Project Update June 2024

The Uluguru Mountain Nature Forest Reserve (UMNFR), covers an area of 97.6 km² (24,115 ha) and is located in Morogoro and Mvomero Districts in Morogoro regions, Tanzania. It forms a central part of the Eastern Arc Mountains (EAMEF, 2022), and lies at Longitude: 37.70946° or 37° 42' 34" east, Latitude: -6.82601° or 6° 49' 34" south (Hansen et al. 1995). The UMNFR has high endemism and contains at least 16 endemic vertebrate and 135 endemic plant taxa.

On May 24, 2024, we (my assistant and I) started our safari from Dar es Salaam to Morogoro, where we spent a night in Mlali town. Next morning, we boarded a bike to Bunduki village, which is 25 km away from Mlali town. At Bunduki village, we joined a local forest guide, James Mapua (a Tanzania Forest Service contact person), who led us to the forest (Fig. 1).



Fig. 1: On the way (James Mapua and I) from Bunduki village to Uluguru mountains searching for potential study sites. Photo by Emmanuel Jonas 2024.

The main objective of this survey was to identify potential sites for trapping Geata mouse shrews (Myosorex geata), an endangered species that is

endemic to Eastern Arch Mountain and has been reported to have a restricted distribution in the Uluguru reserve. According to IUCN 2016, this species has only been trapped between 1500 and 2000 m asl. The current study is planning to trap from 1000 to 2650 m asl. During this survey, the altitude was divided into three sections: 1200, 2000 and 2650 m. The environmental and anthropogenic drivers for species distribution will also be recorded during the main survey.

Potential study sites

Site 1-Submotante forest

At 1000–1200m asl we selected two plots (the main plot and its replicate) spaced 300 m apart. This area has a habitat mosaic such that it includes an agro-ecosystem as well as disturbed forests. In this area, there is a mixture of natural and planted trees. On our way up, we observed farming activities that were done very close to the forest boundary (Fig. 2).



Fig 2: My assistants and I (James Mapua and Emmanuel Jonas) are on our way up the mountain, where we spotted some cleared land for agricultural activities. Photo by Yasinta 2024.

Site 2- Montane (2000 asl)

At this site, it is mainly dominated by tall trees and evergreen vegetation. The site is mostly closed forest, and it is a wet area (Fig. 3). In this area, we spotted a few human prints, especially on the path that runs from Bunduki and Vinile villages and connects with other villages in Matombo district. More human prints will be identified during the main survey with a proper transect. Two plots—the main plot and its replicate—were also established at this



Figure 3. Montane forest site. Photo by Emmanuel Jonas 2024

Site 3-Upper montane (2500m asl)

The area is mostly flat, and this elevation is only found in the southern Uluguru mountains. The forest gives way to grassland in flatter areas and to elfin forest on the wetter peaks above 2000 m, as well as grassland with swampy areas at Lukwangule Plateau. Two plots were established in this area: the main plot and its replicate, spaced between 3000 m.

With regard to the social party of the study, we were able to talk to TFS contact person, Mr. James Mapua. Through him we were able to identified six potential villages (Bunduki, Vinile, Maguruwe, Kigurunyembe, Tchenzema, and Kidigire). Since we had no permission from the Regional Administrative Secretary, we were unable to meet the village leaders. I have tabled a request letter for the same, so next time we will also work in the village.