



Early Cretaceous duvaliids (Belemnitida: Mollusca) of the Rarău Syncline (Eastern Carpathians, Romania)

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Abstract

The present paper focuses on the Early Cretaceous duvaliids of the Rarău Syncline, including the recently-sampled specimens from the grey marly matrix of the so-called "Gura Sadovei Breccia" and the previously-described ones from the "I. Turculeț" Collection (Museum of Paleontology, "Alexandru Ioan Cuza" University of Iași).

So far, the duvaliids of the Rarău Syncline indicate two main time span groups, namely latest Berriasian – earliest Valanginian (from the "Gura Sadovei Breccia"), and Hauterivian – Barremian (from the wildflysch deposits). The oldest include the following taxa: *Duvalia lata* morph. div., *D. aff. haugi*, *D. ex. gr. miravetesensis*, *Duvalia* sp.1., and the younger *D. dilatata*, *D. ex. gr. dilatata*, *D. binervioides*, *Duvalia* sp. 2, and ?*Curtohibolites* sp. Several previous determinations have been updated.

The duvaliids include mainly mature specimens, with few juvenile ones occurring. There are both well-preserved and fragmented rostra, but few internal moulds were observed. The reworking of records in the "Gura Sadovei Breccia" can be advocated given the frequent fragmentation and small clasts intruded in the rostrum, or in the phragmocone/phragmocone filling. Sometimes, fine diaclasses filled with calcite cross the specimens.

The various rocks of different ages and sizes, all randomly oriented, suggest a fissure-fill breccia along the fault which crosses the "Aptychus Beds" anticline in the outcrop.

Keywords: "Aptychus Beds," *Duvalia*, "Gura Sadovei Breccia," Berriasian-Valanginian, wild-flysch, Hauterivian-Barremian.