



## A featherwing beetle without wings: re-discovery and second species of *Rioneta* (Coleoptera: Ptiliidae) from the Uluguru Mountains, Tanzania

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### Abstract

The type species of the monotypic beetle genus *Rioneta* Johnson, 1975, previously known from three specimens, is re-discovered in the Uluguru Mountains, Tanzania. A second sympatric species, *R. inexpectata* **sp.n.**, is described. The relatively rare event of apparently obligate aptery in Ptiliidae is reported. The genus *Rioneta*, as well as *Leptinla* Johnson, 1985, are removed from the non-monophyletic Ptiliini and transferred to the tribe Ptinellini.

**Key words:** Taxonomy, beetle

### Introduction

The coleopteran family Ptiliidae (featherwing beetles) includes the smallest species within the order, seldom exceeding 1.0 mm in body length. There are about 600 species described (Newton & Thayer, 2005), while the actual numbers are expected to be considerably higher. The majority of the species, usually associated with rotting organic matter, are capable of flight, and are normally widely distributed.

The description of the wingless *Rioneta uluguruensis* Johnson, 1975, then a new genus, was based on three specimens from the isolated Uluguru Mountains in Tanzania, a part of the East Arc mountain chain characterised by an unusually high degree of endemism (Lovett & Wasser, 1993). No additional records of the genus were known until 2002 when a series of about 100 specimens was extracted by the author from the forest litter in the Ulugurus. This discovery also brought to light a smaller number of wingless specimens belonging to another, apparently undescribed species of the same genus.

The purpose of this paper is to re-introduce the genus *Rioneta* to science and to describe its second species. Morphological features of adult *Rioneta* beetles, particularly those related to its assumed aptery, will be extensively illustrated and discussed in an attempt to place the genus within the poorly developed phylogenetic framework of the family.

### Material and methods

Fresh specimens of *Rioneta* were collected by sifting forest leaf litter with a sifter. The leaf litter samples obtained were placed into Winkler funnels for about 24 hours to extract arthropod inhabitants. Specimens were later either glued on pinned cards or slide mounted in Euparal medium on microscope slides. For the lat-