



Review of the genera of Mycetophagidae (Coleoptera: Tenebrionoidea) with descriptions of new genera and a world generic key

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Abstract

The world genera of Mycetophagidae are reviewed and four new genera described. Several adult features of Mycetophagidae are discussed, and some newly discovered secondary sexual characters are described and illustrated. A key is given to the adults of all mycetophagid genera. The following new genera and species are proposed: *Afrotypaeola* **gen. n.** (South Africa), *A. natalensis* **sp. n.** (South Africa), *Neotriphyllus* **gen. n.** (southwestern USA to Central America), *Nototriphyllus* **gen. n.** (New Zealand, Madagascar, Chile and Argentina), *N. araucania* **sp. n.** (Chile, Argentina), *Zeclaviger* **gen. n.** (New Zealand) and *Z. explanatus* **sp. n.** (New Zealand). The following synonymies are proposed: *Litargus* Erichson, 1846 (= *Catopius* Sharp, 1902) **syn. n.**, *Litargus balteatus* LeConte, 1856 (= *Triphyllus minor* Lea, 1895) **syn. n.**, *Mycetophagus confusus* Horn, 1878 (= *Triphyllus perfectus* Sharp, 1902) **syn. n.** The following new combinations are proposed: *Litargops intricatus* (Blackburn, 1891) (*Triphyllus*, *Litargus*) **comb. n.**, *L. multiguttatus* (Lea, 1895) (*Triphyllus*, *Litargus*) **comb. n.**, *Litargus irregularis* (Sharp) (*Catopius*) **comb. n.**, *Mycetophagus (Paralitargus) didesmus* (Say) (*Litargus*) **comb. n.**, *Neotriphyllus confusus* (Horn) (*Mycetophagus*) **comb. n.** *Nototriphyllus aciculatus* (Broun, 1880) (*Cryptophagus*) **comb. n.**, *N. adspersus* (Broun, 1880) (*Cryptophagus*) **comb. n.**, *N. constans* (Broun, 1914) **comb. n.**, *N. fuliginosus* (Broun, 1880) (*Cryptophagus*) **comb. n.**, *N. hispidellus* (Broun, 1880) (*Cryptophagus*) **comb. n.**, *N. integritus* (Broun, 1893) **comb. n.**, *N. pubescens* (Broun, 1909) **comb. n.**, *N. madagascariensis* (Fairmaire, 1898) (*Triphyllus*) **comb. n.**, *N. punctulatus* (Broun, 1880) (*Cryptophagus*) **comb. n.**, *N. rubicundus* (Sharp, 1886) (*Triphyllus*) **comb. n.**, *N. serratus* (Broun, 1880) (*Cryptophagus*) **comb. n.**, *N. substriatus* (Broun, 1880) (*Cryptophagus*) **comb. n.** The larva of *Nototriphyllus araucania* is briefly described and compared with other known mycetophagid larvae. The genus *Nesolathrus* Scott (1922), described in Latridiidae and considered *incertae sedis* in Mycetophagidae by Lawrence & Newton (1995), is placed in the subfamily Berginiinae, following Lawrence & Ślipiński (2013). The tribe Typhaeini Thomson (1863), as delimited by Nikitsky (1993), based on the lateral closure of the mesocoxal cavity by the mesoventrite and metaventrite, is considered to be non-monophyletic. *Rhipidonyx adustus* Reitter (1876), described in Mycetophagidae, is transferred to Tenebrionidae: Alleculinae, based on the description and examination of a specimen presumed to be the type.

Key words: *Afrotypaeola*, Alleculinae, *Litargus*, *Litargops*, morphology, mycetophagy, *Neotriphyllus*, Notogean, *Nototriphyllus*, Tenebrionidae, *Zeclaviger*

Introduction

Mycetophagidae is a relatively small family containing less than 200 species currently placed in 18 genera (Nikitsky 1993, 2008; Lawrence & Leschen 2010). Most mycetophagids are fungus feeders, apart from species of *Berginus* Erichson, which feed on pollen or attack lac scale insects (Hemiptera: Coccoidea), and *Filicivora chilensis* (Philippi & Philippi), which feeds on fern spores (Imms & Chatterjee 1915; Lawrence 1991; Leschen & Lawrence 1991; Leschen 2000). The two largest genera, *Mycetophagus* Hellwig and *Litargus* Erichson, have been subdivided into subgenera based on the North American (Casey 1900; Parsons 1975) and Palaearctic (Vogt 1967; Nikitsky 1993) faunas, but the two systems have little in common, except perhaps the inclusion of the Holarctic *Mycetophagus quadriguttatus* Müller in the subgenus *Parilendus* Casey (Parsons 1975). Furthermore, the Pantropical and Notogean faunas have not been studied in detail. In Sharp's (1902) review of the Mesoamerican

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