

GENERA OF ENCYRTIDAE (HYMENOPTERA: CHALCIDOIDEA) PARASITOIDS OF MEALYBUGS (HEMIPTERA: PSEUDOCOCCIDAE) IN NEOTROPICAL REGION

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Many species of mealybugs are known to feed on a variety of agricultural crops. When in high numbers, they could damage the host-plant by sap-sucking, injecting toxins, transmitting viruses or excreting honeydew. Normally, mealybug populations are kept under acceptable levels by natural enemies as predators and parasitoids, particularly in their original regions. Almost all primary parasitoids of mealybugs belong to the chalcidoid family Encyrtidae, represented by species of more than 50 genera in New World. Certainly, these parasitoids play a major role in regulating the populations of mealybugs that, otherwise could arise to pest levels. Many species of encyrtids have been used in biological control programmes along the XX century against mealybugs pests such as *Dysmicoccus brevipes* on pineapple, *Antonina graminis* on pasture grasses, *Saccharicoccus sacchari* on sugarcane and others. The control of the cassava mealybug (*Phenacoccus manihoti*) in Africa is a recent successful case where neotropical species were used as biocontrol agents. The specimens studied were obtained from field collecting (sweep net and yellow pan trap), host emergence and museum loan. About 50 genera of eight tribes belonging to the Encyrtinae and Tetracneminae subfamilies were treated, including mostly primary and secondary parasitoids associated with mealybugs in Neotropical and Nearctic regions. An identification key to generic level and diagnoses were provided to each genera, complemented with information related to number of described species, known hosts and geographical distribution. As a result of field and host collecting in Brazil, five genera were registered for the first time for the country, viz. *Aeptencyrtus* De Santis, *Clausenia* Ishii, *Cocidoxenoides* Girault, *Holcencyrtus* Ashmead, and *Parapyrus* Noyes. The following were also obtained from fieldwork: *Acerophagus* Smith, *Metaphycus* Mercet, *Pseudaphycus* Clausen, *Cheiloneurus* Westwood, *Prochiloneurus* Silvestri, *Aenasius* Walker, *Blepyrus* Howard, *Zarhopalus* Ashmead, *Gahaniella* Timberlake, *Anagyrus* Howard, *Apoanagyrus* Compere, *Gyransoidea* Compere, *Leptomastix* Förster, *Leptomastidea* Mercet, *Tetracnemoidea* Howard and *Tetracnemus* Westwood. Species of *Aenasius*, *Anagyrus* and *Apoanagyrus* were the more often collected associated with mealybug-hosts during the survey.

ON SOME NEW OR OTHERWISE INTERESTING SPECIES OF CHALCIDOIDEA (HYMENOPTERA) FROM YUGOSLAVIA

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In the past 20 years in FR of Yugoslavia, Macedonia, Bosnia and Hercegovina, Croatia and Slovenia, fauna of Chalcidoidea was intensively studied. Due to the war crisis in the region, during the last ten years, investigations have been carried out only within the FR of Yugoslavia. The material was collected by sweeping, using Malaise trap and by rearing in the laboratory. The collection consists of about 500.000 specimens, 200.000 of them being prepared with only a small part determined up till now. Areas especially investigated in details are National Park of Durmitor, NP Kopaonik, NP Djerdap, Deliblato Sand and surroundings of Beograd. Many species in the collection are new for the fauna of this area, so that the number of about 1.000 so far known species is to be considerably increased. Out of a number of new species for the fauna of this area, only those of special interest will be mentioned in our paper e.g. species which are quite rare for Europe and quite common for this area. Some of them belong to important pests for grown plant seeds, while some belong to potential agents for biological control against harmful insects in agriculture and forestry. We shall also specify those emphasized species described only on the basis of one or few

