
Text-figs A-D

Pl. 37, figs. 19-20
**Discoaster pentaradiatus** Tan Sin Hok 1927 - Stradner, 1959, p. 11, figs. 46, 48

*Discoaster pentaradiatus* Tan Sin Hok 1927 – Martini and Bramlette 1963, p. 853, pl. 105, fig. 5

*Discoaster pentaradiatus* Tan Sin Hok 1927 – Bukry, 1971, pl. 1, fig. 5

*Discoaster pentaradiatus* Tan Sin Hok 1927 – Cati and Borsetti 1970, pp. 628-629, pl. 81, figs. 1, 5

*Discoaster pentaradiatus* Tan Sin Hok 1927 – Sachs and Skinner 1973, pl. 6, figs. 6-7

*Discoaster pentaradiatus* Tan Sin Hok 1927 – Perch-Nielsen 1977, pl. 15, figs. 7-8

*Discoaster pentaradiatus* Tan Sin Hok 1927 - Samtleben 1978, pl. 5, figs. 3, 5, 6

*Discoaster pentaradiatus* Tan Sin Hok 1927 – Proto Decima et. al. 1978, pl. 8, figs. 4a-c

*Discoaster pentaradiatus* Tan Sin Hok 1927 - Haq and Berggren 1978, pl. 4, figs. 23-24

*Discoaster pentaradiatus* Tan Sin Hok 1927 - Huang 1980, pl. 6, figs. 8a-b

*Discoaster pentaradiatus* Tan Sin Hok 1927 - Moshkovitz and Ehrlich 1980, pl. 6, fig. 22

*Discoaster pentaradiatus* Tan Sin Hok 1927 - Driever 1981, pl. 2, figs. 1-16; pl. 3 figs. 12-15

*Discoaster pentaradiatus* Tan Sin Hok 1927 - Varol 1982, pl. 6, fig. 15

*Discoaster pentaradiatus* Tan Sin Hok 1927 sens. emend. Bramlette and Riedel 1954 – Stradner in Stradner and Papp 1961, pp. 87-88, pl. 21, figs. 1a-b, 3a-b, 6, text-fig. 8/24, ? Figs. 2a-b, 4a-b

*Discoaster pentaradiatus* Tan Sin Hok 1927 – Nishida 1971, pp. 154-155, pl. 18, figs. 3, 6, 13, 14

*Discoaster pentaradiatus* Tan Sin Hok 1927 – Martini 1971, pl. 4, fig. 14

*Discoaster pentaradiatus* Tan Sin Hok 1927 - Müller 1974, pl. 7, figs. 11-12

*Discoaster challengeri* Bramlette and Riedel 1954 – Perch-Nielsen 1971, pl. 11, fig. 3

*Discoaster signus* Bukry 1971 – Ellis, Lohman and Wray 1972, p. 51, pl. 15, fig. 1

*Discoaster quadramus* Bukry 1973, p. 307, pl. 1, figs. 5-6

Etymology: From the prefix mis- (= wrongly) and concept.

Description: The asteroliths have a small central area and long and slender arms. They consist predominantly of 5 and rarely of 4 or 6 segments. The variants with 4 segments are X-shaped,

The central area possesses low central knobs on its proximal and on its distal surface. The distal surface of the central area is ornamented by shallow depressions.

The arms are roughly circular in cross section and usually they curve proximally. The terminations of the arms have acute-angled bifurcations with long and pointed branches. Electron micrographs of the bifurcations of some specimens revealed branches with a wavy surface. The arms bear median ridges only on their proximal surface. These ridges extend to the proximal knob of the central area.
Optical pattern: All asteroliths of *E. misconceptus* are slightly birefringent with extinction bands along the sutures of the central area. The entire asterolith shows sectors with different brightness that correspond to the different segments.

Differential diagnosis: *E. misconceptus* is distinguished from all other discoasters of *Eudiscoaster* by its birefringence. It differs from *E. pentaradiatus* by the more acutely angled bifurcations, the longer arms, the smaller central area and the more pronounced curvature.

**Holotype:** Pl. 37, fig. 19, sample: JT1935.

**Isotypes:** Text-figs. A-D, Pl. 37, fig. 20, sample JT1935.

**Type level:** *C. pelagicus* Zone.

**Type locality:** Falconara, Sicily.

**Occurrence:** This species ranges from the *C. rotula* Subzone of the Miocene to the Pliocene zone CN12c.