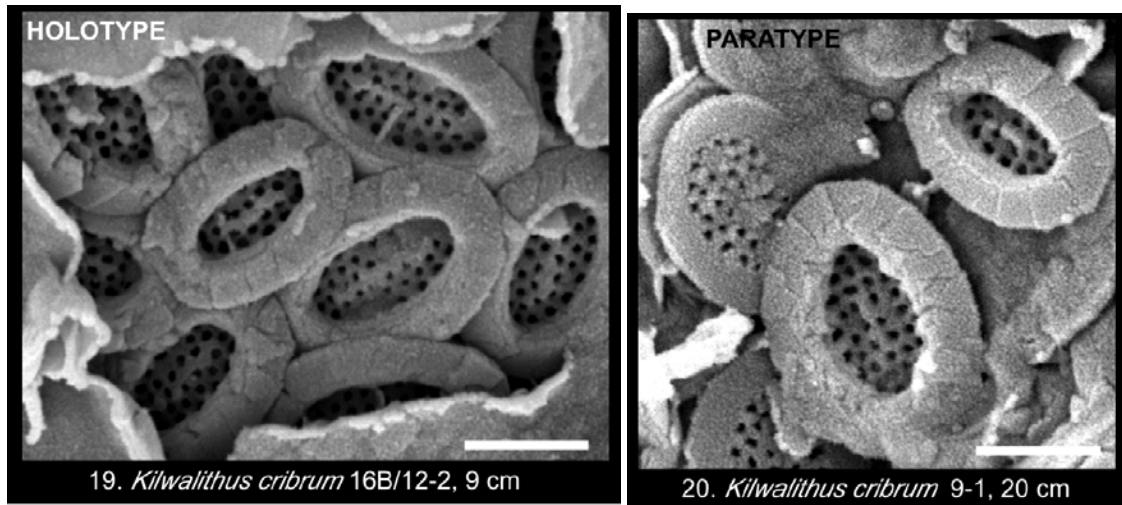


48. *Kilwalithus cribrum* Bown (2010)



Pl. 4, figs 19, 20

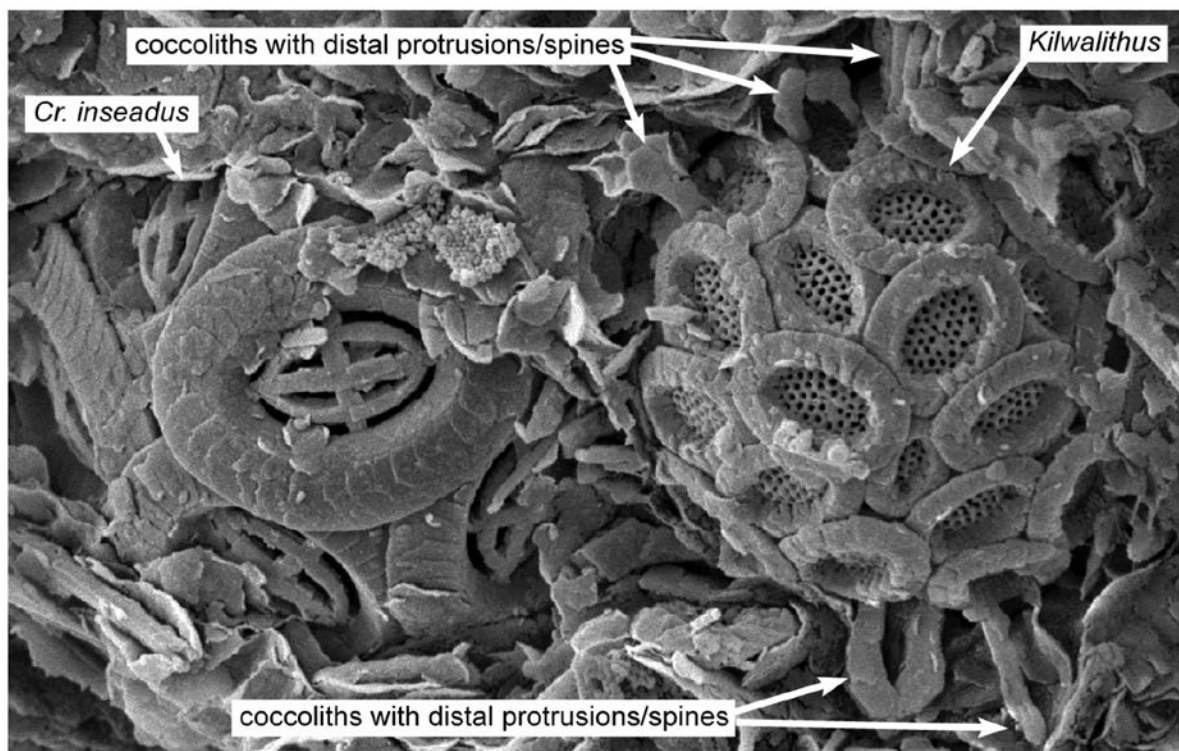


Figure 3: SEM image of a *Kilwalithus* coccosphere from TDP Site 13 (Sample TDP13/20-1, 40cm, Middle Eocene, NP15b). To the left is a coccosphere of *Cruciplacolithus inaeadus*

Fig. 3

**Derivation of name:** From '*cribrum*', meaning 'sieve', referring to the net that spans the central area of these coccoliths.

**Diagnosis:** Small, elliptical placolith coccoliths with central areas spanned by a perforate net. The distal shield is bicyclic and the rim structure appears to be coccolithacean.

**Remarks:** The coccoliths have not been unequivocally observed in the LM, presumably because of their small size (*c.* 3 μm or less), but they have been frequently observed in the SEM from the Upper Paleocene and Lower to Upper Eocene, often as intact coccospheres. In middle Eocene samples, the coccospheres are distinctly varimorphic, with apical and antapical coccoliths that have long distal processes (Figure 3).

**Differentiation:** Similar rim structure to *Cruciplacolithus* and *Craticullithus*, but the central-area structure is a perforate net. *Toweius* coccoliths of the same age also have perforate nets, *e.g.* *T. pertusus* (see above), however the *Kilwalithus* rim structure is not prinsiacean.

**Dimensions:** L = 1.6-2.2 μm.

**Holotype:** Pl. 4, fig. 19.

**Paratype:** Pl. 4, fig. 20.

**Type locality:** TDP Site 16B, Pande, Tanzania.

**Type level:** Upper Paleocene, Sample TDP16B/12-2, 9cm (NP9).

Bown, P.R., 2010. Calcareous nannofossils from the Paleocene/Eocene Thermal Maximum interval of southern Tanzania (TDP Site 14). *Journal of Nannoplankton Research*, **31(1)**: 11-38.