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BARBUSPIRA COMPLANATA N.G., N.SP., A NEW CORNUSPIRID FORAMINIFERA FROM LOWER VALANGINIAN, CERNAVODA – POD (SOUTHERN DOBROGEA) – ROMANIA

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Abstract. As a supplement to the porcelaneous foraminiferal monograph from Lower Cretaceous deposits (Southern Dobrogea), I describe a new genus with a new species *Barbuspira complanata*, Family *Cornuspiridae*, from the Lower Valanginian deposits from the Cernavoda – Pod outcrop, right bank of the Danube River.

Keywords: New *Cornuspiridae* genus and species – foraminifera -, Lower Valanginian.

INTRODUCTION

Between 1984 – 1986 I realised a monograph on the Early Cretaceous (Uppermost Berriasian – Lower Aptian) miliolids fauna from Southern Dobrogea (Neagu A.T.,1984; 1985; 1986). The present paper completes this monograph of porcelaneous foraminifera so rich in the Early Cretaceous deposits – in Southern Dobrogea, describing a new genus and a new species belonging to the Family *Cornuspiridae*. Of course, the frequency of this new taxon is very much subordinated to those of miliolids.

The studied material is taken from a sample collected at the base of the outcrop near the pillar of the Cernavoda bridge over the Danube River (Cernavoda Pod – right bank of the Danube River).

The microfaunal association is very rich in foraminifera, ostracods and calcareous algae. Following the populations frequency, at the top there are the porcelaneous foraminifera represented by many genera and species of *Miliolidae* family. Among them there are : *Decussoloculina mirceai* Neagu, *D. barbui* Neagu, *D. granumlentis* Neagu, *Axiopolina granumfestucae* Neagu, *Scythiloculina confusa* Neagu, *Istriloculina emiliae* Neagu, *Rumanoloculina robusta* Neagu, *R. robusta primitiva* Neagu, *R. pseudominima* (Bart & Kovatchev), *Danubiella cernavodensis* Neagu, *D. gracillima* Neagu. The next group of foraminifera with a high frequency in species and specimens is the calcareous agglutinated. The species of this group are extremelly well preserved and among them there are : *Dobrogelina ovidi* Neagu, *D. atanasiui* Neagu, *Scythiloculina flabelli* Neagu, *S. infundibuliformis* Neagu, *S. cuneata* Neagu, *Histerolina pileiformis* Neagu, *Kaminskia flabelata* Neagu, *K. acuta* Neagu, *K. filiformis* Neagu, together with groups of *Pseudocyclammina, Anchyspirocyclina, Ammocycloloculina,* which have not been carefully studied yet. The next very rich group is represented by involutinids such as : *Andersenolina bancilai* Neagu, *A. alpina* (Leupold), *A. elongata* (Leupold), *A. cherchiae* (Arnaud – Vanneau, Boisseau, Darsac), *A. campanella* (Arnaud – Vanneau, Boisseau, Darsac), *A. perconigi* Neagu, *A.histeri* Neagu, *Neotrocholina valdensis valdensis* Reichel, *N valdensis reicheli* Neagu, *N. cavernosa* (Halilov), *N. burgeri burgeri* (Emberger), *Ichnusella paterae* Neagu, *I. crecrecrystalli* Neagu. With a lower frequency there are also *Eoguttulina* and *Pseudopolymorphina*, from the *Polimorphinidae*. Few lagenids incidentaly appear, such as *Lenticulina, Marginulina, Cytharina, Dentalina* or *Nodosaria*.

Together with the foraminifera, the ostracods are also present in a high frequency.

Macrofauna is represented by *Gastropoda* as *Harpagodes, Nerineia, Leviatania, Ampulospira* and bivalvs such as *Monopleura valanginiensis, M. eurystoma, M. backsaniensis*. There are also present rare, echinoids and brachiopoda. All the paleontological data point out very clearly the Lower Valanginian age of these deposits.

PALEONTOLOGICAL PART

Ord. MILIOLIDA Lankaster 1885
Subord. *Miliolina* Lankaster 1885
Superfamily CORNUSPIRACEA Schultze 1854
Family *Cornuspiridae* Schultze 1854
Subfamily *Cornuspirinae* Schultze 1854
Genus BARBUSPIRA Neagu n.g.

Type species : *Barbuspira complanata* Neagu n.sp.

Derivation of name: This genus is dedicated to Prof.dr. I.Z. Barbu, my professor of Micropaleontology at the University of Bucharest.

Description: Free porcelaneous test, planispiral – evolute in the early stage and uncoiled at the last one. First globulous chamber is followed by a second, tubular, flattened planspiral chamber, coiled in the first part becoming uncoiled in the last part; the aperture corresponds to the open end of the tubular chamber, having an elongated silt aspect.

Remarks: By the general characters this genus belongs to the family *Cornuspiridae*. The flattened second chamber and the uncoiled last part of the test separates very well this genus from the all others of this family.

Stratigraphical distribution: Lower Valanginian.

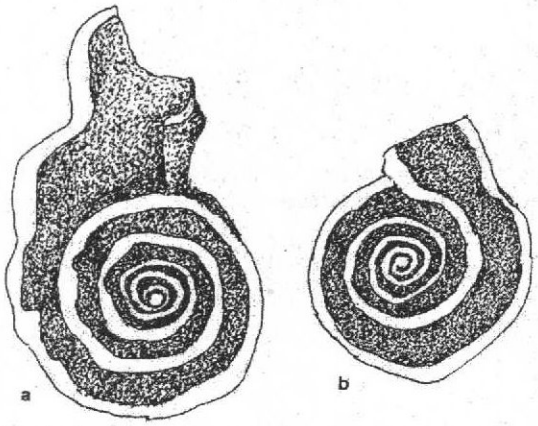

Figure 1 a,b - Transversal sections showing the presence of the globulous proloculum followed by the tubular secondary chamber.

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Barbuspira complanata Neagu n.sp.
Plate 1, figs. 1 – 27, text – figs. 1 – a, b

Derivation of the name: Latin complano – are = to flatten, from the flat aspect of the test (second chamber)

Type level: Lower Valanginian

Type locality: Cernavoda – Pod, right bank of the Danube River

Type specimens: L.P.B.IV. holotype 11348 (pl.1, figs.19 – 20); paratypes 11349 (pl.1, figs.1 – 18, 21 – 27).

Description: Delicate – thin – porcelaneous and flat test, planispiral – evolute coiled becoming uncoil in the last part; the globulous prolocullus is followed by the second tubular and flattened, large planispiral chamber which becomes ordinary uncoiled in the last part of the test; truncated external periphery of the test (when the specimen is well preserved) presents 2 – 3 small keels; aperture coresponds to the open end of the second flat tubular chamber with a long silt aspect.

Dimensions: holotype: diameter 0,50 mm; paratypes: length 0,43 – 0,94 mm; thickness 0,072 – 0,096 mm (figured specimens).

Remarks: By its flattened test with an uncoiled stage and a truncate external periphery, this genus and species are well delimited.

Ocurence: South Dobrogea Cernavoda Pod, right bank of the Danube River.

Stratigraphical distribution : Lower Valanginian

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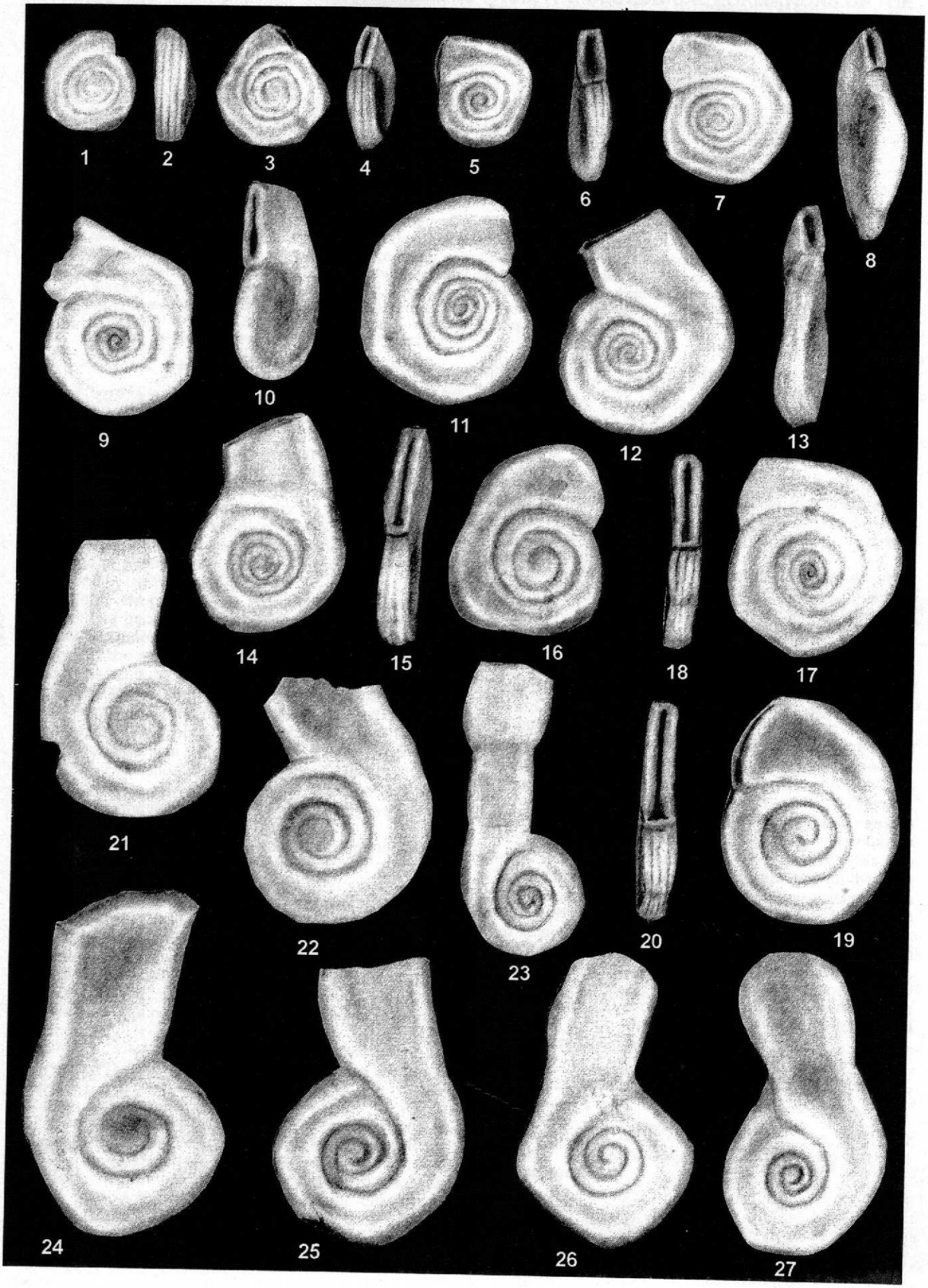
PLATES

Plate I

Figs. 1 – 27 Barbuspira complanata Neagu n.g.,nsp. Lower Valanginian; figs. 19 – 20 holotype, L.P.B.IV. 11348; figs. 1 – 18, 21 – 27 paratypes L.P.B.IV.11349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