



The first record of Tischeriidae (Insecta: Lepidoptera) from Madagascar, with description of *Coptotriche alavelona* sp. n. and an updated distributional checklist of Afrotropical Tischeriidae

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Abstract

The family Tischeriidae is recorded from Madagascar for the first time. *Coptotriche alavelona* Lees and Stonis, **sp. n.**, is described from high elevation tropical moist forest of Madagascar, and its proposed generic placement discussed. DNA of this species has been extracted and conserved for future phylogenetic or barcoding studies. The external features and male genitalia are figured and described. An updated checklist and a distribution map for all 13 Tischeriidae species currently recorded from the Afrotropics are provided.

Key words: Lepidoptera, Tischeriidae, Africa, Madagascar

Introduction

In total, 30 out of the c. 47 worldwide superfamilies of Lepidoptera are currently recognized for the island of Madagascar (Lees & Minet 2003). The grade Monotrysia locally comprises just a single described species of Nepticulidae (Minet 2004) and amongst the Incurvarioidea, single described species of *Nemophora* Hoffmannsegg, 1798 (Adelidae) and *Antispila* Hübner, 1825 (Heliozelidae). Primitive, homoneurous moths had not been recognized for the fauna (but see Kristensen 1999b: 43) although Micropterigidae turn out to be remarkably diverse (Lees, unpublished). The earliest diverging ditrysian lineage previously recognized for Madagascar is the superfamily Tineoidea, whilst this Malagasy fauna includes some primitive lineages, e.g. Eriocottinae (Lees & Minet 2003).

Here, we describe a representative of the family Tischeriidae from Madagascar. This family is usually considered to be sister taxon of the hyperdiverse Ditrysia (Lukhtanov 1999; Kristensen & Skalski 1999; Simonsen 2001). Other topologies are possible including with Palaephatoidea as sister to Ditrysia (Wiegmann *et al.* 2002). Tischeriidae is the only family representing the superfamily Tischerioidea, and is known from all continents except Australia and Antarctica.

The African continent is comparatively unexplored for micro-moths, including Tischeriidae. Description of the African tischeriid fauna began in the early 20th century with the description of a single species from South Africa by Meyrick (1911). Recently, Puplesis and Diškus described six new species mostly from South African Republic, Zimbabwe and Namibia (Puplesis & Diškus 2003; Puplesis *et al.* 2003). Later, the formerly neglected equatorial species *Tischeria urticollella* (Ghesquière 1940) was redescribed and a first checklist of the African Tischeriidae was published (Puplesis & Diškus 2005). In this checklist, unfortunately,