

WITH A
CROWN
OF GOLD

Nick Garbutt thought that tracking down one of the world's 25 most critically endangered primates, the golden-crowned sifaka, would be a tough assignment. He would probably spend days slogging over arduous terrain, through dense forest and in unforgiving heat, and in the end catch only a fleeting glimpse of the rarity as it disappeared through the trees at a rapid rate of knots.

He thought wrong. ▶

Photographs by
Nick Garbutt/Indri Images

I'd come to north-eastern Madagascar to look for the golden-crowned sifaka *Propithecus tattersalli*, which is a remarkable lemur for several reasons. To start with, it's a relative newcomer to the scientific register, not having been described until 1988. And then it's found only in a very small area between the Loky and Manambato rivers, centred around the tiny town of Daraina, and none of the highly fragmented forest patches it inhabits are protected. On a personal note, it was also one of only a handful of lemurs I'd yet to photograph in the wild.

After limping for several hours along a rutted potholed road, the taxi brousse (bush taxi) dropped me off in Daraina. I dusted myself down and looked all around at the depressingly denuded sun-baked hillsides. My heart sank – where was I going to find forests with sifakas here?

Fortunately, I knew where I might seek help and went to see Astrid Vargas, a dedicated Spanish conservationist who coordinates the work of FANAMBY, a Malagasy NGO that has recently begun focusing its efforts on the environmental problems facing the area. Sitting outside what would be the modest new FANAMBY office and Conservation Education and Training Centre (still only partially constructed) on the outskirts of town, Vargas – to my surprise and scepticism – assured me that seeing the sifakas was going to be easy. She pointed back over her shoulder and suggested I 'follow the trail to the top of the ridge and continue down to the village of Andranotsimaty'. It all sounded far too simple.

An hour later, dripping with camera gear and awash with sweat, I reached the top of the ridge. In the valley below I could see the beginnings of pockets of forest, some interlinking to form larger tracts in the distance. As I neared the village, parched grasslands gave way to stands of leafless trees and on either side of a dry riverbed more vibrant gallery forest formed a bright green corridor connecting with a ▶

An unlikely habitat for forest-dwelling sifakas. These hillsides near Daraina in north-eastern Madagascar have lost their forest covering as a result of logging activities and slash-and-burn agricultural practices. The critically endangered golden-crowned sifaka is maintaining a toe-hold on survival only in the occasional patches of green.





ABOVE AND OPPOSITE Regular interaction with the villagers of Andranotsimaty has led to the golden-crowned sifakas of four troops near the settlement becoming remarkably habituated. Where the living is still good, the sifakas seem to be thriving.

much larger area of forest. This looked more promising.

On entering Andranotsimaty I was greeted by an assortment of clucking chickens and agitated barking dogs – and Lucienne, the chef de village whose help Vargas had suggested I seek. Without need of persuasion he quickly offered to be my guide. I pointed to my cameras and said the magic words, ‘ankomba malandy’ – the local name for the sifaka. There was instant understanding. He grabbed a hand of bananas from the corner of his hut and motioned for me to follow.

Scrambling to avoid the ruts and cavernous holes of redundant gold diggings, we picked our way through to the edge of the forest. There was already movement in the canopy ahead, and then Lucienne whistled. Boughs bounced and leaves rustled and three gorgeous golden-crowned sifakas bounded through the forest towards us. Within seconds they were sitting on a branch right by me. Lucienne held out his hand and one of

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them gently plucked the banana from it. I gawped in amazement, too paralysed to take photographs. The other

two sifakas each took a turn in accepting the free hand-out and soon the remainder of their troop joined them. Within a short time I was faced by six happily munching sifakas.

I followed Lucienne further into the forest and we soon found another troop resting high in the trees. They were curious, but less eager to leave the safety of the canopy. Nevertheless, they remained very relaxed about our approach. Lucienne explained that it had always been fady (forbidden) for his tribe to hunt these animals and through continuous interaction and the regular offering of food there were four troops immediately around his village that had become habituated and approachable. Beyond these, numerous other groups of sifakas tolerated the daily traffic of villagers through the forest.

Andranotsimaty is a tiny village comprising little more than a dozen huts and perhaps 20 or so people, who eke out a living digging for gold. They excavate tonnes of soil for a very meagre reward – a day’s panning produces little more than a few grains of metal, perhaps equivalent to some cups of rice. On average this back-breaking endeavour earns them between US\$7 and US\$8 a week. Yet despite their austere lives, these people have built a remarkably touching relationship with their neighbours, the sifakas. What is even more remarkable is that the sifakas are able to happily survive in forests ravaged and degraded by the gold mining.

For the next five days I walked back and forth between Daraina and Andranotsimaty to photograph the sifakas. Several times I sat on the top of the ridge between the villages and scanned across the forest fragments with my binoculars, and was pleased when I was able to pick out groups of gleaming white sifakas feeding in the canopy. On one occasion I watched a troop of four move several hundred metres from one fragment along a thin ribbon of forest (a corridor no more than two or three trees wide) to an even more isolated patch that was only a few hundred square metres in extent. Here they stayed and fed for two days before moving back along the narrow corridor to the sanctuary of the larger fragment.

With each trek I made across the ►



barren hillsides, once cloaked in forest, I mused that once there must have been sifakas here too. How much of their forest home had disappeared? How many sifakas were left? And what might the future hold for this charming and beautiful primate?

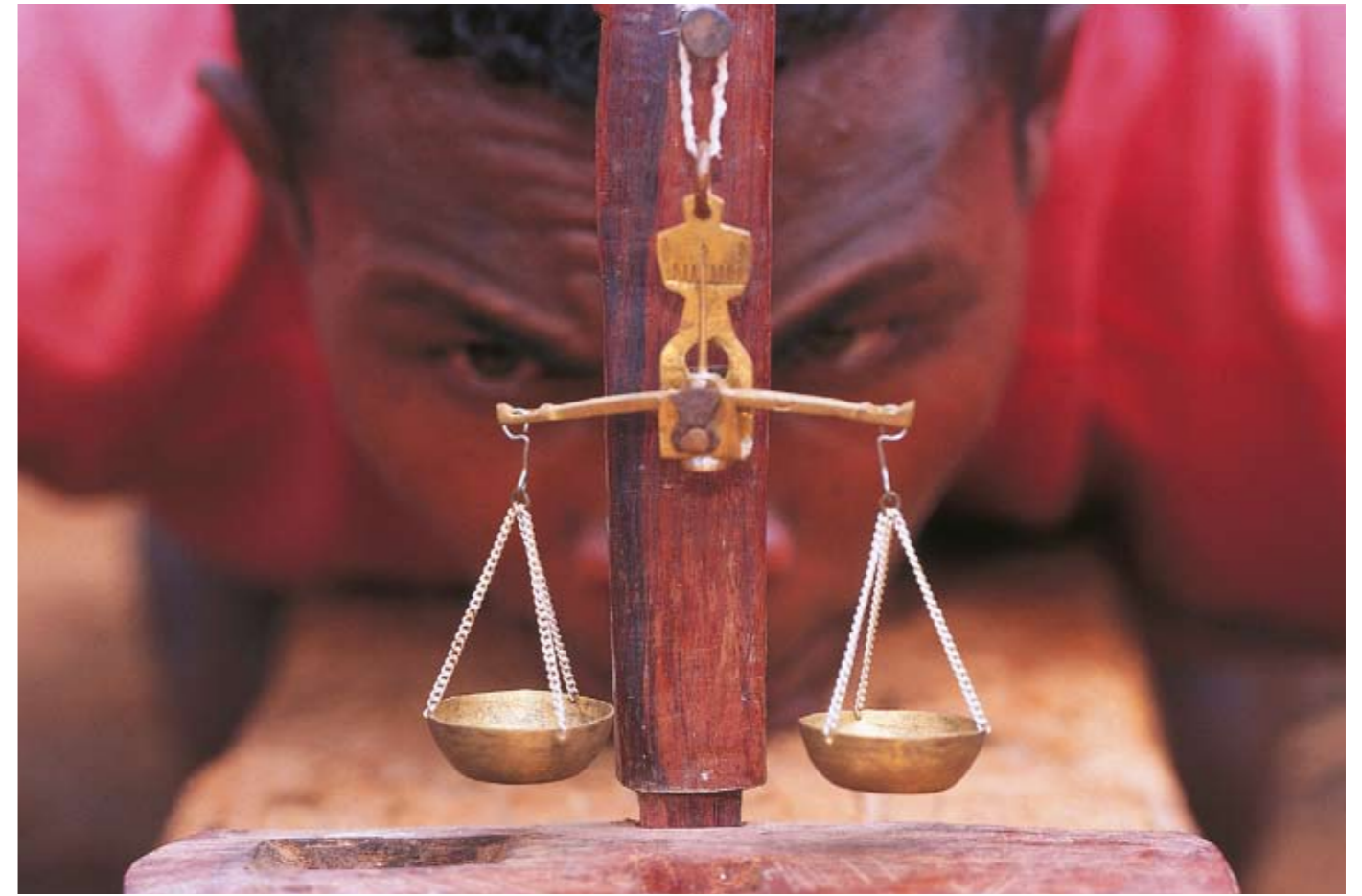
I went back to see Vargas in the hope that she might have some of the answers. She explained that a team from FANAMBY had recently completed a thorough survey of all the forest areas within the golden-crowned sifaka's range. This confirmed that fragmentation was severe – more than 70 separate patches of forest were examined and sifakas were located in

about 60 per cent of them. Most of the patches were small, though, and often isolated. In fact, fewer than 10 fragments were considered large enough (more than 1 000 hectares) to support long-term viable populations. Nonetheless, where good habitat remained, the sifakas appeared to be thriving: the species' total population was estimated at between 6 000 and 10 000 individuals, although the effective population (potentially breeding adults) was between 2 500 and 4 000.

But there is still much cause for concern. Illegal logging continues, while grass fires and slash-and-burn agricultural practices (locally known as tavy) constantly gnaw away at the



Small-scale gold mining in the few remaining patches of forest around Andranotsimaty is further endangering the sifakas' habitat. The gold deposits are small and the effort to extract them – by panning or digging – is backbreaking. Even so, the region attracts prospectors whose uncontrolled operations have so far thwarted attempts to create a national park.



forest margins. Moreover, the whole area is littered with low-concentration gold deposits, providing incentive for a major influx of prospectors over recent years. A lot of the gold mining occurs outside forests, but there is also significant activity along dry riverbeds within them, and this involves digging deep pits near and under tree roots, ultimately killing the trees. All the gold-mining operations may be small-scale, but they are very numerous and widespread, and their cumulative impact is considerable. One of the largest remaining tracts of forest, Bekaraoka, is right next door to the village of Andranotsimaty, and as many as 15 other villages lie around it.

Because of this imminent threat to the golden-crowned sifaka and the other rich biodiversity of the region, the forests around Daraina have long been recognised as one of Madagascar's major conservation priorities. There have been multiple efforts to establish a national park, but these have all proved unsuccessful, partly because ▶

FANAMBY

The Malagasy NGO FANAMBY sets about tackling environmental issues and conservation on a specifically regional basis. It specialises in establishing new conservation and development programmes in regions that contain high biodiversity and that have been identified as national priorities for the establishment of protected areas. Its aim is to act as facilitator and its emphasis is very much participatory, involving local communities and relevant stakeholders (at all levels) in programme design and management. Since its beginnings in 1995, FANAMBY has focused in two areas: the Daraina region and the Anjozorobe forest corridor to the north-east of Madagascar's capital, Antananarivo.

Around Daraina, the NGO is specifically interested in the area between the Loky and Manambato rivers, a region of exceptional biodiversity as it is a transition zone between the dramatically different eastern and western sides of Madagascar.

To find out more about the organisation's work, contact FANAMBY, P O Box 5176, Antananarivo 101, Madagascar; tel./fax (+261) 2 43 268; website www.fanamby.org.mg (in French).

The daily rewards for the individual gold miners are meagre, perhaps enough to buy a few cups of rice.



Fragments are all that remain of the forest around Daraina and Andranotsimaty, and fewer than 10 of them are large enough to support long-term viable sifaka populations.

this was perceived by the local people as a major obstacle to continued uncontrolled gold mining.

FANAMBY is hoping to alter this perception. By adopting an innovative low-key community approach, where the involvement of local stakeholders and interested parties is paramount, it hopes to establish a framework for sustainable natural resource management. The golden-crowned sifaka

the message is being spread through village schools by means of a song about the sifakas – and all the children delight in singing it

would be the flagship, an emblem for the alteration of lifestyle for future benefit. One of the principal aims is to create protected areas, but not as conventional single blocks. Instead a network along 'conservation gradients' is envisaged, where different levels of protection and resource utilisation are implemented.

Of course, education is the key. Amongst other things, the message is

being spread through village schools by means of a song about the sifakas – and all the children delight in singing it. In Daraina they've even painted a huge mural of a sifaka on the school wall.

But even as the efforts of FANAMBY begin to bear fruit, new problems loom on the horizon. Within the past year there have been discoveries of semi-precious stones in the area and already there has been international interest in developing these. Further, there has been the unearthing, to the south of Daraina, of one of the largest gold reserves the region has seen and a new wave of uncontrolled mining is anticipated. FANAMBY is now desperately trying to find ways to repel these threats. So the long-term prospects of the critically endangered sifaka remain uncertain and the question still remains – golden-crowned or gold in the ground?

Discover more about sifakas and other Malagasy animals and plants in *Mammals of Madagascar* by Nick Garbutt (Christopher Helm, 1999) and *Madagascar Wildlife: A Visitor's Guide* by Nick Garbutt, Hilary Bradt and Derek Schuurman

AFRICA Geographic online

Read more about Madagascar's extraordinary wildlife in Africa – Environment & Wildlife Vol.4 No.6, Vol.6 No.2, Vol.7 No.6 and Vol.8 No.4. Visit Ankarana in Africa – Environment & Wildlife Vol.7 No.1 and Marojejy in Africa Geographic Vol.9 No.5 (June 2001).

PRIMATE ON THE BRINK: GOLDEN-CROWNED SIFAKA

Behaviour

Like all sifakas, the golden-crowned is primarily diurnal, although it has been observed moving before dawn and after dusk during the rainy season (December–March). At night members of a troop sleep in the taller trees.

Troop size appears to vary considerably between three and 10, but most contain five or six members. These often consist of two or more mature members of each sex, although only one female within each group seems to breed successfully each year. Males have been seen to move between neighbouring troops during the mating season.

Territories are about 6–12 ha and within these the troop ranges between 400 and 1 200 m daily; the distances moved are higher during the drier months when food is less abundant.

Diet

A variety of unripe fruits, seeds, shoots, mature leaves and flowers. Bark may also be eaten during the dry season. Immature leaves are particularly relished, to the extent that the sifakas are prepared to forage over a wider area than normal in search of them when they are available.



The golden-crowned sifaka has a tiny range in north-eastern Madagascar.

Reproduction

Mating takes place in January and births occur, after a gestation period of about 180 days, in July. The infants are sparsely covered with hair when born and are initially carried by the mother on her belly, before they move around to ride on her back. They are weaned at around five months of age (November–December), which coincides with an increased abundance of high-quality immature leaves. Once an infant has been weaned, the mother repeatedly refuses all its attempts to suckle and only rarely tolerates dorsal riding for brief periods, for instance during predator scares. By one year of age, the young have attained about 70% of normal adult body weight.



Young golden-crowned sifakas hitch a ride with their mothers but are only tolerated until they are weaned.