137. *Lanternithus arcanus* Bown (2005)

**Derivation of name:** From *arcanus*, meaning closed, referring to the closed central-area of
Diagnosis: Medium-sized holococcolith, comprising several distinct crystallographic blocks that change appearance on rotation in XPL. At 0°, six blocks are visible: four major quadrants, alternating dark and light, delineated by axial sutures, and one small block at each end. At 5°, the four quadrants are bright and a small pore is visible in the centre. At 45°, the coccolith is bright and crossed by diagonal extinction lines.

Differentiation: Similar to *L. minutus* but with narrower central-area.

Dimensions: L = 4.6-5.5 µm.

Holotype: Pl. 29, fig. 16 (figs 17-20 same specimen).

Paratype: Pl. 29, fig. 21 (figs 22-24 same specimen).

Type locality: TDP Site 2, near Kilwa, Tanzania.

Type level: Middle Eocene, Sample TDP2-7-1, 38 cm (Subzone NP15c).

Occurrence: NP15bc; TDP Site 2, 6.