

COPTOCAMPYLODON PANTICI N. MORPHO SP. FROM THE TURONIAN OF NW SERBIA

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ABSTRACT. This note describes *Coptocampylodon pantici*, a new morpho species from Upper Cretaceous outcrops of the Počuta region (NW Serbia). Based on the rudists in superincumbent calcarenites and planktonic foraminifers of the *D. concavata* Zone overlying the calcarenites, the shallow water "Počuta limestone" is dated Turonian. The genus *Coptocampylodon* Elliott is emended.

Keywords: Dasycladales, new morpho species, Turonian, NW Serbia

Introduction

In the Valjevska Podgorina region of NW Serbia, Upper Cretaceous deposits are found in the Počuta area and in a small tract north of the Sušica river (Fig. 1). In northern portion of the region the oldest rocks of Cretaceous age are shallow water Turonian carbonates ("Počuta limestone") that rest on karstified Triassic limestones with minor bauxite occurrences (Pejović and Radoičić, 1981). To the south, Upper Cretaceous rocks are in tectonic contact with older formations.

North of the Sušica river, in Ječmenje village, first author (D.Lj.O) sampled ten metres of a Turonian succession. The lowermost beds, above the Triassic karstified surface, contain scarce foraminifers including *Vidalina hispanica* Schlumberger, *Pseudocyclamina sphaeroidea* Gendrot, *Moncharmontia apenninica* (De Castro) and *Nezzazatinella* sp.. In addition to these foraminifers the beds making up the fifth metre contains algae including *Falsolikanella hammudai* (Radoičić), *Terquemella* sp., *Pseudolithothamnium album* (Pfender) and abundant coptocampylodons, belonging to a new taxon: *Coptocampylodon pantici* n. morpho sp.

Elliott (1963) described a new genus and species, *Coptocampylodon lineolatus* (Problematica) from the Lower Cretaceous of Iraq. Fossils of the same type are known from other regions and were originally assigned to the *Aciculariae*, or "microfossils similar to *Aciculariae*" (Elliott, 1963; Radoičić, 1968). In his discussion of the possible biological nature of these fossils, Elliott presumed as the most likely affiliation, their similarity to the skeletal remains of some small octocorals.

From the Kimmeridgian of NW Germany, Gramann, (1966) described fecal pellets ("little rods of sediment with longitudinal furrows") in open nomenclature under the name *Coprulus*. Cuvillier *et al.* (1969) placed *Coptocampylodon* in the group *Coprulus* Gramann. Consequently, Granier and Deloffre (1993) excluded *Coptocampylodon lineolatus* from the Dasycladales.

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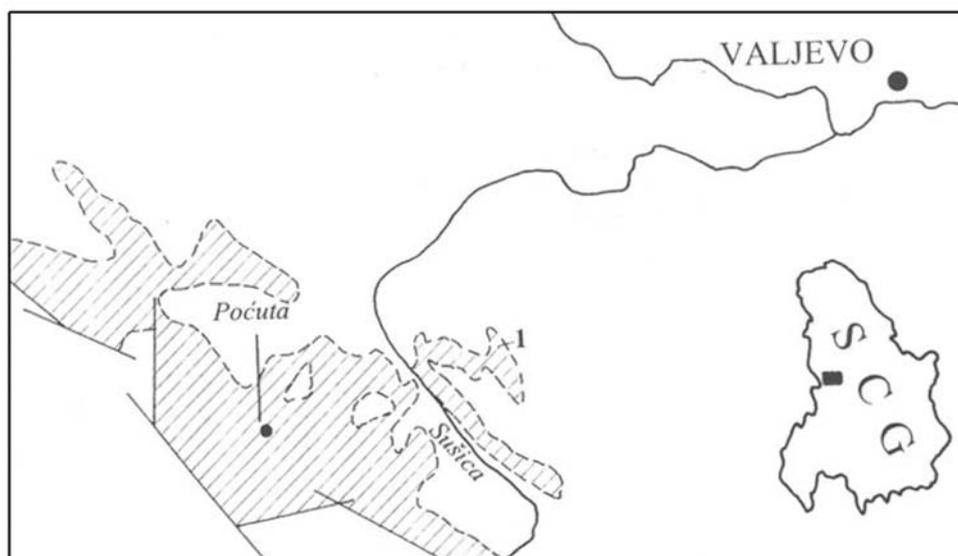


Fig. 1. Distribution of Cretaceous strata in the Počuta area, NW Serbia (based on: Milovanović & Ćirić: Geological Map of Serbia, 1968, simplified)

Coptocampylodons were described as solid calcareous bodies with a gently curved longitudinal axis and a grooved outer surface. In thin section, transverse cuts show stellate structures with truncated rays (Elliott, 1963).

The dasycladalean nature of coptocampylodons was noted in a specimen of *Selliporella neocomiensis* (= *Triploporella neocomiensis*, Radoičić, 1968, Pl. 1, fig. 1; see: Bucur and Săsăran, 2003). Coptocampylodons are actually dislocated tufts of the secondary laterals of some species of the genera *Selliporella*, *Suppiluliumaella* (Radoičić, 1972, Fig. 1b), *Triploporella*, and probably others as well. Sections similar to those of the coptocampylodon type are also found in tufts of the primary upward-curved laterals of the Permian genus *Kochanskyella* – *K. tulipa* (Milanović, 1974). The holotype of *C. lineolatus* (Elliott 1963, pl. 46, fig. 4) is an isolated specimen – the proximal part of a broken R2 tuft. In pl. 46, fig. 6, the surface of the transverse section of an isolated specimen is shown. It evidently corresponds to the transverse section of fig. 8, pl. 46. This transverse sections of *Coptocampylodon lineolatus* markedly differs from a *Coprulus* ("little rods of sediment ..."). The external similarity of *Coptocampylodon lineolatus* (longitudinal grooves) with some *Coprulus* (Gramann, pl. 1, figs. 1a-4b; Cuvillier et al., pl. 2, figs. 6-9) is a case of homeomorphism.

Paleontological description

Morpho genus *Coptocampylodon* Elliott, 1963, emend.

Small calcareous bodies which represent dislocated tufts of the elongate trichophorous secondary laterals of some dasycladalean species, perhaps even of several genera, which occur as scattered units in sediments.

In addition to the type-species (with 5-8 pores/grooves), other *Coptocampylodon* have been described: *C. fontis* Patrušić from the Lower Cretaceous of Romania (9-15 pores/canals) and *C. ellioti* Radoičić from the Albian (revised age!) of the Mirdita Zone and the Outer Dinarides (6-9 pores/canals). Depending on the state of preservation, in transverse section the laterals appear as a row of peripheral pores or, where outer calcification is absent, as a stellate structure with truncated rays. The space enclosed by the laterals appears in transverse sections as central cavity (except where the calcareous bodies are completely recrystallized).

Coptocampylodon pantici n. morpho sp.
(Pl. 1, Figs. 1-5, Pl. 2, Figs. 1-4, Pl. 3, Figs. 1, 2)

O r i g i n o f n a m e: The species is dedicated to Professor Nikola Pantić (University of Belgrade) as a tribute to his contributions to the paleobotany and geology of Serbia.

H o l o t y p e: Axial section of a calcareous body, with a slightly curved basal part as shown in Pl. 1, Fig. 4 (arrow), thin section RR465I; Collection R. Radoičić housed in Geozavod, Geological Institute, Belgrade.

I s o t y p e s: Numerous transverse, oblique and longitudinal sections some of which are illustrated in Pl. 1-3. Thin sections RR4665-4667.

T y p e - l o c a l i t y: Surroundings of the village of Ječmenje, Valjevska Podgorina, NW Serbia; Gaus Krueger coordinates N 4895680, E 7403140.

D i a g n o s i s: Tufts consisting of four, seldom five fused canals, originating from trichophorous secondary laterals the basal portion of which is slightly curved. Transverse sections of units with four canals look like a Maltese cross.

The trichophorous shape of the laterals determines the shape of the tuft; consequently, transverse sections of the basal part are larger (up to 0, 250 mm) than those that cut it higher. The curve of the tuft is visible only in very few axial-subaxial sections. Most longitudinal and oblique-longitudinal sections cut through the rectilinear part of the tuft which is at most 0.960 mm long. The calcification of the tuft surface is seldom preserved.

C o m p a r i s o n s: *Coptocampylodon pantici* differs significantly from species having many more canals. *Coptocampylodon pantici* may represent tufts of the secondary laterals of an indeterminate species (genus *Triploporella?*) that is shown in Pl. 1, Fig. 6 (here only a calcified axis with a few moulds of primary laterals is preserved).

A g e: The Počuta limestone is dated Turonian based on the identification of rudists in the overlying calcarenites and of the planktonic foraminifers of the *D. concavata* zone in the succeeding pelagic carbonates (Pejović and Radoičić, 1968; Radoičić, 1978, 2003).

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PLATES

Plate I

- Figs. 1-5 *Coptocampylodon pantici* n. morpho sp.
 Figs. 1-3, 5. transverse sections, (circa 140x). Thin sections RR4657, 4655. Fig. 4. Holotype: axial section (arrow), oblique and transverse-oblique sections, in the upper part of the figure: *Terquemella* sp., Thin section RR4651;
 Fig. 6 ?*Triploporella*, arrows: moulds of primary laterals. (75x). Thin section RR4655.

Plate II

- Figs. 1-4 *Coptocampylodon pantici* n. morpho sp., oblique, longitudinal and transverse sections, (5x). Thin sections RR4657, 4656 and 4655 (*Terquemella* sp. In Fig. 1).

Plate III

- Figs. 1-2 *Coptocampylodon pantici* n. morpho sp., transverse and transverse-oblique sections, (5x), Thin sections RR4656 and 4657.
 Figs. 3-8 *Falsolikanella hammudai* (Radoičić), various sections, (35x), (with *C. pantici* in figs. 3, 4 and 6), Thin sections RR4655 and 4657.

