



## ***Eucalyptocrinites veles* sp. n. (Crinoidea, Camerata) from the Silurian of Bohemia (Czech Republic)**

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**ABSTRACT.** During current research on the echinoderm assemblages from the tuffites and tuffitic limestones of the Kopanina Formation (Ludlow, Ludfordian), fairly abundant remains of crinoids of the genus *Eucalyptocrinites* were found in the abandoned „Amerika“ quarries near Karlštejn. All these remains (mostly complete or nearly complete crowns) belong to a new species of the genus *Eucalyptocrinites*, described here as *E. veles*.

**KEY WORDS.** Echinodermata, Crinoidea, Camerata, *Eucalyptocrinites*, systematics, Upper Silurian, Ludlow, Barrandian Area, Czech Republic.

### INTRODUCTION

Until the present time, studies on the eucalyptocrinitid crinoids of the Bohemian Massif have considered only species from the Lower Devonian strata. No data have been reported on the Silurian species of Bohemian – with the exception of a short article published by Růžička & Bouška (1944), in which the authors only mentioned the genus *Eucalyptocrinites* in a list of crinoids from the “Amerika” quarry, without describing or illustrating it.

### SYSTEMATIC PART

**Subclass: Camerata Wachsmuth and Springer, 1885**

**Order: Monobathrida Moore and Laudon, 1943**

**Family: Eucalyptocrinitidae Roemer, 1855**

***Eucalyptocrinites* Goldfuss, 1831**

TYPE SPECIES: *Eucalyptocrinites rosaceus* Goldfuss, 1831, Middle Devonian, Eifelian, Germany.

***Eucalyptocrinites veles* sp. n.**

(Fig. 1A-E)

HOLOTYPE: NMP L 23119, isolated crown, Fig. 1E.

PARATYPE: NMP L 29516, isolated crown of juvenile specimen, Fig. 1A,B.

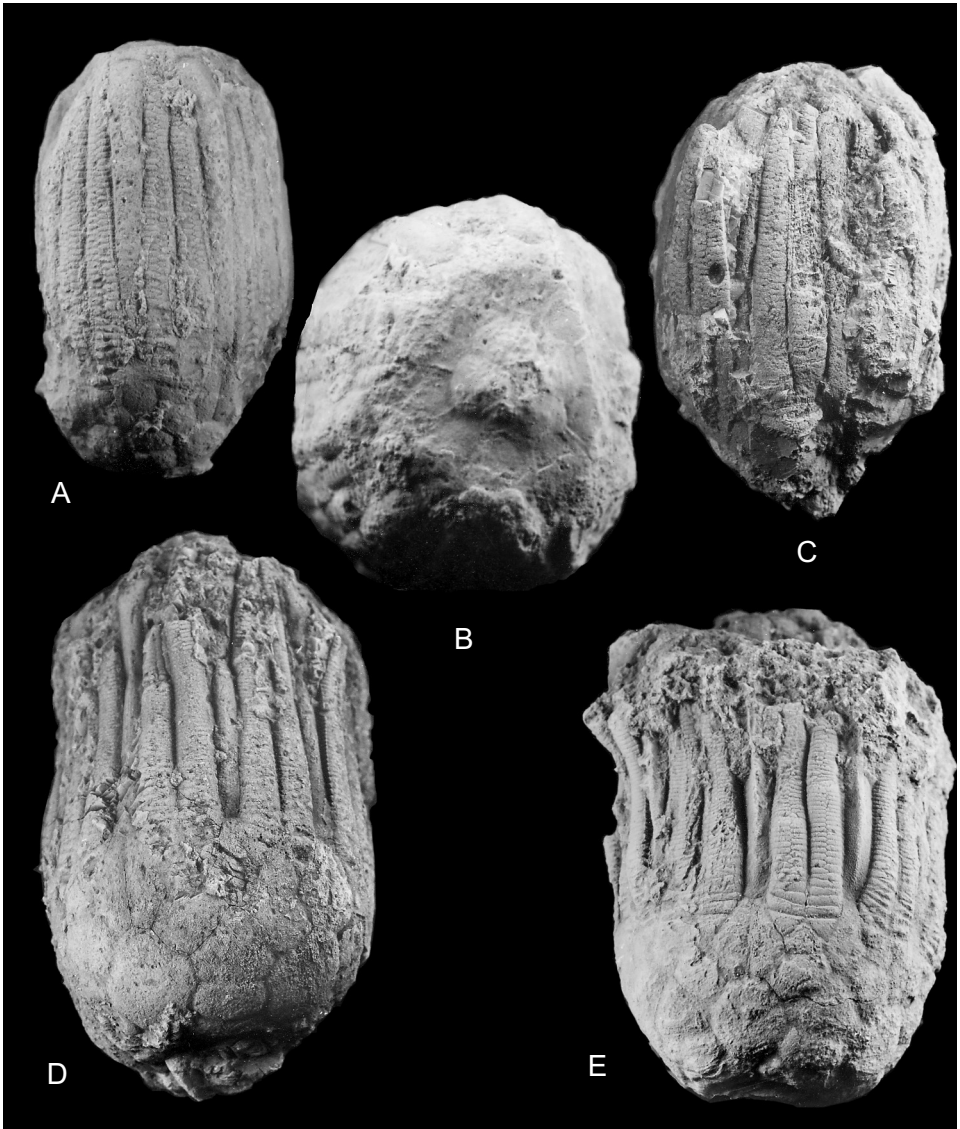


Fig. 1: *Eucalyptocrinites veles* sp. n.

A – Paratype NMP L 29516, isolated crown of the young specimen, lateral view. x 2,0; B – dtto, terminal view. x 2,7; C - Specimen NM L 29517, incomplete crown with damaged cup. Arm presented with epifaunal boring made by *Onichnus* cf. *paraboloides* Bromley, 1981. x 1,8; D – Specimen NMP L 23118, lateral view. x 1,4; E – Holotype NM L 23119, lateral view of the crown showing the partition plates with longitudinal roof-like ribs on their surface. x 1,9.

Upper Silurian, Ludlow, Ludfordian, Kopanina Formation. „Amerika“ quarries near Karlštejn. All specimens are deposited in the collections of the Palaeontological Department of the National Museum (abbrev. NMP), catalogue L. Photographs by R.L. Parsley and R.J. Prokop.

TYPE HORIZON: Upper Silurian, Ludlow, Ludfordian, Kopanina Formation, *Cromus beaumonti* Horizon.

TYPE LOCALITY: “Amerika” quarries near Karlštejn, Central Bohemia, Czech Republic.

MATERIAL: In addition to types, 5 complete and 6 almost complete crowns and 3 fragments from the tuffitic limestones and tuffits of the type locality. All specimens originated from the collections of Mrs. Plasová, Mr. Putzker and Mr. Bouška which are housed in the Department of Palaeontology, National Museum (Natural History), Praha, Czech Republic.

DESCRIPTION: Crown large, cylindrical, bearing medium bowl shaped calyx that has moderately vaulted walls and a wide (more than 1/3 cup width), deep dorsal depression. The centre of the dorsal depression is formed by five minute BB and its walls by proximal parts of RR. Distal parts of radials slightly strong, subhorizontal, poorly visible in lateral view. Their upper margins are concave and attached to them are relatively low, rectangular shaped PBrBr. Calyx plates (i.e. cup plates and fixed brachials), relatively thin, gently convex. Sutures between plates slightly sunken, but distinct. Free arms are ca. 2-times taller than the height of the calyx. Arms composed of low, slender TBrBr bearing open narrow, V-shaped ambulacral grooves. Interradial partition plates slender with roof-like external surface. They are significantly expanded in their distal thirds. The lower part of ventral sac is relatively short, the bulbous, upper part slender. Its distal pyramidal top is compounded from five low, wide triangular platelets, that are only slightly protruding the distal end of the calyx (the same morphology as in the type-species, i.e. *Eucalyptocrinites rosaceus* Goldfuss, 1831 from the Middle Devonian of Germany)

REMARKS: *Eucalyptocrinites veles* sp.n., is generally similar to the species *E. plebejus* Angelin, 1878 from the Lower Silurian (Wenlockian) of the Gotland island, Sweden (see Angelin 1878). It differs in the cylindrical shape of the crown, and taller major calyx with small cup composed of depressed BB and proximal parts of RR. Distal margin of RR subhorizontal, poorly visible laterally. The new species differs also in the distinct sutures between more massive calycinal platelets. Characteristic also is the outer surface of partition plates, that project to the longitudinal roof ridge (see the holotype).

**Table 1. Dimensions of the holotype and the paratypes of *Eucalyptocrinites veles* n.sp. All measurements are in mm. Figures labeled with an asterisk (\*) are approximate.**

	L 23119	L 29516	L 23118	L 21517
	Holotype	Paratype	Paratype	Paratype
Total height of crown	35,00	29,00	56,00	34*
Height of calyx	17,00	9,00	17,00	10*
Length of free arms	37,00	23,00	32,00	27,00
Middle width of crown	36,00	20,00	37,00	25,00
Width of calyx	35,00	17,00	33,00	18*

OCCURRENCE: *Eucalyptocrinites veles* sp. n. is a relatively rare, but significant fossil in the tuffitic limestones and tuffits of the type locality and type strata.

#### ACKNOWLEDGMENTS

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