



**INTERNATIONAL CONGRESS ON THE ZOOGEOGRAPHY AND  
ECOLOGY OF GREECE AND ADJACENT REGIONS**

**ABSTRACTS**



**Editors:** Poulakakis N., Antoniou, A., Karameta, E., Psonis, N., Vardinoyannis K.

**Proposed reference:** Poulakakis N., Antoniou, A., Karameta, E., Psonis, N., Vardinoyannis K. (eds) 2015. Abstracts of the International Congress on the Zoogeography and Ecology of Greece and Adjacent Regions, 13<sup>th</sup> ICZEGAR, 7-11October 2015, Irakleio, Crete, Greece. Hellenic Zoological Society, 203 pages.

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## ***Macrothele cretica* Kulczyński, 1903 (Araneae, Hexathelidae): a first approach to re-evaluate its conservation status**

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*Macrothele cretica* Kulczyński, 1903 (Hexathelidae) is one of the nine spider species listed in the IUCN Red data list for Europe and the single Greek spider species included in this list. It was initially categorized as “Data Deficient”. Recently it has been considered as “Vulnerable” in the Red Data Book of Greece under the criteria B1a (presence in less than ten sites) and B1biii (deterioration of habitat quality, decrease of habitat size and range), but not on population measurements. With the present project, it is aimed to obtain more information on the species ecological requirements and clarify its taxonomic status with more accurate knowledge, in order to evaluate its risks and determine its appropriate listing. A realistic conservation planning will then become possible. To delimit the ecological niche of *M. cretica* and assign the actual limits of its distribution we focus on the modeling of its possible distribution based on the current records of its occurrence. Bioclimatic data from BIOCLIM database have been used for the running of a Maximum Entropy model (MaxEnt) in order to identify new areas, suitable for the potential distribution of the species. Based on the results, new field work activities are planned for further research and confirmation of the actual occurrence of *M. cretica* on Crete.

## Analyses of hard-bottom benthic communities in Crete

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Hard-bottom habitats in the Eastern Mediterranean basin are understudied compared with those from the Western or with those of soft bottom. Funding limitations in research impose the need for the testing of the taxonomic sufficiency hypothesis. This hypothesis suggests that certain taxonomic groups, perhaps the most dominant, can be used as proxies for the analysis of the entire benthic community, in order to avoid costs in expert engagement and wasting of time. The distribution and abundance of subtidal benthic communities was assessed and the effect of abiotic parameters on its spatio-temporal pattern was evaluated. The macrobenthic communities were subsequently divided into the dominant taxa (polychaetes, molluscs and crustaceans). Multivariate techniques showed that in all scales of the analyses the patterns derived from polychaetes was closer to those produced from total macrobenthic community. Additionally, algae composition and coverage percentage found as the only abiotic factors associated with the macrobenthic multivariate pattern. Based on our findings polychaetes can be used as a good indicator taxon for the whole benthic hard-bottom community analysis.

**Keywords:** Hard substrate, biodiversity, NaGISA, rocky habitats

## Molluscan diversity within the benthic boundary layer (BBL) over the continental shelf of the Cretan Sea

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The benthic boundary layer (BBL) supports epibenthic, hyperbenthic and zooplanktonic, mostly macrofaunal, organisms with different degrees of mobility and bottom dependence. BBL macrofauna is considered to be an important link in marine food webs as prey for demersal fish and epibenthic crustaceans, many of which are commercially important. The present study describes the macrobenthic molluscan community structure living within the BBL of the continental shelf of Heraklion bay (Cretan Sea). Samples were collected at depths ranging between 50 and 200 m in two seasonal occasions (March and September 2001) by using a modified hyperbenthic sledge specifically designed to artificially resuspend the surface sediment and simultaneously to sample macrofaunal organisms (0.5 mm mesh size of the nets). The analysis of the macrobenthic molluscan fauna, revealed 77 different taxa with densities ranging from 3 to 2690 individuals per 100 m<sup>2</sup>. Results of this study indicate the presence of a zonation of the molluscan communities along a depth gradient and seasonal adaptations due to the prevailing environmental conditions. The molluscan diversity derived from the samples collected by using this modified sledge in comparison with the molluscan species collected by traditional sampling gears in different benthic surveys in the study area give complementary information on the benthic assemblages of the continental shelf of the Cretan Sea.

**Keywords:** marine benthic molluscs, benthic boundary layer, continental shelf, Cretan Sea, eastern Mediterranean

