
![Diagram](image)

Fig. 2, Group II

![Image](image)

Pl. 1, figs 3a-c

**Remarks:** Stradner (1961) did not designate a holotype illustration for this species, designating the preparation as the holotype instead. His illustrations are line-drawings of variable side views, one of which is the end of a *Prediscosphaera* spine (p.81, fig. 54), plus one end view which shows four elements (p.81, fig. 53), indicating that he considered *C. aculeus* to have four horns. Verbeek (1977, pl. 1, figs 6, 7 -his type IV) illustrated similar, four-horned forms with scanning electron microscope (SEM) photomicrographs. These additional horns were not observed in this study with the light microscope (LM), and *C. aculeus* herein is considered to be more-easily recognised by its typically arrowhead-shaped outline and its possession of only two horns. The four-horned forms are believed to be transitional forms from *C. verbeekii* to *C. aculeus*, and can be referred to *C. aculeus* sensu lato.

**Emended description:** *C. aculeus* nannoliths are medium to large, two-horned, arrowhead-shaped forms with a distinct cone and base. The base may be composed of either two or four horns (to include transitional forms from *C. verbeekii*). The base:cone ratio is ~1:1. The internal horn length is short. The inter-horn angle is ~90°. The suggested holotype is Stradner’s (1961) fig. 57.
**Known range:** Lower Campanian-Upper Maastrichtian, CC20-26.

**Length of illustrated specimens:** 6.7-7.4μm.

**Geographical distribution in this study:** All sites (and near Portland, Dallas County, Alabama, USA).