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An annotated checklist of the handsome fungus beetles of the world (Coleoptera: Cucujoidea: Endomychidae)

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Abstract

A worldwide checklist is provided for the family Endomychidae (Coleoptera: Cucujoidea). An updated subfamilial classification is presented, based on recent higher-level phylogenetic analyses and incorporating many recently described taxa. At present, Endomychidae contains 1782 valid species and subspecies in 130 genera organized into 12 subfamilies. Two new synonyms are recognized: *Symbiotes latus* Redtenbacher, 1849 = *Symbiotes latus* var. *roberti* Falcoz & Roman, 1930 **syn. nov.**; and *Cholovocerida* Belon, 1884 = *Displotera* Reitter, 1887b **syn. nov.** Two new combinations are proposed: *Cholovocerida ecitonis* (Wasmann, 1890) for *Coluocera ecitonis* Wasmann, 1890 **comb. nov.**; and *Cholovocerida maderae* (Wollaston, 1854) for *Cholovocera maderae* Wollaston, 1854 **comb. nov.** *Loebliia ceylanica* Dajoz, 1972a is here designated as the type species for *Loebliia* Dajoz, 1972a, and *Rhymbus hemisphaericus* Gerstaecker, 1858 is designated as the type species for *Rhymbus* Gerstaecker, 1858. *Nomen nudum* status is proposed for *Mycetaea tafilaletica* Smirnov, 1957. Thirty-two species originally described under *Corynomalus* Chevrolat, 1836 and subsequently transferred to *Amphix* Laporte, 1840, have been returned to *Corynomalus*. Known fossil taxa are summarized.

Key words: Endomychidae, Anamorphinae, Danascelinae, Endomychinae, Epipocinae, Eupsilobiinae, Leiestinae, Lycoperdininae, Merophysinae, Mycetaeinae, Pleganophorinae, Stenotarsinae, Xenomycetinae, taxonomy, classification

Introduction

Endomychidae is a moderately speciose family of mycophagous beetles placed within the Cerylonid Series of the superfamily Cucujoidea (Crowson 1955). Many endomychid species are brightly and attractively colored, garnering their common name, the Handsome Fungus Beetles. The family is represented in all major biogeographical regions, but most diversity is concentrated in the tropical regions. Historically, large treatments of Endomychidae were limited to regional checklists and descriptive papers. This type of “regionalization” led to the creation of numerous synonyms, particularly among cryptic, polymorphic, and cosmopolitan species. This problem was compounded by an inadequate understanding of the phylogenetic relationships of the group.

Gerstaecker (1858) completed the first comprehensive treatment of Endomychidae. Several other large familial treatments were published in the latter part of the 19th century (Gorham 1887–99; Ganglbauer 1899a; Ganglbauer 1899b), although these were all regionally focused. During the early to mid-1900’s several large world-wide catalogues were produced for the family (Csiki 1901a; Csiki 1910; Arrow 1920a). Some taxonomic works treated current endomychid taxa that were not historically classified within Endomychidae (e.g., Belon 1902; Hetschko 1926). The last family-level checklist was published by Strohecker (1953a), which included the first and only comprehensive keys to the known endomychid genera of the world. Unfortunately, this treatment lacked the phylogenetic context necessary for establishing a natural classification and in the ~50 years since has become largely outdated due to new descriptions and transfers of taxa between Endomychidae and other families.

Strohecker (1953a) included Sphaerosominae as a subfamily of Endomychidae, which is now recognized as a distinct family, i.e. Alexiidae (=Sphaerosomatidae) (Sengupta & Crowson 1973; Lawrence 1982; Ślipiński & Pakaluk 1991; Lawrence & Newton 1995). Similarly, the endomychid subfamilies Merophysinae and Eupsilobiinae, were formerly placed in Latridiidae and Cerylonidae, respectively, and as such were excluded from Strohecker’s checklist. The currently recognized subfamilies Anamorphinae, Leiestinae and Xenomycetinae were considered tribes within the subfamily Mycetaeinae by Strohecker. Since 1953, a few family-level regional checklists have been published for Endomychidae, including a recent checklist of the Endomychidae of Mexico (Arriaga-Varela *et al.* 2007) and the Palearctic (Rücker & Löbl 2007; Tomaszewska 2007b). There has been no attempt to produce a comprehensive world checklist that incorporates new taxa described since Strohecker (1953a) and that utilizes recently available phylogenetic hypotheses (e.g., Tomaszewska 2000b; Tomaszewska 2005; Robertson *et al.* 2008) to modify the higher-level classification.