

### 11. *Birkelundia biparteoperculata* Varol (1991)

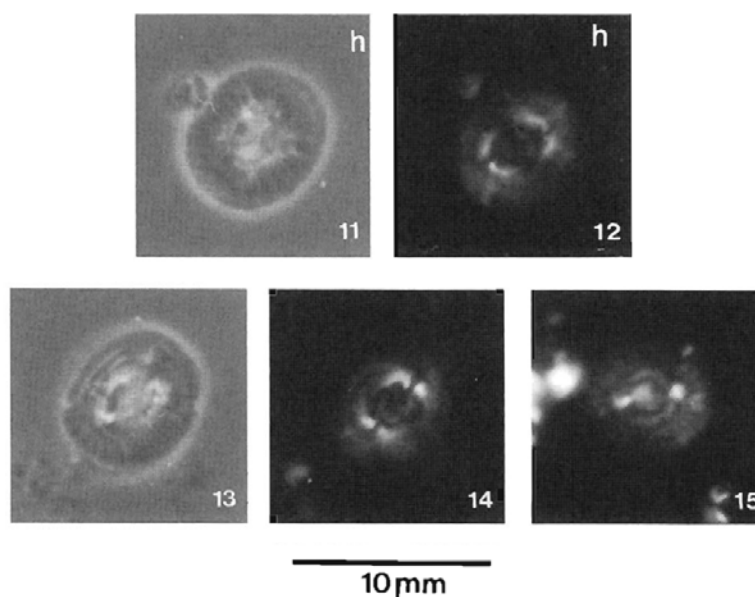


Fig. 7, 11-15

**Diagnosis:** An elliptical placolith with two monocyclic shields, single tube cycle and a central area covered with two small plates.

**Derivation of name:** From Latin *bi*, two, *pars*, piece and *operculum*, cover.

**Holotype:** Fig. 7 (11-12).

**Type level and locality:** Zones NP19/20. Late Eocene, West Africa (DSDP Leg 40, Site 363, Core 9, Section 2, 92-97 cm).

**Description:** This elliptical placolith has a single cycled proximal shield which is distinctly smaller than the distal shield. The central area is covered by two plates and the boundary between them aligned with the short axis of the ellipse. Under cross-polarised light only the tube cycle is birefringent while the shields and central plates show no birefringence.

**Dimensions of holotype:** Length = 8.0µm, Width = 6.2µm.

**Remarks:** *B. biparteoperculata* is easily distinguished from any species of *Clausicoccus* PRINS (1979) by having a single cycled proximal shield. *B. biparteoperculata* differs from *Hughesius gizoensis* VAROL (1989c) by having unequal size shields while the latter has equal size shields and the whole specimen is nonbirefringent under cross-polarised light.

**Occurrence:** *B. biparteoperculata* is frequently observed in Middle to Late Eocene (Zones NPI6 to NP19/20) sediments of West Africa (DSDP Leg 40, Site 363), Early Eocene (Zone NP12) sediments of Turkey and Early Eocene to Oligocene (Zones NP12 to NP 23) sediments of India and Middle Eastern countries.

Varol, O., 1991. New Cretaceous and Tertiary nannofossils. *Neue Jahrbuch für Geologie und Paleontologie, Abhandlungen*, **182(2)**: 211-237.