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Nemaspela ladae sp. n., a new troglobitic nemastomatid (Opiliones, Dyspnoi, Nemastomatidae) from a Dinaric cave

IVO M. KARAMAN
Department of Biology and Ecology, Faculty of Sciences, Trg Dositeja Obradovića 2, 21000 Novi Sad, Serbia.
E-mail: ivo.karaman@dbe.uns.ac.rs

Abstract

A new troglobitic Nemastomatidae from Mt. Romanija in Bosnia, is described and provisionally placed in the otherwise Caucasian genus *Nemaspela* Šilhavý, 1966 for sharing morphological similarities. *Nemaspela ladae* **sp. n.** seems not closely related to the second troglobitic Balkan genus *Hadzinia* Šilhavý, 1966, which shows closer relationship with *Nemaspela femorecurvata* Martens, 2006. New male specific characters shared by *Hadzinia karamani* (Hadži, 1940) and several similar, still undescribed species, indicate *Hadzinia* as an independent lineage. The unusual distribution of the *Hadzinia-Nemaspela* complex might indicate its relictual status as elements of the paleo-European mainland fauna, which survived adverse climatic changes during the Pleistocene in southern refuges. Possible relation of this complex with the fossils *Mitostoma gruberi* Dunlop and Mitov, 2009 from Bitterfeld and Baltic ambers is discussed. Further studies of the entire *Hadzinia-Nemaspela* complex and relatives are necessary to solve their phyletic and unusual zoogeographic connections.

Key words: *Nemaspela*, *Hadzinia*, West Balkan, Caucasus, Crimea, relict, fossil, symplesiomorphy

Introduction

The harvestmen family Nemastomatidae displays a disjunctive Holarctic distribution with the subfamily Nemastomatinae in the western and central Palearctic and the subfamily Ortholasmatinae in the western Nearctic and eastern Palearctic (Gruber 2007). The family consists of 22 described genera (Shear 2010; Schönhofer & Martens 2012) and about 140 valid species. The center of diversity is in the western Palearctic (only subfamily Nemastomatinae) with 17 described genera and around 120 valid species. Within this region three main centers of nemastomatid diversity can be distinguished: the Caucasus, the Balkan Peninsula and southwestern Europe. The nemastomatid fauna of southwestern Europe appears isolated and unique, with 4 endemic genera (*Acromitostoma* Roewer, 1951, *Centetostoma* Kratochvíl, 1958, *Nemastomella* Mello-Leitão, 1936 and *Saccarella* Schönhofer & Martens, 2012). Despite marked differences, the Balkan Peninsula and the Caucasus share several genera (*Paranemastoma* Redikorzev, 1936, *Histricostoma* Kratochvíl, 1958 and *Mediostoma* Kratochvíl, 1958) that connect these regions through Asia Minor.

The species of the genus *Hadzinia* Šilhavý, 1966 on the western part of the Balkan Peninsula and the genus *Nemaspela* Šilhavý, 1966 on the northwestern part of the Caucasus and on Crimea represent the only exclusively troglobitic genera of the family. They have been assumed closely related to each other (Hadži 1940), reflecting the connection between these regions, but according to present knowledge not via Asia Minor. Other troglobites in Nemastomatidae are several species within the predominantly terricolous genera *Paranemastoma* (Balkan Peninsula), *Mitostoma* Roewer, 1951 (Italy: Lombardy, Sardinia) and *Trilasma* Goodnight & Goodnight, 1942 (Mexico). Prieto (2008) presented a new troglobite Nemastomatidae species from the Iberian Peninsula and announced description of a new genus, still in preparation.

As a result of the first bio-speleological research organized by the newly established Biospeleological Society of Bosnia and Herzegovina in August 2008, an interesting new troglobite nemastomatid species was discovered in a cave on Mount Romanija (Republika Srpska). This new species, together with *Hadzinia karamani* (Hadži, 1940)

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