

Syracosphaera labrosa BUKRY & BRAMLETTE, 1969

Reticulofenestra caucasica HAY, MOHLER & WADE, 1966 (partim), p. 386, pl. 2, figs. 6-8, not fig. 5, not pl. 3, nor pl. 4. *Eclogae geol. Helv.*, vol. 59.
Reticulofenestra caucasica HAY, MOHLER & WADE. Levin and Joerger, 1967, p. 168, pl. 2, fig. 2a-b. *Micropaleontology*, vol. 13, n. 2.



Figs. 15-17 — *Syracosphaera labrosa* BUKRY & BRAMLETTE n. sp. 15) Yazoo Clay, Cocoa Sand Member, side view, USNM 651434; 16) holotype USNM 651433, Cook Mountain Formation; 17) cross-polarized. x 2000.

Description:

This large high-walled, elliptical species has a flanged extension of the wall on the distal side. The flange is composed of a large number of narrow elements and thus appears smooth and translucent; only the side walls are conspicuous in normal transmitted light. In cross-polarized illumination, the optical extinction lines pass beyond the wall into the large central area, which indicates the presence of a thin basal structure.

Size: 14-18 μ .

Remarks:

The taxonomy of *Syracosphaera labrosa* is confused. The type species of *Reticulofenestra* was *Reticulofenestra caucasica* HAY, MOHLER, & WADE, 1966. However, our electron-microscope examination of topotype material of *Coccolithus umbilicus* LEVIN, 1965, has shown that the electronmicrograph holotype of *R. caucasica* = *C. umbilicus*. *C. umbilicus* is constructed of two distinct shields (a placolith) which produce a broad bright oval ring when observed in cross-polarized light. The light micrographs presented by Hay, Mohler, and Wade as paratypes, however, show a syracosphaerid single-rim type of wall. The electron micrographs of *Reticulofenestra oamaruensis* (DEFLANDRE) STRADNER & EDWARDS and the original light micrographs of Deflandre show that that species has a substantial central area structure with a distinctive median suture and a syracosphaerid-type rim without a flange (therefore, possibly referable to *Discolithina*). These features are quite different from those of *S. labrosa*.

Syracosphaera formosa BUKRY & BRAMLETTE, n. sp., and *Syracosphaera fimbriata* (BRAMLETTE & SULLIVAN) are distinguished from *S. labrosa* by structural details that are obvious in light microscopy. *S. labrosa* has a translucent flange and a featureless central area; in contrast, *S. formosa* shows a definitely inclined cycle of 26 to 32 elements in the flange, and *S. fimbriata* has two large perforations in its base.

Type level:

Distribution: Though not abundant, *S. labrosa* is present in the upper middle Eocene to lower Oligocene of many areas.

Type locality:

Cook Mountain Formation, Columbus Landing, Louisiana, U.S.A.

Depository:

U. S. National Museum. Holotype: USNM 651433 (figs. 16, 17); paratype: USNM 651434.

Author:

Bukry D. and Bramlette M.N., 1969, p. 141; pl. 3, figs. 15-17.

Reference:

Some new and stratigraphically useful calcareous nannofossils of the Cenozoic. *Tulane Studies in Geology and Paleontology*, vol. 7, n° 3, pp. 131-142, pls. 1-3.