Mineral Res. Expl Bull 116, 47-48, 1994

ORDUINA ERKI SIREL 1969 RENAMED AS ***LAFFITTEINA ERKI*** (SIREL) FROM THE THANETIAN OF ORDU AND BURDUR (TURKEY)

Ercüment SİREL*

ABSTRACT - In 1969, *Orduina erki* Sirel and its subspecies *Orduina erki conica* Sirel were first described and figured by the present author from the Paleocene of Gölköy (south of Ordu) *Orduina erki* is reviewed on well preserved and isolated speomens collected from the Paleocene (Thaneban) of Ordu and Burdur regions Orduina was accepted as a synonym of Laffitteina Mane by the presence of ramifying interseptal canals that open as two alternating rows of pores along the sutures on the spiral side and coarsely perforate, calcareous, hyaline wall

INTRODUCTION

A new rotalid foraminiferal genus Orduina Sirel (1969) and its two trochospiral represantatives *Orduina erki* and *Orduina erki* var. *conica* were previously described (Sirel, 1969, p. 145) from the Paleocene of Gölköy town. Sirel (1969) mentioned a close relationship between *Orduina* and *Laffitteina,* both having coarsely perforate, calcareus, hyaline walls. Despite of the presence of the sutural openings along the septa on the dorsal side and coarsely perforate, calcareous, hyaline wall, *Orduina* was shown as a synonym of *Kathina* Smout (1954) by Loeblich and Tappan (1988, p. 661, Plate 760, fig. 6-'10). *Orduina erki* is reexamined on well preserved and isolated specimens from the Paleocene (Thanetian) of Ordu and Burdur regions (fig. 1). As a result of this investigation, the genus *Orduina* is synonymized under *Laffitteina* Marie (1946) by the presence of bifurcate interseptal canals that open as two alternating rows of openings along the septal sutures on the dorsal side (Plate II, fig. 1, 4, 8-10). Therefore, *Orduina* erki has been proposed the one species of *Laffitteina* as *Laffitteina erki* (Sirel).

Isolated specimens and all thin sections containing this foraminiferal species figured in this paper are deposited in the collection of General Directorate of Mineral Research and Exploration (MTA), under the number shown in Plate I, II.

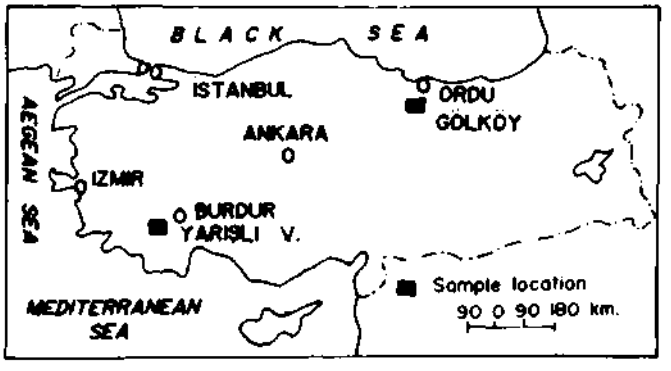


Fig. 1- Location Map.

SYSTEMATIC DESCRIPTION

Order : Foraminiferida Eichwald, 1830

Suborder : Rotaliina Delage and Herouard, 1896

Family : Rotaliidae Ehrenberg, 1839

Genus : Laffitteina Marie, 1946

Type species : *Nummulites mengaudi* Astre, 1923

Laffitteina erki (Sirel) 1969

(Plate I, fig. 1-10; Plate II, fig. 1-11)

1969 *Orduina erki* Sirel, p. 145, Plate I, fig. 1A-D; Plate II, fig. 1-5; Plate III, fig. 3.

1988 *Kathina erki* (Sirel), Loeblich and Tappan, p. 661, Plate 760, fig. 6-10.

DESCRIPTION

Test relatively high trochopiral, with large size up to 4,3 mm in diameter, spiral side strongly convex and evolute (Plate I, fig. 1, 4, 6, 7; Plate II, fig. 2, 3, 5-7, 11); opposite side slightly convex or concave involute (Plate I, fig. 2-5, 10; Plate II, fig. 2, 3, 5-7, 11); 35 chambers in the penultimate whorl of a test measuring 2, 25 mm in diameter; umbilical cavity large and filled by numerous pillars; thin vertical canals between the umbilical pillars; septa double, with ramifying interseptal canals that open as two alternating rows of pores along the sutures on the dorsal side; wall ocarsely perforate, calcareous, hyaline wall; aperture an interiomarginal slit.

REMARKS

Because of the presence of the bifurcate interseptal canals that open as two alternating rows of openings along the septal sutures on the dorsal side (Plate II, fig. 1, 4, 8-10) and the presence of the coarsely perforate, calcareous, hyaline wall, the genus *Orduina* was shown as a synonym of *Laffitteina.*

Laffitteina erki differs from all other species of *Laffitteina (Laffitteina conica* Drooger, *Laffitteina mengaudi* (Astre) and *Laffitteina koyulhisarensis* n. sp., Sirel in press) by its large size and conical shape with strongly developed trochoid spire.

This species is the youngest represantative of *Laffitteina.* It is associated with *Idalina sinjarica* Grimsdale, *Miscellanea primitiva* Rahaghi, *Orduella sphaerica* n. gen. n. sp. (Sirel, in press), *Haymanella paleocenica* n. gen. n. sp. (Sirel, in press), *Cuvillierina* sp. Miliolidae and algae at the type locality, Gölköy town, south of Ordu, north Turkey. This foraminiferal assemblage indicates a Early Thanetian age.

Laffitteina erki was found in the Thanetian alga! limestones and marls of Yarışlı village (west of Burdur, south Turkey) and is associated at this locality with *Bolkarina akserayi* Sirel, *Idalina sinjarica, Miscellanea primitiva, Miscellanea globularis* Rahaghi, *Sistanites iranica* Rahaghi, *Globoflarina sphaeroidea* (Fleury), *Hottingerina anatolica* n. sp. (Sirel, in press), *Periloculinasp., Delhedia?sp.* and Miliolidae.

Manuscript received September 30, 1994

REFERENCES

Loeblich, A. and Tappan, H., 1988, Foraminiferal genera and their classification: V. I, 970 p.; V. II, 212 p., 847 Pl., New York (Van Nostrand Reinhold).

Marie, P., 1946, Sur *Laffineina bibensis* et *Larfineina monodi* nouveau genre et nouvelles especes de foraminiteres du Montien: Bull. Soc. Geol. France (1945), 5, 15, 419-434.

Sirel, E., 1969, On the discovery of *Orduina* n. gen., a new genus of family Rotaliidae: MTA Bull, (foreign edition), 73, 145-147.

Smout, A.M., 1954, Lower Tertiary Foraminifera of the Qatar peninsula: London, British Museum (Natural History).

PLATES

PLATE-I

Lattitteina erki (Sirel)

(Early Thanetian, all figs. X 35)

Fig. 1- Axial section, Yarışlı village, southwest of Burdur, B. III/2/3/1.

Fig. 2- Axial section, Yarışlı village, southwest of Burdur, B. 111/2/2/1.

Fig. 3- Axial section, Yarışlı village, southwest of Burdur, B. 111/6/1/2.

Fig. 4- Axial section, Gölköy town, south of Ordu, G. 10/A/4/3.

Fig. 5- Subaxial section, Yarışlı village, southwest of Burdur. B. 111/1/1/3.

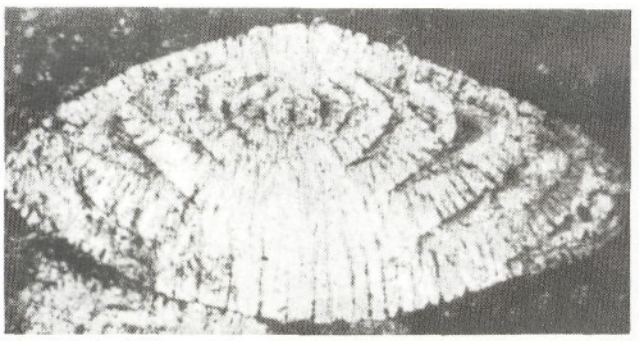
Fig. 6- Axial section, Gölköy town, south of Ordu, G. 10/A/2/3.

Fig. 7- Axial section, Gölköy town, south of Ordu, G. 10/5/1.

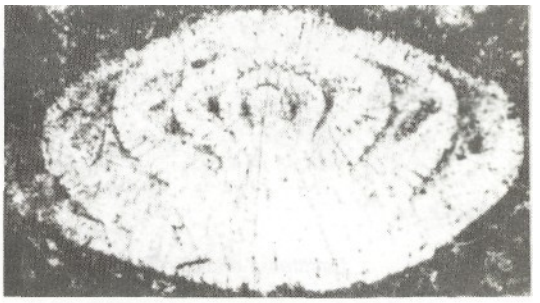
Fig. 8- Oblique equatorial section, Yarışlı village, southwest of Burdur, B. 111/2/2/1.

Fig. 9- Equatorial section of young specimen, Yarışlı village, southwest of Burdur, B.III/2/3/2.

Fig. 10- Axial section of young specimen, Gölköy town, south of Ordu, G. 10/A/3/3.

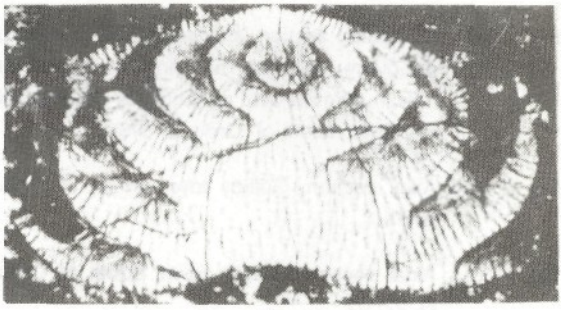


1

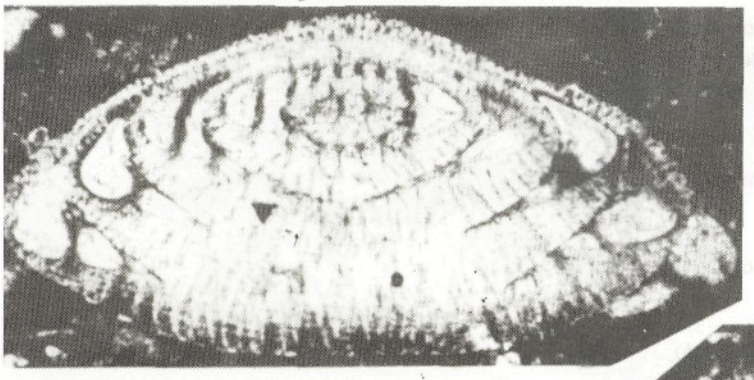


2

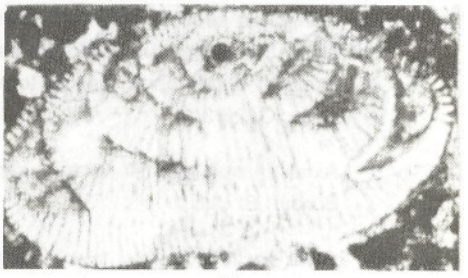
3



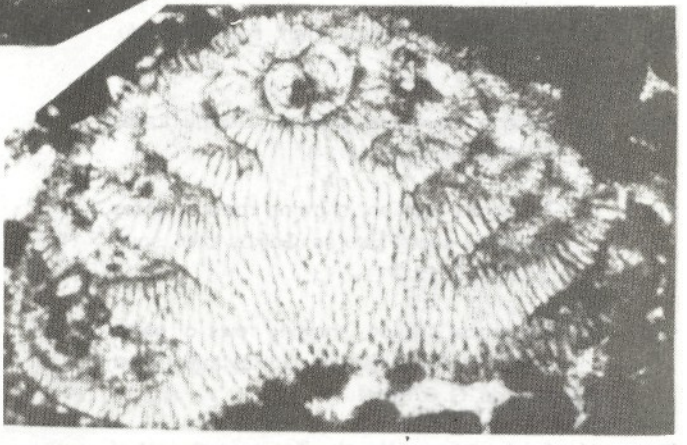
4



5

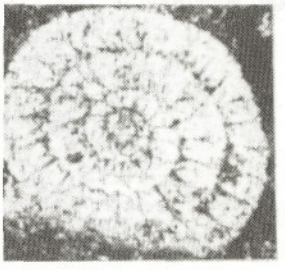


6



7

8



9

10

PLATE -II

Laffirteina erki (Sirel)

(Early Thanetian, all figs. X 35)

Fig. 1- Horizontal section, almost parallel to equatorial plane, showing ramifying interseptal canals in ultimate and penultimate whorls, Gölköy town, south of Ordu, G. 9/8/1.

Fig. 2- Axial section, Gölköy town, south of Ordu, G.7b/1.

Fig. 3- Axial section, Gölköy town, south of Ordu, G. 22/1/2.

Fig. 4- Horizontal section, note two rows of pores along the septal sutures in the center of the shell (at upper part), Gölköy town, south of Ordu, G. 23/2/1.

Fig. 5- Axial section, Yarışlı village, southwest of Burdur. B. III/E/1/1.

Fig. 6- Axial section, Gölköy town, south of Ordu,. G. 10/6/2.

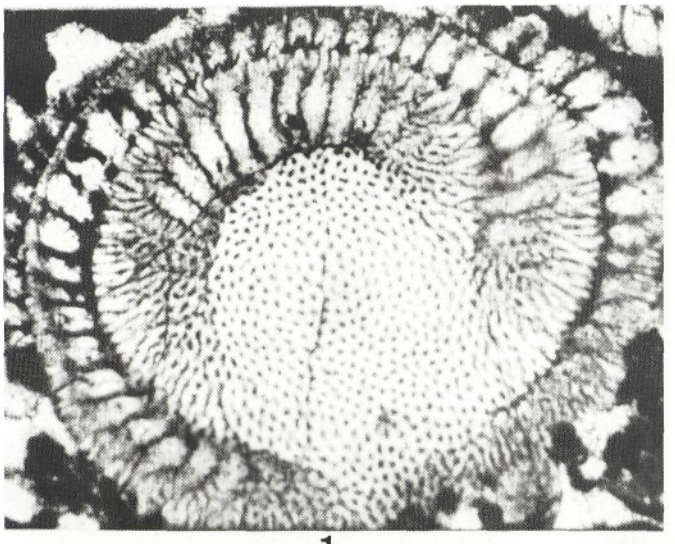
Fig. 7- Axial section, Gölköy town, south of Ordu, G. 10/C/1.

Fig. 8- Oblique equatorial section, Gölköy town, south of Ordu, G. 17/1-4.

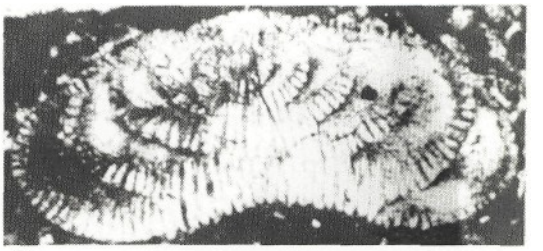
Fig. 9- Tangential section, showing rows-of pores. . along the septal sutures, Gölköy town, south of Ordu, G. 23/3/1.

Fig. 10- Tangential section, showing rows of pores along the septal sutures, Gölköy town, south of Ordu.G. 37/b/1/1.

Fig. 11- Axial sections, Yarışlı village, southwest of Burdur, B. III/2/2/3.

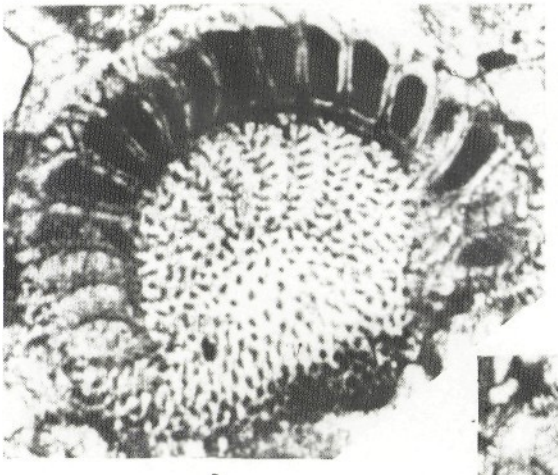


1



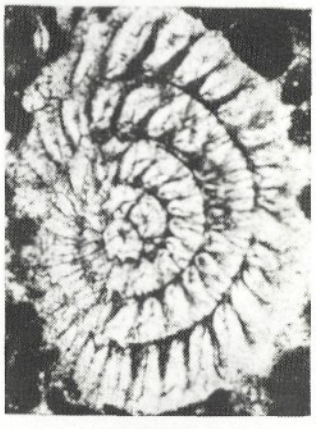
2

3



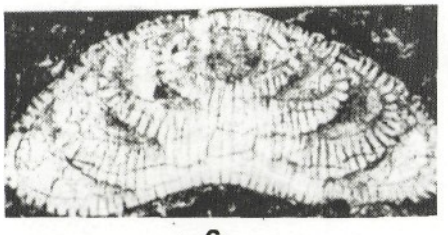
4

5



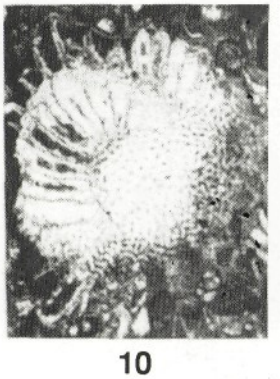
8

7

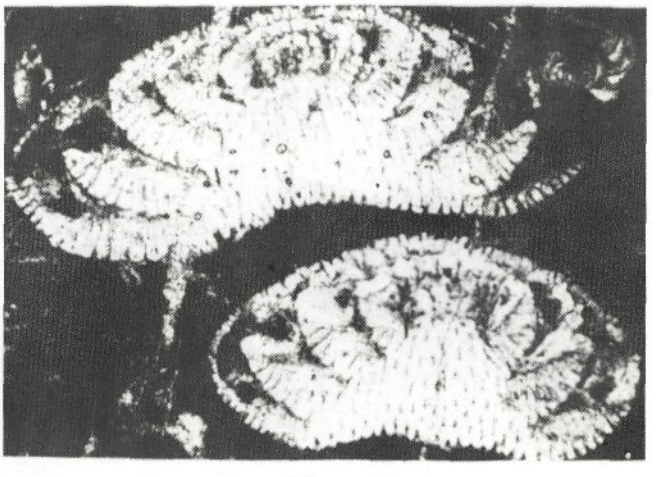


6

9



10



11