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## Studies of Madagascan Ptiliidae (Coleoptera) 3: The genus *Acrotrichis* including twenty seven new species

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### Abstract

This is the third report detailing Ptiliidae collected from forest leaf litter by the Moravian Museum (Brno, Czech Republic) expeditions to Madagascar 2010–2013. After completion of the first draft, which identified 16 new species, more Madagascan *Acrotrichis*, collected at earlier dates, were found in the Natural History Museum in London (BMNH). These included 17 unpublished new species determined by Colin Johnson in 1969, 7 of which proved to be the same as those in the Czech material. The decision was taken, therefore, to broaden the scope of the report to include all the mounted Madagascan material in the Museum and to use Johnson's ms names to avoid potential future confusion.

27 new species are described and figured: *Acrotrichis absona* sp. n.; *A. barclayi* sp. n.; *A. bibula* sp. n.; *A. boothi* sp. n.; *A. clareae* sp. n.; *A. colini* sp. n.; *A. cuspidata* sp. n.; *A. difficilis* sp. n.; *A. exigua* sp. n.; *A. hammondi* sp. n.; *A. heissi* sp. n.; *A. hova* sp. n.; *A. impressa* sp. n.; *A. lacrimosa* sp. n.; *A. lauta* sp. n.; *A. loganovi* sp. n.; *A. magnifica* sp. n.; *A. malitiosa* sp. n.; *A. obscura* sp. n.; *A. perexigua* sp. n.; *A. perfida* sp. n.; *A. strenua* sp. n.; *A. subafricana* sp. n.; *A. tampoketsae* sp. n.; *A. terminalis* sp. n.; *A. truncata* sp. n. and *A. tuberosa* sp. n., and new data recorded for six others: *A. africana* Johnson, *A. africanoides* Johnson, *A. cursitans* (Nietner), *A. discoloroides* Johnson, *A. minuscula* Johnson, and *A. superbioides* Johnson.

New criteria for assessing speciation in *Acrotrichis* are suggested, the definition of subgenera discussed and a key to all the known species from the island provided.

**Key words:** taxonomy, Ptiliidae, *Acrotrichis*, new species, key, Madagascar

### Introduction

Two species of *Acrotrichis* from Madagascar were described by Schaufuss (1890, 1891) in the 19<sup>th</sup> century: *Trichopteryx montivaga* in 1890 and *Trichopteryx madagascariensis* in 1891. Because of the difficulty of determining species from literal descriptions without diagrams of dissected specimens, and because the type specimens could not be located, Sundt proposed that these names should be considered as *nomina dubia* (Sundt 1958a). After a long period without further records, in 1969 in a major paper on *Acrotrichis* in the Ethiopian region, Johnson confirmed his agreement with Sundt's findings and recorded *A. cursitans* (Nietner) (s.g. *Flachiana*) from the island together with four new species: *A. discoloroides* (s.g. *Ctenopteryx*), which he also recorded from the Congo; *A. africanoides*; *A. minuscula* (s.g. *Acrotrichis*), and *A. superbioides* (s.g. ?*Flachiana*) all from the Baie d'Antogil, leg. J. Vadon in the 1950s (Johnson, 1969).

In the early 1980s, when working on an update to his 1969 article, Johnson determined 17 new species which were not published from collections of Madagascan *Acrotrichis* made by H. Franz in 1969 and P.M. Hammond in October 1970. The Hammond material produced 9 new species, holotypes and some paratypes of which were placed with ms names (*A. bibula*, *A. clareae*, *A. hammondi*, *A. lauta*, *A. malitiosa*, *A. obscura*, *A. perfida*, *A. strenua* and *A. subafricana*) in the Natural History Museum, London (BMNH), and the Franz material 8 new species the holotypes and some paratypes of which were placed in the Manchester Museum (MM) (*A. betsimaraka*, *A. exigua*, *A. heissi*, *A. hova*, *A. magnifica*, *A. perexigua*, *A. absona* and *A. tampoketsae*). Paratypes of two of the MM specimens, *A. exigua* and *A. heissi* were placed in the BMNH. The present writer did not become aware of any of these specimens until after completing work on determining the Moravian Museum collections which indicated that 18 species were present, 17 of which were new.

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