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A cladistic analysis of Gorytina (Hymenoptera: Crabronidae: Bembicini), with a reclassification of the subtribe

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Abstract

Based on a cladistic analysis of the digger wasp subtribe Gorytina, the subtribes Argogorytina Nemkov and Lelej 1996, **stat. resurr.** (consisting of *Argogorytes* Ashmead 1899, *Neogorytes* Bohart *in* Bohart and Menke 1976, and *Pterygorytes* Bohart 1967), and Trichogorytina, **subtrib. nov.** (genus *Trichogorytes* Rohwer 1912 only) are removed from Gorytina. The genus *Pterygorytes* Bohart 1967 is transferred to Handlirschiina. New generic synonyms are: *Pseudoplisus* Ashmead 1899, and *Leiogorytes* Bohart 2000 = *Gorytes* Latreille 1805; and *Malaygorytes* Nemkov 1999 = *Argogorytes* Ashmead 1899. Thirteen species originally described in *Pseudoplisus* are transferred to *Gorytes* (**new comb.**): *P. butleri* Bohart 1969, *P. californicus* Bohart 1969, *P. catalinae* Bohart 1969, *P. claripennis* Bohart 1969, *P. erugatus* Bohart 1969, *P. flavidulus* Bohart 1969, *P. hadrus* Bohart 1969, *P. imperialis* Bohart 1969, *P. nigricomus* Bohart 1969, *P. ocellatus* Bohart 1969, *P. samiatus* Bohart 1969, *P. willcoxi* Ohl 2009, and *P. tanythrix* Bohart 1969. Also transferred to *Gorytes* (**new comb.**) are *Leiogorytes guerrero* Bohart 2000, *Arpactus nyasicus* R. Turner, 1915 and the following twelve species originally described in *Gorytes* but currently placed in *Pseudoplisus*: *G. abdominalis* Cresson 1865, *G. aequalis* Handlirsch 1888, *G. divisus* F. Smith 1856, *G. effugiens* Brauns 1911, *G. fasciatus* W. Fox 1896, *G. montanus* Cameron 1890, *G. natalensis* F. Smith 1856, *G. ranosahae* Arnold 1945, *G. rubiginosus* Handlirsch 1888, *G. rufomaculatus* W. Fox 1896, *G. smithii* Cresson 1880, and *G. venustus* Cresson 1865. *Malaygorytes konishii* (Nemkov 1999) is transferred to *Argogorytes* (**new comb.**). Updated diagnoses of *Gorytes* and *Argogorytes* are provided.

Key words: Argogorytina, Trichogorytina, digger wasps, classification

Introduction

This study began with Nemkov's (1999) examination of *Gorytes ishigakiensis* Tsuneki 1982. This Far East species combines the diagnostic characters of both *Gorytes* Latreille 1805 and *Pseudoplisus* Ashmead 1899. According to Bohart and Menke (1976), these two genera are closely similar, but differ in the sculpture of the propodeal enclosure and the length of gastral segment I. In *G. ishigakiensis*, the propodeal enclosure is all ridged (as in *Gorytes*), but gastral segment I is elongate (as in *Pseudoplisus*). Except for the sculpture of the propodeal enclosure (and some other less important characters), the species is almost identical to the Eurasian *G. kohlii* (Handlirsch 1888). Subsequently, we found an identical situation in the male of the South African *G. jonesi* R. Turner, 1920 (propodeal enclosure all ridged, length of tergum I 1.8 × its apical width), the female of which is unknown. A study of additional material showed that the propodeal enclosure of some *Gorytes* is largely smooth and ridged only basally, e.g., *G. africanus* Mercet, 1905, *G. maculicornis* (F. Morawitz 1889), *G. quinquefasciatus intercedens* Handlirsch 1893, and *G. sulcifrons mongolicus* Tsuneki 1971 (Nemkov 1999). Furthermore, in some species of *Pseudoplisus*, the gaster is sessile (e.g., *P. californicus* Bohart 1969,

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