



The Bale monkey of the bamboo forests of the highlands of Ethiopia.
(Photo by Anagaw Atickem)

Primate Conservation Inc. UPDATE

2010

Director's Report

Primate Conservation Inc. mission is to provide support for projects that study and protect the least known and most endangered primates in their natural habitats. In this year's update we are proud to present four reports, with photos from the field. The first report is about one of the least known primates: the Bale Monkey (*Chlorocebus djamdjamensis*) found only in the highlands of Ethiopia. The second project investigated the hybridization of a highly endangered lemur (*Eulemur albocollaris*) with a more common species (*Eulemur rufifrons*) in Southeastern Madagascar. Third is a report from Indonesian Borneo, where Arif Setiwan did a survey for one of the least known subspecies of Miller's Grizzled Langur (*Presbytis hosei canicrus*). Alas the news is not good for this subspecies. He only found 4 individuals in a forest fragment degraded by logging, palm oil plantations and hunting. The final report is from Mitch Irwin whose project which has received several PCI grants over the last 10 years. It highlights the difficulties of community conservation efforts during political turmoil.

As director of PCI, in these difficult economic times, I appreciate the continued support of small donors. Your support is needed now more than ever, because larger conservation funding sources may disappear just as the effects of global warming on habitats and people are beginning. Yet the threats to forests and the primates that live in them will only increase. If we do not study and protect these little-known primates now, they may well be gone in 10 or 20 years. Please join me in helping to make an on the ground difference to saving these primates. 32 projects are applying to PCI for funding to start new projects or continue in-depth studies of monkeys in their natural habitat. With your donations to PCI, more funds can be directed to these motivated conservationists and their worthy projects.



Omer Hajeleye (left, villager) and Addisu Mekonnen (right, principal investigator) in the Odobullu Forest of Ethiopia

News from the Field

Habitat use, distribution pattern and diet selection of the endemic Bale monkey (*Chlorocebus djamdjamensis*) across the Bale Massif of Ethiopia Addisu Mekonnen and Anagaw Atickem Fall, 2007 \$2,590.00

Bale monkey is an old world monkey endemic to the Bale Mountains of Ethiopia. While it discovered in 1902, little was known about the ecology and distribution of the species. Our PCI funded research aims to provide reliable data on the distribution and basic ecology of the species which is vital to focus conservation effort. We began by using high resolution satellite images to find potential sites for the Bale monkey survey. This led to the discovery of three new Bale monkey populations.

The results of our research show that the Bale monkey is found exclusively in the bamboo forest. Bale monkeys feed on 11 plant species but bamboo comprises about 77% of their diet. They consumed

mainly bamboo young leaves. Thus, bamboo is a key resource for the species. This is especially surprising given that all of their close relatives including vervet monkeys and green monkeys are very adaptable generalists who eat diverse, varied diets and occupy a wide variety of habitats. This habitat specialist behaviour of the Bale monkey on bamboo forest makes the species vulnerable. The amount of bamboo forest is small and it is cut by local people. Currently, we are continuing to survey for Bale monkey populations in Sidamo highlands areas, south west of Bale Mountains. Additionally, we are collaborating with the University of Oslo to determine the genetics of this taxon. We strongly recommended a conservation action plan be developed for all the Bale monkey populations.



Kira Delmore with 2 red fronted lemurs she captured and released after taking measurements and fecal samples. Photo by Margaux Keller

Hybridization between two species of brown lemur and its conservation implications

Kira Delmore (Spring 2008 \$2,495.00)

Hybridization is the interbreeding between individuals from distinct populations or species. Several conservation issues are associated with this process. For example, hybridization can serve as a conservation risk for rare species. These species may be overwhelmed by gene flow from more abundant species. In addition, hybrids may be unfit (e.g., sterile). Hybridization can, nevertheless, also serve as a conservation opportunity by introducing a great deal of variation into a species complex. Variation is important for the survival and adaptability. If a species' environment changes, the possession of variation will enable it to adapt and compete successfully in their new environment.

With partial funding from PCI we evaluated these two possibilities in a hybrid zone between the red-fronted lemur (*Eulemur rufifrons*) and the gray headed (*E. albocollaris*). The red-fronted lemur has a large range; it can be found in both western dry forests and eastern rainforests. The gray-headed lemur has a much more restricted range; it consists of only two isolated populations on the southeastern coast which suffer from fragmentation and hunting. The gray-headed lemur is currently listed as endangered on the IUCN Red List and considered one of IUCN's Top 25 most endangered primates in the world.

We established 18 sampling sites along transects through the hybrid zone. We captured a minimum of 10 individuals at each site, measured them for standard morphological variables and obtained blood samples for genetic analyses. Results from our analyses suggest that hybridization between red-fronted and gray-headed lemurs is serving as a conservation opportunity. First, there was no evidence of unidirectional gene flow (i.e., the gray-headed lemur is not being swamped by gene flow from the red-fronted lemur). Second, hybrids appear to be equally as fit as parental forms and exhibit unique traits (e.g., longer tails), suggesting that hybrid populations are isolated from the other two species. These findings suggest that evolution restricted to hybrids may be occurring.

Our findings have important implications for the management of habitat in southeastern Madagascar. The remaining forest in the hybrid zone's range is currently threatened of slash-and-burn agriculture, small-scale mining, logging, hunting and trapping. Given the potential for evolutionary innovation in this hybrid zone and its function as a conservation opportunity for gray-headed lemurs, we encourage the protection of the Andringitra region and its corridors.



Unfortunately this is the only known photo of the rare and endangered Miller's Grizzled Langur (*Presbytis hosei canicrus*)
Photo by Arif Setiwan

Conservation Status of Miller's Grizzled Langur (*Presbytis hosei ssp canicrus*) in Kutai National Park, East Kalimantan, Indonesia

Arif Setiwan (Fall 2007 \$3600)

The survey was conducted in March and April of 2008, just outside of Kutai National Park in East Kalimantan province of Indonesian Borneo. Kutai National Park itself has been devastated by fires and few primates still inhabit what is left of it. Two major rivers, the Karangan and Baai originate from karst mountain to the west. Boat surveys were conducted on the rivers, 35.67 km on the Baai and 27.8 km on the Karangan River. Along these rivers, vegetation is found only near the water in a 20-30 m (100 feet) wide strip on both sides. Beyond this thin corridor is newly cleared land where oil palm plantations are being planted. During the survey of the Karangan River we heard a group of gibbons (*Hylobates muelleri*) call, nine groups of Bekantan or Proboscis Monkey (*Nasalis larvatus*), two groups of Lutung or silvered leaf monkeys. (*Trachypithecus auratus*), four groups of Beruk or pigtailed macaques (*Macaca nemestrina*) and nine

groups of Ware or long tailed macaques (*Macaca fascicularis*).



Arif Setiwan aka Wawan in Edinburgh, Scotland where he reported his findings at the International Primatological Society Congress in August of 2008. Photo by Noel Rowe

On the river Baai, near Pengadan village, we finally found what we were looking for the “Berangat” which is the vernacular name of *Presbytis hosei*. Two individuals were seen in a mangrove tree by the river. They had dark grey hair on the back, white in the front of the body from inner base of the tail up to the neck and half of lower cheeks. We clearly observed its distinctive face which was dark black or brown with white hair from lower lips up to the ears. We were positive when we heard their calls which were loud and from the throat. In all we found only four individuals one of them was an infant or juvenile. This smallest one was occasionally carried by one of the others, probably her mother. Other primate that we found along the Baai river were an Orangutan, seven groups of Bekantan, three groups of Beruk and nine groups of Warek, and 11 orangutan nesting sites (old and new). We tried to find other groups of Berangat, but unfortunately, we did not find any. This group is probably isolated by oil palm plantation, too sad.

The last days of the survey, we headed to the mountains of Beriun approx 95 km a by 4X4 car. This area belongs to logging company, where there is small patch of forest between karst mountains, in a valley that still has high trees and thick vegetation. We walked a 2.75 km transect that already existed but did not find any leaf monkeys. In total we found only two orangutans each carrying her baby and we heard four groups of gibbons calling. Logging activities are continuing everywhere. We heard many roaring chain saws from both legal and illegal loggers. We interviewed a few of the loggers, but they hadn’t heard or seen Berangat in this forest.

Hunting for pets is also still happening among the local people. We observed an orangutan, a gibbon, a macaque and a Kukang in the wooden cage. Massive land conversion for oil palm plantation, forest production (acacia and gmelina), hunting, legal and illegal logging are

the major threats for the primates in this area especially for the rarest Berangat (*Presbytis hosei*).



Muller’s gibbon photographed in a village as a “pet” by Arif Setiwan during his survey.

Halting Politically Induced Deforestation in the Short Term To Preserve the Unique Primate Community of Tsinjoarivo, Eastern Central Madagascar

Mitch Irwin (Spring 2009 \$2500)

Primate conservationists face a myriad of challenges and unpredictable twists of fate. I have academic training in things like censusing, ecology and animal behavior, so the challenges of the human side of conservation are the hardest part of the job.

As a PhD student beginning field research in Madagascar ten years ago, I decided to established my own field site in Madagascar, at a poorly-known high-altitude forest site called Tsinjoarivo. It was exciting to start from the ground up, observe new primate species, and have the chance to make a conservation impact in a region that was unprotected. But it was daunting, and progress was excruciatingly slow at times in the early years as I trained guides, got to know the landscape, mapped trails, and studied the lemurs— all partially supported by PCI.

I have tried to combine research efforts with actions to promote local conservation and development. In 2008, with my two research colleagues at Tsinjoarivo Jean-Luc Raharison and Karen Samonds, I founded an NGO called SADABE (www.sadabe.org) to formalize these efforts.



Mitch Irwin (middle) with his colleagues from Tsinjoarivo project. (Photo by Mitch Irwin)



Illegally log trees made into lumber at Mitch Irwin's site in Madagascar.
(Photo by Mitch Irwin)

The threats to conservation at Tsinjoarivo were relatively benign during my PhD research (which ended in 2005). Things started to get interesting in 2006, when the Malagasy government awarded a "Management Transfer" contract to a local community association near one of our study areas at Tsinjoarivo. There has been a lot of debate in conservation about whether local communities are better stewards of their natural resources than governments and NGOs, but in this case the results were disappointing. Although the contract spoke of sustainable management, the reality was commercial logging which began in 2007, and the proposed reforestation never happened. I strongly believe that the local community was manipulated by forces from the capital – a few city people who were the motivation for the transfer in the first place, and unfortunately the same people that bought the timber locally for low prices and sold it in the capital at a huge profit. The benefit to the local community in the end was small and fleeting.

PCI's grant was crucial in funding my emergency trip to Madagascar in late 2007 when I desperately needed more time in-person, on-the-ground, to make a difference. That trip had a lot less lemur time and a lot more office time than my previous trips, but we made some headway: Jean-Luc and I lobbied the government at various levels, and hosted forestry officials to visit the site and observe the damaging processes. In January 2008, the government cancelled the contract. I strongly believe the contract was bad for both humans and biodiversity at Tsinjoarivo, and this experience strengthened my resolve to improve people's livelihoods in more sustainable ways. A second unexpected challenge is Madagascar's current political crisis which led to a spike in deforestation in more remote areas of Tsinjoarivo, as a small number of local people took advantage of the government's distraction (for example, the forestry ministry had no money even to buy gas to visit the forest). Again, a PCI grant allowed me to return to Tsinjoarivo in 2009 to arrange for forest monitoring and more lobbying at different levels of government. For now, the deforestation has largely

stopped. Has all this lobbying had a positive effect? The answer is undoubtedly yes, but a lot of work remains to be done. Luckily, SADABE is becoming recognized as a major stakeholder at Tsinjoarivo – and this August we are hosting a workshop at Tsinjoarivo involving all levels of government plus businesses and NGOs, to discuss synergistic ways forward in our collective research, conservation, and development activities. Without a doubt, both the primatologists and the primates living at Tsinjoarivo owe a lot to PCI's support.



The diademed sifaka (*Propithecus diadema*) from Tsinjoarivo, Madagascar (Photo by Mitch Irwin)

How to Support PCI

PCI is an all-volunteer, tax-deductible private operating 501 (c) (3) foundation. Since our first grant in 1993 we have supported with full or partial or renewal funding 423 projects in 28 countries with primate habitats. Projects in Asia have received 40% of our funding, African projects 32%, Madagascar 22%, and South America 6%.

If you would like to contribute cash, stock or real estate to PCI or would like more information on a specific project please contact me at the address below. In order to keep our overhead to a minimum, so that as much of the money raised is used to support field conservation projects; we only send one newsletter per year. **This is our annual appeal for your donations.** Please do not forget about this as you will not receive other mail from us nor will we share your name with others. We appreciate your support and hope you will give generously to support a primate project.

Sincerely,

Noel Rowe