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# New species of arboreal predatory katydids from West Africa (Orthoptera: Tettigoniidae: Meconematinae)

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## Abstract

A new genus (*Brachyamytta* **n. gen.**) and ten new species (*Proamytta spinifera* **n. sp.**, *Amyttosa insectivora* **n. sp.**, *Anepitacta wrightae* **n. sp.**, *Amyttopsis bakowskii* **n. sp.**, *A. palmulicerca* **n. sp.**, *Xiphidiola hokei* **n. sp.**, *X. lobaticerca* **n. sp.**, *Brachyamytta rapidoaestima* **n. sp.**, *B. mcculloughae* **n. sp.**, and *B. maculipes* **n. sp.**) of West African Meconematinae (Orthoptera: Tettigoniidae) are described. New distribution records for several species are presented, and unusual egg morphology of *A. insectivora* is discussed.

**Key words:** West African katydids, Meconematinae, new species, egg morphology

## Introduction

Similar to most other groups of West African katydids, the Meconematinae of this region are poorly known, and their diversity is likely to be several times higher than the numbers of described species indicate. The most comprehensive treatment of West African Meconematinae is that of Beier (1965), and only seven species have been added since (Beier 1967; Roy 1967; Ragge and Roy 1971; Gorochov 1993, 1994). Overall, 43 species and subspecies were described from the region (including species described from the Democratic Republic of Congo) between 1890 and 1994, making it the majority of all 64 species of the Meconematinae recorded from the entire continent between 1888 and 2001. A recent series of rapid biological surveys conducted in Guinea and Ghana by Conservation International between 2002 and 2006 adds to this list 10 new species, described below.

West and Central African Meconematinae are small (10–25 mm), slender-legged katydids of rather uniform appearance. Most species are green and macropterous, although a few have reduced wings, and some have generally brown coloration. The front and middle tibiae are equipped with short spines (usually not much longer than the diameter of the tibia), and the tympanum is always bilaterally open. All known species have a well developed stridulatory apparatus in the male, although in some species the stridulatory file is exceptionally small (less than 250 μm long). The length of the file is in no way correlated with the degree of wing reduction, and brachypterous species often have stridulatory files several times larger than those in species with fully developed wings. Males of African Meconematinae possess some of the most diverse and complex external reproductive structures among katydids. Virtually every element of the abdominal terminalia of the male, including the 10$^{th}$ tergite, the epiproct (= supraanal plate), cerci, paraprocts, the subgenital plate, and the styli has been strongly modified in at least some of the species, although functions of these structures during copulation and sperm transfer are completely unknown. Only genera Anepitacta Br.-Watt., Proamytta Beier, and Amyttopsis Beier appear to have sclerotized epiphallus (= titillators).

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