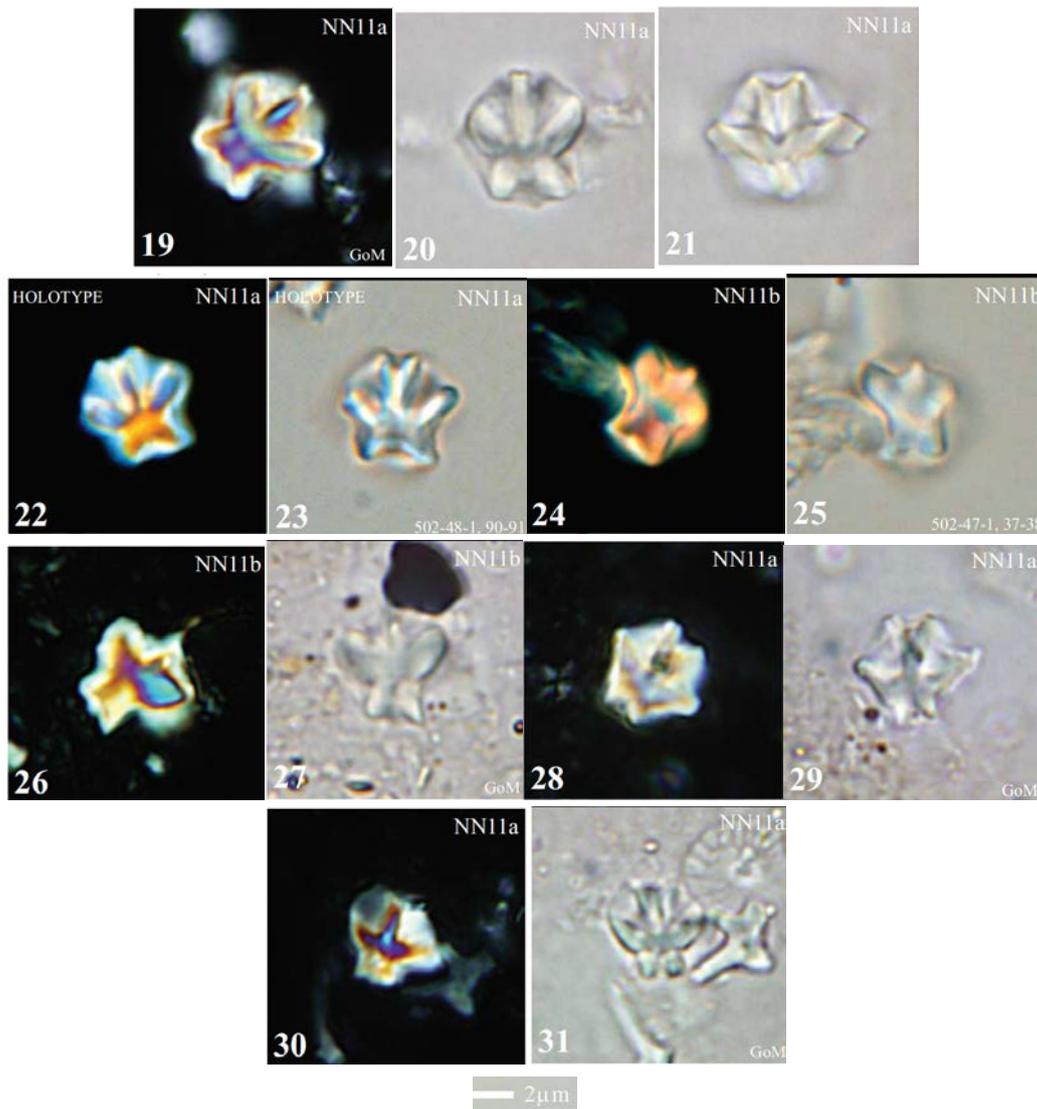


Discoaster abrachiatus Blair & Bergen in Blair et al. (2017)



Pl. 6, figs 19–31

Derivation of name: *L. brachiatus*: with arms or branches

Diagnosis: Highly birefringent (1st order blues to reds) plug composed of an opposing distal stem and proximal knob and lacking any rays.

Description (lateral view): Small to medium-sized nannolith. Specimens composed of a short conical to cylindrical proximal knob fused to an opposing taller and wider distal stem that appears tulip-shaped. Specimens exhibit high birefringence colors, including 1st order reds and blues. These “plugs” lack any rays. Specimen height to width ratios are equal to or slightly less than the width. Height to width ratios for the proximal stem are 2/3 and the distal knob about 1/2. Size range: height (H) = 4.8–5.6 μm; width (W) = 5.0–6.0 μm (five specimens).

Remarks: *Discoaster abrachiatus* was informally known as “*Discoaster pre-berggrenii extreme*” within BP GoM. It is believed equivalent to *Discoaster bergrenii* var. A (Da29 VarA) on

the GCTEP diagram. The high birefringence and lack of rays are diagnostic of this species, which is identified in lateral view. *Discoaster abrachiatus* is believed to be related to the *D. quinqueramus* lineage, even though it lacks any rays. *Discoaster bergonii*, often observed in lateral view, has short arms and its high stems are less birefringent (1st order yellow to orange). Transitional forms between the two species (Pl. 6, figs 14–18) have very short, stubby rays that extend from the “plug”, but have the higher blue to red birefringence.

Holotype: Pl. 6, figs 22–23.

Type Locality: DSDP Leg 68, Colombia Basin (western Caribbean Sea).

Type Level: Sample 502-48H-1, 90–91cm; Upper Miocene (NN11a).

Occurrence: The HO of *D. abrachiatus* is a long-standing BP GoM marker. This event was dated in Leg 154 materials at 6.710Ma (Table 1). The top and base “acmes” of *D. abrachiatus* are both GoM markers, which have been dated at 7.305Ma and 7.542Ma in the Leg 154 research, respectively (Table 1). In GoM and Leg 154 materials, the LO of *D. abrachiatus* is in mid-Zone NN11a, dated at 7.977Ma (926B-20H-6, 133–134cm; +/- 0.026).

Blair, S., Bergen, J., de Kaenel, E., Browning, E. & Boesiger, T., 2017. Upper Miocene-Lower Pliocene taxonomy and stratigraphy in the circum North Atlantic Basin: radiation and extinction of Amauroliths, Ceratoliths and the *D. quinqueramus* lineage. *Journal of Nannoplankton Research*, **37(2–3)**: 113–144.