

The Woolly Lemur of John Cleese: *Avahi cleesei*

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Photo: Urs Thalmann

Figure 2: A well disguised Cleese woolly lemur (*Avahi cleesei*) in Bemaraha.

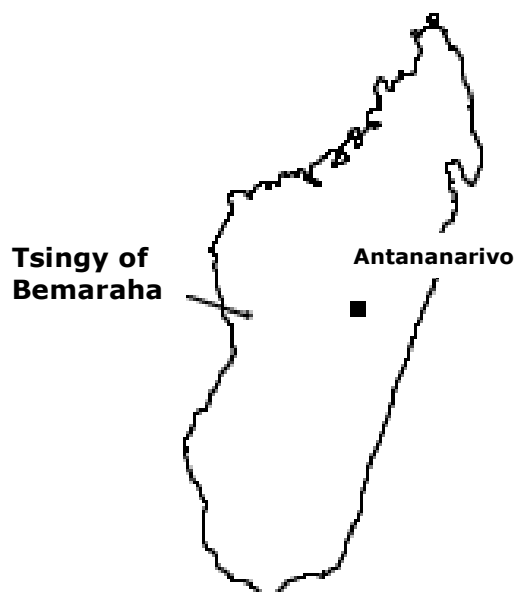


Figure 1: Madagascar.

Summary: Although we discovered the woolly lemurs in the Nature Reserve of Bemaraha (**Figure 1, 2**) in 1990, they only received their official name 15 years later, when they were named after the British comedian, producer and screen-writer John Cleese

(<http://www.imdb.com/name/nm0000092>)

The Strict Nature Reserve of Bemaraha has been classified as a UNESCO World Heritage Landscape (<http://whc.unesco.org/en/list/494>)

and for the last few years has also been partly accessible for tourists.

The bizarre needle-shaped limestone in particular (**Figure 3**)

attracts many tourists. Such eroded limestones are called

"Tsingy" in Malagasy. Cleese's



Photo: Urs Thalmann

Figure 3: Limestone needles - Tsingy in Malagasy - in the interior of the UNESCO World Heritage Landscape "Tsingy de Bemaraha".

woolly lemur lives alongside at least 11 other lemur species in this reserve - boasting an exceptionally impressive fauna and flora that still harbours many secrets.

Discovery, Research, and Description of *Avahi cleesei*

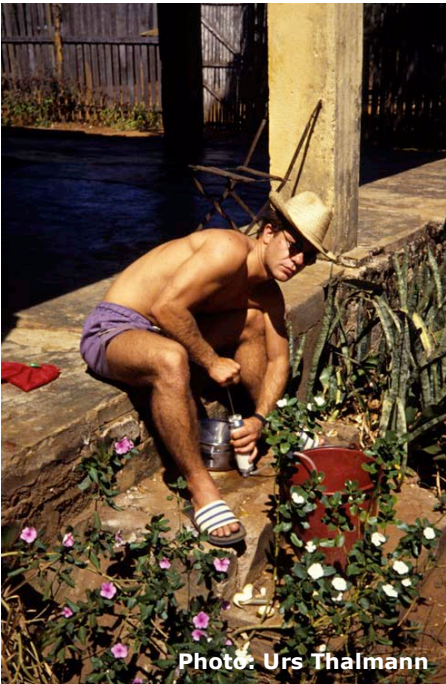


Photo: Urs Thalmann

Figure 4: Thomas Mutschler filtering water in Bekopaka.

The period between discovery in 1990 of the woolly lemurs of Bemaraha and their naming in 2005 was unusually long and adventurous and was accompanied by many set backs. This explains the delay in assigning these lemurs a proper zoological name. Although we discovered the lemurs by chance, we increased the likelihood of this occurring by choosing remote and little researched regions in Western Madagascar, including the Strict Nature Reserve of Bemaraha, for wildlife exploration. Thomas Mutschler (**Figure 4**), who at the time was a student at the Anthropological Institute of the University Zurich, joined me on the research trip. Monsieur Felix from the village of Bekopa close to Bemaraha acted as our guide (**Figure 5**). He had extensive knowledge of fauna, flora and the reserve. We established our camp for some days about 10-15 km



Figure 5: Monsieur Felix (2. from left) from Bekopaka with villagers.

north of Bekopaka, where Monsieur Felix discovered the woolly lemurs. Thomas Mutschler was able to take some photographs (**Figure 6**). Back in Switzerland I identified these lemurs on the basis of the photographs as woolly lemurs - scientifically: genus *Avahi*. The discovery of these lemurs was entirely unexpected. The lucky discovery of the animals was followed by less pleasurable and rather tedious field work.



Figure 6: Based on these photographs it was possible to identify the lemurs as woolly lemurs. In resting posture, they typically hide their long tail between body and substrate (above) and have very long legs (above, below). Woolly lemurs have relatively short, only slightly protruding ears (middle). An additional helpful character is the white fur on the inner sides of the lower limb (middle, below).



Photos: Thomas Mutschler



Photo: Thomas Mutschler

Bild 7: Urs Thalmann arriving at the base camp close to Ambalarano in Bemaraha.

Politics: Immediately after returning to Switzerland I started to plan a new expedition. 1991 witnessed the beginning of demonstrations against the president which were aimed at overthrowing him. In an effort to precipitate change, Malagasy launched daily, peaceful mass strikes which turned into a general strike lasting more than a year. Despite a very serious incident - in which the president's guard threw hand grenades from helicopters into a crowd of demonstrators - we decided to go ahead with the expedition. In order to overcome the problem of a complete fuel shortage, we resorted to mountain bikes (**Figure 7**). We flew to Ankavandra, and after picking up a



Photo: Urs Thalmann

Bild 8: The Manambolo river cuts in a deep gorge through the Bemaraha Massif.

pirogue followed the Manambolo River, which cuts through the Massif of Bemaraha in a deep gorge (**Figure 8**) before reaching Bekopaka. As the Manambolo had so little water, we mainly pushed and carried the pirogue for 5 days over sandbanks (**Figure 9**). Nasolo Rakotoarison, a skilled young Malagasy biologist interested in small mammals joined us for this project (**Figure 10**).



Photo: Urs Thalmann

Figure 9: Pirogue in deep water.



Photo: Urs Thalmann

Figure 10: Nasolo Rakotoarison with a captured civet (*Gallidia*).

After 10 days in our second base camp we finally succeeded in capturing a woolly lemur. Camp life was not easy and, due to the political unrest, we had difficulties securing provisions. We ate rice for breakfast, rice for lunch, rice for dinner, rice with wild lemons, rice with sugar, rice with a sardine tail, rice with pepper or simply rice with rice. Once a week we were able to make bread. BUT: We found the woolly lemurs and were able to confirm our initial tentative identification (**Figure 11**)!



Photo: Urs Thalmann

Figure 11: Family group of woolly lemurs in Bemaraha.



Photo: Urs Thalmann

Bild 12: The famous 'Baobab-Alley' on the way from Morondava to Bemaraha.



Photo: Thomas Mutschler

Bild 13: Decken's Sifaka (*Propithecus deckeni*), a diurnal lemur species in Bemaraha.

Amebae, Bacteria, Dysentery: In 1993 I launched a 1-year project to investigate lemurs in the Bemaraha region together with Nasolo Rakotoarison. This turned out to be a short trip. After two weeks I managed to secure all the requisite permissions including a visa and reached Bemaraha with Nasolo. On the first excursion I was struck down by dysentery, and after a further five days skin and bones. Colleagues from UNESCO helped me to evacuate to Antananarivo. I swore to never return to this island, and after seven weeks I was back in Switzerland - still skin and bone and losing hair tufts (it has regrown though).

Here we go again - Bandits: In 1994 we were back. This trip also turned out to be shorter than originally planned. Although, I found a better forest to work in, an unusually brutal band of cattle wrestlers had destabilised the region. Employees of UNESCO were especially at risk because they could use a radio to call for help. Although I didn't feel especially threatened - I had no cattle - I had to carry money in cash to cover the coming rainy season that would isolate the region for several months. In addition I was a guest of the UNESCO station and of the military task force sent to fight the bandits. In an attack on a village some kilometres away, villagers set trap and killed many of the bandits. This was too much adventure...and I decided to change my project and moved to a calmer region several hundred kilometres to the north, to the Reserve of Ampijoroa/Ankarafantsika in north western Madagascar. (The chief of the bandits was shot by the police several months later.)

Malaria: In 2001 I finally organised another expedition. Unfortunately, in the meantime, Nasolo had had a fatal car accident, and Monsieur Felix had died after falling from a tree. This time I had to interrupt the project because of malaria.



Photo: Urs Thalmann

Figure 14: Alphonse Zaramody of Mahajanga University (left), François Delion (middle) and Monsieur Emil were in the team 2003.



Photo: Urs Thalmann

Figure 15: Destroyed forest at Ankinajao. In 1994 many lemur species, including woolly lemurs, lived in this forest.



Photo: Urs Thalmann

Figure 16: Intact subhumid semi-deciduous dry forest at the tsingy base; the only habitat Cleese's woolly lemurs are known to occur.

Politics: 2002 saw the outbreak of significant political unrest and Madagascar was on the brink of civil war. The situation was much more difficult and unforeseeable than in 1991. Many research projects were interrupted and I postponed mine.

Decree - no capture of lemurs in reserves:

I was finally able to continue the project in 2003. On arrival I was shown the latest decree prohibiting the capture of lemurs in reserves. I think I was the first to be really hit by this decree. Additional material for DNA analyses would have been of essential importance. I'd have liked to have gone home on the spot. The only place in Bemaraha outside of the reserve, inhabited by woolly lemurs was the forest found in 1994. By 2003 the forest and with it most of the lemur species had

disappeared (**Figure 15**). At least we had found woolly lemurs in the same place where we had earlier discovered them (**Figure 16**). Well, they looked at us from inside the reserve boundaries...

An official name at last - *Avahi cleesei*: The woolly lemurs in Bemaraha had of course a local name - Dadintsifaka which means 'grandparent of sifakas' (**Figure 13**). They were given this name because woolly lemurs were smaller and greyer than their white relatives. Since 1991, Thomas Geissmann - who has now returned to the Anthropological Institute at the University of Zurich (<http://www.tiho-hannover.de/gibbons/main/index.html>) - and I have

from time to time, studied specimens of woolly lemurs in several big museums world wide. Because the acquisition of additional data from the field was obviously not that straight forward, and because I was, for ethical reasons, always reluctant to collect life animals from the field we decided to describe the animals based on the evidence that we already had (*American Journal of Primatology* Vol. 67 (3) <http://www3.interscience.wiley.com/cgi-bin/jhome/34629>): Photographs, tape- and videorecordings, a tuft of hair. This is in accordance with the rules of the *International Code for Zoological Nomenclature*, the authoritative body of rules for description and naming of new animal species (<http://www.iczn.org/code.htm>). Mr John Cleese - fan of lemurs, comedian and actor, producer and script writer (<http://www.thejohncleese.com/>) - agreed to be the namesake. By naming the lemur after Mr Cleese, we also wanted to honour his films which have hightened public awareness of lemurs, both in zoos (Fierce Creatures, <http://www.imdb.com/title/tt0119115/>), and in the wild (Born to be Wild: Operation Lemur with John Cleese (<http://www.pbs.org/wnet/nature/inthewild/cleese.html>)).

Lemurs in Bemaraha

Only seven lemur species were listed in 1990 for Bemaraha, today we know of at least 12 species representing all extant lemur families in Madagascar (**Table**). For some populations we do not yet know whether they have been correctly identified or whether they are actually new species. With modern genetic methods this has become easier. These refinements are one reason for the ongoing identification of new lemur species from known populations.



Figure 17: Grey mouse lemur captured by hand. Even these small primates have hands and fingers with nails.

Table: Lemur species in Bemaraha.

Family	Vernacular name	Zoological name
Cheirogaleidae (Mouse and dwarf lemurs)	Grey mouse lemur (Figure 17)	<i>Microcebus murinus</i>
	Pygmy mouse lemur (Figure 18)	<i>Micocebus myoxinus</i>
	Coquerel's dwarf lemur	<i>Mirza ?coquereli</i>
	Fat-tailed dwarf lemur (Figure 19)	<i>Cheirogaleus ?medius</i>
	Greater dwarf lemur	<i>Cheirogaleus ?major</i>
	Forked-marked lemur	<i>Phaner ?pallascens</i>
Lemuridae (Lemurs)	Western grey bamboo lemur (Figure 20)	<i>Hapalemur ?occidentalis</i>
	Red-fronted brown lemur (Figure 21)	<i>Eulemur rufus</i>
Lepilemuridae (Sportive lemurs)	Red-tailed sportive lemur (Figure 22)	<i>Lepilemur ?ruficaudatus</i>
Indridae	Cleese's woolly lemur (Figure 1, 11)	<i>Avahi cleesei</i>
	Decken's sifaka (Figure 13, 23)	<i>Propithecus deckeni</i>
Daubentoniidae (Aye-ayes)	Aye-Aye (Figure 24)	<i>Daubentonia madagascariensis</i>



Photo: Urs Thalmann

Figure 18: This picture confirmed the suspected presence of a second mouse lemur in Bemaraha. They were later determined as pygmy mouse lemurs (*Microcebus myoxinus*).



Photo: Urs Thalmann

Figure 19: Fat-tailed dwarf lemurs hibernate for several months during the dry season. It is not known whether the animals in Bemaraha are of the same species as those which exist in the north and the south. This individual wears a transmitter. Fat-tailed dwarf lemurs have been studied in Ampijoroa - where this picture was taken - by Alexandra Müller (Anthropological Institute University of Zürich) for her PhD studies in the field.



Photo: François Delion

Figure 20: Grey western bamboo lemur (*Hapalemurs occidentalis*). We captured this animal north of Bemaraha close to Lake Kinkony for comparative studies. Animals are released after study and do not suffer any lasting harm.



Photo: Urs Thalmann

Bild 21: Redfronted lemurs (*Eulemur rufus*). In redfronted lemurs - as in some other lemur species - females (left) and males are differently colored.



Photo: Urs Thalmann

Figure 22: Red-tailed sportive lemur (*Lepilemur ruficaudatus*). Sportive lemurs usually spend the day in tree-holes. Several species live in pairs which was unknown up to some years ago.



Photo: Thomas Mutschler

Figure 23: Decken's sifaka (*Propithecus deckeni*). All indrids - beside the sifakas also woolly lemurs (*Avahi*) and indri (*Indri*) - are amazing leapers.



Photo: Urs Thalmann

Figure 24: Aye-Aye (*Daubentonia madagascariensis*). The strange aye-ayes with the big ears, the scrubby pelage and the thin 3d finger occur in Bemaraha. Photograph taken in the Zoo of Antananarivo.

Lemurs: Ambassadors for Environmental Conservation in Madagascar



Photo: Urs Thalmann

Figure 25: The smallest chameleons (*Brookesia*) occur in Madagascar...

Lemurs are of course not the only special animals that are unique to the large island of Madagascar in the Indian Ocean. At least as spectacular are the amphibians and reptiles. About half or more of all chameleon species world-wide occur only in Madagascar, amongst them the smallest and the largest. There are not exceptionally many different birds, but again about half of them are endemic to Madagascar. The plants are also special. At least 4/5 of all species occur only on the island of Madagascar. Lemurs as 'sympathetic' fluffy forest dwelling animals may play an important role as ambassadors for conservation in Madagascar. Conserving lemurs means conserving forests. This would be good news for other 'less

likeable' creatures, from ants, spiders, and scorpions to chameleons and boas. And saving forests would be extremely good news for humans too!



Photo: Urs Thalmann

Figure 26: ...and pretty big ones. Picture from Bemaraha.



Photo: Urs Thalmann

Figure 27: Not only lemurs are sympathetic and interesting, also small mammals such as this tuft-tailed rodent (*Eilurus*).



Photo: Urs Thalmann

Figure 28: Langaha-snake. There are many different snakes in Madagascar but no venomous ones. The male Langaha-snake has a pointed "nose", in the female it is vertically flattened.



Photos: Urs Thalmann

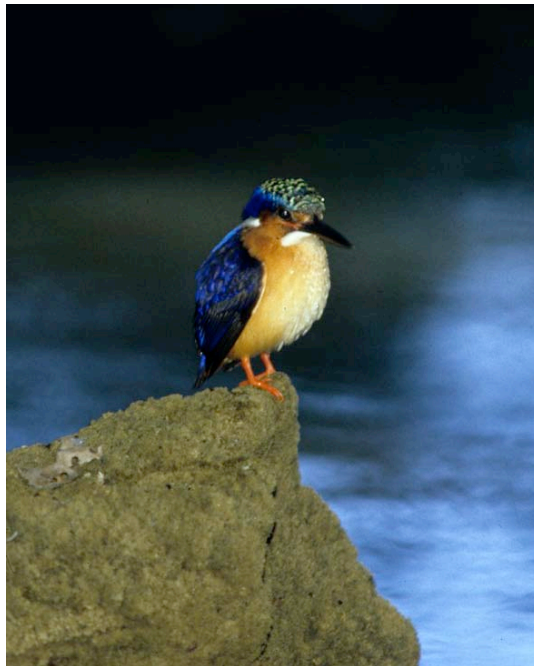


Figure 29: Two kingfisher species of Madagascar. The brown species lives in forests.



Figure 30: To conserve the unique wildlife of Madagascar and wildlife world-wide, to handle it with care and sustainably, we should not only be bystanders, wait and see. Lemurs may play an important role for the protection of Madagascar wildlife. Hopefully, these young birds may continue to sleep in peace...



Photos: Urs Thalmann

Figure 31: ...but keep an eye open! Photograph from Anjahamena.