

Conservation Conversation



Survey of Black and White Colobus Monkeys (*Colobus angolensis palliatus*) in Shimba Hills National Reserve and Maluganji Sanctuary, Kenya

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Submitted on behalf of the late Mwangi Gathua, 2000 ASP Conservation Grant Recipient

Introduction

There are eight sub-species of *Colobus angolensis* mainly inhabiting central African forests. *Colobus a. palliatus* occurs in the eastern Arc Mountains in Tanzania, montane forest in Rwanda and Uganda, and its distribution just enters Kenya's south coast forests (Kingdon, 1997). In Kenya, the *C. a. palliatus* has a very disjunct distribution; the species has been reported in isolated forest patches including Diani, Shimba Hills, Maluganji, Jadini, Shimoni and in a few community forests (Kayas) (Davies, 1993; Tarara, 1986, Kanga and Mennenga, 1997).

Similar to most other African primates (e.g. Butynski, 1997), the *C. a. palliatus* in Kenya is threatened with extinction due to forest destruction through human exploitation (Tarara, 1986; Davies, 1994; Oates, 1996; Kanga and Mennenga, 1997). Shimba Hills National Reserve is the only well protected area in Kenya where *C. a. palliatus* is present but Davies (1993) noted that suitable forest habitats for the *C. a. palliatus* in Shimba Hills National Reserve were declining through logging and re-planting with pines. Exotic plantations like those of pine trees may not be useful for forest primate conservation (Struhsaker, 1997). Despite these threats, the population status of *C. a. palliatus* in Kenya remains unknown except at Diani forests (Kanga and Mennenga, 1997). A census of *C. a. palliatus* at Shimba Hills and Maluganji forests Sanctuary was conducted in 1993 by KIFCON project (Davies, 1993) and indicated the species population to be considerably low (1-2 groups/km²).

Objectives

This census was organized to conduct a rapid ecological survey of the forest patches sustaining *C. a. palliatus* population in Shimba Hills Reserve and Maluganji Sanctuary as a first step of providing data that can be used in

preserving and managing this rare colobus sub-species in Kenya. The survey was aimed at establishing the demographic status of colobine and their distribution in the Reserve and Sanctuary.

Study Site

Shimba Hills National Reserve encompasses an area of 241 km² of which 95 km² comprise of coastal forest and the rest is open grassland vegetation (Bennun and Njoroge, 1999). The nearby Maluganji Sanctuary is 17 km².



Black and white colobus monkey (*Colobus angolensis palliatus*)
(Photo courtesy Erustus Kanga)

Methods

A rapid assessment of the *C. a. palliatus* troops in forest fragments was conducted over a 10 day period in August 2000. Interviews were first used to seek information from Kenya Wildlife Service (KWS) ranger and forest guards (FD) on the forest fragments that they encounter colobus monkeys while on patrols. Later, forest fragments were censused to verify the presence or absence of colobus troops. The census occurred every day at 6.00 am to 11.00 am and again in the afternoon from 3.00 p.m. to 6.00 p.m. The census team of four observers, spaced about 5 meters, walked through forest fragments following trails, and traversed the forests systematically in north-south or

east-west directions, walking at a speed of 1 km/hour, listening and watching for any *C. a. palliatus* group. Where a forest fragment could not be traversed, the census team went up the roof rack of the LandRover vehicle or to high observation grounds and scanned the forest using binoculars in search of any troop. Where groups of *C. a. palliatus* were heard before being seen, their presence was always verified visually. In each instant of encounter, the observers stood still to avoid disturbing the group and all members of the group were counted and aged (Dorst and Dendelot, 1970). Notes on the specific location, presence of other primates and mammals were recorded.

Results and discussion

Twenty-one sites were visited within the Reserve and Sanctuary, out of which *C. a. palliatus* were encountered in 13 sites. 51 *C. a. palliatus* individuals were counted in 21 troops, forming an estimated population of about 107 *C. a. palliatus*, with an average group size of 5.1 individuals. The number of *C. a. palliatus* troops in the fragments ranged between 1-3, with an average of 1.6 troops per fragment. Except for 3 troops that had a juvenile and three sub adults, most other troops comprised of adults. There is also the possibility that we may have missed one or two troops and the estimated current population of the *C. a. palliatus* in Shimba Hills is within the range of 110 - 200 individuals, which reflect a low effective population size.

The group size of *C. a. palliatus* in Shimba Hills is small compared to that reported in Diani of 8 individuals and 6 individuals (Moreno-Black and Maples, 1972; Kanga and Mennenga, 1997). It is likely that due to forest fragmentation that has produced patches in the reserve, *C. a. palliatus* occupying these patches have been isolated for long due to lack of dispersal corridors, contributing to their small group size recorded. It is important to undertake a genetic survey to assess the level of isolation between these *C. a. palliatus* groups in different fragments.

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Population Survey of the Javan Gibbon (*Hylobates moloch*) at the Ujung Kulon National Park West Java, Indonesia

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The Javan gibbon (*Hylobates moloch*) or “Owa Jawa” is endemic to Java and is now found only in fragmented forests in the Western and Central parts of the island. A recent report sponsored by Conservation International (2000) and prepared in conjunction with the World Conservation Union (IUCN) identified the Javan gibbon as one of 25 most endangered primate species. Current information on the status of the Javan gibbon population is limited, but best estimates place the number between 300 and 400 animals (Conservation International, 2000). Maximum population has been estimated at 2700 individuals (Asquith, 1995; Asquith, Martarinza, & Sinaga, 1995).

The research was conducted between November and December 2000 in the Cibiuk region of Mount Honje in the Ujung Kulon Na-

tional Park, located at the western tip of West Java (see Figure 1). Line transect sampling was conducted during the morning along two transects (2.5 km and 3.0 km; strip width, 100 m) that were cleared in the hilly region of Cibiuk. A total of 15 samples were completed for both transects. There were 23 group sightings total along both transects. The average group density was 2.8 groups/km². The average group size was estimated at 3.3 animals (range: 1-5 animals). Population density was estimated at 9.2 individuals/km².

During the survey, several other primate species were observed along the transects. The Silvered leaf monkey (*Trachipithecus auratus*) was frequently found, the Javan leaf monkey or Grizzle leaf monkey (*Presbytis comata*) was sometimes found, and the Longtailed macaque (*Macaca fascicularis*) was seen only occasionally.

To our knowledge, this study represents the first survey of the Javan gibbon population in the Cibiuk region of Ujung Kulon. Plans are underway to extend the survey to other locations in West and Central Java.

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Javan Gibbon (*Hylobates moloch*) (Photo by Randall C. Kyes)

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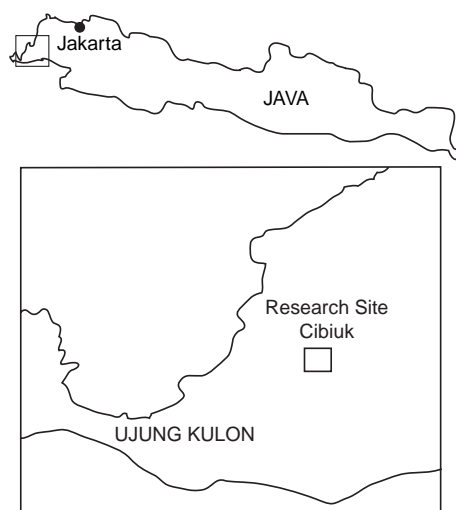


Figure 1. Location of the field research site: Cibiuk region of Ujung Kulon National Park, West Java, Indonesia.