XXXIII
International Apicultural Congress
29 September — 04 October 2013
Kyiv, Ukraine

Discover the European Honeyland

Apimondia
Kyiv, Ukraine 2013

Scientific Program

BEYOND THE HIVE: BEEKEEPING-
& GLOBAL CHALLENGES

Oral presentation abstracts
& poster list

SODRUZHESTVO

PLATINUM SPONSOR
3. Bumblebee growing should be more socially important: 1) bumblebee peacefulness allows effective work in ecological education of children; 2) it should be included into university training course for certain specializations. Science of bumblebees should be called Bombusology; 3) urban bumblebee growing should be developed as part of ecologization.

4. In conditions of globalization good legal base and financial support on international level are indispensable to bumblebee growing.

Floral Preferences Of Bumble Bees (Hymenoptera: Apidae: Bombus Latreille) In The Mediterranean Region Of Turkey

Organizations: Hacettepe University
Address: Hacettepe University, Biology Department, Beytepe Campus, Ankara, 06800, Turkey
Ms. Nezahat Pınar Barkan +90 312 297 80 09, npinarb@hacettepe.edu.tr
Mr. Farit Dikmen +90 312 297 52 49, dikmen@hacettepe.edu.tr
Ms. Çiğdem Özen Güler +90 312 297 71 61, ozengul@hacettepe.edu.tr
Mr. Ahmet Murat Aytekin +90 312 297 71 58, ama@hacettepe.edu.tr

Address: Botanischer Garten und Botanisches Museum Berlin-Dahlem Freie Universität Berlin
Königin-Luise-Straße 6 8, Berlin, 14195, Germany
Ms. Demet Törö +49 (0)30 838-50100, demetteo@hotmail.com

Introduction & Research Methods
The study took place in the Mediterranean region of Turkey in open fields. Bumble bee species were collected from Adana, Antalya, Konya, Niğde, Isparta, Burdur, Karabük, Mersin, Kahramanmaras, Hatay and Muğla between June 2008 and August 2009. All data such as date, locality and the plants visited were recorded. The data was primarily taken as 'abundance data' but in order to eliminate any possible bias we have converted it into absence/presence data. The data were analyzed using Shannon-Wiener index.

Results
188 individuals from 15 different bumble bee species were collected from 27 different plant species. Among these 186 individuals, 144 comprised of females while 44 comprised of males. In the analysis, the results for females are taken into account as females play a more crucial role in pollination. The bumble bee species collected the most are Bombus armeniacus Radiuszewski (35), Bombus terrestris Linnaeus (24), Bombus ruderarius Müller (18), Bombus sylvarum Linnaeus (17) and Bombus lasius Morawitz (13). The plant genera with the highest Shannon scores are Onopordum sp. (2.08), Echium sp. (1.39), Anchusa sp., Astragalus sp., Echinops sp. and Picnonot sp. (1.10). When plants were investigated in terms of species, the scores are ranked as follows: Onopordum sibirianum Boiss. & Heldr. (1.48), Echium italicum L. (1.28), Onopordum pulexhum Boiss. (1.26), Astragalus brecklypterus Fisch., Onopordum carduchorum Bornm. & Beauverd and Picnonot acerna (L.) Cass. (1.10). Onopordum sibirianum Boiss. & Heldr. is regarded as the plant species to be the most visited by bumble bees.

Discussion Points
The results show that bumble bees have mostly preferred plants from the families Asteraceae, Boraginaceae and Fabaceae, with Asteraceae having the highest rate of visitation. Astragalus brecklypterus Fisch. and Onopordum pulexhum Boiss. are endemic species in Turkey. Besides, Onopordum pulexhum Boiss. is included in the LR category of the Red Data Book of Turkish Plants.