

## SPECIAL POINTS OF INTEREST:

- **Studying the Fat-Tailed Dwarf Lemurs of Marojejy**
- **School and Bridge Finished!**
- **DLC's Britt Keith visits SAVA Conservation and Marojejy**

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**Duke LEMUR CENTER**  
**SAVA CONSERVATION**  
M a d a g a s c a r

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Conservation news from the Sambava-Andapa-Vohemar-Antalaha region of NE Madagascar

## Studying the Fat-Tailed Dwarf Lemurs of Marojejy

By Marina B. Blanco, Ph.D.

I first met Erik Patel almost ten years ago in Ranomafana when we were conducting field work for our respective dissertations. We recently encountered each other, again at Ranomafana, when we were attending the International Prosimian Congress held in August 2013. By chance, we were now working at the same Institution as Postdoctoral Associates of the Duke Lemur Center. Erik became the SAVA Conservation Project director, while my research was on the ecophysiology of dwarf lemur hibernation. Before saying goodbye at the Congress' party, we talked about our work, our plans and the possibility I would visit Marojejy in the near future.

Logistics in Madagascar are sometimes challenging and organizing a trip can be a slow process, but with Erik's resolution and expertise arranging expeditions and facilitating research, along with the help of Lanto, SAVA Project Manager, and Manitra, a student from the University of Antananarivo, I was set to visit the forest of the "many mountains", "lots of rain", "lots of spirits" (that is, Marojejy) in October 2013, only a couple of months after our meeting at the Congress in Ranomafana!

After studying dwarf lemurs for several years at Tsinjoarivo, a high-altitude site in eastern Madagascar, Marojejy presented itself as a great research opportunity, not only to expand my ongoing work by adding a new rainforest location, but more importantly, to be able to explore the ecological flexibility of dwarf lemur hibernation in a single site. An additional incentive was the possibility to discover more than one dwarf lemur species living at Marojejy, because no trapping had yet been conducted at this forest.



Marina with a dwarf lemur captured in the Camp 2 area.

## Studying Fat-Tailed Dwarf Lemurs of Marojejy *Continued*

### Why is Marojejy National Park so special?

Marojejy is unique in that it exhibits a great altitudinal range, including forests above 1400 m. As you hike uphill a few hours from the Park Entrance passing by Camps 1, 2 and 3 and reaching the research-only Camp 4, you experience striking changes in forest structure, from primary low altitude rainforest, bamboo dominated forest, mid-altitude primary forest and finally a cold high altitude habitat dominated by short and thick shrubs and lower canopy trees. Under similar conditions at Tsinjoarivo forest, my team and I had rediscovered a species of dwarf lemur (*C. sibreei*) a few years ago, which appears to be restricted to high altitude environments. Thus, it was at least probable that *C. sibreei* may be found at high elevation in Marojejy. Given the fact that Sibree's dwarf lemurs are critically endangered and only known from Tsinjoarivo so far, the confirmation of their presence at Marojejy would be extremely important.

In fact, we were on a mission last October to capture a Sibreei-like dwarf lemur. Our team, comprised of two guides (Desiré and Donatien), Manitra (Malagasy student), Ferdinand (cook) and myself, spent most of our time at the highest elevation site, Camp 4, intensively searching for the "high altitude" dwarf lemur. Our days there passed by delightfully, eating mangoes, drinking espresso coffee and enjoying rice and vegetables with tasty smoky zebu meat, while also working hard setting up traps above 3-4 meters in the trees/shrubs, walking muddy terrains on steep slopes and curling up in our sleeping bags as temperatures dropped significantly at night. On the first, but sadly the only night, we trapped a male juvenile whose morphology resembled that of Sibree's

dwarf lemurs. We were ecstatic to have in our hands, for the first time, a dwarf lemur living in such a place, among slippery rocks, mosses and short shrubs; we were also very hopeful that this individual would be different to dwarf lemurs living at lower elevations within the Park. To find this out, we headed to the warmer and rainier Camp 2 for the last trapping days of our expedition. We changed our isolated spot, tent and tarp-covered kitchen routine for that of bungalows and a spacious Campsite "house" hosting tourists, as well as researchers. At Camp 2, we captured two juvenile dwarf lemurs that matched morphologically with individuals belonging to a different species: *C. crossleyi*. We also sighted several dwarf lemurs during our nocturnal walks, including areas very close to the campsite. Although genetic analyses are warranted to confirm species identification, it looks like there are at least two sympatric dwarf lemur species at Marojejy, and maybe

"...it looks like there are at least two sympatric dwarf lemur species at Marojejy, and maybe more."



Another dwarf lemur trapped in the Camp 2 area.

## Studying Fat-Tailed Dwarf Lemurs of Marojejy *Continued*

more. Interestingly, neither species belong to the “currently listed as present in Marojejy”, *Cheirogaleus major*.

Another interesting aspect of Marojejy’s geographic position, i.e. northeastern Madagascar, is that it can represent the northeastern-most distributional boundary of a third dwarf lemur species, the fat-tailed dwarf lemur: *C. medius*. Although fat-tails occupy primarily dry deciduous forests of western Madagascar, they are also found in the southeast forests such as Fort Dauphin and have been reported to occupy northeastern forests not very far from Marojejy. Documenting the presence or absence of this species at Marojejy would be informative for determining its geographic range, as well as documenting ecological variation in the expression of hibernation of a species generally known to inhabit hot and dry deciduous forests.

Dwarf lemurs are amazing creatures. They are the only primates who regularly hibernate. When you think of hibernation, you probably think of cold environments, soil covered by snow and ice during the winter, and individuals trying to “escape” this period of limited resources and low ambient temperatures by hibernating underground. Dwarf



Dwarf lemur research team: L to R—Manitra, Donatien, Lex, Marina and Dez Kely.

lemurs in Madagascar occupy a variety of forests, experiencing very hot temperatures during the “winter” time (like *C. medius* at Kirindy, western Madagascar), cold habitats like Tsinjoarivo (*C. crossleyi* and *C. sibreei*) or rainy less-seasonal habitats like Fort Dauphin (*C. major*, *C. medius*, *C. crossleyi* southeastern Madagascar). How long dwarf lemurs hibernate, where they hibernate or even why they may hibernate differ among species and forests. Marojejy is a great place to study the flexibility of hibernation of different dwarf lemurs in one place.

Last November, as I looked back at the Park entrance one last time



Marina giving a presentation on dwarf lemurs of Madagascar at the project office in Sambava.

before hiking to the village to get in the car to Sambava, I promised myself to return soon for revenge, in the field-work sense of the word, of course, which means more traps, more guides and more bananas will be needed next time. It had been a “teasing” experience due to the multiple sightings at night, but low trapping success. As I am set to be back in Marojejy again in a few days, I dream of more and closer encounters with *Cheirogaleus* everywhere we go and hope they’ll let us learn a little more about their lives, their physiologies and evolutionary histories.

To be continued...

## ADES Fuel-Efficient Rocket Stoves Introduced at Marojejy National Park

By Dr. Erik Patel

Over two billion of the world's population burns biomass to cook each day, predominantly using inefficient open fires and traditional stoves. In addition to wasting energy due to



Traditional, inefficient three-stone fire.

Photo courtesy of ADES

inefficient design, traditional stoves and open fires detrimentally affect human health and contribute to climate change. More than 1.5 million people die prematurely each year due to smoke exposure and other air pollutants (which contain carbon monoxide and particulate matter) from burning solid fuels such as wood, charcoal, animal dung, and crop residues. Chronic respiratory disease, difficulty in breathing, and stinging eyes affect millions of people (women and children are disproportionately so), and are a direct result of such traditional cooking apparatus (Jetter and Kariher, 2009; World Health Organization, 2006). Some of the major greenhouse gases are also heavily emitted including carbon dioxide, methane, and nitrous oxide in addition to the particulate matter; all of which have been implicated in global warming (MacCarty et al., 2008).

In Madagascar, approximately 80% of the population cooks with charcoal or firewood and 92% of the nation's energy comes from burning these natural resources which are



Locally made stoves in Sambava.

Photo by Lanto Andrianandrasana

increasingly in short supply and harvested within protected areas (WWF, 2012). A number of fuel-efficient cook stoves have been designed which require much less wood (or charcoal) than open fires and traditional stoves. The "rocket stove" is one of the most effective and popular fuel efficient stove designs, using approximately 50% less fuel than standard stoves. Rocket stoves burn small amounts of fuel within a high temperature combustion chamber connected to a vertical chimney and a secondary airflow source which results in good air draft into the fire and ensures almost complete combustion before the flames reach the cooking surface.

There is already some awareness among local residents in Madagascar about the costs and benefits of various stove designs. A number of stoves which are more fuel efficient than traditional open fires are already available in Sambava markets (see picture above). We

## *ADES Fuel-Efficient Rocket Stoves Introduced at Marojejy National Park* *Continued*

found three types of locally made charcoal stoves for sale on the streets of Sambava. "Fatana Mitsitsy" (translation: frugal cook stove) are the most fuel-efficient of the three but are not durable (only lasting up to 5 months) and are difficult to make as they require clay, metal, and cement. At 7,000 AR each (\$3.30 USD) they are moderately priced.



**ADES rocket stoves for wood or charcoal.**

Photo courtesy of ADES

"Rechaud" (translation: camping stove) are the longest lasting (up to 7 years) but are also the most expensive at 35,000 AR (\$16.60 USD) and not considered very fuel efficient. They are also difficult to produce since metal from abandoned ocean ships is needed which must then be welded to produce the stove. "Fantana Tole" (translation: stove made from roofing sheet metal) is the least expensive at 3,500 AR (\$1.60 USD) and easily produced from locally obtained metal roofing, but these stoves only last a few months and are not fuel efficient.

Though the locally made stoves are fuel efficient to some degree, they do not exhibit a rocket-stove design, and are not as durable as we would like. It was decided to bring in from Antananarivo stoves made by the Swiss based organization ADES (Association pour le

Développement de l'Energie Solaire) which has been making excellent fuel-efficient stoves since 2010 (see photo above). Comprised of a fired clay combustion chamber, an aluminum lid and a sheet metal shell, they are long lasting and reduce the amount of wood or charcoal needed to cook by an estimated 65%. In my opinion, these are the most well made fuel-efficient stoves in Madagascar. Our cooks in Marojejy also are unanimous in their support for these stoves (which are now the only stoves used at the three main tourist/research camps) and impressed with how well they stay hot with only small amounts of charcoal. The WWF also recognized the quality and benefits of these stoves and has recently formed a close partnership with ADES in Tulear. ADES is also a leader in promoting solar ovens in Madagascar and maintains offices in a number of cities such as Antananarivo, Tulear, Morondava and Mahajanga among others. The founder of ADES, Regula Ochsner, has received a number of international environmental awards for her work such as the 'Brandenburg Prize' and the 'Women of Earth' award.

SAVA Conservation is working to find a way to make the ADES stoves, with their numerous environmental and health advantages, more widely available in the SAVA region.

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## School and Bridge at Antsahaberaoka Finished!



If you have been following our SAVA Conservation newsletters since the first issue in April 2012 you will remember articles about the progress of construction of the Seacology funded school and bridge, at the village of Antsahaberaoka. Seacology is a California based environmental organization which has supported small development projects on islands in 51 countries, and Dr. Erik Patel has been their Madagascar Country Field Representative since 2009.

We are very pleased to announce that both the school and bridge are now completed, and were inaugurated in November of last year, with Lanto assisting at the inauguration. The school district has also lived up to their commitment of sending an experienced state paid teacher so that parents do not have to have pay some local resident to teach. As a reminder, these education and development projects are explicitly in exchange for renewed protection of that remote region of Marojejy National Park, where Erik's team had found an unusually high number of silky sifakas, several years ago. Oversight of the construction was a collaborative effort of the local CISCO (school district), [MNP](#), and DLC-SC, which strengthens our relationships with these key organizations.

We would like to thank Seacology for their generous investment which will help to protect a critical and remote region of Marojejy, but will also contribute to local education. Such dual objective activities are critical to achieving sustainable conservation and building relationships with local communities.

# School and Bridge at Antsahaberaoka Finished! *Continued*

Ainga anie ka hamoaka  
obomanga ity seboly ity  
That this school produces  
leaders of this nation.



# Reforestation and Infrastructure Developments at Antanetiambo Nature Reserve

By Dr. Erik Patel

Antanetiambo Nature Reserve has been a busy place over the past few months! A large scale reforestation project is currently underway and several infrastructure projects



New well.

Photo by Lanto Andrianandrasana

have recently been completed. A new well has recently been completed which will provide a badly needed reliable source of clean water. The new toilet and shower will also be much appreciated by researchers, tourists, Duke Engage students, and reserve founder Desire Rabary's family alike. The new kitchen or cooking house is a big improvement from the leaky, tiny, and dilapidated structure where meals used to be cooked, and will allow Madame Valerie (Desire's wife) to cook for greater numbers of people in a more sanitary environment.

Additionally, just this year more than 11,000 seedlings in twenty different (primarily native) species have been grown in Antanetiambo's tree nursery. These include endemic hardwoods such as Ebony and Hintsia, fast-growing endemics such as *Albizia* sp., *Cryptocarya* sp., and native bamboo. For the non-natives, super-fast growing Acacia, fruit trees such as lychee, banana, and jackfruit are ready to be planted out. As rainy season (January to April) has just arrived, we have started planting about 1000 trees per week inside some of the newly purchased degraded parcels of Antanetiambo Nature Reserve.



New shower and toilet facilities.



Photos by Lanto Andrianandrasana



## Reforestation and Infrastructure Developments *Continued*



New cookhouse at Antanetiampo Nature Reserve.

Photo by Lanto Andrianandrasana



Jean Chry. and Desiré Rabary in Antanetiampo Tree Nursery.

Photo by Charlie Welch

## SAVA Conservation Article in Duke Magazine



L to R: DukeEngage students Sophia Staal and Cameron Tripp, Karl Bates and Dr. Anne Yoder.

*Photo by Charlie Welch*

If you recall from the previous newsletter, DLC director, Dr. Anne Yoder made her first visit to SAVA Conservation in August of last year. Anne was not the only first time visitor from Duke that accompanied us on our tour of project activities. Karl Bates, Director of Research Communications at Duke, came along for the trip as well, to collect background information and photos for an article that he would write for Duke Magazine. Karl's article came out in the most recent, winter issue, of the Magazine, and is an insightful look at our SAVA Conservation project. The article can be found at <http://www.dukemagazine.duke.edu/article/building-partnerships-madagascar>

Many thanks to Karl for a beautifully written article that has given our Madagascar conservation work very positive exposure within the university.

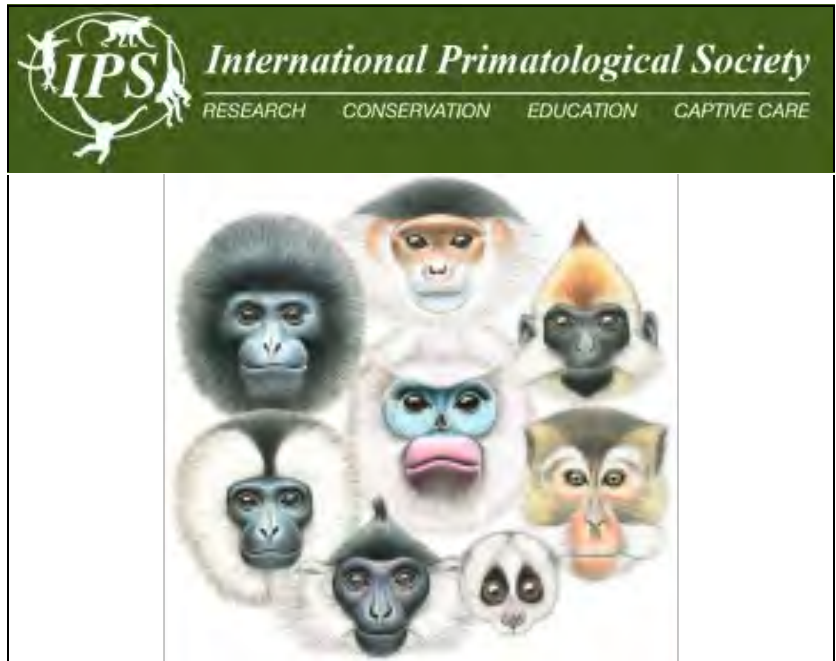


A look from outside the park into the interior of Marojejy.

*Photo by Charlie Welch*

# Special Lemur Conservation Symposium Planned For International Primatological Society (IPS) Meetings in Vietnam (August 2014)

A special symposium entitled "The lemur crisis: navigating the complexities of conservation in Madagascar" will be held at the biannual [IPS](#) meetings in Hanoi, Vietnam (August 11 to 16 2014). IPS is the largest and longest of the primatological meetings, and has always had a strong commitment to conservation. Ten speakers will be giving oral presentations reviewing the successes (and failures) of specific community-based conservation programs in Madagascar. Dr. Erik Patel, SAVA Conservation's Director, is one of the symposium co-organizers and will be delivering an oral presentation as well. The symposium builds off the new 'Lemur Conservation Action Plan' which has recently been released by The Primate Specialist Group of the IUCN-SSC (International Union for the Conservation of Nature – Species Survival Commission). This very well written 197 page document, entitled [Lemurs of Madagascar: A Strategy for their Conservation 2013-2016](#) was developed during the July 2012 Lemur Red-Listing and Conservation Planning Workshop in Antananarivo, Madagascar, and may be downloaded [here](#).



## **SAVA Conservation Two Years On: A Review of Duke Lemur Center's Community-Based Conservation Program in Northeastern Madagascar**

E.R. Patel<sup>1,2</sup>, C.R. Welch<sup>1,2</sup>, L.H. Andrianandrasana<sup>1,2</sup>, and A.D. Yoder<sup>1,2</sup>

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The Duke Lemur Center's new conservation initiative in the SAVA region of northeastern Madagascar will be described and the results of the first two years will be evaluated. Based in Sambava where the new office is found, the project has followed a multi-faceted community-based approach to biodiversity conservation which is similar to that used by the Madagascar Fauna Group (MFG) in the Toamasina region. The extensive environmental education program includes both structured educational visits to Marojejy National Park with local student groups as well as a teacher training program which will introduce a 68 page environmental education manual as part of the required primary school curriculum in dozens of schools. To diminish bushmeat hunting, fish farming of a locally endemic *Paratilapia* species ("fony") is being taught as an alternative protein and income source by a local specialist in the practice. Restocking of this endangered species into local rivers will also help to reestablish wild populations. Reforestation campaigns have been established in several villages around Marojejy National Park with approximately 10,000 seedlings (fast growing endemics and fruit trees) being planted annually in each village. Direct collaboration with Madagascar National Parks includes improving boundary demarcation at Marojejy NP, technical training, and provision of needed supplies (such as raincoats). A new family planning initiative is bringing reproductive health specialists to ru-

## *Special Lemur Conservation Symposium* *Continued*

ral forest-bordering communities. Lemur research and conservation projects are also supported, and results of several projects will be reviewed which have recently been undertaken by graduate and undergraduate Duke University students.

### **The Lemur Crisis: Navigating The Complexities of Conservation in Madagascar**

Marni LaFleur<sup>1</sup>, Lisa Gould<sup>2</sup>, Erik Patel<sup>3</sup>, and Jen Tinsman<sup>4</sup>

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Madagascar's primates are extraordinarily diverse and deeply imperiled. Without immediate and successful intervention, the IUCN SSC estimates that up to 94% of lemur species are at least threatened with extinction. This sobering prediction is despite decades of continuous research and significant conservation efforts by a growing number of primatologists. How can we, as primate specialists, mitigate the complex drivers of deforestation and species loss in Madagascar? This symposium will address the immense challenges faced by conservationists throughout Madagascar, with the aim of identifying best practices for rapid and sustainable change. We bring together primatologists with active conservation projects in Madagascar, who are bridging the gaps between research, conservation, education, and development. We intend to open and continue dialogue on navigating the cultural, political, and economic frameworks within Madagascar, and address how these factors influence the conservation agendas of primatologists.

## *Bryophyte and Climate Change Research at Marojejy*

By Dr. Erik Patel and Charlie Welch

Climate change has become another serious threat to Madagascar's biodiversity with available evidence suggesting that rainfall and temperature have recently deviated. Temperature and precipitation are predicted to increase throughout the island, though the south is expected to become drier (Hannah et al., 2008; Tadross et al., 2008). Lemur health and distribution will likely be negatively impacted by such climatic changes with likely increases in parasitism and reduced survival of offspring (Barrett et al., 2013; Dunham et al., 2011). Malagasy reptiles and amphibians have already experienced upslope displacements (when a population moves up to higher elevations to cooler habitats) and several are predicted to go extinct due to warming (Raxworthy et al., 2008).

Flora are also impacted by climate change. In December of last year SAVA Conservation assisted PhD student Lova Marline, of the University of Cape Town, with her bryophyte (mosses, liverworts, and hornworts) research in Marojejy National Park. She works with Professors Terry Hedderson and Claudine Ah-Peng, and is investigating the "Factors affecting diversity and distribution of bryophytes in Madagascar under a changing environment". Lova's research on bryophytes is a continuation of the BRYLAT project, which is examining

*Lova Marline's  
"...work will provide  
some of the first  
climate data from  
Marojejy in recent  
years and examine  
four major  
questions."*

## *Bryophyte and Climate Change Research at Marojejy* *Continued*

altitudinal and latitudinal gradients of bryophyte communities in the western Indian Ocean. In 2009, during the first phase of the study, bryophyte samples were collected from lower altitudes to the summits of Marojejy.

This past December, accompanied and assisted by Lanto and two guides, Lova installed five climatic data sensors in Marojejy, at every 400 meters, from 450m to 2050m elevation. The devices collect temperature and humidity data, which will be downloaded every three to six months. Her work will provide some of the first climate data from Marojejy in recent years and examine four major questions: (1) How are bryophytes communities structured along an altitudinal gradient? (2) How will climate change affect species distributions and species assemblages of bryophytes on a mountain (lowland attrition and mountain top extinctions)? (3) What are the historical factors affecting bryophyte diversity? (4) Recommendations for conservation planning of tropical forest systems.



L to R: Lova Marline, Dez Kely (Marojejy Guide), Estelle Raveloaritiana (assistant to Ms. Marline from University of Antananarivo), Lanto Andrianandrasana (DLC-SC Project Manager).

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Bryophytes include mosses, liverworts and hornworts.

Photo by Éric Mathieu, [www.marojejy.com](http://www.marojejy.com)

# DUKE (DLC) CONNECTIONS

## A Most Extraordinary Trip

By Britt Keith, Primate Technician Supervisor, Duke Lemur Center

Two decades ago, during a university-led trip to Uganda, I went to Kenya after my research was completed, instead of to Madagascar with a fellow brave student. She went alone, and I bet she never forgot it. So, when opportunity knocked again, I had my bags packed before my tickets were purchased!

The husbandry department at the Duke Lemur Center (DLC) has a direct and intimate relationship with the animals that we house. The daily attention to lemur health, diet and behavior, provided by our dedicated staff, turns the DLC animals into our own extended family. The technicians' attention is focused on the immediate needs of their detailed care, but the "big picture" of lemur conservation is always looming in the background. And so my trip came to light. How can our busy husbandry staff here in North Carolina continue to stay connected



Desiré Rabary gives a forest ecology lesson to DLC's Britt Keith and Andrea Katz. Photo by Charlie Welch

to the plight of lemurs in Madagascar? Well, by going to the source of course!

Scouting out a trip to Madagascar where practical experience blended with on-the-ground conservation efforts, became my number one task. There's nothing like seeing this country first hand to make everything the DLC does here in Durham, seem so much more relevant when performing our every day tasks. The DLC conservation program in the SAVA region, led by our very own Charlie Welch and postdoc Erik Patel, is a perfect combination of working with people, the environment and wildlife. Seeing that first hand gave me a comprehensive appreciation of what it all means. While I have always been fully committed to the mission of the DLC, now more than ever, I truly understand the importance of how my work here is so integrally connected to the effort in Madagascar. It became personal, really personal. Now, as I pass through an animal area, I find myself thinking of their distant relatives that I had the pleasure of seeing up in the canopy and about the role of these captive lemurs in our efforts to keep many future generations of wild lemurs in those trees. It is essential that we learn here what it takes for their survival there. The matchmaking, the diet perfecting, the veterinary care, the collaborative efforts with other zoological institutions, and the cleaning, oh the cleaning! All of it became more personal and more important.

## *A most extraordinary trip* Continued

Off I went for 18 days, armed with my mosquito net and my pack full of protein bars, field clothes and notebooks. I visited our Malagasy colleagues who smiled broadly at the thought of some extra help with their projects, from the fishponds, to monitoring lemurs in newly protected young forests, to some good old-fashioned zoo keeping in a local zoo. The benefit of exchanging knowledge and providing assistance is priceless.

More than ever I am motivated to work harder to achieve our mission, on a daily basis, here on the ground. Gaining this new perspective has forever changed me, and that's what I hope we can do for the rest of our DLC team. Maybe even the whole planet! Call me an optimist, but doing nothing is never an option. So, I am busily trying to make realistic plans for a new program that will help get more DLC staff over to Madagascar, to see our conservation work there up close and personal. The logistics can be a bear, not to mention securing the long term funding. No matter what the details, the connections for us will last a lifetime – and hopefully for many lemur lifetimes.



Britt documents her trip.



Guardian of the rice against rats at Camp 2 : a Madagascar tree boa, *Sanzinia madagascariensis*.

Photo by Charlie Welch

# Closing Comments

The good news is that after nearly five years of a nonelected government, Madagascar now has a democratically elected president, Hery Rajaonarimampianina. The disappointing news is that despite the new government, the illegal cutting and export of rosewood continue unabated, particularly in the northeastern part of the country, which includes the SAVA region (<http://www.theguardian.com/world/2013/dec/23/madagascar-illegal-logging-rosewood-smuggling>). Even within the boundaries of Marojejy National Park, the nucleus of SAVA Conservation's activities, there has been cutting of rosewood. We are pleased to report that Madagascar National Parks Service (MNP) is now firmly addressing the cutting in Marojejy, but the problem is widespread up and down the east coast and will require an aggressive stance by the government to truly slow the outgoing rosewood tide. To be fair, the new president has not been in office for even two months yet, and is still in the process of filling positions within the government, including a Minister of the Environment. So we are guardedly hopeful that once the new government is settled in, this year will bring a reduction in the illegal cutting and trade of rosewood in Madagascar, as well as the accompanying lawlessness. The Malagasy people are more than ready for an overdue return to normalcy.

Charlie



Hery Rajaonarimampianina.



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Miaro atiala, mamboly fiainana  
"Protect the forest, and life will grow"