ON STRATIGRAPHIC RANGE OF THE FORAMINIFERAL SPECIES ANTALYNA KORAYI

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Abstract. Antalyna korayi FARINACCI & KÖYLÜOGLU is described from Upper Maastrichtian of SW Turkey, Antalya. It is also reported from the Dinarides, found in Santonian-Campanian and Campanian limestones of the Adriatic and Dinaric Carbonate Platform and the Vardar Zone. This foraminifer from the early Senonian of the Apennines, Dinarides and Hellenides was mainly assigned to the genus Coxiites from which it distinctly differs in the subepidermal reticular layer. Antalyna korayi is a species distributed from the Santonian into the Upper Maastrichtian; its stratigraphic range is indicated by the association including the species.

Keywords: Antalyna (Foraminifer), Senonian, geographic distribution, Mediterranean Region.

INTRODUCTION

Antalyna korayi FARINACCI & KÖYLÜOGLU, 1985 is described from Upper Maastrichtian of Antalya, SW Turkey, in association with Rhiphydina liburnica (STACHE), Lafitteina mengaudi (ASTRE), Dictyoconella complanata HENSON. It was later found also in a similar association in Maastrichtian of western Turkey (Farinacci & Yeniyay, 1986). The scanty earlier finds assigned to Coxiites, were noted from pre-Maastrichtian sediments of the Apennines, Hellenides and Dinarides.

Coxites sp., in an association later believed Santonian of Santonian/Campanian, from Santonian rocks of Sorrentine peninsula, is described by Torre (1965, Pl. IV, figs. 1-4). Luperto Sanni registered another Coxiites with Keramosphera tergestina from rocks of the same age in Murjle, the Apennines (Luperto Sanni, 1976, Coxiites zubalirensis, Pl.44, figs. 13-16, Pl.45, figs. 1,4; Coxiites sp., Pl.45, figs. 2,3,5,6).

Fleury mentions Coxiites sp. (Fleury, 1980, Pl. 3, figs. 15-17) in Lower Campanian of the Klokova Series, Gavrovito-Tripiltza Carbonate Platform (CS B5 zone, p. 92, fig.30). The dorsal section in Fleury’s, Pl.1, fig. 3, from rocks bearing Keramosphera tergestina (lower part of CS B3 zone) of the Varassova massif, presented as Pseudocyclamina spheoides, is most likely of an Antalyna.

In the Outer Dinarides, Antalyna korayi is known from Campanian rocks of the Adriatic Carbonate Platform, found on the island of Brač and in Boka Kotorska gulf, and from near Podgorica of the Dinaric Carbonate Platform.

In foraminiferal limestones of Eastern Brač, Antalyna korayi (Pl. I, fig.1) occurs in association with numerous nubecularids (Pl. I, fig. 5), Accordiella conica FARINACCI (Pl. I, fig. 6), Pseudorhapydionina mediterranea (DE CASTRO), Moncharmontia apenninica (DE CASTRO). Pyrgo sp. (n.sp., Pl.II, fig.7), and is mentioned as Coxiites sp. (Pejović & Radočić, 1987, p. 142).

At Luštica in Boka Kotorska gulf, Antalyna (Pl. I, fig. 3) is found in the type bed with Praeradoldites radovanovići PEJOVIĆ assigned then to the Lower Maastrichtian (Pejović, 1987). In the presently recognized interpretation, rocks bearing Praeradoldites radovanovići are Campanian in age (Pejović, personal communication).

According to Radočić (personal communication), Antalyna korayi occurs in an Upper Cretaceous series ENE of Podgorica (Pl. I, fig. 4), the Dinaric Carbonate Platform, in a fossil association like that of Brač with nubecularids, Accordiella conica, Pseudorhapydionina mediterranea, Moncharmontia apenninica and is Lower Campanian in age.

The latest finds of the species in the Apennines are registered by Damiani et al. (1990), Chiochini et al. (1994).

Damiani et al., write that foraminifer *Coxites* cf. sp. Torre (probabilmente referible al gener Antalyna FARINACCI & KÖYLÜOGLU)* occurs in upper Accordiella conica and Rotobinella scacelaei Zone.

Chiochini et al. (1994) mention Antalyna cf. korayi also in rocks of Accordiella conica and Rotobinella scacelaei Zone. The same author (in a personal letter, 1999) reports Antalyna korayi *in Lower Campanian, beneath a transgressive sequence of Upper Campanian and Lower Maastrichtian saccharoidal limestones* in south Latium region.

Antalyna korayi (Pl. I, fig. 2) in Campanian limestones near Novi Pazar (the Vardar Zone) is found in association with *Ialina antiqua MUNIER-CHALMAS & SCHLUMBERGER, Nummofulofota creteae (SCHLUMBERGER), Minouxia conica GENDROT, Pseudocyclamina massiliensis MAYNC, Pseudocyclamina spheoides GENDROT, Dicyclina schlumbergeri MUNIER-CHALMAS, Cuneolina pavonia D’ ORBIGNY, Biconcava bentori HAMAOUI & SAINT-MARC, Moncharmontia apenninica (DE CASTRO) (Jerotic, 1996), in addition to abundant rudists (Pejović, 1978), Boumounia murensis PEJOVIĆ, Boumounia retrolata (ASTRE), Boumounia cf. retrolata, Boumounia sp., Leapeiroleia zitteli DOUVILLE, Leapeiroleia laskarevi MILOVANOVIC, Leapeiroleia perviguierei (TOUCAS), Gorjanovicia aff. costata POLŠAK, Radiolitella secunda KUEHN et ANDRUSOV et Sauvagesia sp.

The genus Antalyna differs from Coxiites in subepidermal reticular layer which, visible only in some sections, increases the difficulty of specific identification. Sections, which had this layer indistinct, were ascribed to Coxiites. The presented specimens of Antalyna korayi from the Dinarides show the subepidermal reticular layer, characteristic of this genus and species.

Assemblages of mega- and micro-fauna indicate Santonian/Campanian or Campanian (Novi Pazar) age of rocks containing the given species in the mentioned Dinarides areas. The species has not been found in rocks younger than the Campanian in the Apennines, Hellenides and Dinarides.

The range of Antalyna korayi is Santonian–Upper Maastrichtian, according to the available data. Its stratigraphic position (pre-Maastrichtian or Maastrichtian) is determined on the fossil association including it.

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The authors of the genus suppose that Antalyna descends directly from Turonian Coxites as a lateral phylogenetic branch of the family Nezazzatidae HAMAOUI et SAINT-MARC (Hamaoui & Saint-Marc, 1970, p. 321). The authors of the genus Antalyna certainly had not the evidence of the Conomanian age of Coxites zubairensis (Leppig, 1976). Some of Cenomanian rocks have been often believed Turonian - a likely reason for ascribing this species to the Turonian.

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REFERENCES


PLATES

Plate I

Figs. 1-4. Antalyna korayi FARINACCI & KÖYLÜOGLU, 1985: fig.1. Brać, sample RR-05356, x 110; fig.2. Mur, sample S-118, x 50; fig.3. Luštica, sample DP-321, x 100; fig.4. Podgorica, sample RR-011851, x 50.

Figs. 5-7. Brać, sample RR-05356: fig. 5. Nubeculariidae, x70; fig. 6. A. conica FARINACCI x70; fig. 7. Pyrgo sp. (n. sp.7), x80.