

## Project Update: April 2006

The Nigerian Montane Forest Project

([http://www.biol.canterbury.ac.nz/NMF\\_project/index.shtml](http://www.biol.canterbury.ac.nz/NMF_project/index.shtml)) has begun research aimed at understanding the role of seed dispersal in Nigeria's Montane Forests (Fig 1), (forests above 1500 m in elevation). The building of a field station at Ngel Nyaki forest (Fig 2) sponsored by Nexen Nigeria, has made this Rufford sponsored research possible.

West African montane forests are extremely rare and survive mainly because of their remote location and inaccessibility. They are rich in Endangered plant and animals species, including the montane forest trees *Entandrophragma angolense* and *Pouteria altissima*, and the Nigerian Chimpanzee (*Pan troglodytes vellerosus*) and putty nose monkey (*Cercopithecus nictitans martini*).

However hunting is threatening primate populations.

*The aim of this project is to investigate the role of primates and avian frugivores in seed dispersal, in order to predict the long term consequences to forest structure of primate loss.*

Three investigations are underway in order to understand:

1. The role of putty nose monkeys (Fig 3) in seed dispersal.
2. The relative importance of different frugivores in bringing seed into forest clearings and along the forest edge.
3. Whether seedlings have a higher likelihood of survival if they are dispersed away from, rather than under, the parent tree.

### Puttynose monkeys and seed dispersal

We have been watching a group of monkeys for the past 15 months 5 days a week between 6am – 12pm, 4pm-6pm and recording group make-up and size, what they eat and what they spit, and how far they travel. We are also collecting seed from their dung, identifying it, and carrying out germination experiments to compare its germination rate with seed of the same species which has not been processed by a putty nose monkey.

### Relative importance of different frugivores in bringing seed into forest clearings and along the forest edge.

We have identified chosen 5 sites in and around Ngel Nyaki forest which are currently grass covered but which should revert to forest if given a respite from cattle grazing and burning. We have fenced off and fire traced each site. Within each site are 30 seed traps 0.5 X 0.5 m<sup>2</sup> (Fig 4). Seed is collected from the traps once a week, brought back to the field station and identified. If we do not know what the seed is from, it is germinated in our nursery. Each site is observed three days a week from 6am -6pm for frugivores. Seedlings already established in each site are counted once a year.

### Whether seedlings have a higher likelihood of survival if they are dispersed away from the parent tree.

We have identified 25 common tree species in Ngel Nyaki forest. For each tree species we have chosen 5 individuals from different areas within the forest, and under each tree we are counting and identifying all seedlings and saplings under its crown.

