

ORAL

**The Cretaceous echinoids of Ormeniș (Brașov, Perșani Mountains, Eastern Carpathians): systematics, biostratigraphy and palaeobiogeographic significance**

Gallemlí, J.

Museu de Geologia de Barcelona-MCNB, Departament de Paleontologia, Parc de la Ciutadella s/n, 08003 Barcelona, Spain, e-mail: jaume.gallemlí@uab.cat

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**Introduction**

Into a report of the Imperial Geological Institute dated May the 31<sup>st</sup> 1899, J. (Ion) Simionescu (1899a) presented his preliminary research on the fossils that F. Herbig had collected from the “Inoceramid marls at Ürmös” (= Ormeniș), on the eastern slope of the Perșani Mountains (central Carpathians). Simionescu provided a list of “identified forms that will be published in the Romanian Academy of Sciences” in which, apart from ammonites and bivalves (mainly inoceramids), two echinoids were mentioned: “*Stenonia tuberculata* Defr.” and *Cardiaster pseudo-Italicus* n. f.” (*op. cit.*, 231-232). Although Simionescu’s opinion was that the species represented the Turonian and Senonian stages, he pointed out that: 1) “*Stenonia tuberculata* appears very often at the Vicentin in the uppermost layers of the *Scaglia*, as well as in the Danian of Mancha Real (Spain)”, and 2) “At both localities, the former species appears in company of *Cardiaster Italicus*, a species very similar to the carpathian *C. pseudo-Italicus*”. Simionescu, finally, compared Ormeniș fauna with that of Glodu (Panaci, Suceava) studied by Athanasiu (1898): apart from several inoceramid species common to both localities, “two badly preserved echinoids very similar to [his] *Cardiaster pseudo-Italicus*” (*op. cit.*, 232-233) were mentioned.

In fact, a single specimen of “*Stenonia tuberculata* Defr.” and three “*Cardiaster pseudo-Italicus* n. f.” from Ormeniș were fully described and illustrated later on (Simionescu, 1899b: 271-274; pl. 3, figs. 6, 7). The paper included several comments of the Danian age attributed to the former and to “*Cardiaster Italicus*” (a species very close to the latter) in the Southern Alps *Scaglia* and in Mancha Real (Spain).

**Biostratigraphy**

Walaszczyk & Szasz (1997) revised Herbig’s inoceramid faunas from Ormeniș, assigning them to the topmost Turonian-lowermost Coniacian (*op. cit.*, fig. 2 and 785) in the *Mytiloides scupini* and the *Cremnoceramus rotundatus* Zones, possibly extending into the *C. deformis-C. crassus* Zone.

**Taxonomy and palaeobiogeography**

The revision of the echinoids from Ormeniș described by Simionescu and kept in the Paleontology-Stratigraphy Museum belonging to the Faculty of Biology and Geology of the Babes-Bolyai University at Cluj, has resulted in the validation of *Stenonaster tuberculatus* (Defrance, 1816) and the recognition of *Rispolia subtrigonata* (Catullo, 1827); “*Cardiaster pseudo-Italicus*” Simionescu, 1899 is synonymised to the latter.

Both species are characteristic of the *Scaglia*-like facies from their type localities in the Vicentino region (Southern Alps, Veneto, NE of Italy), the Djidde (= Cide) area (N Turkey), the southern Prepyrenees (NE of Spain) and the Betic Ranges (SE of Spain) in the northern side of the Western Tethys, to the Seybouse basin (NE Algeria) or near Tunis (N of Tunisia) in its southern side. They are generally associated to deep sedimentary beds (oceanic basins) without or with scarce terrigenous inputs.

*Rispolia subtrigonata* was already quoted in SE Romania at Baia North Quarry (Gallemlí et al., 2011, 49) together with inoceramid species representative of the so-called *Cremnoceramus deformis-crassus* Zone dating the uppermost Lower Coniacian (*vide* a poster by Gallemlí, López and Lazăr in this symposium).