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Description of two new genera and two new species of Metarbelidae (Lepidoptera, Cossioidea) from the Northeastern Congolian Lowland Forests Ecoregion (Central Africa)

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Abstract

The genera *Dianfosseyia* **gen. nov.** and *Janegoodallia* **gen. nov.** and their single species *D. leakeyi* **sp. nov.** and *J. davenporti* **sp. nov.** are both described from Isiro, north-eastern Democratic Republic of the Congo, Central Africa (Afrotropical Region). Wing pattern and male genitalia of the new species are depicted and notes on the habitat are presented.

Key words: Afrotropical Region, Congo Basin, *Dianfosseyia* **gen. nov.**, *davenporti* **sp. nov.**, *Janegoodallia* **gen. nov.**, *leakeyi* **sp. nov.**, taxonomy, revision

Introduction

Though no less than 215 species of Metarbelidae belonging to 21 genera are recorded from the Afrotropics (De Prins & De Prins 2014), this group has only recently received some attention. Lehmann discussed the diversity of the family in the Afrotropical Region as well as in Southeast Asia and revised seven genera with descriptions of 79 new species from mainland Africa (Lehmann 1997, 2007, 2008a, b, 2010a, b, 2011, 2012, 2013, Lehmann & Rajaei 2013).

Recent works using molecular methods placed Metarbelidae as one of the seven families of Cossioidea (Regier *et al.* 2009, Mutanen *et al.* 2010, van Nieukerken *et al.* 2011). Within the Cossioidea the Metarbelidae share several important morphological characters with Ratardidae, e.g., in having only one strong anal vein on the forewing as well as the deep, 8-shaped ovipositor lobes (Holloway 1986, Edwards *et al.* 1998, Holloway pers. comm. 2013). The Metarbelidae occur from mainland Africa and Madagascar across southern Arabia (Afrotropical Region) via India and Nepal to Southeast Asia (Oriental Region) (Lehmann 2008b, 2013). Several alleged New World *Indarbela* Fletcher, 1922, species belong to the Hypoptinae (Cossidae; Edwards *et al.* 1998). Recent studies by the author suggest that the Metarbelidae comprise many more than 500 species in the Afrotropical Region.

The holotype locality for both new species that are presented here is Isiro (formerly known as Paulis) located in the Congo Basin and “Northeastern Congolian Lowland Forests ecoregion” *sensu* Burgess *et al.* (2004), Democratic Republic of the Congo (DRC), and within the “Guineo-Congolian regional centre of endemism” *sensu* White (1983). The ecoregion includes all areas bound by the Uele River in the northeast, the Congo River and its tributaries (primarily the Elila River) in the south, and the Bomu River as it flows into the Oubangui River in the west, as well as the foothills of the Albertine Rift in the east (up to 1500 m). The “Northeastern Congolian Lowland Forests ecoregion” is recognized as an area of high endemism (Blom & Schipper 2004) and high species diversity (Underwood & Olson 2004).

Here, I describe two new genera and two new species based on morphological characters. This description is based on a single male specimen per genus. Nevertheless, the description of *Dianfosseyia* **gen. nov.** and *Janegoodallia* **gen. nov.** is justified since both are possessing genitalia with unique apomorphic structures that do not occur in other metarbelid genera (*cf.* diagnosis below).

Lepidoptera are usually linked to certain vegetation types (Van Dyck 2011). A particular association of

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