

Project Update: September 2003

The Udzungwa Mountains (10,000 km²), Tanzania, are part of an area of global importance for biodiversity conservation. They assume unique importance for the primates, containing at least 10 species with two endemics: Udzungwa red colobus (*Procolobus gordonorum*), and Sanje Mangabey (*Cercocebus sanjei*). Our full report presents the results of monitoring and research activities conducted in the Udzungwa Mountains National Park from July 2002 until February 2003, for a total of 135 days of fieldwork.

Abundance estimation of the two endemic and other diurnal primates in Mwanihana Forest was done through 14 replicates of 3 transect walks, crossing various habitat types, for a total of 160 km censused. Data on relative abundance (group sightings per km walked) show that red colobus was the most sighted species (0.46-0.69 groups per km walked), followed by black & white colobus (*Colobus angolensis*, 0.35-0.50), Syke's monkey (*Cercopithecus mitis*, 0.18-0.39), yellow baboon (*Papio cynocephalus*, 0.02-0.13) and Sanje mangabey (0.02-0.06). Results are discussed in relation to gross habitat type. Absolute density was estimated for the red colobus, on the base of data on sighting distances that allow estimation of the area censused, and gave values of 3.6 groups per km². Results for other medium to large size mammals, particularly duikers, are also presented.

Part of the study focused onto describing the feeding ecology and activity pattern of red colobus, through focal observations on two groups found in different areas within the National Park. Results show that feeding account for 35-40% of behavioural records, with a peak of occurrence in the morning until noon. The diet include a large variety of plant parts, dominated by leaves (71% of food items), and as few as 5-6 tree and liane species account for about 75% of all plant species included in the diet.

The report discusses the results obtained and reviews available information to draw integrated conclusions on the impact of habitat parameters (vegetation type, forest structure, human encroachment, and others) on population abundance and demography, especially for the red colobus for which quantitative information are available. Accordingly, recommendations for conservation management are given and a resume of these for the two endemics is appended. The report also describes complementary activities and collaboration established in the course of the study and concludes by suggesting the scope for further work and highlighting the conservation importance of continued, standardised ecological monitoring.