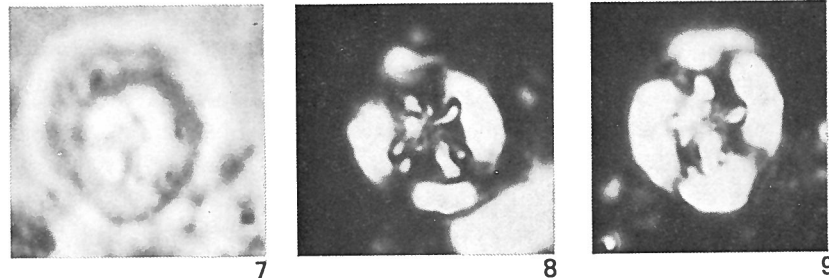


**Polypodorhabdus harrisonii** ROTH, 1983



Figs. 7-9 — *Polypodorhabdus harrisonii* n. sp. Sample 534A-100-1, 15 cm.  
Paratype. (7) PH, (8-9) XN.

**Description:**

Definition: A species of *Polypodorhabdus* with a central cross composed of relatively few broad laths connected to the rim by trifurcate terminations.

Description: This elliptical coccolith is composed of two shields, a proximal shield and a slightly larger, closely appressed distal shield. The distal shield consists of two cycles of elements of almost equal width. The outer cycle contains about 30 tabular elements that are separated by essentially radial suture lines and show slightly dextral imbrication. The inner cycle consists of an about equal number of tabular elements with also essentially radial sutures. The proximal shield also consists of two cycles of about equal width composed of about 30 tabular elements. The elliptical central area is about two-thirds the size of the distal shield. It is spanned by a cross structure with arms in the long and short axis of the ellipse. The cross arms are composed of about three to four rather long and broad laths. A central knob composed of about eight elements and a central perforation or a rarely preserved hollow stem of about the same number of long laths forms the center of the distally convex cross structure. On the proximal side the cross bars display a distinctive central depression, and a deep central depression exists in the center of the whole cross structure. The terminations of the cross bars in the long axis consist of a tapered central branch and two flat side branches at an angle of about 70° with the axis of the main cross arm and separated from it by small triangular perforations. The terminations of the cross bars in the short axis are broadly flaring, with only slight indications of trifurcation but lacking pores between the side branches and the main branch. In the light microscope this species displays the typical relatively highly birefringent "cretarhabdid" rim, with a diffuse extinction cross and a stout central cross with trifurcate or broadly flaring terminations. The four large pores in the central area are clearly visible in the light and electron

microscopes; the small perforation between the cross bar and their terminal side branches are triangular and only visible in the electron microscope.

Size: Maximum diameter: 4.5  $\mu\text{m}$ . Maximum of central area: 3.0  $\mu\text{m}$ . Eccentricity: 1.2.

**Remarks:**

This species differs from *Retecapsa schizobrachiata* (GARTNER) GRUN in that it has a central cross composed of fewer and relatively larger crystallites and thus a less fibrous composition. *Polypodorhabdus harrisonii* Medd n. sp. resembles *Polypodorhabdus madingleyensis* in the rim structure, but the central cross is composed of a bundle of thick laths and is connected to the rim by a trifurcate structure of short struts. There are no additional laths connecting the rim and the cross in the four holes between cross arms and the rim. Specimens with less well developed trifurcate cross arm tips but a coarse, stout cross have been assigned to *Polypodorhabdus* sp. cf. *P. harrisonii*. Only specimens that show additional struts in the areas between cross bars were assigned to *Polypodorhabdus madingleyensis* or *Polypodorhabdus* sp. cf. *P. madingleyensis* (sec. *P. madingleyensis* for further discussion).

**Type level:**

Jurassic, Cretaceous. Oxfordian-Tithonian.

This species occurs in Oxfordian Renggeri-Tonen the Clay Pits South of Liesberg, Switzerland (holotype), in the *Vagalapilla stradneri* and *Conusphaera mexicana* Zones (Oxfordian-Tithonian) at Site 534, Blake-Bahama Basin, and in the Oxfordian of England (Medd, personal communication, 1982).

**Type locality:**

Northwestern Atlantic Ocean. DSDP 534.

**Depository:**

University of Utah.

Paratype: DSDP 534A-100-1, 15 cm.

**Author:**

Roth P.H., 1983, p. 610; pl. 3, figs. 7-9.

**Reference:**

Jurassic and lower Cretaceous nannofossils in the Western North Atlantic (Site 534): Biostratigraphy, Preservation, and some Observations on Biogeography and Paleoceanography. Initial Reports of the Deep Sea Drilling Project, vol. 26, pp. 587-621, 6 pls.