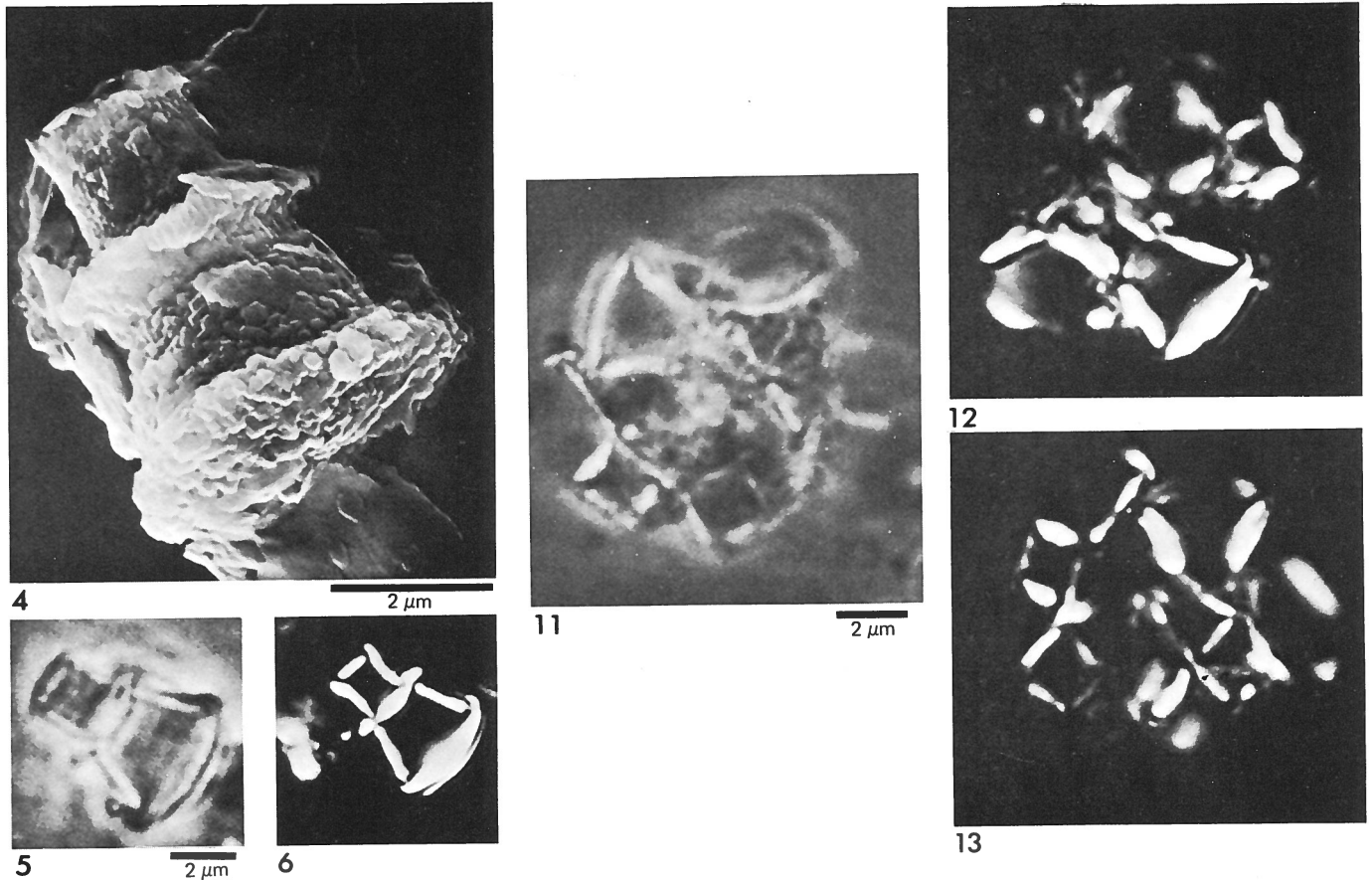


Metadoga mercurius WIND & ČEPEK, 1979



Figs. 4-6, 11-13 - *Metadoga mercurius* n. sp.
Sample 397A-46-3, 58-59 cm. 4-6) Holotype USNM 256057. (4) Scanning electron micrograph, lateral view. (5) Phase contrast. (6) Cross-polarized light. 11-13) Aggregate of specimens of *Metadoga mercurius* n. sp. (11) Phase contrast. (12,13) Cross-polarized light.

Description:

Tapered conical chamber terminating in a cylindrical neck. A small plate may be set within the aperture of the short neck. A short crystalline collar may circle the region of juncture of cylindrical collar and main body.

Dimensions: 4.5 to 6.0 μm height, 5.0 to 7.0 μm greatest width; holotype 5.0 μm high, 5.7 μm wide.

Derivation of name: The species name is from the Latin *mercurius* = messenger of the gods.

Remarks:

This form is distinguished from *Lucianorhabdus phlaskus* n. sp., by its conical to trapezoidal shape, possible presence of a collar, and the absence of a clearly defined base. Differences between the many specimens observed on the light microscope are viewed as the result of differences in orientation, and as a result, the genus *Metadoga* is presently considered to be monospecific. It is now known whether the presence or absence of a collar, as is present on the holotype, is a valid criterion for proposing an additional species. These forms are occasionally found in clusters (see Plate 9, Figures 11-13), suggesting that the secreting organism bore at least several of these skeletal elements at one time.

Along with species of *Lucianorhabdus*, *Metadoga mercurius* is among the oldest known holococcoliths. The previous oldest reported occurrence of a holococcolith is *Lucianorhabdus compactus* (VERBEEK) PRINS & SISSINGH (= *Isocrystallithus compactus* VERBEEK) from the Cenomanian.

Type level:

Hauterivian.

Occurrence: *Metadoga mercurius* has only been observed in the Hauterivian sediments from Hole 397A.

Type locality:

Eastern Atlantic Ocean, Sample 397A-46-3, 58-59 cm (1394 m).

Depository:

Holotype: USNM 256057 (Plate 9, Figures 4-6).

Isotype: USNM 256058.

Author:

Wind F.H. & Čepek P., 1979, p. 230; pl. 9, figs. 4-6, 11-13, 19-20.

Reference:

Lower Cretaceous calcareous nannoplankton from DSDP Hole 397A (Northwest African Margin). Init. Repts. DSDP, vol. 47, pp. 221-255, 11 pls., 3 text-figs.