

Article



Revision of *Ootheca* Chevrolat, 1837 from tropical Africa—redescriptions, descriptions of new species and identification key (Coleoptera: Chrysomelidae, Galerucinae)

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^{1. 34}th contribution to the taxonomy, phylogeny and biogeography of the Galerucinae

Abstract

The Afrotropical species of *Ootheca* Chevrolat, 1837 are revised based on examination of 9560 specimens. *Crioceris mutabilis* Sahlberg, 1829, the type species, is redescribed including comprehensive illustrations of its external and genitalic characters. Synonymy with *Ergana* Chapuis, 1879 is confirmed. Genitalic structures, in particular the median lobe, allow reliable species identification in this genus. Of the 33 species originally described in *Ootheca* and *Ergana*, eleven remain in *Ootheca*, with four new synonymies, resulting in the following nine valid species: *O. mutabilis* (Sahlberg, 1829) (= *Malacosoma bicolor* Allard, 1889 syn. nov.; = *O. punctata* Laboissière, 1931 syn. nov.); *O. proteus* (Chapuis, 1879) (= *E. bifrons* Laboissière, 1937 syn. nov.); *O. chapuisi* (Jacoby, 1899); *O. bennigseni* Weise, 1900 (= *E. variceps* Laboissière, 1939 syn. nov.); *O. orientalis* Weise, 1900; *O. kibonotensis* Weise, 1909; *O. variabilis* (Laboissière, 1920); *O. frontalis* Laboissière, 1923, *O. meridiana* Grobbelaar, 2008. Four species are herein described as new: *O. eddae* sp. n., *O. julianae* sp. n., *O. tilmani* sp. n., and *O. ugandae* sp. n. Redescriptions or descriptions are given for each of the 13 species, including illustrations of habitus outline, colouration, shape of basal antennomeres and the median lobe. Studied material is listed in detail, photographs of the primary types, distribution maps and a key are given. The 22 remaining described species from *Ootheca* have been previously transferred to other genera or will be in subsequent publications.

Key words: Coleoptera, Chrysomelidae, Galerucinae, *Ootheca, Ergana*, Africa, Afrotropical Region, revision, taxonomy, new species, new synonyms, key

Introduction

The name *Ootheca* first appeared in the literature in the fifth volume of the third edition of the Dejean catalogue (Chevrolat 1837: 402). This particular volume comprises many well known chrysomelid taxa which have been in use since those days. There was some confusion about its publication date, due to delays in printing and a fire in December 1835, that destroyed most of the printed stock of volumes one to four. The fifth volume was finally published in May 1837 (Madge 1988). There was also controversy regarding its authorship. However, in the introduction to this volume, responsibility is given to Chevrolat, who is consequently author of all genus- and species-names introduced in this volume. In this catalogue "Mutabilis" from Sierra Leone, attributed to Schönherr, is the only species listed under *Ootheca*. Therefore, *Crioceris mutabilis* described by Sahlberg in 1829, is type species by monotypy. This was later stated in D'Orbigny's Dictionaire by Chevrolat (1849).

There was obviously no clear generic concept of *Ootheca* in the nineteenth century, as was the case for many other insect genera. Several leaf beetle species having a "compact" body shape, with a broad pronotum, strongly convex dorsum, short antennae and legs were described in combination with *Ootheca*. Weise (1900) was the first to provide a revision of *Ootheca*. He critically revised the characters of *O. mutabilis*, that he attributed to Chapuis, and described three new species from German East Africa (Tanzania). He corrected some misinterpretations, e. g. the prothoracic coxal cavities that Chapuis described as "ouvertes" or open, but he found to be completely closed (Fig. 5). Weise also referred to the problems that the generic delimitation of *Ootheca* caused and the complexity to distinguish between the species, but found reliable evidence for specific identification in the male genitalia. This underlines the high quality of his work, since more than one hundred years ago, dissection of genitalia was an unusual method to delimitate insect species. In the present revision, the male genitalic characters are crucial for the identification of single species, and also for the delimitation of *Ootheca* when compared to other galerucine groups. Aedeagal structure in particular allows reliable specific allocation within this group.

The synonymy of *Ootheca* and *Ergana* Chapuis, 1879 (Seeno & Wilcox 1982) is here confirmed. Out of the total of 33 species originally described in these two genera (cf. Wilcox 1973, 1975), only 13 valid species remain in *Ootheca*, including four newly described species.