The northern buff-cheeked gibbon (*Nomascus annamensis*) was first described in 2010. Photo by Jackson Frechette

Primate Conservation Inc.

UPDATE

2012

Director's Report

Primate Conservation Inc.'s 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 three reports: a study of a new species of gibbon described in 2010; information about a new protected area in India, established after a detailed study that PCI helped support; and the results of a long-term study of one of the world's 25 most endangered primates.

Our Board of Directors is proud to announce that the comprehensive All the World's Primates Website (alltheworldsprimates.org) is open to everyone who donates to PCI. Join us to learn about all the species and subspecies of primates, including the recently discovered new species. Join to see maps of their ranges, over 3,000 photos, and video and audio of more than 100 taxa. Your support is needed now more than ever because the effects of global warming on habitats and people are beginning to have major effects. If we do not study and protect these little-known primates now, they may well be gone in 10 or 20 years.

News from the Field

Jackson Frechette and Kathryn Sieving The effects of crested gibbon (*Nomascus annamensis*) seed dispersal patterns on tree regeneration. Funded in May 2011

Since June, I [Jackson] have been working on my dissertation project, "The effects of crested gibbon (*Nomascus annamensis*) seed dispersal patterns on tree regeneration," in the Veun Sai–Siem Pang Conservation Area, 55,000 ha managed by Conservation International and the Cambodian Forestry Administration in a remote part of northeastern Cambodia. I have been working with local ethnic minority researchers and one American volunteer (who hopes to go to graduate school) to understand the importance of northern buffed-cheek crested gibbons to trees. This is a new gibbon species that was described in 2010 using acoustic and genetic data. I am looking at seed dispersal patterns of these gibbons and how those patterns may be important for trees to regenerate. To do this, I quantified the gibbon seed dispersal pattern by mapping where every seed of a particular tree (*Microcos paniculata*) was defecated. Then, using that pattern, I planted 9,000 seeds of that tree, mimicking the gibbon pattern, a bird dispersal pattern (which I quantified as well), and a pattern where all the seeds just fall beneath the fruiting trees. The purpose of this is to test if there is a difference in seed germination between these dispersal patterns.

This research explicitly tests the often-theorized impact one primate species has on the patterns of seed dispersal and seed survival in its environment. The results will provide information on the importance of this endangered gibbon to tree regeneration and ecosystem health. I have been training local people on how to conduct research and to be interpretive guides for gibbon-centered community-based tourism. Increasing the local capacity develops sustainable alternatives to hunting and logging, reducing pressure on the community's natural resources.

Jackson (on the far left) with his team in Cambodia. Photo by Kathryn Sieving

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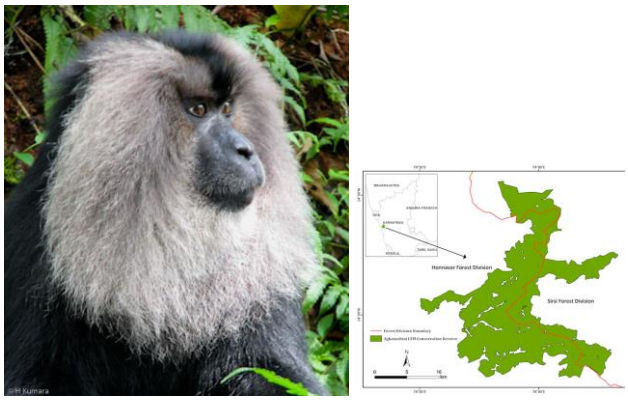

The lion-tailed macaque now has a new protected area in India. Photo by Honnavalli N. Kumara

Honnavalli N. Kumara Aghanashini Lion-tailed Macaque Conservation Reserve: the new reserve for the lion-tailed macaque. Funded in December 2007

The forests of India's Western Ghats are home to seven species of primates, including the lion-tailed macaque (LTM) (*Macaca silenus*), listed by IUCN as endangered. Endemic to a narrow strip of evergreen forests of the Western Ghats in the states of Kerala, Tamil Nadu, and Karnataka, this species may number only about 3,500 individuals in the wild. Recent findings show a decline in the total population size and possible local extinction in certain reserves and parks.

The existence of a population of lion-tailed macaques with about six to ten groups in the forests of Sirsi-Honnavara was known from earlier surveys. In 2007–2008 a detailed survey was carried out with financial support from Karnataka Forest Department, PCI, Rufford Small Grants, Primate Action Fund (Conservation International), Department of Science and Technology–Fast Track, and CEPF-ATREE Small Grants. This study confirmed the large LTM population in this region and identified the area as important for LTM conservation. A plan was submitted to the Principal Chief Conservator of Forests (Wildlife) in 2008. On June 13, 2011, a Government Order was passed to establish the area (299.52 km^2) as the Aghanashini Lion-tailed Macaque Conservation Reserve. I am happy to have been part of this recent success in the conservation history of India.

Andrea Baden earned her PhD this year from Stony Brook University. Her first project was reported in *PCI Update 2005* (see www.primate.org, "News" tab, 2005). Below is a short summary of the results of all her studies.

In the last eight years, I returned to Madagascar many times, thanks in part to grants from PCI. I first returned to run a reconnaissance expedition to Mangevo (Ranomafana National Park), which became my research site. Later, with the help of the local guides I trained to collect data on social and reproductive behavior, we captured, collared, genetically sampled, and eventually habituated black-and-white ruffed lemurs (*Varecia variegata*).

My study has characterized a number of unknown facts about this species' dispersal patterns, genetic community structure, and infant care strategies. In the wild, ruffed lemurs form tight social and spatial networks within the community, like human neighborhoods of close friends and family. They have communal infant care, which is very unusual for primates; females synchronize births, pool their litters into communal nests, and then alternate babysitting responsibilities. In essence, this is lemur day care. It turns out that infants whose mothers cooperatively rear their young have higher survival rates than infants whose mothers choose to go it alone.

I am now a postdoctoral research associate at Yale University. While here, I plan to continue my research at Mangevo because ruffed lemurs have highly variable interbirth intervals that are contingent on climatic patterns (e.g., rainfall patterns, cyclones) and resource availability. The Mangevo females have reproduced only twice in eight years. Only by studying how climate shifts influence reproductive timing, and whether infant care strategies mitigate costs of boom-bust reproduction, can we begin to understand how these animals may fare in the face of climate change. It is only through long-term studies (over decades) that we can get the data necessary to understand and help conserve these beautiful lemurs.

A female black-and-white ruffed lemur carrying one of her infants in her mouth. Photo by Andrea Baden

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, partial, or renewal funding 500 projects in 28 countries with primate habitats. Projects in Asia have received 40% of our funding; Africa, 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. To keep our overhead to a minimum, so that as much of the money raised is used to support field conservation projects, **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 help fund these vital primate projects.

Sincerely,

Noel Rowe