STUDY OF FAUNA COLLECTED FROM PITFALL TRAPS ON AN ORCHARD AND AN OLIVE GROVE IN HERAKLION, CRETE, GREECE

Kostas Tsakiridis [1], Kostas Niamouris [1], Giorgos Garantziotis [2] & Panagiota Psirofonia [1]

[1] Lab. of Entomology, School of Agricultural Technology, Technological Education Institute of Crete, PO Box 1939, GR-710 04, Heraklion, Crete, Greece. Email: ppsirof@staff.teicrete.gr
[2] University of Piraeus, Department of Statistics and Insurance Science. Piraeus, Greece

Fauna collected from pitfall traps in two different locations was studied. The first one is an olive grove and the second one is an orchard adjacent to the grove. Both of them are located in the village Venerato, Crete. The aim of the study was to compare the fauna found in each site. Six pitfall traps containing ethylene glycol were placed on each location. The traps were active from April 13th until July 7th 2010 and insects were collected from them weekly. Statistical analysis of the results was carried out with pair t- test. A total of 7,524 animals were collected, 79% (5,974) of them were found in the olive grove and 21% (1,550) in the orchard. The majority of the collected animals were Coleoptera followed by Hymenoptera, Diptera, Acarina, Collembola and Opiliones. Insects from the family Formicidae were studied separately. The rest of the taxa found were grouped in the research as "Others". Shannon Index was 1.40 for the olive grove and 1.82 for the orchard. Although the majority of the animals collected were found in the olive grove, the orchard had a higher Shannon index. This was due to the dominance of one taxon, Coleoptera. The numbers of Acarina and Collembolla were higher in springtime than summertime, something expected due to low humidity levels during summer period. The fact that the olive tree is evergreen and the trees in the orchard (apple trees, pear trees and plumb trees) are not, did not seem to affect the results as expected.