skills, such as preparing budgets, proposals, and scientific writing have been improved because they have been permanently engaged with Madagasikara Voakajy. This Darwin project has given these individuals the opportunity to develop their own careers, an especially important point since this project was never planned to have a long-term presence in Tsingy Bemaraha. Christian Randrianantoandro, for example, who leads the herpetofaunal part of the project has built a considerable reputation for himself as a chameleon expert on the basis of his work on this project. This has led to him attending an international conference, developing close working relationships with international experts (e.g. taxonomists, IUCN) and raising new funds to maintain his chameleon work. During 2007/08, with the help of Richard Jenkins, he raised £1k from a web design company who use a chameleon logo, £12k from the Conservation Leadership Programme and £6 from Conservation International for chameleon work.

*Annual workshops and meetings:*- Christian Randrianantoandro obtained a grant from the Conservation Leadership Programme to present a poster on the chameleon conservation in Tsingy de Bemaraha National Park at the Society for Conservation Biology meeting in Port Elizabeth. Julie Razafimanahaka presented a poster (and won 4<sup>th</sup> prize) at the International Student Conference on Conservation Biology about our project with the Ministry of Education to develop new teaching materials for primary schools. All of the project team continue to interact regularly with host country partner staff as well as attending other meetings in Madagascar about biodiversity and conservation.

*Publicity & dissemination:*- With financial support from Conservation International we have produced a website for Madagasikara Voakajy that has pages dedicated to the Darwin Initiative in Madagascar and this particular project. We disseminated results through scientific publications, unpublished reports and poster presentations.

## **3.2 Progress towards Project Outputs**

### **1. Informed & trained guides**

#### *Field skills in ornithology*

The knowledge of 23 guides was improved during a training course in November 2007

#### *Language skills & etiquette*

Additional (one-to-one) training was given to 28 guides to improve their language skills (especially listening)

Guides were assessed on their ability to greet and interact with tourists and received training on ways to improve the touristic experience

### **2. Malagasy students trained:**

*Raphali Andriantsimanarilafy* obtained his DEA in November 2007 from the University of Toliara. He is part of the new chameleon project recently funded by the Conservation Leadership Programme that begins at the end of this Darwin grant.

*Théodore Manjoazy* obtained his DEA in April 2008 from the University of Toliara. He has worked part time for Madagasikara Voakajy on a bushmeat project funded by the British Ecological Society and the Wildlife Conservation Society in the south of Madagascar but the continuation of this work is subject to the acquisition of new funds.

*Hantalalaina E. Fideline* has completed her draft thesis and is awaiting corrections from her supervisor in the University d'Antananarivo. She completed her field studies for her degree in March 2006 and, based on the average time to graduation in her department, anticipates completing her diploma by the end of 2009.

*Tojo Ramihangihajason* completed his draft thesis and is awaiting corrections from his supervisor in the University d'Antananarivo. He completed his field studies for his degree in October 2006 and, based on the average time to graduation in his department, anticipates completing her diploma by the middle of 2010.

### **3. Education programme:**

*Bureau Programme d'Education Environnementale [BPEE] (Ministry of Education and Scientific Research)*

The Darwin project is one of four pilot sites in Madagascar for the development of new teacher materials for primary school children to focus on bats and forest conservation. The project will develop a module for use by teachers as well as other materials to support learning. In 2007/08 we continued to develop this part of the project and the modules designed by the Darwin project team and colleagues in BPEE have been tested in rural primary schools. We have also just finished two new teaching posters that teachers can use in lessons about food webs.

*World Environment Day 2008*

Since February 2008 we have been planning the festivities for this event with our host-country partner. This year the event will be sponsored by the Darwin project and a number of activities will be held in schools in the run-up to June 5<sup>th</sup> to promote knowledge of the endemic species in the park.

*Interpretation posters*

We produced six large faunal posters (lemurs, birds, reptiles, amphibians, bats and carnivores/rodents) for the new visitor centre in the south of the park. The centre was due to be opened in 2007 but this was postponed to August 2008.

#### **4. Project website**

Conservation International contracted Ibonia ([www.ibonia.com](http://www.ibonia.com)) to design a website for Madagasikara Voakajy. Darwin project staff prepared the relevant web pages in English and French as the site was launched in 2007.5. Ecological monitoring programme

*Field research* We completed another season of trapping for endemic tufted rats *Eliurus* spp. in the south of the park. We also made our fifth annual visit to the 16 caves to monitor the bat colonies. Surveys were conducted in forest and caves in the Anjohibe karst.

*Analysis & results*

We have completed the main analysis of the data collected on priority chameleons and this work is in press in the journal *Oryx*. We also published a paper in *Amphibia-Reptilia* on chameleon ecology. We are now working on the final monitoring document for the chameleons of the park. Since a number of new species have been described in the park since 2005 we are also preparing a document to highlight its conservation value and this will be submitted in 2008.

*Implementation of monitoring protocols*

Existing monitoring of *Brookesia* continued in the previous wet season with planned modifications still under consideration by the park's management team.

3.3 Standard Measures

**Table 1 Project Standard Output Measures**

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Total planned from application
Established codes							
2	Malagasy DEA students	3	4	4		4	4
3	Accredited courses in GIS (5 days) and GPS (students/park staff/Darwin assistants)	1/8/0	2/0/2	1/0/0		4/8/2	10
3	Accredited courses in GPS (5 days) and GPS (students/park staff/Darwin assistants)	1/8/0	2/0/2	1/0/0		4/8/2	10
4A	Malagasy DEA students: thesis preparation and involvement in other project activities	3	4	4		4	4
4B	Malagasy students (wks) R. Andriantsimanarilafy T. Ramihangihajason H. Fideline T. Manjoazy	0 0 0 0	12 8 5 0	12 6 5 6		24 14 10 6	Not specified
5	Ongoing training/work experience for Darwin Assistants	4	5	5		5	Not specified
6A	Park guides (n people): Languages Field identification Biodiversity/biology School teachers: Bats & forests	0 0 0 0	21 21 21 9	26 23 0 0		26 23 21 9	18 18 18 0
6B	Training weeks Languages Field identification Biodiversity/biology School teachers: Bats & forests		1 2 1 2	3 1 0 0		4 3 1 2	Not specified

7	Training materials:						Not specified
	Bats	0	2	0		2	
	Birds	0	0	2		2	
	Herpetofauna	0	1	1		2	
	Languages	0	2	2		4	
	Interpretation posters	0	6	0		6	4
8	UK staff						
	P. A. Racey	4	4	4		12	12
	R. K. B. Jenkins	8	20	40		68	Not specified
11A	Published papers	0	1	1		2	2
11B	Submitted papers	0	1	1		2	2
13B	Specimen collections enhanced	1	1	1		1	1
14B	Dissemination of project results in meetings/conferences	0	0	1	1	2	2
	Other dissemination ( <a href="http://www.arkive.org/species/GES/reptiles/Brookesia_perarmata/more_info.html?section=all">http://www.arkive.org/species/GES/reptiles/Brookesia_perarmata/more_info.html?section=all</a> )	0	0	1		1	0
23	Other funds raised:					£63,300	
	Direct project:-						
	Interpretation posters	0	£800	0			
	Ecotourism study	0	0	£6,000			
	Chameleons	0	0	£1,000			
	Other projects, supporting Darwin Assistants and trainees:-						
	Chameleons	0	£5,500	£12,000			
	Geckos	0	0	£1,500			
	Amphibians	0	£0	£13,500			
	Bat conservation		£15,000	£8,000			

In Table 2, provide full details of all publications and material produced over the last year that can be publicly accessed, eg title, name of publisher, contact details, cost. Mark (\*) all publications and other material that you have included with this report.

**Table 2 Publications**

Type *	Detail	Publishers	Available from	Cost £
(eg journals, manual, CDs)	(title, author, year)	(name, city)	(eg contact address, website)	
Journal	Roost site characteristics of sympatric dwarf chameleons (genus <i>Brookesia</i> ) from western Madagascar. Randrianantoandro, J.C.; Randrianelona, R.; Antsimanarilafy, R. R., Elisoa; F.H., Rakotondravony, D.; Jenkins, R. K.B.	BRILL, Leiden.	<a href="http://www.ingentaconnect.com/content/brill/mre/2007/00000028/0000004/art00016">http://www.ingentaconnect.com/content/brill/mre/2007/00000028/0000004/art00016</a>	£13.00

### 3.4 Progress towards the project purpose and outcomes

We remain on track to deliver our main project purpose and the original outputs as well as a range of additional ones. We have made major progress in guide training, developing Malagasy students and field studies on priority taxa. We are receiving excellent support and positive feedback from our host country partner, and the whole project is evolving in a timely way towards completion with a number of major outputs and activities over the coming six months.

### 3.5 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

We are contributing to the sustainable use of the unique biodiversity of the park by assisting in the creation of a new visitor centre and by raising the capacity of guides to identify wildlife and interact confidently in English and French. The project is having positive impacts on biodiversity through raising the profile of the park's fauna in schools and villages, as well as internationally through conferences and scientific publications.

## 4. Monitoring, evaluation and lessons

**Lessons:** The key lesson is that we have to be flexible. This project has a Darwin team based in Madagascar and this enables frequent contact between all project stakeholders. Plans are devised, postponed and re-jigged on a regular basis, and almost always to take into account the needs of the host country partner.

**Monitoring and evaluation:** As in previous years, our student training programme is assessed by staff in Malagasy universities who have accompanied us into the field. We are confident that our outputs contribute to the project purpose because the project was conceived in Madagascar with the host country partner. This project was also part of a DEFRA thematic review and the head of our host country partner provided detailed feedback to the consultant on this project. We were given the impression that this feedback was very positive.

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

The reviewer requested more details about Madagasikara Voakajy, its funding and current staff.

Madagasikara Voakajy was created in 2005 as part of a Darwin post-project award and aimed to provide career opportunities and institutional support for promising Malagasy biologists (many of whom had been trained on previous DI projects in Madagascar but had found it difficult to find employment, and in that sense it represent a dynamic legacy for all of the previous DI projects on the island). It has a Malagasy board of directors, is directed by Dr Richard Jenkins and currently employs eight Malagasy scientists and eight support staff (administration, drivers, guardians etc.). One staff member is currently doing her MSc at the University of East Anglia funded by a Darwin Scholarship. There are many (up to eight at any one time) Malagasy students associated with the organisation, some of whom are engaged as employees when they have completed their degrees. Other trainees and staff have obtained employment in NGOs (e.g. Birdlife) and government (e.g. Ministry of the Environment, Water, Forests and Tourism) or have taken opportunities to study for their PhDs. The organisation has a distinctive niche and focuses in taxonomic terms on bats and herpetofauna but has a unique blend of education, conservation and research activities. It is funded mainly by small grants, averaging £5,000 (excluding DI) and is an appropriate future host country partner for new DI projects.

## **6. Other comments on progress not covered elsewhere**

We are into the last 6 months of the project and a number of key activities will bring the work to an end. The various booklets and publications in preparation are also on course to be completed before September, ensuring a productive finale and busy final stakeholder workshop.

Some problems were encountered in the second half of 2007 that were associated with the end of the EU funding. A number of jobs were lost in the Bemaraha Programme (this was the multi-faceted project that undertook social and development work to support the ANGAP park management activities), although all of the key staff who worked with us on the park conservation remained in post. Throughout a period of uncertainty there were visible signs of reduced motivation in our host country partner between November and January. The park recently obtained new funding until the end of 2009.

## **7. Sustainability**

This was conceived as a three year project and that has not changed. We cannot ensure sustainability, but can promote it through the various training programmes that we have organised or sponsored and through making realistic recommendations. It is clear though that the host country partner will require a very low-level of ongoing technical support that we will always be happy to provide (e.g. answering technical questions on GIS etc.). This project has also raised the capacity of a new Malagasy NGO and four Malagasy students. For all of these people to contribute to the CBD and the Darwin legacy they need to be employed in conservation. Madagasikara Voakajy is an appropriate platform for these Malagasy scientists to work from and whilst (at this stage) it is not possible to confirm that every person currently engaged on the project will be retained, we are not anticipating major personnel changes.

## **8. Dissemination**

Our main activities have centred on improving the knowledge of guides and providing interpretation resources for a new visitor centre. These activities used the results and photographs obtained during the project and are disseminating the importance of the park and its biodiversity to tourists. We have a parallel programme that is ongoing to promote the uniqueness of the park in local communities and schools.



## 9. Project Expenditure

**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 application)	Expenditure	Balance
Rent, rates, heating, overheads etc			
Office costs (eg postage, telephone, stationery)			
Travel and subsistence			
Printing			
Conferences, seminars, etc			
Capital items/equipment			
Others			
Salaries (specify)			
TOTAL			

Highlight any agreed changes to the budget and explain any variation in expenditure where this is +/- 10% of the budget.

There is considerable variation in most of the budget categories. In previous years, we have transferred funds from the University of Aberdeen to Madagascar and continued to spend into the next financial year. So for example, if we transferred £1,000 against three budget categories (£500 salaries, £500 travel, £1,000 printing) before the end of March we would continue to spend these funds into the next FY against the agreed budget. We were planning on continuing this system again this year, but were unable to and on advice from our financial department we spent all of the money within the FY. The largest discrepancy was between 'Others' and 'Salaries'. We obtained additional grants that covered the costs of key Malagasy salaries which enabled us funds originally allocated to salaries for other emerging priorities, such as vehicle repairs.

## 10. **OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes**

[I agree for ECTF and the Darwin Secretariat to publish the content of this section](#) (please leave this line in to indicate your agreement to use any material you provide here)

Christian Randrianantoandro obtained sponsorship from the Conservation Leadership Programme to present a poster on the conservation of chameleons in the Tsingy de Bemaraha National Park at the Society for Conservation Biology Conference in Port Elizabeth, South Africa. In 2008 he was awarded a grant from the Conservation Leadership Programme to develop the chameleon conservation activities that he launched in this Darwin project in Tsingy de Bemaraha National Park.

## Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2007/08

Project summary	Measurable Indicators	Progress and Achievements April 2007 - March 2008	Actions required/planned for next period
<p><b>Goal:</b> <i>To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve</i></p> <p><i>The conservation of biological diversity,</i></p> <p><i>The sustainable use of its components, and</i></p> <p><i>The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</i></p>			<p><i>(do not fill not applicable)</i></p>
<p>Purpose</p> <p>To conserve the small vertebrates of Tsingy de Bemaraha National Park by training Malagasy students and guides, leading to the implementation of a new monitoring program, prioritized conservation action and sustainable tourism activities</p>	<p>Monitoring programme tested and running by year 3</p> <p>Levels of ecotourism controlled in sensitive habitats/caves by year 2</p> <p>Improved ability of guides to educate park visitors</p> <p>Most threatened species identified (yr 2) and conservation action implemented (yr 3)</p>	<p>Monitoring programme underway; revisions under consideration by host country partner</p> <p>Up to 28 guides received advance language training and field course on ornithology</p> <p>Red List assessments and action plans in preparation</p>	<p>Stakeholder workshop that combines monitoring with conservation of chameleons</p> <p>Reptile booklet produced</p> <p>Red List assessments submitted to IUCN</p>
<p>Output 1. Implementation of monitoring programme</p>	<p>Data collection</p> <p>Monitoring guidelines</p>	<p>This remains on track and is in negotiation stage with final uptake expected in the next stakeholder workshop</p>	
<p>Activity 1.1 Revise priority species for the park</p>		<p>This is ongoing. Two new frog species endemic to the park were described in 2007. The final document will be handed over to the park in September 2008.</p>	

Activity 1.2 Close support to park scientists		The Darwin team and ANGAP worked closely together and are going through the proposed changes to the annual monitoring plans.
Output 2. Action plans for small invertebrates	Action plan published	This information for this output is still being collected.
Activity 2.1. Field data collection		This continued in 2007/08
Activity 2.2. Data analysis		This continued in 2007/08
Activity 2.3. Liaison with international experts		This continued in 2007/08
Output 3. Informed and trained guides	Training sessions completed Guidebook published	We continued to provide <i>in situ</i> training for park guides and park staff. The guidebook on reptiles is in preparation
Activity 3.1. Training sessions		We held advanced courses on English, French, etiquette and field ornithology
Output 4. Malagasy students trained	Students graduate Supervisors' field visits	Two Malagasy trainees graduated in 2007/08

## Annex 2 Project's full current logframe

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p><b>Goal:</b></p> <p><b>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</b></p> <ul style="list-style-type: none"> <li>• <b>the conservation of biological diversity,</b></li> <li>• <b>the sustainable use of its components, and</b></li> <li>• <b>the fair and equitable sharing of benefits arising out of the utilisation of genetic resources</b></li> </ul>			
<p><b>Purpose</b></p> <p>To conserve the small vertebrates of Tsingy Bemaraha National Park by training Malagasy students and guides in fieldwork surveys, leading to the implementation of a new monitoring program, prioritised conservation action and sustainable tourism activities</p>	<p><i>Ecological monitoring programme tested and running by yr 3</i></p> <p><i>Levels of tourism controlled in sensitive habitats/caves by yr 2</i></p> <p><i>Improved ability of tour guides to educate park visitors</i></p> <p><i>Most threatened species identified (yr 2) and conservation action implemented (yr 3)</i></p>	<p><i>Field surveys, data collection and student theses</i></p> <p><i>Questionnaires to tourists at start and end of project</i></p> <p><i>Data quality checks after field phase</i></p> <p><i>Malagasy supervisors' visits</i></p>	<p><i>TBNP continues to receive in-country funds to support core-activities</i></p> <p><i>Guides attend classes and field workshops</i></p> <p><i>Park staff are made available</i></p> <p><i>Availability of students and teachers</i></p>
<p><b>Outputs</b></p> <p>1 Ecological monitoring programme implemented</p> <p>2 Action plans for small vertebrates</p> <p>3 Informed &amp; trained guides (18)</p> <p>4 Malagasy students trained</p> <p>5 Education programme for guides</p>	<p>1 Data collection</p> <p>2 Monitoring manual</p> <p>3 Papers (4) submitted</p> <p>4 Action plans published</p> <p>5 Students graduate</p> <p>6 Guide book published</p> <p>7 Malagasy supervisors visit</p> <p>8 Attendance at training sessions and courses</p>	<p>Copies of all reports, databases, photographs, thesis, papers, certificates, recordings and articles sent to Darwin</p>	<p>Park management receptive to recommendations and make appropriate improvements to undertake interventions as required</p>

<p>6 Simple key to endemic reptiles</p> <p>7 ANGAP senior conservation staff trained in GIS and data analysis</p> <p>8 Media coverage</p> <p>9 Project website</p>	<p>9 TV and radio broadcasts</p>		
<p><b>Activities</b></p> <p><i>Tour guide education programme</i></p> <p><i>ANGAP conservation staff and Malagasy student training programme</i></p> <p><i>Field test followed by implementation of monitoring protocol</i></p> <p><i>Surveys of two other Tsingy sites</i></p> <p><i>Annual workshops</i></p> <p>Publicity and dissemination</p>		<p><b>Activity Milestones (Summary of Project Implementation Timetable)</b></p> <p>Project launch, team recruitment and first stakeholder workshop (Yr1)</p> <p>Field research and training projects, January-March and July-October, (Yrs 1 &amp; 2)</p> <p>Stakeholder workshops November 2005, 2006 &amp; 2007 and August 2008</p> <p>Schools environmental education project (yrs 1 &amp; 2)</p> <p>Surveys of two other Tsingy protected areas (yr 3)</p> <p>Radio and TV broadcast, TBNP newsletters, poster and published documents (all years)</p>	

**Annex 3 onwards – supplementary material (optional)**

### ***Checklist for submission***

	Check
<b>Is the report less than 5MB?</b> If so, please email to <a href="mailto:Darwin-Projects@ectf-ed.org.uk">Darwin-Projects@ectf-ed.org.uk</a> putting the project number in the Subject line.	
<b>Is your report more than 5MB?</b> If so, please advise <a href="mailto:Darwin-Projects@ectf-ed.org.uk">Darwin-Projects@ectf-ed.org.uk</a> that the report will be send by post on CD, putting the project number in the Subject line.	
<b>Do you have hard copies of material you want to submit with the report?</b> If so, please make this clear in the covering email and ensure all material is marked with the project number.	
Have you completed the Project Expenditure table?	
Do not include claim forms or communications for Defra with this report.	