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Review of Solier's *Mecorhopalus* species (Coleoptera: Staphylinidae: Aleocharinae)

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Abstract

Antoine Joseph Jean Solier, a French naturalist, described 53 species of Staphylinidae of the Chilean fauna, among them three species in a new genus *Mecorhopalus* (*M. ater*, *M. bipustulatus* and *M. elongatus*). Today these species are regarded as *Aleochara atra*, *A. solieri* and *A. mutare*, respectively. The objective of this study is to provide an updated description and nomenclatural status of these species. *Mecorhopalus* remains as junior synonym of *Aleochara* with one species in the subgenus *Aleochara* and another in *Coprochara*. Through study of the type material, *A. mutare* is synonymized with *A. solieri* as junior subjective synonym.

Key words: *Aleochara atra*; *Aleochara mutare*; *Aleochara solieri*, identification, revision, taxonomy

Introduction

Antoine Joseph Jean Solier was born on February 8th, 1792, in Marseille, France, and died on November 27th, 1851 in his hometown. He produced 38 works in the period between 1833 and 1849 (Mulsant 1852), of which 34 were dedicated to Coleoptera. In Solier's last contribution (1849), 53 species of Staphylinidae were briefly described; among them, three were placed in the new genus *Mecorhopalus* (*M. ater*, *M. bipustulatus* and *M. elongatus*). In 1861 all the species of this genus were transferred to *Aleochara* Gravenhorst, 1802 by Fairmaire & Germain, resulting in *Mecorhopalus* becoming a junior subjective synonym of *Aleochara*. However, Fauvel (1866) explicitly synonymized again *Mecorhopalus* with *Aleochara*. Since then, there has not been an updated redescription of *Mecorhopalus* species. Since 1984 some type specimens of *Aleochara* from Neotropical region have been subject of studies (Klimaszewski 1984; Klimaszewski & Génier 1986; Klimaszewski *et al.* 1987; Klimaszewski 1989; Maus 1998; Klimaszewski & Maus 1999; Maus 2001). Despite those efforts some species were not redescribed yet, among them *Aleochara atra*, *A. solieri* and *A. mutare* (previously named as *Mecorhopalus ater*, *M. bipustulatus* and *M. elongatus*, respectively). Currently, there are 81 species of *Aleochara* recorded in the Neotropical region, including Chile (Caron *et al.* 2008). However, it's a general consensus that many more species of Neotropical *Aleochara* remain undiscovered and undescribed. It is necessary to redescribe the species with inadequate descriptions, in order to facilitate further studies and identifications of *Aleochara* species. The objective of this study is to provide an updated description and nomenclatural status of Solier's *Mecorhopalus* species, that have not been redescribed since the original work of Solier (1849).

Methods

Of the 65 specimens examined, 51 were obtained from the FMNH (Field Museum, Chicago, Illinois, U.S.A.—Curators: Alfred Newton and James Boone) and 14 from IRSNB (Institut Royal des Sciences Naturelles

Remarks. *A. solieri* belongs to the *bimaculata* species group (sensu Klimaszewski 1984:17) by having: two subparallel, not grooved, rows of setigerous punctures on pronotum and spermatheca with fewer than 19 coils. In contrast to the *sulcicollis* species group (sensu Klimaszewski 1984:32), it is lacking the pronotal setigerous punctures placed in strongly marked subparallel grooves.

Remarks 2. Brief historic and important remarks: Solier described *Mecorhopalus bipustulatus* and *M. elongatus* in his paper in 1849, indicating the possibility of *M. elongatus* (= *A. mutare*) being a variation of *M. bipustulatus* (= *A. solieri*). Chenu & Desmarest (1857) fixed *M. elongatus* as type species of the genus by subsequent designation (ICZN 1999 art. 69.1). Fairmaire & Germain (1861) revised Solier's Chilean Staphylinidae and, for the first time, synonymized *M. elongatus* (today *A. mutare*) as junior subjective synonym of *M. bipustulatus* (today *A. solieri*), acting as the first reviser (ICZN (1999) articles 24.2.1 and 24.2.2), then we cite in this present work *A. solieri* as the valid species name. The fact that *M. elongatus* (today *A. mutare*) is considered a subjective junior synonym does not affect it as name-bearing type, as the ICZN (1999) states in article 67.1.2. By recommendation 67B of ICZN (1999) we shall consider as type species of the available name *Mecorhopalus*: "*M. elongatus* Solier, 1849, now regarded as a synonym of *A. solieri* Bernhauer & Scheerpeltz, 1926".

Distribution. Material examined: Chile (Cobquecura; Copiapo; Coquimbo; Maule and Santiago) and Peru. Literature: Chile (Carelmap) (Solier 1849; Fauvel 1866).

Biological notes. Unknown.

Conclusion

The genus *Mecorhopalus* is a non-monophyletic group in which the species belong to different subgenera of *Aleochara*. We agree with the actions of Fairmaire & Germain (1861) and Fauvel (1866) in synonymizing *Mecorhopalus* with *Aleochara* as a junior subjective synonym. Through the study of type material we also suggest that *A. mutare* should be synonymized with *A. solieri* as a junior subjective synonym.

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