



Sylvan katydids (Orthoptera: Tettigoniidae: Pseudophyllinae) of the Guinean Forests of West Africa hotspot: an overview and descriptions of new species

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Abstract

The state of knowledge on sylvan katydids (Tettigoniidae, Pseudophyllinae) of Guinean Forests of West Africa hotspot is discussed. Based on published data on their distribution, and the extent of the current forest coverage of the region it is possible that some of the West African species of the Pseudophyllinae may be threatened or even extinct. Five new species are described (*Adapantus affluens* sp. nov., *A. angulatus* sp. nov., *A. pragerorum* sp. nov., *Tomias gerriesmithae* sp. nov., and *Mormotus alonsae* sp. nov.), and 4 species of West African Pseudophyllinae are redescribed.

Key words: West African hotspot, katydids, Pseudophyllinae, new species

Introduction

The current biodiversity crisis, manifested in both the accelerating rate of the habitat loss and extinction of species (IUCN 2007) makes the task of describing the still undocumented species of organisms more pressing than ever. Knowledge of a species' existence is the first step towards its conservation, potentially allowing us to reduce the trend known as the "centinelan extinction", where species become extinct before they are formally recognized by science (Winchester and Ring 1996). This is especially true of biodiversity hotspots—geographic areas that combine a high degree of endemism and greater than average pressure from human activities (Myers et al. 2000). The Guinean Forests of West Africa hotspot (GFWA) is one of the most critically endangered of all hotspots—only edges of the original GFWA are remaining (Brooks 2000), and are still shrinking rapidly due to logging and mining activities (Bakkar et al. 2004).

The GFWA hotspot encompasses all of the lowland forests of political West Africa, stretching from Guinea and Sierra Leone eastward to the Sanaga River in Cameroon. This includes the countries of Liberia, Côte d'Ivoire, Ghana, Togo, Benin, and Nigeria, which maintain remnant fragments of the forests. The hotspot also includes four islands in the Gulf of Guinea: Bioko and Annobon, which are both part of Equatorial Guinea, and São Tomé and Príncipe. The hotspot includes two distinct sub-regions, which incorporate several important forest refugia created by the retraction and fragmentation of forests during the Pleistocene. The Upper Guinea sub-region stretches from southern Guinea into eastern Sierra Leone and through Liberia, Côte d'Ivoire and Ghana into western Togo. The Nigeria-Cameroon sub-region extends along the coast from western Nigeria to the Sanaga River in southwestern Cameroon. The two sub-regions are separated by the Dohomeny Gap in Benin, an area of farmland, savanna and highly degraded dry forest (Bakkar et al. 2004).

Despite its importance as a biodiversity hotspot, West Africa belongs to some of the least biologically explored areas of the world. In a large part this is the result of a very turbulent and often tragic history of this region, which has seen some of the most violent conflicts on the African continent. With the exception of the