

Chapter 8

A rapid assessment of the fish fauna of the Atewa Range Forest Reserve, Ghana

E. K. Abban

SUMMARY

The freshwater ecosystem studied during this RAP survey included the streams of the Atewa Range Forest Reserve, Ghana, an area protecting the headwaters of the Ayensu, Birim and the Densu river basins, and from which these basins originate. A total of 15 streams within the Atewa forest and at sites just emerging out of the forest were surveyed and their fish fauna was documented during the month of June 2006. We recorded 19 species of freshwater fishes, belonging to nine genera of five fish families: Mormyridae, Characidae, Cyprinidae, Cyprinodontidae and Cichlidae. All species encountered in the present study have been recorded in river basins in West Africa, but *Epiplatys chaperi spillamanni*, encountered during our survey in the Ayensu system, was known previously only in the waters of Côte d'Ivoire. In reference to the number of species per stream, it was our observation that where the forest was least disturbed, the number of species recorded in a stream, even where the stream had been sampled at more than one locality, was rarely more than four and the species were predominantly only of aquarium importance. Thus the occurrence of up to ten species per stream, especially where species composition included fishes of food importance, indicated disturbance of stream forest cover. To conserve forest fishes, the waters in which they exist and their forest environment and necessary habitat characteristics must be largely conserved. Therefore, we recommend that removal of forest cover from streams up to a determined distance from stream banks must be seriously controlled and monitored. Additionally, we recommend the implementation of a rural campaign to educate communities on potential benefits of forest fish fauna as well as other flora and fauna.

INTRODUCTION

The Atewa Range Forest Reserve (Atewa) is located in Ghana, a tropical West African country which lies between Latitude 4°30' N and 11°00' N and straddles the Greenwich Meridian from Latitude 1°10' E to 3°15' W. The Atewa Range Forest Reserve is made up of the Atewa Forest Reserve, covering an area of 232 km² (or 23,663 ha) and the surrounding Atewa Range Extension, which, in combination with the Reserve covers a total area of 26,312 ha. Together they form a continuous block lying within latitude 5°58' to 6°20' N and longitudes 0°31' to 0°41' W (Figure 8.1). This forest block was designated as a reserve in 1925 (Abu-Juam et al. 2003), as a Special Biological Protection Area (SBPA) in 1994 (Hawthorne and Abu-Juam 1995), and one of 30 Globally Significant Biodiversity Areas (GSBAs) in 1999 (Forestry Commission 1999). In addition, the area is also one of Ghana's 36 Important Bird Areas (IBAs) as classified by BirdLife International (Ntiemoa-Baidu et al. 2001). All this points to the fact that the area has long been recognized for its high biodiversity values.

Since the pre-colonial years, the most compelling reason for holding the Atewa forests as a reserve has been that the range of highlands which the forests cover provides the headwaters of three river systems in the country: the Ayensu, Densu and Birim rivers. The forests protect important water sources, contributing to both domestic and industrial water requirements in three important watersheds in Ghana.