



## Report at a Glance

Source: A Rapid Biodiversity Assessment of the Ajenjua Bepo and Mamang River Forest Reserves, Ghana: 10

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## Report at a Glance

### Expedition Dates

24 August – 4 September 2006

### Area Description

The Ajenjua Bepo Forest Reserve and the Mamang River Forest Reserve are located in the Birim North District of the Eastern Region of Ghana. The two reserves consist of moist semi-deciduous forest and were established in 1930 (Ajenjua Bepo) and 1938 (Mamang River). Ajenjua Bepo is a relatively small reserve covering an area of hilly topography of 5.69 km<sup>2</sup>. Only small patches of the original forest remain intact with the remainder of the reserve covered by degraded secondary forest or agricultural plantations. Mamang River is relatively much larger and flatter, covering an area of 53 km<sup>2</sup>. The forest is uniform with dense tangles of lianas and a thick leaf litter layer.

The RAP survey was conducted around two camp sites: Site 1 - Ajenjua Bepo (N 06° 22' 2.3", W 01° 01' 58.6" WGS 84, 150-300 m) and Site 2 - Mamang River (N 06° 15' 0.2", W 01° 02' 25.7" WGS 84, 130 m). Plants, ants, butterflies, katydids, freshwater macroinvertebrates, fishes, amphibians, reptiles, birds and mammals were surveyed by the team.

### Expedition Objectives

CI and Newmont Mining Corporation are engaged in a partnership at the corporate level as well as in the field to address and promote biodiversity conservation in areas of mutual interest. One objective of this partnership was to better understand the biodiversity context around Newmont's project site that overlaps a portion of Ghana's Ajenjua Bepo Forest Reserve (located near the Mamang River Forest Reserve) in order to incorporate biodiversity into the company's risk assessment and help inform their Environmental Impact Assessment of the area.

The objective of the RAP survey was to conduct a rapid, first-cut assessment of species diversity in Ajenjua Bepo and Mamang River, evaluate the relative conservation importance and threats to this biodiversity within each area, compare the two forest reserves' biodiversity profiles, provide management and research recommendations together with conservation priorities, and to make this information publicly available to increase awareness of this region and promote its conservation.

### Overall RAP results

Ajenjua Bepo and Mamang River have been heavily impacted by human influences such as slash-and-burn agriculture, hunting and development activities. Despite these impacts both reserves contain pockets of quality forest and significant biodiversity. Neither of these forest reserves reaches the highest level of conservation priority for Ghana however, based on the country's lack of original forested areas these areas deserve protection. In the combined reserves, scientists recorded six Black Star plant species, twelve diurnal butterfly species of conservation concern, twelve katydid species new to science, one Near Threatened amphibian species, one Vulnerable and one Near Threatened bird species and three Near Threatened mammal species.

**Species recorded at the two RAP sites**

	Total RAP sites	Ajenjua Bepo	Mamang River
Number of species recorded	978	785*	654*
Species of conservation concern**	39	29	27
New species to science	13	11	7

\*excludes freshwater macroinvertebrates

\*\*species of global conservation concern (IUCN 2008) and of national conservation concern (Black Star plant species)

**Results by Taxonomic Group**

	Total species recorded	Species new to science	New records for Ghana	Species of conservation concern*
Plants	376			33 (6 Black Star)
Ants	125			
Diurnal Butterflies	187		1	
Katydid	56	13	12	
Freshwater macroinvertebrates	29 families			
Fishes	18		1	
Amphibians	22			1
Reptiles	23			
Birds	137			2
Small mammals	17			
Large mammals	19			3

\* see Executive Summary for a list of species

**Conservation Conclusions and Recommendations**

Despite the greater number of species found in Ajenjua Bepo, when comparing between these two forest reserves, Mamang River seems to be a better candidate for conservation. Greater species diversity, especially in katydids, is most likely higher in Ajenjua Bepo due to habitat fragmentation and the sun and wind's effects on the edge of the forest.

Mamang River is nearly ten times larger than Ajenjua Bepo, providing more area of continuous habitat for flora and fauna. Its larger size also has a stronger buffering effect to any negative changes caused by the activity of the surrounding populations. Furthermore, Mamang River is a part of a larger series of forest reserves, making it a candidate for part of a wildlife corridor. This series of forest reserves represents some of the last remaining, continuously forested sites in southeastern Ghana and therefore should be preserved and protected as much as possible.

However, Mamang River does not contain similar varied topography to Ajenjua Bepo. Upland areas are restricted

in West Africa and different species are associated with higher elevations in Ghana. Several notable species observed during our survey were recorded only from Ajenjua Bepo.

Specific recommended actions:

- Promote education of local communities regarding hunting regulations and why they are needed.
- Improve sanitation in bordering communities to decrease the impact of pollution on (primarily human and animal waste) local human communities, aquatic invertebrates, fish, and amphibians.
- Control deforestation and habitat degradation.
- Reduce the network of roads, plantations, and paths adjacent to and within the forest reserves.
- Conduct longer-term surveys for all taxonomic groups particularly in the wetter and rainy seasons.

