

Chapter 11

A rapid survey of small mammals from the Atewa Range Forest Reserve, Eastern region, Ghana

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SUMMARY

We report on the results of a small mammal survey in the Atewa Range Forest Reserve. A total of 12 bat species were recorded. Composition of bat species clearly reflects a forest assemblage, with no savanna species being observed. Two rarely recorded bat species (*Hypsugo* [*crassulus*] *bellieri* and *Pipistrellus* aff. *grandidieri*) are reported for the first time for Ghana, raising the total number of species for this country to 86. Together with specimens from five localities in West Africa, *Pipistrellus* aff. *grandidieri* from Atewa might represent an undescribed species. *Hypsugo* (*crassulus*) *bellieri* is endemic to the Upper Guinean forests. Zenker's fruit bat *Scotonycteris zenkeri* is ranked on the Red List as Near Threatened (IUCN 2006). The three terrestrial small mammal species recorded during the survey are likewise forest-dependent and include two West African endemics: Edward's swamp rat *Malacomys edwardsi* and the shrew *Crocidura grandiceps*. The latter is ranked as Near Threatened on the IUCN Red List and had not been recorded from Ghana since its description. The overall species composition of small mammals indicates high habitat integrity of the Atewa Range Forest Reserve, which constitutes the most significant block of Upland Evergreen Forest in Ghana. The integral protection of Atewa is an outstanding priority for the preservation of (sub-) montane forests in West Africa, both for the conservation of small mammals and of biodiversity in general. In accordance with international conservation principles on mining and biodiversity (Dudley and Stolton 2002, Miranda et al. 2005), we recommend that exploration concessions for Atewa are cancelled, that its legal protection status is upgraded, that no development is allowed within the forest reserve, and that effective management measures are implemented.

INTRODUCTION

Although West African forests have been reduced to about 15% of their potential extent, the remaining and highly fragmented patches are still being degraded or completely lost at a high rate. Given this threat as well as the exceptional number of species endemic to the Guinean forests of West Africa, this region was ranked as one of 34 global biodiversity hotspots (Bakarr et al. 2004). Within this region, (sub-) montane forests are under particular pressure as montane habitats are extremely restricted in extent. Long-term geological erosion has turned West Africa into a mostly flat landscape that is broken by very few mountain ranges. Significant tracts of montane forest are limited to the Upper Guinea Highlands along the border region of Sierra Leone, Liberia, Guinea and Côte d'Ivoire in the West and the Cameroon Mountain Range in the East. These montane forest areas constitute unique ecosystems with exceptional species richness and high levels of endemism (Bakarr et al. 2001, 2004). In-between this wide geographic hiatus, only the Atewa Range in Ghana, the Volta Highlands between Ghana and Togo and the Jos Plateau in Nigeria harbor significant upland forest patches, however among these three, Upland Evergreen Forest is found only in the Atewa Range. The latter area has had the status of a national forest reserve since 1925 and was recently designated as a Globally Significant Biodiversity Area (GSBA) as well as an Important Bird Areas (IBA) (Abu-Juam et al. 2003). Together