

## THE BIOGEOGRAPHY OF PRESPA: KNOWLEDGE AND IGNORANCE

*Giorgos CATSADORAKIS*

Society for the Protection of Prespa, Prespa, Greece

In this paper I use biogeographic statistics referring to plants and several animal orders found in the Greek part of the Prespa area, and compare these with data from other well-studied areas in Greece and neighbouring Balkan countries. Data used concern vascular plants, monogenean fish parasites (platyhelminths), land snails, orthopteran insects, freshwater fishes, reptiles and birds, with the overall objectives of clarifying unclear issues, and highlighting up critical questions and gaps in our fundamental knowledge of the biogeographic particularities of this valuable area, that is characteristic of the central Balkans. In addition to the above data I also use data concerning distribution ranges of specific plant and animal species, geological and archaeological data and breeding performance parameters of certain bird species.

Drawing very concrete biogeographic conclusions in such an area at the transitional zone between Continental Europe and Mediterranean is as difficult as it is interesting. Although the area is most probably one of the best studied in the Balkans, the amount of available scientific data is still poor in comparison to many places in north and central Europe.

**Key words:** biodiversity, conservation, Prespa, Greece

MICRO AND MACROSCALE DIVERSITY OF COPEPODS  
IN THE SUBTERRANEAN REALM OF SLOVENIA*Anton BRANCELJ*

National Institute of Biology, Ljubljana, Slovenia

*Tanja PIPAN*

Karst research Institute ZRC SAZU, Postojna, Slovenia

Copepoda (Crustacea) are one of the most widely distributed groups of organisms in the World, ranging from free-living zooplankters to ecto- and endoparasites of a wide variety of aquatic organisms. Copepods inhabit high-mountain waters and deep-sea floor. All over the world subterranean environments are inhabited by numerous copepod taxa, and many of these are endemics. One of the richest areas for endemic subterranean copepods is the Dinaric area of SE Europe. In Slovenia (as the most north-westerly part of the Dinaric region) about 110 copepod taxa have been recorded, about half of which are stygobionts. At the moment there are about 20 endemics known - all but one are stygobionts belonging to the group Harpacticoida.

In recent years, intensive research on Slovenia's cave-dwelling copepods in caves has revealed a high number of taxa inhabiting percolating waters and adjacent pools. In these environments at least nine species new to science have been recognised. In total, 38 taxa were collected in seven horizontal caves (length = 75 m – 1 km). Of these, ten taxa could be designated as ubiquitous as they are found frequently in the subterranean environment, but after transport from epigeal habitats, however, the rest are stygobitic and fourteen are endemics to Slovenia. This results in high density of endemics in an area of about 2,400 km<sup>2</sup>, i.e. 1 taxon/170 km<sup>2</sup>.

Between 11-17 different copepod taxa found per cave, regardless of its length (the 75 m cave featured 12 taxa, whilst 13 and 17 taxa were recorded from two caves > 1 km). Of 38 taxa only one (*Speocyclops infernus*) was found in all seven caves, whilst two more (genus *Parastenocaris*) were present in six caves. Fourteen taxa were found only at one location and seven of them were ubiquitous taxa, transported into the caves by accident; the rest were stygobitic taxa.

The high total number of taxa found in the caves, the high numbers of taxa per cave (11-17) with a dominance of stygobitic taxa, and the very low number of taxa common to all caves, indicate that biodiversity in subterranean environment is very high at both local and wider scales. This also suggests that some species still remain to be discovered in this environment.

**Key words:** cladocera, hypogean, endemism, species richness, Slovenia