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Discovery of a new duiker species (Bovidae: Cephalophinae) from the Dahomey Gap, West Africa

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Abstract

Among the two most widely distributed duiker species, *Philantomba monticola* (Thunberg, 1789) and *Philantomba maxwelli* (C.H. Smith, 1827), the latter shows geographic variation in pelage color and body size. This issue was not investigated in detail so far, especially in the eastern region of its distribution area, notably due to the lack of material from the Dahomey Gap. We undertook a species-level revision of *Philantomba* in West Africa, notably including a series of specimens collected in Togo, Benin and Nigeria. Using morphological measurements (craniometry) and genetic data (two mitochondrial and three nuclear markers), we describe a new duiker species occurring in the Dahomey Gap (Togo, Benin) and the Niger delta, *Philantomba walteri* **sp. nov**. This discovery highlights the importance of the Dahomey Gap for the evolutionary history of the West African forest faunas. It also has conservation implications given that the new species is one of the main targets of the local bushmeat trade.

Key words: *Philantomba walteri* **sp. nov**., craniometry, mitochondrial DNA, nuclear DNA, bushmeat, new duiker species

Introduction

Members of the Cephalophinae (Bovidae) are widely distributed in sub-Saharan Africa. This subfamily contains three genera and eighteen species (Jansen van Vuuren & Robinson 2001; Grubb & Groves 2005; Grubb 2005). The genus *Sylvicapra* Ogilby, 1837 contains a single savannah-dwelling species; *S. grimmia* (Linnaeus, 1758), and 14 subspecies widely distributed from the Sahel to Austral Africa. Members of the genus *Cephalophus* C.H. Smith, 1827, containing 15 species and numerous subspecies inhabit humid African tropical lowland and mountain forests. Finally, the genus *Philantomba* Blyth, 1840, contains the two smallest and most widely distributed duiker species: *P. maxwelli* (C.H. Smith, 1827) and *P. monticola* (Thunberg, 1789). They both occupy a range of natural habitats, including mosaic shrubby and wooded savannah habitats near human settlements. These two species are the most frequently hunted antelopes in West and Central Africa, and thus represent a significant proportion of the local bushmeat market (Colyn *et al*. 1987; Fimbel *et al*. 2000; Eves & Ruggirero 2000; Brashares *et al*. 2004; Wilson 2005). Despite their importance as bushmeat species and their abundance, the poor representation of *Philantomba* species in museum collections and the relatively small number of studies focusing on them are surprising.

It is thus urgent to properly evaluate the alpha taxonomy and distribution ranges of these small duikers to allow a more precise monitoring of the bushmeat trade in West Africa (Van Vliet & Nasi 2008). The

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