A new Serpulid species
in the Upper Jurassic of Rumania

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With 3 text-figures

A new Serpulid species, Mercierella (?) dacica n. sp. met with in the Upper Jurassic of Rumania, associated with Tintinnidae and Dasycladaceae, is described.

Upper Jurassic deposits are represented in the Apuseni Mountains (Trascău range) by well bedded grey limestones containing corals and gastropods. Thin sections indicated an assemblage of Calpionella alpina LORENZ, C. elliptica CADISCH, C. intermedia DURAND-DELGA, C. massutiniana COLOM, Tintinnopsella carpathica (MURGEANU & FILIPESCU) and Dasycladaceae.

Numerous Serpulid tubes were encountered in these limestones together with this microfauna. A detailed examination showed that they probably belong to the genus Mercierella FAUVEL.

The microfaunal assemblage points to Tithonian-Berriasian age.

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Family Serpulidae SAIGNY, 1818
Subfamily Serpulinae MAC LEAY, 1840
Genus Mercierella FAUVEL, 1923
Mercierella (?) dacica n. sp.

Figures 1—3

Description: Small tubes with thin calcareous walls always open at both ends. Tubes straight, cylindrical, slightly curved and finely striped. Maximum length 1.1 mm, width 0.05—0.5 mm, average diameter 0.12 mm, maximum diameter 0.5 mm. Thickness of tube walls 0.01—0.2 mm.

The tubes are characterized in most cases by well developed collars. They have the form of trumpet openings (text-fig. 3). In thin sections, the angle between the tube wall and the collar ranges between 10° and 70°, the most frequent angles are those of 50°—60°. Collar length 0.08 mm — 0.38 mm. Some tubes possess as much as three pairs of unequally spaced collars, ranging between 0.16 mm — 0.40 mm. Tubes with two or three pairs of collars are rare, most of them possess only one pair. The collars may be terminal, submedian or median in position. The maximum diameter of the tubes always lies in the collar zone. The diameter decreases toward

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the terminal parts of the tube. Transverse sections in tubes are always simple and round. When the sections cut the collar zone, two concentric circles occur, representing the tube and the collar. The tubes have the bilamellar structure typical of Serpulids. A dark brown thin inner layer is always followed by a parabolical outer layer. In most cases the inner layer is better represented than the outer one. Under the microscope the parabolical layer sometimes shows fibres arranged radially on the inner wall. This can be explained by the diagenetic process. In transverse sections the layers always have a concentric arrangement. Some tubes are characterized by a very well developed inner layer, the thickness of the outer one being variable. In others the outer layer may be slightly developed like a secondary deposition.

**Holotype:** Specimen figured in text-figure 1; Upper Jurassic (Tithonian-Berriasian) limestones from Culmea Bedeleului, Apuseni Mountains (Trascău), Rumania; Dep. of Coll. Lab. of Palaeontology Bucharest. no. 7300.

**Paratypes:** Numerous tube remains encountered at different levels similar to the holotype.

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*Fig. 1. Mercierella (?) dacica* n. sp. Upper Jurassic, Culmea Bedeleului, Apuseni Mountains, Rumania. X 120. Holotype, L. P. B. 7300.

**Material:** Specimens met with in grey fine-grained limestones of Upper Jurassic (Tithonian-Berriasian) age from Apuseni Mountains, Rumania and in a