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Review of *Gonatocerus* (Hymenoptera: Mymaridae) in the Neotropical region, with description of eleven new species

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Abstract

The described Neotropical species of the common and speciose fairyfly genus *Gonatocerus* Nees ab Esenbeck (Hymenoptera: Mymaridae) are reviewed and re-diagnosed. Eighty-four valid species are recognized including 11 newly described ones. Illustrated identification keys are provided to identify the 5 subgenera recognized in *Gonatocerus* and to females of each subgenus. The keys include 79 of the treated species, the other five species are known from males only. The known distribution ranges of the species, including new records of extralimital specimens examined, are given. Host associations of the treated species are also given, with emphasis on those species that parasitize eggs of proconiine sharpshooters (Hemiptera: Cicadellidae: Cicadellinae: Proconiini), all of which belong to the *ater* and *morrilli* subgroups of the *ater* species group of *G. (Cosmocomoidea)* Howard, **stat. rev.** The other four recognized subgenera within *Gonatocerus* are the nominate subgenus, *G. (Gonatocerus)* (= *sulphuripes* species group of authors), *G. (Lymaenon)* Walker, **stat. rev.** (= *litoralis* and *straeleni* species groups of authors), *G. (Gastrogonatocerus)* Ogloblin, **stat. rev.** (= *membraciphagus* species group of authors), and *G. (Gahanopsis)* Ogloblin, **syn. n. & stat. n.** (= *deficiens* species group of authors). Newly treated as synonyms of *G. (Lymaenon)* are *Rachistus* Foerster, *Oophilus* Enoch, *Agonatocerus* Girault, *Gonatocerooides* Girault, and *Decarthrius* Debauche, all **syn. n.** Two species groups are recognized within *G. (Cosmocomoidea)* in the New World: the *ater* group, to which most Neotropical species belong (with the *ater*, *bucculentus*, *morrilli*, and the newly defined *chusqueicolus* subgroups) and the *masneri* group, with two described species from the Dominican Republic. The 11 new species described are *G. (Gahanopsis) arkadak* Triapitsyn **sp. n.** (Colombia), *G. (Cosmocomoidea) barbosa* Triapitsyn **sp. n.** (Costa Rica and Mexico), *G. (Cosmocomoidea) blefescu* Triapitsyn **sp. n.** (Costa Rica), *G. (Cosmocomoidea) cuscus* Triapitsyn **sp. n.** (Peru), *G. (Cosmocomoidea) garchamp* Triapitsyn **sp. n.** (Argentina), *G. (Cosmocomoidea) gerasim* Triapitsyn **sp. n.** (Mexico), *G. (Cosmocomoidea) hispaniolus* Triapitsyn & Huber **sp. n.** (Dominican Republic), *G. (Cosmocomoidea) kiskis* Triapitsyn **sp. n.** (Argentina), *G. (Cosmocomoidea) logarzoi* Triapitsyn **sp. n.** (Argentina), *G. (Cosmocomoidea) mumu* Triapitsyn **sp. n.** (Argentina), and *G. (Cosmocomoidea) rakitovi* Triapitsyn **sp. n.** (Costa Rica). Seven new synonymies are proposed: *Gonatocerus h-luteum* (Ogloblin) **syn. n.** under *G. (Cosmocomoidea) nigriflagellum* (Girault); *G. enicmophilus* Huber **syn. n.** and *G. necator* (Ogloblin) **syn. n.** under *G. (Cosmocomoidea) bonariensis* (Brèthes); *G. dimorphus* (Ogloblin) **syn. n.** and *G. monrosi* (Ogloblin) **syn. n.** under *G. (Gastrogonatocerus) margiscutum* Girault; and *G. setulosus* (Ogloblin) **syn. n.** and *G. dorsiniger* (Ogloblin) **syn. n.** under *G. (Gastrogonatocerus) membraciphagus* Ogloblin. *Litus maculipennis* Ashmead, *Gahanopsis deficiens* (Ogloblin), and *Gahanopsis straeleni* (Debauche) are transferred to *Gonatocerus* as, respectively, *G. (Cosmocomoidea) maculipennis* (Ashmead) **comb. n.**, *G. (Gahanopsis) deficiens* (Ogloblin) **comb. n.**, and *G. (Lymaenon) straeleni* (Debauche) **comb. n.** Lectotypes are designated for the following 23 species: *G. (Gahanopsis) acanophorae* (Ogloblin), *G. (Gahanopsis) aethalionis* (Ogloblin), *G. (Cosmocomoidea) annulicornis* (Ogloblin), *G. (Gastrogonatocerus) anomocerus* Crawford, *G. (Gonatocerus) appendiculatus* (Ogloblin), *G. (Gonatocerus) bonaerensis* (Ogloblin), *G. (Cosmocomoidea) caudatus* (Ogloblin), *G. (Cosmocomoidea) concinnus* (Ogloblin), *Lymaenon (Gastrogonatocerus) dimorphus* Ogloblin, *G. (Gonatocerus) excisus* (Ogloblin), *G. (Cosmocomoidea) gracilicornis* (Ogloblin), *G. (Cosmocomoidea) grandis* (Ogloblin), *Lymaenon h-luteum* Ogloblin, *G. (Cosmocomoidea) inauditus* (Ogloblin), *G. (Gastrogonatocerus) juvator* Perkins, *G. (Gastrogonatocerus) margiscutum* Girault, *G. (Cosmocomoidea) metanotalis* (Ogloblin), *G. (Cosmocomoidea) nasutus* (Ogloblin), *Lymaenon necator* Ogloblin, *G. (Cosmocomoidea) nigrithorax* (Ogloblin), *G. (Lymaenon) pratensis* (Ogloblin), *G. (Gonatocerus) stenopterus* (Ogloblin), and *G. (Gonatocerus) urocerus* (Ogloblin).

Key words: taxonomy, Chalcidoidea, fairyfly, key, egg parasitoid, Aetalionidae, Cicadellidae, Proconiini, Membracidae