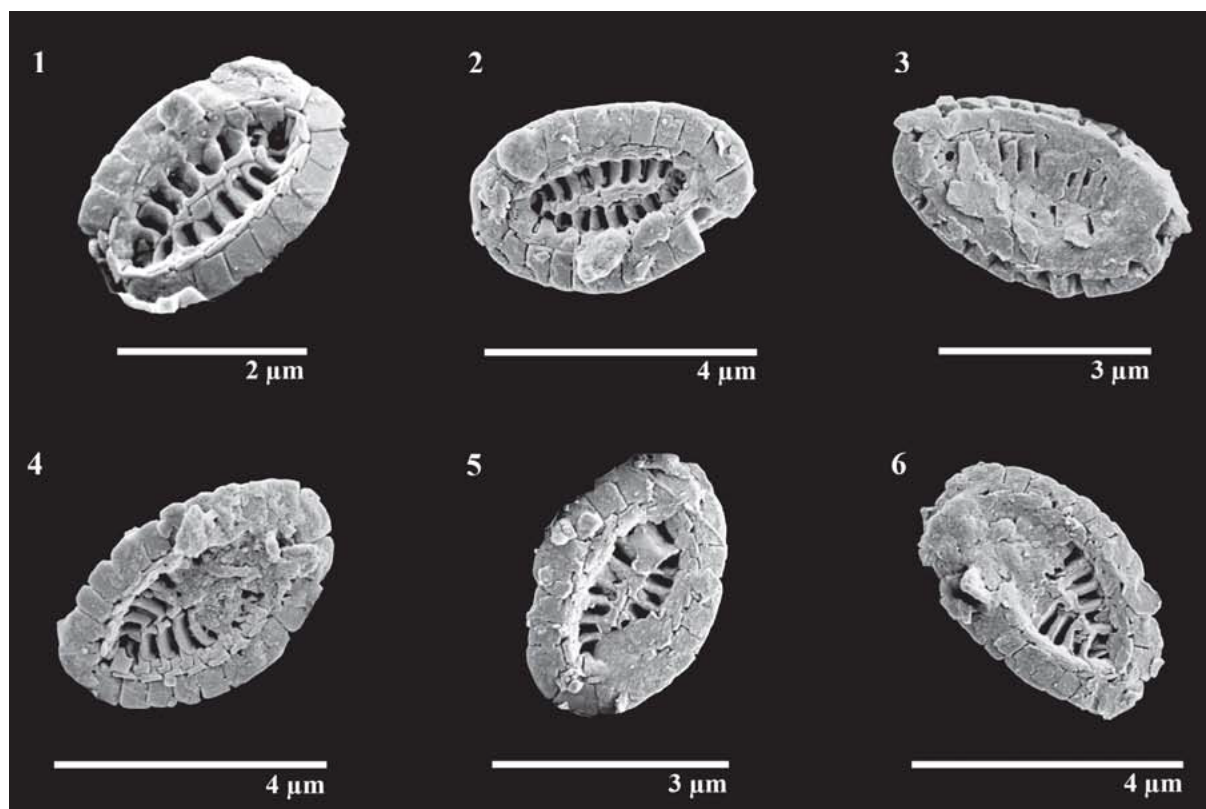
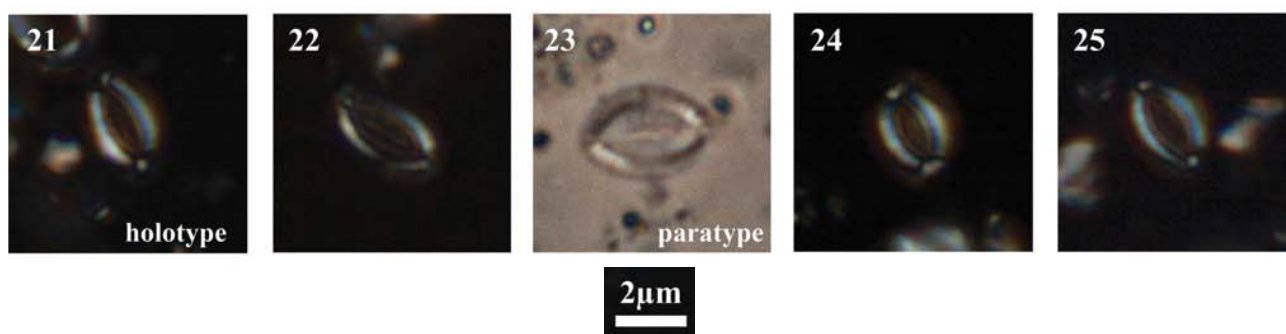


28. *Hornibrookina indistincta* Self-Trail et al. (2021)



Pl. 4, figs 1–6

1-6 *Hornibrookina indistincta*. 1 N6070-2, 156.0', K-15; 2 N6070-1, 156.0', K-15; 3 N6460-4, 171.0', GL913; 4 N6070-4, 156.0', K-15; 5 N6460-2, 171.0', GL913; 6 N6460-6, 171.0', GL913.



Pl. 5, figs 21–25

All photographs are in cross polarized light, unless otherwise noted. HP = Hope Plantation core; MCBR = Mattawoman Creek Billingsley Road core; ODP = Ocean Drilling Program core; SDB = South Dover Bridge core; SI = Solomons Island core; PC = phase contrast light. 21-25 *Hornibrookina indistincta*. 21 N6460, 171.0', GL913; 22 N6459, 165.0', GL913; 23 N11119, 109.0', HP(PC); 24,25 N6460, 171.0', GL913.

**Derivation of name:** From the Latin *indistinctus*, meaning faint or difficult to see.

**Diagnosis:** A small to medium-sized pointed elliptical species of *Hornibrookina* having two plates that are only slightly arched and a central area that contains narrow but thick horizontal/transverse laths that meet in the middle to form a distinct longitudinal bar.

**Description:** *Hornibrookina indistincta* has 19–25 slightly overlapping elements in the distal shield and a central collar of steeply dipping imbricated elements that surround the central area and form a bright ring when viewed with the LM. The proximal shield is slightly smaller than the distal shield. The central area contains robust horizontal/transverse laths, typically 13–24, that meet in the central area to form a thick longitudinal bar that is faintly visible with the LM. A small element present in the apex of the coccolith of *H. indistincta* often appears as a small white dot in the LM (Pl. 5, fig. 21, 24–25), but is not visible in the SEM. The overall shape of *H. indistincta* is pointed elliptical to slightly rounded.

**Differentiation:** *Hornibrookina indistincta* most closely resembles *H. australis arca* and was included with this species in the original description (Bybell and Self-Trail 1995). Close examination of LM and SEM images shows that *H. indistincta* is less pointed on its ends, is only slightly, rather than highly, arched and lacks the diagnostic “bulge” that is present in *H. australis arca*. The width for *H. indistincta* is thinner (averages 2.7  $\mu\text{m}$ ) than those recorded for *H. australis arca* (averages 3.1  $\mu\text{m}$ ). Additionally, the longitudinal bar in *H. indistincta* is more robust than in *H. australis arca* and is more easily identified in the LM (see Pl. 5, figs. 22, 23). Specimens of *H. indistincta* are identified from the Atlantic Coastal Plain of North America and from El Kef, Tunisia (text-fig. 11).

**Dimensions:** L = 3.46–5.31  $\mu\text{m}$ ; W = 2.09–3.89  $\mu\text{m}$ .

**Holotype:** Pl. 5, fig. 21

**Paratype:** Pl. 4, fig. 1; Pl. 5, fig. 23

**Type locality:** GL913 core, Camden County, NJ (USA).

**Type level:** Lower Paleocene, USGS sample N6459, 165.0' (Zone NP4).

**Occurrence:** Early Paleocene, Zones NP1–4.

Self-Trail, J.M., Watkins, D.K., Pospichal, J.J. & Seefelt, E.L., 2021. Evolution and taxonomy of the Paleogene calcareous nannofossil genus *Hornibrookina*. *Micropaleontology*, **68(1)**: 85–113.