

DISTRIBUTION OF THE PHAYRE'S LEAF MONKEY, *TRACHYPITHECUS PHAYREIS*
(BLYTH, 1847) IN THE CRATER OF POPA MOUNTAIN PARK, MYANMAR

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ABSTRACT

Study on the ecology of phayre's leaf monkey, *Trachypithecus phayrei*, was carried out in Popa Mountain Park located at 25°56'N and 95°16'E in Mandalay Division, central Myanmar during the study period from July 2003 to July 2006.

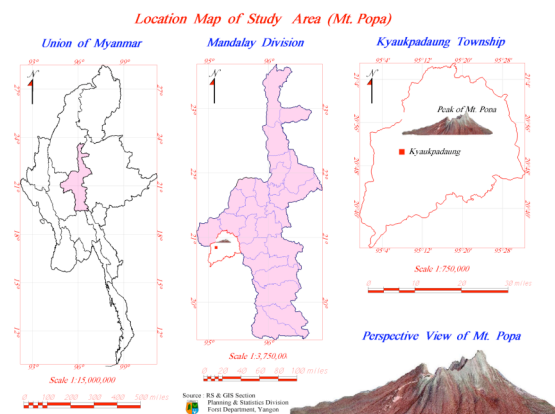
INTRODUCTION

Trachypithecus exist in a disjunct range in Southern India and Sri Lanka and over a wide range from India through Myanmar and Southern China to Vietnam and Malaysia as well as the Indonesian Archipelago to Lombok (Nadler, 2003).

The results of the DNA analysis within the genus *Trachypithecus*, a first radiation into three main lineages occurred; *cristatus* group: a silvered-Ebony langur group with three species (*germaini*, *cristatus* and *auratus*), *obscurus* group: a phayre's-, Dusky langur group with two species (*phayrei*, *obscurus*) *francoist* (superspecies) group including *crepusculus*. The Asian colobines commonly referred to as langurs comprised of seven genera (*Semnopithecus*, *Trachypithecus*, *Presbytis*, *Pygathrix*, *Rhinopithecus*, *Nasalis* and *Simias*) with 35 to 43 species and 90 to 93 taxa (Eudey, 1997; Groves, 2001)

In Myanmar, a total of 14 species of primates is found to be distributing in the different forests of the Country. Among them, the monkey groups such as Langur, leaf monkey and macaque are reported to be most abundant in different types of habitat (Tun Yin, 1967).

Langur, leaf monkey is rare in Myanmar. They were designated as the protected animals because of the high hunting pressure, habitat deterioration by logging, increasing agricultural land use, and so on.



MATERIALS AND METHODS

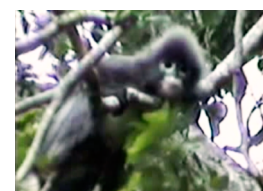
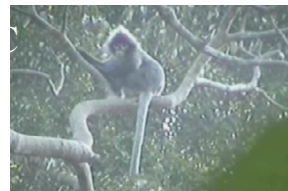
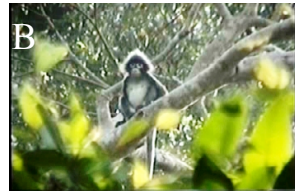
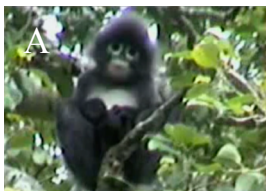
1. Selection of the Study Site
2. Camping and Sighting

RESULTS

General Characters of *Trachypithecus phayrei* Blyth(1847),



Circular white ring around eyes of *phayrei* species contain 2 hemicircular, inner circle (i.e. between the eyes and snout) is white and outer semicircles are bluish black. White color mark present above and below the lips.



Leaf monkey, *Trachypithecus phayrei* Blyth in Study area

- (A) Resting Juvenile (B) Resting Female (C) Sleepy nature
(D) Precaution behavior

Table 1. Group compositions of the leaf monkeys recorded in 2004 and 2005

Group Name	Study site	Percentage of animals in a troop						Group size	
		Adult/Sub Adult		Juvenile		Infant			
		2004	2005	2004	2005	2004	2005	2004	2005
A	I	66	68	31	20	3	12	65	75
B	II	51	69	42	18	7	13	84	89
C	III	70	69	26	25	4	6	27	32

Feeding behavior

Their diet are leaves, 58.4% fruit, 24.4 % and petioles,9.7%.They were diurnal and arboreal. Generally found in high areas, away from humans.As the monkeys were called leaf monkey, they mainly fed on young leaves, and sometimes-young twigs and flower buds. These monkeys selectively fed on young tender leaves and the old leaves with rough texture were usually removed and dropped onto the ground. By looking at

the dropped green leaves the presence of a leaf monkey could be predicted. Small green branches were also dropped after taking the tender leaves from them. The hanging tail among the leaves indicated the presence of these monkeys while they were feeding the leaves among the branches. The fresh leave appeared to provide the water required by the monkeys since the phayre's leaf monkeys were never seen drinking in the wild. During the study period, feeding habits differed seasonally depending on the availability of various foods. Fig plants of *Ficus* sp were most preferred. In this study, the leaf monkeys consumed 19 species of plants. Social hierarchial behavior was recorded in the population of leaf monkeys especially during their movement from the sleeping site to feeding site.

DISCUSSION

The age of extinct Popa mountain park and its forest is 250 thousands years, it is younger than near by mountain ranges like Chin hill to its north and Bago yoma to its South. The leaf monkeys inhabiting in Popa Mountain Park could be descendents of leaf monkeys inhabiting in Chin hill and Bago Yoma. Also it is worth to study these monkeys while they are listed as critically endangered species by IUCN Red List and no one has so far studied on this monkey in Myanmar. The population of the leaf monkeys increased during the 3 years studied period due to law enforcement.

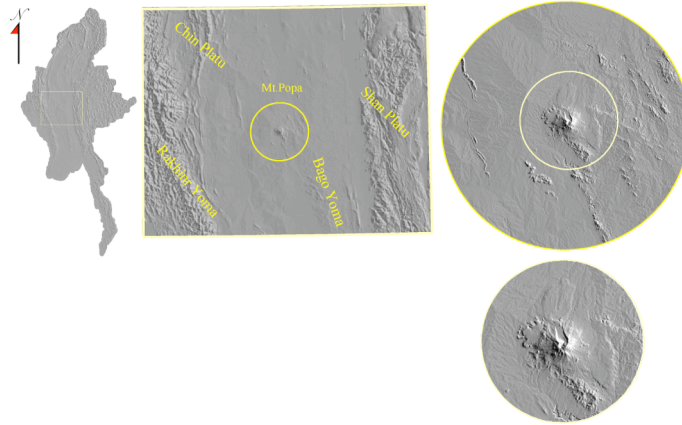
Nineteen Species of plants were recorded as food plants, in which 5 species of *Ficus* seem to be staple food sources and they eat throughout the year.

Consumption of young leaves is the most important characteristic of *Trachypithecus phayrei*. They are absent from the regions where food plants are not abundant and this appears to be significant factor limiting their distribution.

Suggestion for Future Work

1. Food source sharing and partition among the coexisting species should be further studied.
2. Reproductive biology of the leaf monkey should also be studied in future.
3. It is necessary to analyze the mitochondria DNA of the genus *Trachypithecus* in Myanmar. So as to know their breeding status of individuals within population and

different population. Immunology relatedness should be considered to get phylogenetic idea and their existence will be estimated.



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