

# DAVIS EXPEDITION FUND

## REPORT ON EXPEDITION / PROJECT

**Expedition/Project Title:** Project Kobokara 2011

**Travel Dates:** 11 July – 13 September

**Location:** Kobokara, Southern Madagascar

**Group Members:**

*UNIVERSITY OF EDINBURGH*

**MARK SCHERZ** – TEAM LEADER, SCIENCE COORDINATOR,  
HERPETOLOGICAL RESEARCH

**MATTHEW MAY** – ASSISTANT TEAM LEADER, MEDICAL OFFICER,  
RADIATED TORTOISE RESEARCH

**JUSTINE TAYLOR** – ANTHROPOLOGICAL RESEARCH

**NATALIE JANE SMITH** – ORAL TESTIMONIES AND NGO IMPACTS

*CENTRE ECOLOGIQUE LIBANONA*

**HERMAN ANICET TSIAFA** – HERPETOLOGICAL RESEARCH

**MORULLA DANVI TAPIETE** – BOTANICAL RESEARCH

**MIANDANARIVO RAKOTOMALAZA** – RADIATED TORTOISE RESEARCH

**Aims:**

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- To create a baseline herpetofaunal inventory of a previously unstudied area of Spiny Forest
  - To collect disturbance information on an area of Utility Forest, and investigate the way this is affecting herpetofaunal and botanical diversity
  - To investigate the status of the critically endangered Radiated Tortoise, *Astrochelys radiata* in the Kobokara area.
  - To understand the way NGOs are influencing life in remote areas of southern Madagascar.
  - To investigate local medical treatments and practices.
  - To forge a connection between the school of Kobokara and Simpson's Primary School in Edinburgh.
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### **Outcome (not less than 300 words):-**

Further analysis will be presented in the Final Report (see below)

#### *Herpetological Research:*

We found a total of 22 reptile species, spread across 15 lizard species, 6 snake species and 1 tortoise species, in 8 families and 16 genera. Most species were either rare (7) or infrequent (5), while 5 were common and 5 abundant. The majority of sampled species were terrestrial (63.6%), while only 27.3% were arboreal. Just two species (9.1%) were fossorial. The vast majority of species were disturbance tolerant (86.4%). Only three species were restricted entirely to undisturbed forest. Four species were only ever documented within the village of Kobokara. All of the species recorded are endemic to Madagascar, and 5 are endemic just to the south.

We heard anecdotal evidence suggesting boas are found in the area, but did not find any during our study. Additionally, in wet season, the Nile crocodile is found in the Mandrare to the east. Thus, a supposed minimum of 24 species may be found in the area around Kobokara. However, our species accumulation curve does not reach a plateau, suggesting that more species remain to be discovered. Further studies, particularly conducted during the wet season, would we think greatly expand this inventory.

#### *Tortoise Research:*

To calculate the population estimate, the total area of the forest to the west of Kobokara was calculated to be 4.94km<sup>2</sup>. Transects searches covered an area of 3.29km<sup>2</sup>, finding a total of 35 living individuals, and 4 deceased. Thus the approximate estimated population of *A. radiata* is 266. However, since the detection rate is not 100%, a more accurate population estimate is 886, assuming a 30% detection rate.

#### *Disturbance Research:*

The general status of the forest assessed was extremely poor. We noted a large area of completely cleared forest, and various other areas of high disturbance. Hatsake is on going, despite being illegal. Very few locations were found where goat or zebu droppings were absent, suggesting a penetrant disturbance throughout the majority of the forest.

#### *Botanical Research:*

Due to the volume of data generated, no botanical analysis has yet been completed at this time. Botanical results will appear in the Final Report

#### *Anthropological Research:*

Due to the volume of data generated, the anthropological results are not currently available. These results will appear in the Final Report.

#### *Oral Testimonies and NGO Impacts:*

Table 1.1 gives a clearer analysis of the chosen subjects and table 1.2 shows the results.

## Which Subjects had the Highest Incidence

Picture	frequency of appearance
Church	8/19
Flower/Cactus	1/19
Mother	7/19
Father	2/19
Siblings	4/19
House	11/19
Sheep	4/19
Zebu	6/19
Chicken	3/19
Children	12/19*
Food	6/19
Tree / shade	7/19
Himself	1/19
Godmother	1/19
Motorbike	1/19
School	1/19
Dog	1/19
Ombiasa (Plant healer)	1/19
Parents/Guardian	1/19
River	1/19
Goat	1/19
Friends	1/19
Husband**	4/19
Wife	1/19
Grandparents	2/19
Market/produce	2/19
Daughter – in - law	1/19
Other family	1/19
Aunt	1/19
Hatsake (slash and burn)	1/19

Table 1.2

\*not representative as not all participants are of child bearing age and some took more than one picture of their children

\*\*Lohathie took a picture of her ex-husband, the father of her children, and Sabine took multiple pictures of her husband.

## The Data : Who Took Which Pictures and Why

Name	Age	Sex	Pic 1	Pic 2	Pic 3	Pic 4	Pic 5	Star pic
Louissette	15	F	Flower because I Like it	Mother because she's my mum	Tsilanimamy my youngest brother	Big house it's my dad's	Sheep the represent wealth	Pic 1
Tahierey	17	F	Kily (tamarind) tree because it gives shade	Church for praying	brother he's family	Hatsake in the past because it is for crops	Mango it is because edible	Pic 3
Maritiazee	13	F	My grandfather	Sheep	Lohathie my mother (aunt)	Voantandro my mother	Fiatoae her father	Pic 5
Fanjara	10	F	House for sleeping	Cactus because it is edible	Family	Chicken breeding	Kily (tamarind) for shade	Pic 3
Bertrice***	50	F						
Lohathie	Late 50s	F	Tafisena my child	Havasoamy child	Tsiareke my child	Damy their father	Church for praying	Pic 2
Sabine	27	F	House	My husband he's always on my mind	My mother	My husband again	Zebu as they can bring the wood	Pic 2
Olive	20	F	Ber Dunes my daughter	Ber Tous my son	Fantiolotse it makes me happy to look at it	House because I sleep there	Mother she looks after me	Pic 1
Kamara	65	F	Peeling potatoes	Church	Shade in the village	Zebu carrying sugar cane	People in market	Pic 4

Zotsomare a	45	F	Masindia my husband with his zebu cart	Chicken because I breed them	Tree for shade	Tahimbelo they bring food	House we sleep there	Pic 1
Masakare	60	M	Gnatie his sons wife	Zotsomare e my child	Vinale his child	House we sleep there	Blank	No star
Longasoa	30-40	M	Sanorina because I love my daughter	Mahareta he brings the chickens	Oliva my daughter	Sambeto my child	Maree my mother	Pic 4
Fidisoa	30	M	my friends because I love them	Sheep because it is Malagasy custom to breed them	House live there and sleep with my children	Church there everyone can show their believes	My dad and paternal grandmother	Pic 5
Damy	26	M	Berthin my son	House I sleep there	Corn I eat it	Church for praying	Hoanie my wife	Pic 5
Mara	18	M	Gastine she's my friend	Sambeaze because she is my mother	House because I sleep there	Zebu because they are valuable	Goat because it is valuable	Pic 2
Naheritsoa	20	M	Tsimandefte because he's family	Sheep because they are valuable	Mimy tree because it gives shade	Church because i like to pray	Mandrare it is the river where I wash	Pic 1
Kambisoa	29	M	Marizety his child	Vola his older sister	Votondre his mother	Kambisoa his house	Mimy tree for shade	Pic 5
Kaka	16	M	Grandparents (guardians) because they are looking after me	Ombiasa Fiandria because he heals the sick	Zebu because it can help you when required	Dog because they are gaurds that protect us	Chicken because you can breed them	Pic 1
Beaupen	12	M	School because I like to learn	Motorbike because it can travel so far	Church as I like to pray	Ndabolie my godmother who looks after me	Zebu because they are our wealth and can help us	Pic 4
Rembesoa	16	M	House because I sleep there	Bake tree for shade	Rembesoa I love him	Casava I eat it	Church for praying	No star

Table 1.1 \*\*\*Bertrice's data was lost.

In one interview in Fenarivo with the president of the COBA (community based forest management association) and the President of the *fokotany* (town) a boy who was listening said that the WWF had given his community no choice but to steal and become robbers since banning *hatsake* (slash and burn agriculture). I explained that we were interested in local people's opinions on the subject and the president arranged that we had a meeting the following week and invited members of his town.

During another interview with someone from Kobokara, I was told that the community would continue using *hatsake* in the fields because the fields and process of *hatsake* are natural and belong to no one, and therefore no one requires approval from any organisations. This informant told me the villagers are still doing *hatsake*, because they do not have enough land to farm on otherwise. He explained it is also valued in the society because and they can make money from it ideally, by producing surplus harvests. Another informant, one of the forest police in kobokara, told me that he could not easily escalate the occurrence of *hatsake* to his COBA as his paid position required him to, since it was his friends and family who were performing *hatsake*. This same individual took me out of the village to show me a water well CARE International had constructed. He explained that when the Mandrare River is flooded and polluted they had hoped to rely on it for their water consumption and other related uses. However he informed me that people in Kobokara are currently unable to use it, because it does not have an adequate

supply of water. It had been in this state for several years and there seemed to be no plans to finish the well. CARE International employees refused to do an interview with me when I met them working nearby in Bekiria.

In the days before I left the field, a delivery of thousands of plant seedlings arrived in Kobokara from the WWF. In an interview I was informed that they had arrived unexpectedly, with no prior communication. These included mango, papaya and orange trees that were each worth 2000 Ariary (approximately 60p). The people in Kobokara felt they were ill equipped to plant them, so they were left for a few days in a house out of the sun. Eventually it was decided they were better in the care of the COBA president and local children were given the unpaid responsibility of taking turns to water them. Two local people had received training on reforestation techniques, but there seemed to be a communication breakdown somewhere, as the rest of the villagers said that the project was not for the community, and were suspicious that only the two trained individuals would benefit from the project. They therefore wanted to send the seedlings back to the WWF.

**The final report will appear on the expedition website, [www.projectkobokara.org](http://www.projectkobokara.org), and be emailed to all supporting bodies and funders upon completion.**

**We would like to extend our heartfelt thanks to all of those who helped in the funding of this expedition.**