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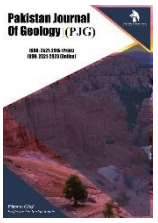

RESEARCH ARTICLE

NEW BENTHIC FORAMINIFERAL LAGENID GENUS AMPHICORYNELLA ANAN AND ITS SPECIES IN EUROPE

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ABSTRACT

Eocene-Miocene Lagenid new genus Amphicorynella and its species of Romania (East Europe) and France (West Europe) are described. It is characterized by its elongate calcareous perforate uniserial test, globular proloculus with commonly apiculate base, followed by inclined globular chambers throughout, sutures distinctly depressed, surface ornamented with fine costae broken up into rows of small pustules, aperture terminal with a pronounced neck with ring like concentric ridges. These species are: Amphicorynella popescui, A. romanica, A. mazeni, A. yassini, A. franciaca, Amphicoryna sztrákosae. All the recorded benthic foraminiferal species from the Romania and France in Europe are, so far, an endemic to its original erections.

KEYWORDS

Benthic foraminifera, Lagenid, Amphicorynella, Eocene, Miocene, Europe

1. INTRODUCTION

The research introduced two forms of the genus Amphicoryna a study which has two forms, the first one includes four forms (Plate 1, figure. 11-14) (Loeblich and Tappan,.1988.,Schlumberger.,1881). The second form (Plate 1, figure 15) differs by its incline test, with fine costae broken up into rows of small pustules ornamented surface, and distinctive deep sutures in the last chambers. The latter form is proposed here to renamed as a new genus, Amphicorynella Anan (Plate 1, figure 15).

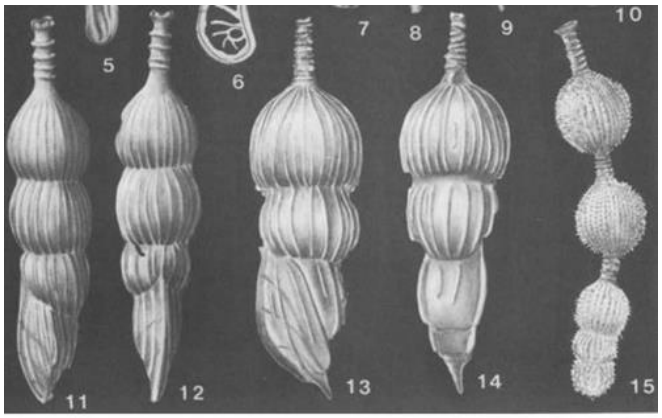

Plate 1: Figure. 11-14. Amphicoryna scalar 15(Loeblich and Tappan,.1988). Amphicorynella separans (Brady, 1884).

2. FAUNAL DISCUSSION

It has been necessary to give a new name for (figure 15, Plate 1) to elucidate the main differences between the two forms, the latter form and the other forms (Plate 1, figure 11-14), after comparison with the types of the known species.

2.1 Taxonomy

The new genus Amphicorynella and its species of the Lagenid benthic foraminifera is followed the taxonomy of Loeblich and Tappan (1988). The seven Amphicorynella members and two Amphicoryna species are illustrated in Plate 2.

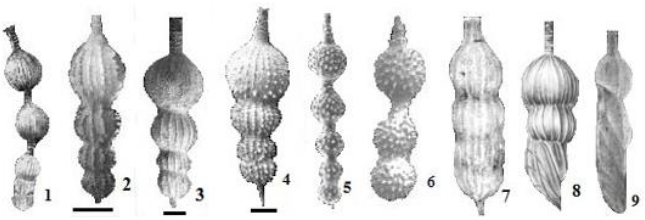

Plate 2: Figure 1. Amphicorynella separans 2(Brady, 1884). Amphicorynella spinicosta 3(d'Orbigny, 1846),. Amphicorynella popescui Anan, n. sp., 4. Amphicorynella romanica Anan, n. sp., 5. Amphicorynella mazeni Anan, n. sp., 6. Amphicorynella yassini Anan, n. sp., 7. Amphicorynella franciaca Anan, n. sp., 8. Amphicoryna scalaris 9(Batsch, 1791). Amphicoryna sztrákosae Anan, n. sp.

Foraminiferida Eichwald, 1830

Suborder Lagenina Delage and Hérouard, 1896

2.3 Genus Amphicorynella Anan, n. gen.

- Amphicorynella separans genotype (after Loeblich and Tappan, 1988). Plate 1, figure . 1(Brady, 1884).
- Amphicorynella spinicosta (d'Orbigny, 1846)(=Amphicoryna spinicosta - Popescu and Crihan, 2000, p. 393, pl. 3, figure 6). Plate 1, figure 2.

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Stratigraphic level: Miocene-Recent.

Remarks: It differs from Amphicoryna scalaris (Batsch) by its rectilinear uniserial test, and ornamented commonly with longitudinally striate.

- Amphicorynella popescui Anan, n. sp. (=Amphicoryna spinicosta - Popescu and Crihan, 2000, p. 393, pl. 3, figure. 11). Plate 1, figure. 3.

Stratigraphic level: Middle Miocene. Romania (Figure 1).

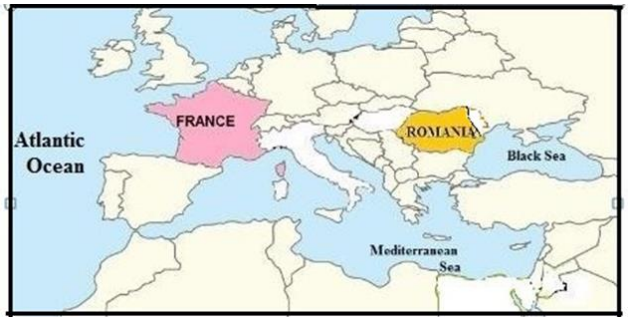

Figure 1: Location map of Romania (East Europe) and France (West France).

Remarks: This species has rectilinear globular uniserial chambers, surface commonly longitudinally striate, aperture terminal radiate.

- Amphicorynella romanica Anan, n. sp. (=Amphicoryna spinicosta - Popescu and Crihan, 2000, p. 393, pl. 3, figure. 12). Plate 1, figure. 4.

Stratigraphic level: Middle Miocene.

Remarks: This species differs from Amphicoryna popescui Anan, n. sp. by its incline test, ornamented by fine costae broken up into rows of small pustules than longitudinally striate.

- Amphicorynella mazeni Anan, n. sp. (=Amphicoryna hispida - Popescu and Crihan, 2000, p. 393, pl. 3, figure. 7). Plate 1, figure. 5.

Etymology: after my kinsman Dr. Mazen Abelfattah.

Stratigraphic level: Middle Miocene.

Remarks: It is distinguished by its hispid spinose surface.

- Amphicorynella yassini Anan, n. sp. (=Amphicoryna hispida - Popescu and Crihan, 2000, p. 393, pl. 3, figure. 8). Plate 1, figure 6.

Etymology: after my grandson Yassin Mazen.

Stratigraphic level: Middle Miocene.

Remarks: It differs from A. mazeni by its less number of chambers, more globular size which rapidly increasing as added.

- Amphicorynella franciaca Anan, n. sp.(=Amphicoryna cf. badenensis – Sztrákos, 2000, p. 98, pl. 9, figure. 14). Plate 1, figure. 7.

Stratigraphic level: Late Eocene.

Remarks: It is distinguished by its longitudinally striate and crossing sutures, aperture terminal radiate with an elongate neck with ring.

2.4 Genus Amphicoryna Schlumberger, 1881

- Amphicoryna scalaris (Batsch, 1791). Plate 1, figure. 8.
- Amphicoryna sztrákosae Anan, n. sp. (=Amphicoryna cf. badenensis - Sztrákos, 2000, p. 98, pl. 9, figure. 13). Plate 1, figure. 9.

Stratigraphic level: Late Eocene.

Diagnosis: Test calcareous perforate elongate, base commonly apiculate, early chambers in a compressed astacoline coil with large globular proloculus followed by rectilinear inclined elongate chambers throughout, sutures flush and oblique all over the test, surface commonly longitudinally striate.

Remarks: It differs from A. scalaris by its inclined elongate chambers in the former than globular chambers of the latter.

3. Paleogeography

This study proved that the Amphicorynella genus and its seven species are expanded into two different parts of the Northern Tethys: East Europe (Romania) and West Europe (France). All the recorded species from Romania and France in Europe are, so far, an endemic to its original erections.

4. Paleoenvironment

The open marine environment Lagenid benthic foraminiferal species supports the open Mediterranean Current in all directions, suggested a neritic environment, about 200-300 m water depth (Figure 2).

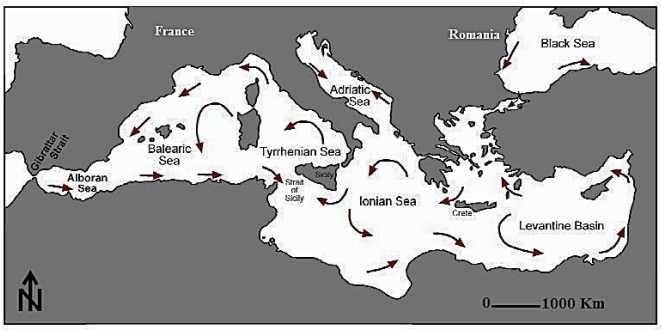

Figure 2: The open Mediterranean Current (MC) flow in all directions (after Cimerman and Langer, 1991)

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