



## Notes on the taxonomic identity of *Bystus hirtulus* (Kirsch) and transfer from Endomychidae to Coccinellidae (Coleoptera: Cucujoidea), with designation of a lectotype for *Alexia hirtula* Kirsch

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### Abstract

During an examination of type material of the New World endomychid genus *Bystus* Guérin-Méneville (Anamorphae), the type series of *Alexia hirtula* Kirsch from Peru was found to contain a mixture of different taxa, none of which belong to the genus *Bystus*, the subfamily Anamorphae, or even the family Endomychidae. *Alexia hirtula* is transferred to *Delphastus* Casey (Coccinellidae: Microweiseinae: Serangiini), establishing the new combination, *Delphastus hirtulus* (Kirsch), and a lectotype is designated. Of the three paralectotypes, one appears to be conspecific with the lectotype, one is identified as an undescribed species of *Microscymnus* Champion (Coccinellidae: Cryptognathini), and one, a partial specimen lacking the head, pronotum, and one elytron, is identified as a species of Leiodidae in the tribe Scotocryptini, probably *Aglyptinus* Cockerell. A diagnosis and redescription of *D. hirtulus* is provided, and Gordon's (1994) key to *Delphastus* is modified to accommodate the newly transferred species. The historical classification of *D. hirtulus* is discussed along with characters justifying its revised placement.

**Key words:** Coleoptera, Endomychidae, Coccinellidae, Anamorphae, Microweiseinae, Cryptognathini, new combinations

### Introduction

Kirsch (1876) described *Alexia hirtula* from a short series of specimens from Peru and placed it as the last entry under the family heading Coccinellidae. Throughout much of its tumultuous taxonomic history, the genus *Alexia* Stephens served as a general dumping ground for any small, hirsute coccinelloid beetle species. *Alexia* was variously classified in Erotylidae (using the vernacular name Erotylenae) (Kiesenwetter & Schaum 1849), incertae sedis (Dohrn 1856), Coccinellidae (Stein 1868; Kirsch 1876), or Endomychidae (Stein & Weise 1877; Heyden *et al.* 1883, 1906). Presently, *Alexia* is treated as a junior synonym of *Sphaerosoma* Samouelle in the monotypic family Alexiidae (Lawrence 1991; Lawrence and Newton 1995), a group known only from the Palearctic. However, long before all these changes took place, Kirsch's *A. hirtula* was shifted to other genera.

In his *Catalogus Endomychidarum*, Csiki (1901) transferred *Alexia hirtula* to the endomychid genus *Rhymbus* Gerstaecker, but expressed some uncertainty regarding its placement by preceding his entry with a "?". In his follow-up catalog (Csiki 1910), he maintained the species within *Rhymbus*, choosing only to modify the specific epithet to agree in gender with that genus. Strohecker (1953) synonymized *Rhymbus* with *Bystus* Guérin-Méneville, never questioning the inclusion of *Bystus hirtulus* among the new combinations. Apparently Strohecker did not examine the type series of *B. hirtulus*, as they differ conspicuously from known *Bystus* species by their shiny reflective cuticular surfaces, more elongated forms, short concealed antennae, and lack of pronotal sulci.

While preparing a taxonomic revision of the genus *Bystus* (Shockley 2009), the first author (FWS) had the opportunity to borrow and examine Kirsch's type series of *Alexia hirtula* from the Museum für Tierkunde, Staatliche Naturhistorische Sammlungen Dresden (SMTD). The series consists of four minute, highly polished beetles all