

Abstract

The subfamily Macrocentrinae (Hymenoptera: Ichneumonoidea: Braconidae) comprises koinobiont endoparasitoids that usually attack concealed lepidopterous larvae feeding within roots, stems, cases, leaves tied together, or rolled leaves. Some species attack exposed lepidopterous and hymenopterous (sawfly) larvae. In the Western Hemisphere the subfamily occurs from northern Canada and Alaska southward to Argentina. This treatment, however, is limited to those of America north of Mexico. All species are illustrated and described with geographic distribution and host information.

Four Nearctic macrocentrine genera are recognized. *Austrozele* Roman (1910) includes two valid Nearctic species. *Dolichozele* Viereck (1911) includes three valid Nearctic species (two new). *Hymenochaonia* Dalla Torre (1898) includes six valid Nearctic species (two new). *Macrocentrus* Curtis (1833) includes 43 valid Nearctic species (9 new). One new species, provisionally placed in *Macrocentrus*, is formally described here based only on a single male specimen with a highly unusual foliaceous hind tibia.

Five species are moved from *Macrocentrus* to new combinations: *Austrozele soror* (Mason), *A. uniformis* (Provancher), *Hymenochaonia dioryctriae* (Muesebeck), *H. nupera* (Cresson), *H. texana* (Muesebeck); *M. crambivorus* Viereck (1911) is placed as a junior synonym of *M. crambi* (Ashmead 1894). A total of 10,117 specimens were examined (5,871 females and 4,246 males). Keys to the macrocentrine genera and species are provided.

The work includes 469 figures (photographs, scanning electron micrographs, and line drawings) that depict the features of the head, antennae, wings, mesosoma, and metasoma for each species.

Key Words: Hymenoptera, Braconidae, Macrocentrinae, *Austrozele*, *Dolichozele*, *Hymenochaonia*, *Macrocentrus*, Nearctic region