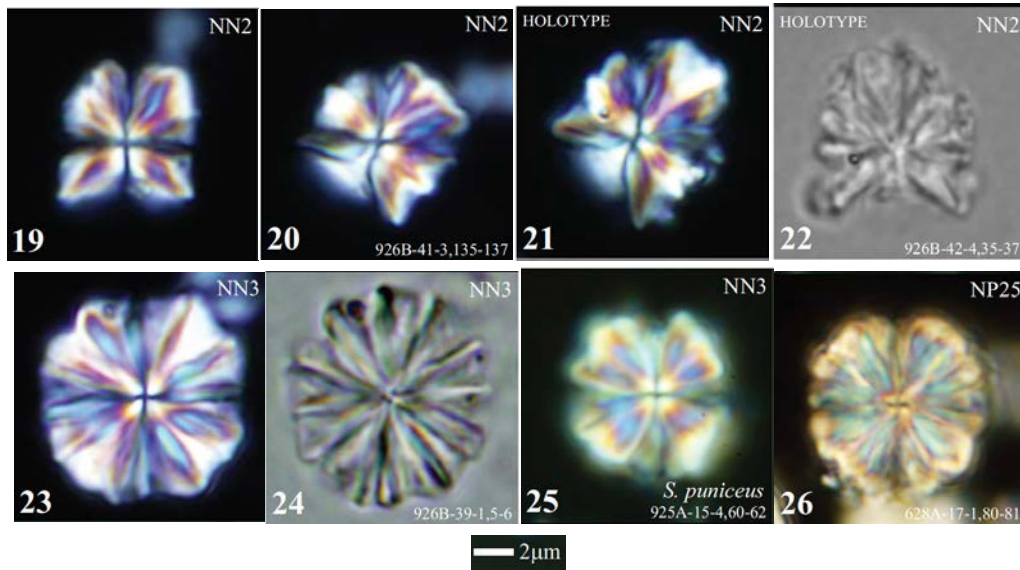


Sphenolithus puniceus Bergen & de Kaenel in Bergen et al. (2017)



Pl. 1, figs 19–26

Derivation of name: from Latin *puniceus*, meaning purplish-red.

Diagnosis: A highly birefringent (first order blue to red interference colors) hemispherical sphenolith.

Description: Medium to large, hemispherical sphenolith with a compound apical spine. The species is distinguished by its very high birefringence - exhibiting first order blue to red interference colors at its core in both plan and lateral view. Height to width ratio = 0.94–1.08 on three measured specimens. Size (six specimens): 6.8– 11.2 μ m (holotype: L = 8.6 μ m; W = 8.0 μ m).

Remarks: *S. moriformis* and *S. grandis* also have hemispherical lateral outlines and compound apical spines, but do not display high first order blue to red birefringence.

Holotype: Pl. 1, figs 21–22.

Type locality: ODP Leg 154, Hole 926B, Ceará Rise, western equatorial Atlantic.

Type level: Sample 42-4, 35–37cm (20.350Ma), Zone NN2, Lower Miocene.

Occurrence: This species occurs from the Upper Eocene (NP19) through Middle Miocene (NN4), but is far less abundant than the morphologically-similar *S. moriformis*. In Leg 154, the HO of *S. puniceus* is in Sample 925C-37-4, 30–32cm (15.498Ma, 0.020Ma error) and its HRO in Sample 925A-9-5, 130–131cm (16.517Ma, 0.020Ma error). In the GoM, the observed HO is coincident in age to the HRO in Leg 154.

Bergen, J., de Kaenel, E., Blair, S., Boesiger, T. & Browning, E., 2017. Oligocene-Pliocene taxonomy and stratigraphy of the genus *Sphenolithus* in the circum North Atlantic Basin: Gulf of Mexico and ODP Leg 154. *Journal of Nannoplankton Research*, **37(2–3)**: 77–112.