

The rothliid foraminiferan *Escornebovina* identified in the Carpathian Paleocene

The foraminiferan species described by Szczechura & Pożaryska (1974) among foraminiferans of the Paleocene Babica Clays in the Carpathian flysch of SE Poland under the name ?*Neoeponides* cf. *acta* (Loeblich & Tappan 1946) appears to be *Escornebovina cuvillieri* Poignant 1965. Its type population is of Oligocene age. The new identification thus extends both its geographic and stratigraphic ranges.

The external ornamentation of the Babica specimens is closely similar to those attributed to *Escornebovina cuvillieri* Poignant 1965 from the Oligocene of France (Poignant 1965; Andreieff *et al.* 1974; Poignant & Pujol 1976, 1978; Poignant 1982, 1983) and Hungary (Korecz-Laky & Nagy-Gellai 1985), as well as to the Slovak Carpathian forms from the Early Miocene, attributed by Krhovský (1983) to *Escornebovina trochiformis* (Andreae 1884), and Oligocene, identified by Samuel (1990) as *Eponides? binominatus* Subbotina 1960. The Polish specimens are similar also to *Pseudopatellina plana* Kenawy & Nyiro 1967 from the Late Oligocene of Hungary, synonymized earlier by Sztrakos (1979) with *E. cuvillieri*.

The specimens vary mostly in their general shape, which may be more or less convex on the spiral side, as well as in the number of whorls (2.5-3.5) and chambers (but always more than 10) and, to some degree, also in the ornamentation. This mostly concerns a variable course of sutures on the spiral side, which may be straight or zig-zag-like when seen from above and variable in width. All these differences are considered here to represent population variability.

Of the names applied to this species, *Pulvinulina trochiformis* Andreae 1884, with the type population in the Oligocene of Alsace, might have priority if properly identified. Unfortunately, the Andreae's original illustration is quite schematic and hardly allows safe specific identification (see Ellis & Messina 1940-1980). Nevertheless, it is clear from his brief description and drawing that the type of *P. trochiformis* has only seven chambers in the last whorl, which is much less than in the discussed species. Another name, *Eponides binominatus* Subbotina 1960, was introduced for a population from the Oligocene of fore-Carpathian Ukraine (Subbotina *et al.* 1960). The quite schematically illustrated type specimens differ from those of the Babica Clays species both in their general shape (some of them being clearly biconvex) and in the number and distribution of chambers; moreover, all of them seem to be smooth on their spiral sides. Therefore, unless a future revision will show conspecificity of these forms with *Escornebovina cuvillieri* Poignant 1965, the latter seems to be the valid name for the discussed species.

The only problem with the proposed assignment of the Babica specimens to *E. cuvillieri* is the allegedly slit-like aperture of the last chamber at the umbilical side, as interpreted by Szczechura & Pożaryska (1974: p. 85). The newly collected better preserved specimens clearly show, however, that an oval perforation occurs

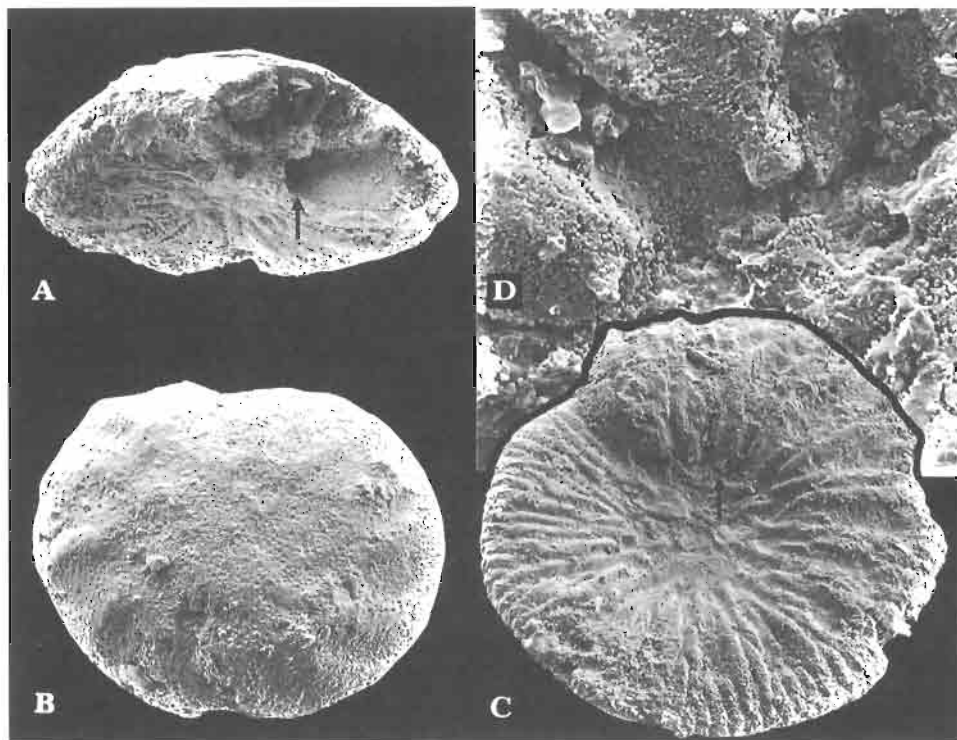


Fig. 1. *Escornebovina cuvillerti* (Poignant 1965) from the Babica Clays (Paleocene) of Babica near Rzeszów, SE Poland. □A. Edge view of the specimen ZPAL F.XXXVII/1 showing interior of the penultimate chamber with an oval opening in the umbilical part, $\times 200$. □B. Specimen ZPAL F.XXXVII/2 in dorsal view, $\times 200$. □C, D. Specimen ZPAL F.XXXVII/3 in ventral view (C $\times 200$) and magnification of apertural lips (D $\times 1100$).

in the umbilical basal part of each of the last few (2-3?) whorls (Fig. 1A), at least sometimes covered by apertural lips (Fig. 1D). Actually, while describing a specimen from the Early Miocene of Slovakia which 'revealed the presence of umbilical slits and several little openings on the last intercameral suture', Krhovský (1983: p. 79), pointed out that Butt (1966), defining the genus *Escornebovina*, also had had problems with identifying the apertures. Although Loeblich & Tappan (1988: p. 633) reported that in the topotype specimen of the species the aperture forms 'a narrow interiomarginal slit extending from near the periphery toward the umbilicus, with small pustuloses on the lower apertural face and area below the aperture', this may appear to be an artifact of preservation. The last chamber of their specimen is apparently broken in a way suggesting an anteriomarginal slit.

Butt (1966) suggested classification of *Escornebovina* within the Glabratellidae Loeblich & Tappan 1964 or Rosalinidae *sensu* Reiss 1963; Poignant (1983) attributed it to the Glabratellidae; while Krhovský (1983) to Rotalidae Ehrenberg 1839. Loeblich and Tappan (1988) placed *Escornebovina* in the subfamily Gyroidinoidinae Saidova 1981 of the Gavelinidae Hofker 1956. The new data do not support this classification of the genus. More morphologic evidence is necessary to identify its proper systematic relationships.

Escornebovina cuvillerti was reported to range in age from the Middle Oligocene to Middle Miocene. In the Oligocene it was distributed as widely as from the Aquitanian and Paris Basins of France to the Slovak Carpathians, and from Sicily (Poignant 1965) to NE Germany (Spiegler 1974). An unnamed species of *Escornebovina* occurs in the Early Eocene of Hungary (cf. Poignant 1982). The newly identified population of *Escornebovina cuvillerti* is thus the oldest representative of both the species and genus.

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