

**Preliminary re-examination of genus-level taxonomy
of the pollen beetle subfamily Meligethinae
(Coleoptera: Nitidulidae)***

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Abstract. The pollen beetle subfamily Meligethinae C. G. Thomson, 1859 (Nitidulidae), is distributed throughout the Holarctic, Afrotropical, Oriental, and Australasian Regions. Previously, the subfamily included fifteen genera and approximately seven hundred species, most of which were attributed to the widespread and paraphyletic genus *Meligethes* Stephens, 1830, and to a lesser extent the primarily Afrotropical genus *Pria* Stephens, 1830. Herein, twenty-two additional genera are described as new from Europe, Africa, North America and Asia; including the following: *Afrogethes*, *Aristogethes*, *Astrogethes*, *Bolbocerogethes*, *Boragogethes*, *Brassicogethes*, *Fabogethes*, *Genistogethes*, *Indogethes*, *Jelinekigethesthes*, *Lamiogethes*, *Lucanopria*, *Neolariopsis*, *Odontholariopsis*, *Paleogethes*, *Rubiogethes*, *Sagittogethes*, *Stachygethes*, *Tarchonanthogethes*, *Thymogethes*, *Xenostromylogethes*, and *Xerogethes*, all Audisio & Cline, gen. nov. Six previously recognized and/or described subgenera of *Meligethes* are elevated to generic rank; including *Acanthogethes* Reitter, 1871, *Clypeogethes* Scholz, 1932, *Idiogethes* Kirejtshuk, 1977, *Chromogethes* Kirejtshuk, 1989, *Lariopsis* Kirejtshuk, 1989, and *Astylogethes* Kirejtshuk, 1992 stat. nov. The new combinations for all transferred species are established. The type species of all recognized genera are fixed and/or indicated, a preliminary check list of inclusive described species

* For our late friend and colleague Marco Corti.

attributed to each of the resulting 43 Meligethinae genera is provided, and a new genus/species is described from Rwanda, i.e. *Lucanopria wagneri* Audisio & Cline, gen. nov. and sp. nov. One new synonymy is proposed: *Meligethes albens* Audisio & De Biase, 2004, = *Chromogethes formosus* (Kirejtshuk, 1989) syn. nov. A preliminary phylogenetic scenario of Meligethinae is discussed, based on selected morphological characters and evidence from partially published molecular data (i.e. COI, ITS2, and PEPCK genes) representing most Meligethinae genera. Also, the available bionomical data and larval host-plant associations of inclusive genera are summarized.

Key words. Nitidulidae, Meligethinae, genus-level taxonomy, new genus, new species, new combination, host-plants

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Introduction

The pollen beetle subfamily Meligethinae C. G. Thomson, 1859, is widely distributed throughout the Holarctic, Afrotropical, and Oriental Regions, and marginally in the Australasian Region. Previously, the subfamily formally included fifteen genera and approximately seven hundred species (COOPER 1974, 1980, 1982; AUDISIO 1993b, and unpublished data; KIRK-SPRIGGS 1996; JELÍNEK 2000a,b; JELÍNEK & AUDISIO 2007; AUDISIO et al. 2008, 2009a; KIREJTSHUK 1992b, 2008). Most meligethine taxa were attributed to the speciose, widespread, and highly diversified genus *Meligethes* Stephens, 1830, as well as to the primarily Afrotropical genus *Pria* Stephens, 1830 (COOPER 1982; KIREJTSHUK 1996b, 2001). All meligethine species are anthophagous on flowering herbaceous plants, bushes, and trees with several species being monophagous to narrowly oligophagous as larvae (AUDISIO 1993b, AUDISIO et al. 2008).

Recent analyses (STRIKA 2004; STRIKA et al. unpublished data; AUDISIO et al. 2008, 2009a,b, and unpublished data; TRIZZINO et al. 2009) performed using the Second Internal Transcribed Spacer (ITS2) as a molecular marker, in conjunction with morphological (SEM analyses) and ecological (larval host-plant associations) characters, suggest a need to transform the systematic classification of Meligethinae. The results herein demonstrated that the present composition of several small tropical and subtropical Meligethinae genera (e.g., the southern African *Anthystrix* Kirejtshuk, 1981, the Palaeotropical *Meligethinus* Grouvelle, 1906), as well as *Meligethes* 'sensu lato' and the subgenus *Clypeogethes* Scholz, 1932 (as recently re-interpreted by KIREJTSHUK 1990, 1992b, 1996b, 2001, 2008; SPORNRAFT & KIREJTSHUK 1993, and KIREJTSHUK & VIKLUD 2002) is largely artificial, and these taxa are subsequently rendered paraphyletic or even polyphyletic (AUDISIO 1996) under systematic scrutiny. Species from some of the present-day recognized genera (e.g., *Anthystrix*, *Cyclogethes*, *Meligethinus*) were determined to be morphologically and molecularly nested within *Meligethes* s. l. (AUDISIO