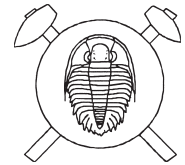


***Ectillaenus* aff. *advena* (Barrande, 1872) (Trilobita)  
from the Arenigian (Klabava Formation, Lower Ordovician)  
of the Prague Basin (Barrandian, Bohemia)**



***Ectillaenus* aff. *advena* (Barrande, 1872), (Trilobita) z klabavského souvrství  
(arenig, spodní ordovik) pražské pánve (Barrandien, Čechy)**

(2 figs)

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The illaenide trilobite *Ectillaenus* aff. *advena* (Barrande, 1872) has been recently discovered in the tuffites associated with sideritized pyroclastics of the Komárov volcanogenic complex in the Hlava locality near Komárov. The tuffites are of Arenigian age (Klabava Formation) and this discovery represents the stratigraphically earliest known occurrence of this species in the Prague Basin.

**Key words:** Trilobita; Illaenidae; Arenigian; Lower Ordovician; Prague Basin; Bohemia

### Introduction

Illaenid trilobites of the genus *Ectillaenus* Salter, 1867 are very rare in the Klabava Formation (Arenigian) of the Prague Basin. This genus was first reported by Mergl (1991) from the Ejpovice and Komárov (the abandoned Hlava mine) localities under the name *Ectillaenus* sp.

In 2001, one of the authors (M. D.) found in the dumps of the abandoned Hlava mine near Komárov a single well-preserved cranidium of almost the same morphology as the species *Ectillaenus advena* (Barrande, 1872), from the overlying Šárka Formation (Darriwilian).

The described and figured material has been deposited in the palaeontological collection of the Museum of West Bohemia in Plzeň.

### Systematic palaeontology

Family Illaenidae Hawle – Corda, 1847

#### Genus *Ectillaenus* Salter, 1867

Type species: *Illaenus perovalis* Murchison, 1839

#### *Ectillaenus* aff. *advena* (Barrande, 1872)

Fig. 1

**Remarks:** The newly discovered cranidium is weakly deformed with the exoskeleton preserved but weakly corroded. It is 19 mm long (sag.) and the palpebral lobes are broken off. The facial suture is not preserved. The anterior margin is preserved only in the right hand part of the cranidium. The right librigena is somewhat rotated below the cranidium and only the distal and terminal parts of the librigena are visible as the internal mould near the right posterolateral part of the cranidium. The cranidium and librigena are preserved in yellow-brown finely grained tuffite.

The morphology of the cranidium is almost identical to that of the cranidium of *Ectillaenus advena* (Barrande, 1872), an uncommon species in the overlying Šárka Formation (Darriwilian) in the *Corymbograptus retroflexus* and *Didymograptus clavulus* Biozones.

The differences with *Ectillaenus* aff. *advena* (Barrande) are as follows: A) the shorter (exsag.) and less distinct glabellar furrows, B) the transversally oriented perforation of anterior part of the cranidium is less distinct. However, both differences may have resulted from a less favourable preservation in the tuffite, while the preservation in siliceous concretions of the Šárka Formation is excellent.

Mergl (1991) described and figured (Pl. 1, figs 6, 7) from the Hlava locality near Komárov a fragment of the

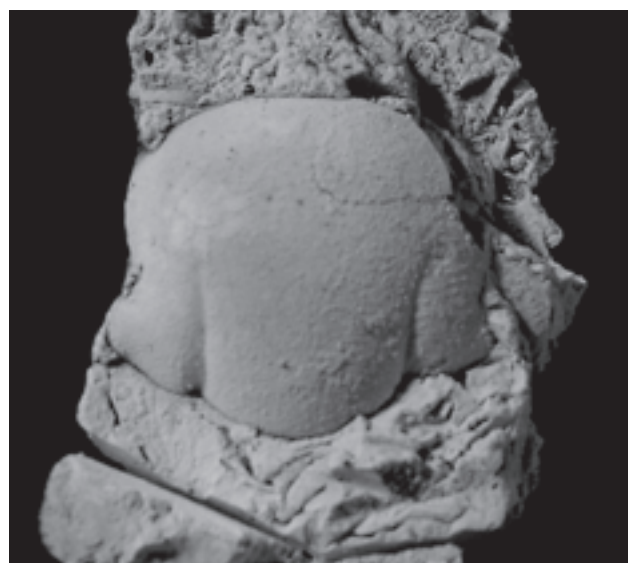


Fig. 1. *Ectillaenus* aff. *advena* (Barrande, 1872), cranidium with exoskeleton, S06019, Mine Hlava near Komárov, Klabava Formation, Arenigian,  $\times 2.2$ .

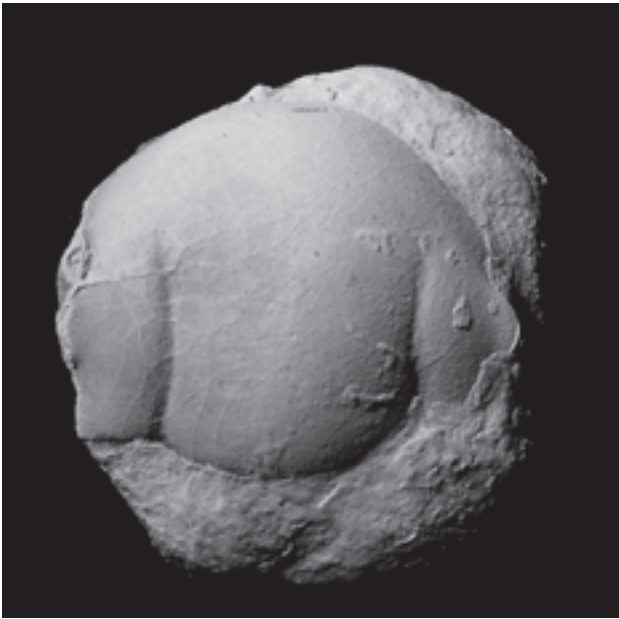


Fig. 2. *Ectillaenus advena* (Barrande, 1872), cranidium with exoskeleton, S06020, Dily Near Rokycany, Šárka Formation, Darriwilian,  $\times 2.1$ .

pygidium and free cheeks and assigned them to *Ectillaenus* sp. The superficial ornament of the exoskeleton is reminiscent that of *Ectillaenus katzeri* (Barrande, 1846). This species is also abundant in the overlying Šárka Formation. Therefore, we suggest that two species of the genus *Ectillaenus* Salter, 1867 exist at the Hlava locality near Komárov.

### Ecostratigraphic comments

Havlíček in Chlupáč et al. (1992) suggested that a community of abundant orthid brachiopods [*Ferrax oolithicus* (Havlíček), *Prantlina desiderata* (Barrande), *Prantlina bohémica* (Barrande), *Nereidella pribyli* (Havlíček) and *Styxorthis tuffogena* Mergl], rare trilobites and other organisms occupied the upper surface of pyroclastic accumulations in this part of the Prague Basin. This community flourished in calm shallow subtidal environments. In accordance with Havlíček (1982) we suggest the benthic assemblage 3 (in sense of Boucot, 1975).

The trilobites are only a minority element of the benthic community and their density and diversity has been strongly affected by abiotic factors of the biotope, mainly by bottom substrate of redeposited pyroclastics (cf. Kukul, 1959).

### *Ectillaenus* aff. *advena* (Barrande, 1872), (Trilobita) z klabavského souvrství (arenig, spodní ordovik) pražské pánve (Barrandien, Čechy)

V žlutohnědých tufitech arenigského stáří (klabavské souvrství), geneticky spjatých s komárovským vulkanickým komplexem, bylo na lokalitě důl Hlava u Komárova nalezeno kranidium illaenidního trilobita *Ectillaenus* aff. *advena* (Barrande, 1872). Jedná se o stratigraficky nejstarší nález tohoto druhu v ordoviku pražské pánve (Barrandien).

Up to the present time, the following trilobite taxa have been ascertained:

*Pliomerops lindaueri* (Barrande, 1846) – rare (cf. Barrande, 1846; Mergl, 1979, 1991).

Solenopleuracea Angelin 1854, gen. et sp. indet. – very rare (cf. Mergl, 1991).

*Ectillaenus* sp. – very rare (cf. Mergl, 1991).

*Cyrtometopus* aff. *clavifrons* (Dalman, 1827) – very rare (cf. Doubrava, 1999).

*Ectillaenus* aff. *advena* (Barrande, 1872) – very rare (herein).

Because the lower boundary of the Darriwilian Stage lies inside the Klabava Formation sequence, we do not exclude the possibility, that the volcanogenic sediments in the Hlava locality near Komárov belong to this stage. However, due to the absence of the index fossils this cannot be verified.

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