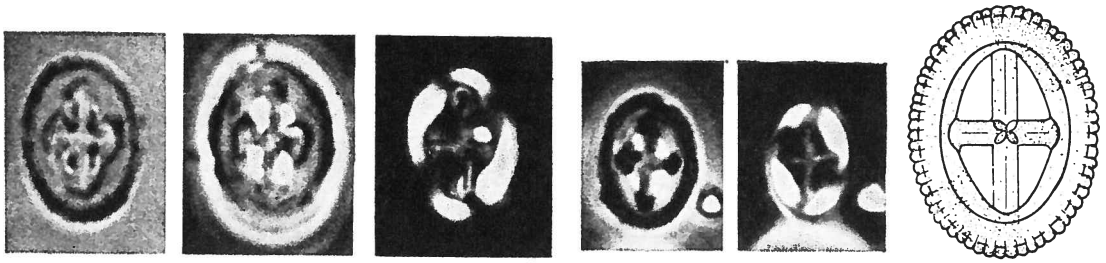
Coccolithus matalosus STOVER, 1966



1a 1b 1c 2a 2b 10

FIGS. 1a–c, 2a, b — *Coccolithus matalosus* STOVER, n. sp. x 2500 ca. 1, holotype, USNM 41487, sample 19; a, bright field; b, phase contrast; c, x-nicols. 2, paratype, USNM 41488, sample 28; a, phase contrast; x-nicols.

FIG. 10 — *Coccolithus matalosus* STOVER. Distal view. Orientation: 0°–90°. The drawing is based primarily on the appearance of the microfossil under crossed nicols and with a Quartz Red I accessory plate. The drawing represents a composite of morphologic features observed on several well-preserved specimens of the species.

Description:

The coccoliths are elliptical in proximal or distal view and consist of two closely appressed plates with the distal plate larger than the proximal one. The rim is of medium width, with its outer edge smooth or faintly scalloped, and its inner edge smooth. The central opening is bridged by bars in the form of a cross. These bars are inclined centrodistally and may support a short spine or boss at their intersection. The tips of the crossbars are commonly expanded. The central area also has a ringlike band of variable width – generally narrower opposite the expanded ends of the crossbars – that lies next to the rim. Examination under crossed nicols reveals that each arm of the cross is composed of two pieces, arranged side by side, and that each piece has a different crystallographic orientation from the one next to it. The crystallographic orientation of the particles forming the ringlike band is the same or nearly the same as the orientation of the particles forming the adjacent parts of the rim. The curvature of extinction lines across the rim is sinistral in distal view. Length 7–11 μ, width 6–9 μ, height about 2 μ.

Remarks:

Comparison: *Coccolithus matalosus* resembles *Coccolithus helis* STRADNER but differs from the latter in being more elongate and in having differently constructed crossbars.

Remarks: A consistently smaller form that differs from larger specimens in having narrower crossbars and a completely smooth rim occurs in samples with or without the larger form. The two forms are regarded as conspecific, but the smaller form may prove to represent a subspecies or variety following a study of additional specimens.

Type level:

Vraconian (lower Cenomanian).

Occurrence: Albian — lower Cenomanian.

Type locality:

About 30 meters below so called « Marnes de Brienne », base of Mt. Avrelot, south side, France; Vraconian (lower Cenomanian); light gray marl (sample 19). *Douvilleiceras mammillatum* beds, one km. northeast of St. Florentin, France; Albian; fine- to coarse-grained tan sandstone with clay matrix (sample 28).

Depository:

U. S. National Museum, Washington, D. C. Holotype: USNM 41487; paratype: USNM 41488.

Author:

Stover L. E., 1966, p. 139; pl. 2, figs. 1a–c, 2a, b; pl. 8, fig. 10.

Reference:

Cretaceous coccoliths and associated nannofossils from France and the Netherlands. Micropaleontology, vol. 12, nº 2, pp. 133–167, pls. 1–9.