Seventh

International Congress

of

Hymenopterists

20-26 June 2010

Programme and Abstracts
List of Participants

Editor: George Melika

Köszeg
HUNGARY
Wild Bee Diversity of Sweet Cherry Orchards in Sultandağı Reservoir (Turkey)

Yasemin Güler¹*, A. Murat Aytekin² & Fatih Dikmen²

¹ Plant Protection Central Research Institute, Gayret Mahallesi, Fatih Sultan Mehmet Bulvari, No 66, 06172 Yenimahalle/Ankara, Turkey; yaseminguler@gmail.com
² Hacettepe University, Faculty of Science, Department of Biology, 06800 Beytepe/Ankara, Turkey; ama@hacettepe.edu.tr; dikmen@hacettepe.edu.tr

Many varieties of sweet cherry are self-incompatible. Therefore, sweet cherry orchards require a huge population of pollinator bees that would carry out the adequate amount of pollen transfer between the different varieties. In practice, the honeybee is the main pollinator used in sweet cherry orchards. But the wild bees are more efficient than the honeybee in unfavourable climatic conditions. This study was undertaken in the sweet cherry orchards in Sultandağı (Afyonkarahisar province) and Akşehir (Konya province) towns, Turkey. Bees were collected by Malaise trap from three sweet cherry orchards in the period between April-May in 2008 and 2009 to study the composition and richness of wild bee species. The traps were set in the bud swell period and lifted in the green fruit period. A total number of 1980 bee specimens, belonging to 86 species and five families (Andrenidae, Halictidae, Apidae, Anthophoridae, Megachilidae) were collected. Although the abundance of bee populations varied from year to year and from orchard to orchard in the family level, the members of Halictidae presented the greatest species richness both in 2008 and 2009. The results of the study were evaluated by Shannon-Wiener (H) and Simpson (D) diversity indexes. Differences in bee diversity among three orchards were shown.