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Revision of the New World Species of the Millipede-Parasitic Genus *Myriophora* Brown (Diptera: Phoridae)

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Abstract

The New World species of the millipede-parasitic genus *Myriophora* Brown are revised. Sixty-five species based on the female sex are treated, mostly from the Neotropical Region. Of these, fifty-seven are new to science: *Myriophora alexandrae* sp. nov., *Myriophora alienipennis* sp. nov., *Myriophora angustifascia* sp. nov., *Myriophora annetteae* sp. nov., *Myriophora annulata* sp. nov., *Myriophora bicuspidis* sp. nov., *Myriophora bilsae* sp. nov., *Myriophora bimaculata* sp. nov., *Myriophora borealis* sp. nov., *Myriophora brevitarsus* sp. nov., *Myriophora browni* sp. nov. Hash, *Myriophora brunneipleuron* sp. nov., *Myriophora communis* sp. nov., *Myriophora curvata* sp. nov., *Myriophora curvicacumen* sp. nov., *Myriophora dennisoni* sp. nov., *Myriophora discalis* sp. nov., *Myriophora diversa* sp. nov., *Myriophora dividida* sp. nov., *Myriophora dolionatis* sp. nov., *Myriophora flavicosta* sp. nov., *Myriophora fuscidorsum* sp. nov., *Myriophora gigantea* sp. nov., *Myriophora gobaleti* sp. nov., *Myriophora harwoodi* sp. nov., *Myriophora hebes* sp. nov., *Myriophora heratyi* sp. nov., *Myriophora inaequalisetarum* sp. nov., *Myriophora infirmata* sp. nov., *Myriophora jeffersoni* sp. nov., *Myriophora kerri* sp. nov., *Myriophora kungae* sp. nov., *Myriophora longisetarum* sp. nov., *Myriophora luteitergum* sp. nov., *Myriophora magnilabellum* sp. nov., *Myriophora misionesensis* sp. nov., *Myriophora nigra* sp. nov., *Myriophora nigrilinea* sp. nov., *Myriophora obscuritergum* sp. nov., *Myriophora pallida* sp. nov., *Myriophora parva* sp. nov., *Myriophora pectinata* sp. nov., *Myriophora perpendicularis* sp. nov., *Myriophora plana* sp. nov., *Myriophora porrasae* sp. nov., *Myriophora porrecta* sp. nov., *Myriophora reminatis* sp. nov., *Myriophora scopulata* sp. nov., *Myriophora simplex* sp. nov., *Myriophora sinesplendida* sp. nov., *Myriophora smithi* sp. nov., *Myriophora spicaphora* sp. nov., *Myriophora spicaticonus* sp. nov., *Myriophora tenuis* sp. nov., *Myriophora uruguiensis* sp. nov., *Myriophora vancouverensis* sp. nov., *Myriophora wellsorum* sp. nov. The first key to the species of *Myriophora* is provided.

Key words: Diplopoda, millipede, parasitism, parasitoid, taxonomy, systematics

Introduction

The genus *Myriophora* Brown, 1992 is a species-rich group of millipede parasitoids that is found worldwide. Most diversity appears to be found in the New World tropics, but this may be due to the lack of comprehensive sampling in Old World regions. This revision deals exclusively with species only known from the New World and from the female sex. Males and females cannot currently be associated without collecting them in copula or without molecular sequence data.

Myriophora has a confused taxonomic history. The genus contains some species that were originally described in *Plastophora* Brues, 1905. The type specimen of the genus, *Plastophora beirne* Brues was lost in the Hungarian revolution (Borgmeier 1963), and confusion over the generic limits has been an issue ever since (Colyer 1957). Though Borgmeier (1961) discussed the improbability that *P. beirne* was congeneric with other species of *Plastophora*, he continued to describe new species in the genus, while ignoring important features, such as wing vein R_{2+3} , which is absent in *P. beirne*.

Disney (1978) argued that the original concept of *Plastophora*, based on the absence of vein R_{2+3} and having a sclerotized oviscape (abdominal segment 7), was insufficient for maintaining the genus and subsequently moved all species of *Plastophora* to *Megaselia*, except for *P. beirne*, *P. dubitata* (Brues), and *P. cornigera* (Beyer), which lack vein R_{2+3} . Disney (1986) later synonymized the three remaining species of *Plastophora* with *Megaselia*.

Brown (1992) revisited the former species of *Plastophora* that were reclassified by Disney and erected the new