

# In search of the frog-eating antelope

Paignton Zoo has been involved with conservation projects for small antelope in Africa since 1998. This work is conducted in several different countries and highlights our commitment to quality field conservation. In 2005 the opportunity arose to become involved in a new research project in Tanzania focussing on forest antelope in the Udzungwa Mountains.

Tanzania is famous for its spectacular concentrations of large wildlife such as the annual wildebeest migrations across the Serengeti. However, the greatest diversity and the greatest number of unique species are found in relatively small, little-visited highland areas. The Udzungwa Mountains are particularly diverse with new species being discovered every year. The area also has a complex and confusing forest antelope community which scientists have only recently begun to study.

The antelope about which we know least is the Abbott's duiker, *Cephalophus spadix*, found only in the highlands of Tanzania. This species appears to be undergoing a drastic decline but is so rarely seen that it is difficult even to know in which areas it still exists. In 2002-03 Francesco Rovero and colleagues succeeded in photographing the species in the wild for the first time using heat and motion triggered camera traps. Bizarrely the first picture appeared to show the duiker with a frog in its mouth – very unusual behaviour for an antelope!



Photo F. Rovero

Camera trap image of Abbott's duiker.



Panoramic view from Mwanihana.

In May 2005 I travelled to Tanzania for a six month project aiming to establish the best way to estimate numbers of, and describe suitable habitat for, Abbott's duiker and other forest antelope. I rented a house in the village of Mang'ula to act as a base, although I collected most data whilst camping in the Udzungwa Mountains National Park. Every now and then I retreated to the nearby Twiga Hotel in a bid to escape the local staple diet of rice and beans.



Setting a hair trap.

With the help of my field assistant Kulthumu Ally I undertook transect walks, hair-trapping, dung and track counts for forest antelope and compared the results with Francesco's camera-trapping surveys. We also measured the density and species diversity of trees and other plants and recorded canopy and ground coverage for the areas surveyed.

Unfortunately, most of our survey efforts served only to emphasize the difficulty in monitoring Abbott's duiker, with most methods drawing a blank. However, camera-trapping was able to confirm the presence of the species in the area and there were two sightings by fellow researcher Richard Laizzer whilst camping in the forest.



The research team (Yahyah Saha, myself and Richard Laizzer).



Harvey's duiker.

We had greater luck in encountering other species of forest antelope, particularly Harvey's duiker. This species was recorded by all the different methods employed and was found most often in areas with low canopy cover and dense ground vegetation. This was unexpected, as these conditions are often found in areas that have been subjected to logging. However, further analysis using data from other areas is needed to confirm these associations.

Our understanding of forest antelope ecology and conservation status is in its infancy. There is a lot more work to do. Six months is not a long time to spend on a research project, particularly when your subjects are so elusive. However, by working closely with other research teams and the National Park staff we were able to achieve some useful results and we plan to continue this research in the future.

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