

Unionicola ypsilonophora (Bonz), a water mite new to the Iberian Peninsula

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Abstract

There are 14 species of water mites parasitizing in freshwater mussels or sponges known in Europa so far of the genus *Unionicola*. With a detection of *U. ypsilonophora* (Bonz) out of *Anodonta cygnea* in the lake of Banyoles the number of reported *Unionicola*-species increased up to 6 for the Iberian Peninsula.

Knowledge of water mite fauna of the Iberian Peninsula after VIETS (1930) and LUNDBLAD (1956) landmarks, has increased at a great paucity (see a balance of previous works in G.-VALDECASAS 1981). Despite other european provinces (ILLIES 1978), the Iberian Peninsula is poorly known regarding its water mite fauna, and search in new habitats will produce a different view of what is presently know.

Although there is a long tradition of malacological studies in the Iberian Peninsula, there has not been any mention of water mites parasitizing mussels. In this paper we record the presence of *Unionicola ypsilonophora* (Bonz, 1783) from the mussel *Anodonta* (s. s.) *cygnea* (Linnaeus, 1758).

Five adult females were found in a specimen of *A. cygnea* living in the calcareous lime bottom, 0.5 m., of the lake of Banyoles (MIRACLE 1975). The animals fit the description of VIETS (1936, pag. 289) and the drawings of MITCHELL and PITCHFORD (1953). Fig 1 shows the genital area and the palp of one specimen. A female had two eggs.

Water mites of the genus UNIONICOLA are known to be parasites of freshwater mussels or sponges. Fourteen species of this genus has been found in Europe and only five to the I. P. Until date *U. inusitata* Koenike was the only species known to grow up in mussels and found freeswimming in this area (VIETS 1930).

Previous records of *U. ypsilonophora* points to a highly specific parasitism. MITCHELL and PITCHFORD (1953) collection of 238 *Anodonta* specimens rendered a unique parasitism of *U. ypsilonophora* to *A. cygnea*. It was not found in any other *Anodonta* species. DAVIDS (1973) had found a similar, although not such an extreme situation. He mentions that *U. ypsilonophora* could be "rarely found" in *A. anatina*. Notwithstanding, many authors (see HAAS 1969) think that both are the same species. In a recent study, one of us (C. R. A.) has not found any difference for maintaining the distinction between both species.

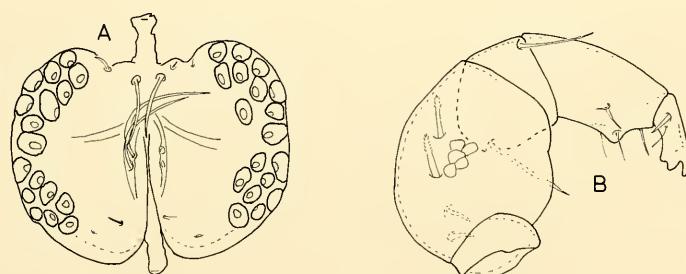


Abb. 1: *Unionicola ypsilonophora* ♀ – A. Genital area. B. Palp.

DAVIDS (1973) also mentions a very interesting fact: The mites divide the area in the mussel in different parts up to five subareas, and each female mite used to maintain in a subarea. So a mussel rarely support more than five mites at a time, the number that we have found in this occasion. Unfortunately we lack the information concerning the location of the mites inside the mussel.

Unionicola ypsilonphora is widely distributed in Europe, reaching Japan and China (VIETS 1978).

References

- ALTABA, C. R. 1984: Les Naiades (Mollusca, Bivalvia: Unionacea) recents de Catalunya. Identificació i distribució geogràfica. Bull. Inst. Cat. Hist. Nat. (Zool) (in press).
- DAVIDS, C. 1973: The relation between mites of the genus *Unionicola* and the mussels *Anodonta* and *Unio*. – Hydrobiologia 43: 37–44.
- G.-VALDECASAS, A. 1981: Las hidraclinas de la sierra del Guadarrama: Taxonomía, distribución y ecología. – Tesis doctoral, Madrid, Univ. Complutense.
- HAAS, F. 1969: Superfamilia Unionacea. – Das Tierreich 88: 663 pp. Berlin.
- LUNDBLAD, O. 1956: Zur Kenntnis süd- und mitteleuropäischer Hydrachnellen. – Ark. Zool. 10: 1–306.
- MIRACLE, M. R. 1975: Distribución en el espacio y en el tiempo de las especies del zooplancton del lago de Banyoles. – Monografías Icôna 5: 270 pp.
- MITCHELL, R. D. & G. W. PITCHFORD 1953: On mites parasitizing *Anodonta* in England. – J. Conchology 23: 365–370.
- VIETS, K. 1930: Zur Kenntnis der Hydracarinen-Fauna von Spanien. – Arch. Hydrobiol. 31: 553–564.
- VIETS, K. 1936: Wassermilben oder Hydracarina. – Die Tierwelt Deutschlands, Teil 31–32.
- VIETS, K. O. 1978: Hydracarina. In: J. ILLES (Hrsg.), Limnofauna Europaea, G. Fischer, Jena: 154–181.

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