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NEW GENERIC SYNONYMIES, NEW COMBINATIONS, AND DISTRIBUTIONAL COMMENTS ON LEIODINI (COLEOPTERA: LEIODIDAE)

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ABSTRACT

Two new generic synonymies are proposed *Apheloplastus* Brown = *Zeadolopus* Broun and *Pseudocyrtusa* Portevin = *Lionothus* Brown. Six Australian species originally described in *Anisotoma* and subsequently transferred to *Leiodes* are here transferred to *Zeadolopus*: *ammophilus* (Lea), *bicoloriclavus* (Lea), *micropunctatus* (Lea), *myrmecophilus* (Lea), *tasmaniae* (Olliff), and *wiburdi* (Lea). Brief comments on the composition and distribution of Leiodini are given.

Examination of type and other material of most genera of Leiodidae for a work in preparation on the tribal and higher-level classification of the family has revealed some generic synonymies and generic misplacement of some species. This paper provides evidence for several such changes in the tribe Leiodini.

The generic names *Anisotoma* and *Leiodes* were long confused in the taxonomic literature on Leiodinae (see, e.g., Wheeler 1978). These genera are now placed in separate tribes, Anisotomini and Leiodini, respectively. Wheeler (1978) has recently pointed out that the Australian species described in *Anisotoma* by Olliff (1889) and Lea (1910, 1911) should, according to the original descriptions, be placed in *Leiodes* of present usage. In addition to making this nomenclatorial change, Wheeler commented briefly on the phylogenetic and biogeographic significance of the presence of *Leiodes* in Australia.

Recently I have been able to examine holotypes of all of Lea's (1910, 1911) species of *Anisotoma,* and specimens identified by Lea of Olliff's (1889) single species of the same genus. All of these species are closely related and congeneric. They belong neither to *Anisotoma,* as originally described, nor to *Leiodes,* in which they were placed by Wheeler (1978). The species do belong in the tribe Leiodini *sensu stricto,* defined by possession of a 5-5-4 tarsal formula in both sexes, an emarginate labrum, and other characters to be elaborated upon in the higher classification study alluded to above.

Within Leiodini the species clearly belong to a strongly characterized group of genera described in detail by Brown (1937), who presented a generic revision of the group based largely on the Nearctic fauna. These genera, which are allied to the genus *Cyrtusa* Erichson and may be termed "the *Cyrtusa* group," differ from *Leiodes* and allied genera in possessing a mesosternum that is vertical between the mesocoxae, in lacking an epistomal suture, and in other characteristics discussed by Brown. In Brown's (1937) key to genera of the *Cyrtusa* group, the Australian species run readily to his new genus *Apheloplastus,* based on a single North American species, *A. egenus* (LeConte). Direct comparison

of this type species with the Australian species shows that all are closely similar and provides no basis for placing the species in separate genera. Examination of the holotype of the New Zealand genus and species *Zeadolopus spinipes* Broun (1903) shows that this species, too, is closely similar to the Australian and North American species and cannot be separated by any characters yet used at the generic level. The following synonymy is therefore proposed: *Zeadolopus* Broun 1903 = *Apheloplastus* Brown 1937, **New Synonymy**.

The genus *Zeadolopus* is well characterized (after Brown 1937) as follows: antenna 10-segmented with compact 4-segmented club; head with antennal grooves below, the inner margin of each groove recurved; prosternum finely longitudinally carinate before procoxae; mesosternum not carinate; middle and posterior legs with tibiae very broad and tarsi compressed. The genus is readily separated from other genera of the *Cyrtusa* group by use of Brown's (1937) key, with the substitution of *Zeadolopus* for *Apheloplastus*. (The possible synonymy of *Zeadolopus* and *Apheloplastus* was noted by Brown when he described the latter genus.)

The genus *Zeadolopus* includes, in addition to the New Zealand type species *Z. spinipes* Broun, the following eleven species which are transferred from *Apheloplastus* (LeConte and Peck species) and *Leiodes* (Lea and Olliff species) to form **New Combinations:** *Zeadolopus ammophilus* (Lea), Australia; *Zeadolopus bicolor* (Peck), Jamaica; *Zeadolopus bicoloriclavus* (Lea), Australia; *Zeadolopus egenus* (LeConte), E. North America; *Zeadolopus jamaicensis* (Peck), Jamaica; *Zeadolopus microps* (Peck), Jamaica; *Zeadolopus micropunctatus* (Lea), Australia; *Zeadolopus myrmecophilus* (Lea), Australia; *Zeadolopus puertoricensis* (Peck), Puerto Rico; *Zeadolopus tasmaniae* (Olliff), Australia; *Zeadolopus wiburdi* (Lea), Australia. I have not attempted to determine the validity or intrageneric relationships of the above species. Lea (1911) used the presence or absence of a toothed hind femur to distinguish some of the Australian species; he was apparently unaware that this is a common sexual dimorphism in Leiodini. It is of interest that undescribed or generically misplaced species of *Zeadolopus* also occur in Lord Howe Island, New Caledonia, Fiji, Japan, Mexico, Panama, Brazil, and Haiti (personal observations).

Brown (1937) and Peck (1977) have both commented on the heterogeneous nature of the genus *Cyrtusa* as used by Champion (e.g., 1925), Hlisnikovský (e.g., 1966) and others, and both have emphasized that some species remaining in *Cyrtusa* probably belong to (*Apheloplastus*=) *Zeadolopus* or to other genera of the *Cyrtusa* group. Brown (*op cit.*) specifically mentioned two Australian species of *Cyrtusa* described by Champion (1925) as probably belonging to *Zeadolopus*. Types of these species, apparently in the British Museum (Natural History), have not been available to me. It is worth noting, however, that all of several hundred specimens of Leiodini examined by me from the Australian region (Australia, New Zealand, Lord Howe Island, New Caledonia, and Fiji) belong to *Zeadolopus*. It follows that Wheeler's (1978) comments on the occurrence of *Leiodes* in the Australian region have no basis and can be dismissed.

In addition to the genera of the *Cyrtusa* group treated by Brown (1937), two other monobasic genera evidently (from original descriptions) belong in this group: *Isoplastinus* Portevin (1907) from Zanzibar and *Pseudocyrtusa* Portevin (1942) from Colombia. I have been unable to obtain type or other material of *Isoplastinus*. Examination of the holotype of *Pseudocyrtusa australis* Portevin shows that this species belongs to the *Cyrtusa* group and has the tarsal formula 5-5-4, not 5-4-4 as stated by Portevin (1942). The species runs in

Brown's (1937) key to the genus *Lionothus* Brown, described for a single new eastern North American species, *L. ulkei* Brown. Direct comparison of specimens of *L. ulkei* with the holotype of *P. australis* shows that the two species are closely similar and provides no basis for separating the two genera in which the species are placed. The following synonymy is therefore proposed: *Lionothus* Brown 1937 = *Pseudocyrtusa* Portevin 1942, **New Synonymy**.

The genus included *L. ulkei* Brown and *L. australis* (Portevin), **New Combination**. The genus was well characterized by Brown (1937). I have seen undescribed species from Mexico, Panama, Hispaniola, and Puerto Rico which belong in or very near *Lionothus*.

In summary, the *Cyrtusa* generic group as defined by Brown (1937) is known to contain at least seven currently valid genera: *Anogdus* LeConte, *Caenocyrta* Brown, *Cyrtusa* Erichson, *Isoplastus* Horn, *Lionothus* Brown (=*Pseudocyrtusa* Portevin), *Neocyrtusa* Brown, and *Zeadolopus* Broun (=*Apheloplastus* Brown). A key to all seven genera is given by Brown (1937). The unexamined genus *Isoplastinus* Portevin may also belong to this group. The *Cyrtusa* group is worldwide in distribution and includes all Leiodini *sensu stricto* known from the Australian and (except as noted below) Neotropical regions.

Leiodes and the remaining genera of Leiodini (*Chobautiella* Reitter, *Ecarinosphaerula* Hatch, *Hypoliodes* Portevin, and *Xanthosphaera* Fairmaire) are confined to the Holarctic region except as follows: *Hypoliodes* species and a few species of *Leiodes* in subsaharan Africa, and a few undescribed species of *Leiodes* in the temperate highlands of Mexico and Central America (personal observations). Szymczakowski (1976) has shown that the species attributed by Hlisnikovský (1964) to *Leiodes* and to his new genus *Kaszabella,* all from Argentina, have all tarsi 5-segmented and belong in the tribe Hydnobiini.

Speculation on the possible phylogenetic and biogeographic significance of the distribution of Leiodini (or in fact Leiodinae) seems premature at present in view of: 1, the numerous undescribed (or currently misplaced) species such as those referred to above; 2, the resulting incomplete or faulty knowledge of the distributions of genera; and 3, the uncertainty of the relationships among genera and among tribes. It seems clear from the evidence presented above that studies aimed at clarifying the relationships and distributional history of the Leiodinae must consider the group on a world-wide basis.

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SCIENTIFIC NOTE

TYPHLOBLEDIUS LEA TRANSFERRED TO OSORIINI (COLEOPTERA: STAPHYLINIDAE: OXYTELINAE, OSORIINAE)

The genus *Typhlobledius* Lea was described for a single species *T. cylindricus* Lea from Hobart, Tasmania (Lea 1906). The genus was referred to "the neighbourhood of *Bledius*," without clear reasons. In his revision of the genera of Oxytelinae of the world Herman (1970) indicated that the holotype of *Typhlobledius cylindricus* could not be located at that time by Dr. G. F. Gross of the South Australian Museum. Herman suggested, based on its original description, that the genus might be near *Blediotrogus*.

In early 1980, the holotype of *Typhlobledius cylindricus* was present in the South Australian Museum collection and was briefly examined by me. The species belongs not in the subfamily Oxytelinae but in the tribe Osoriini of the subfamily Osoriinae, as evidenced by the fused tergum and sternum of each abdominal segment and short mandibles as described by Lea (1906) and by the projecting procoxae with deep mesial grooves. Within this tribe the nearly glabrous body, slender tibiae and weakly geniculate antennae would refer the species to the vicinity of *Holotrochus* and allied genera. The genera of Osoriini are badly in need of worldwide revision and it is beyond the scope of this note to attempt to determine further the relationships of *Typhlobledius*.

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