

# Extant *Stephanocha speculum* from the Ross Sea: abundance, morphologies, and double skeletons

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Extant silicoflagellate populations were analyzed with light and scanning electron microscopes from water samples collected with a CTD Rosette in the photic zone of the western Ross Sea during the twentieth Italian oceanographic expedition on board the R/V *Italica* (January-February 2005).

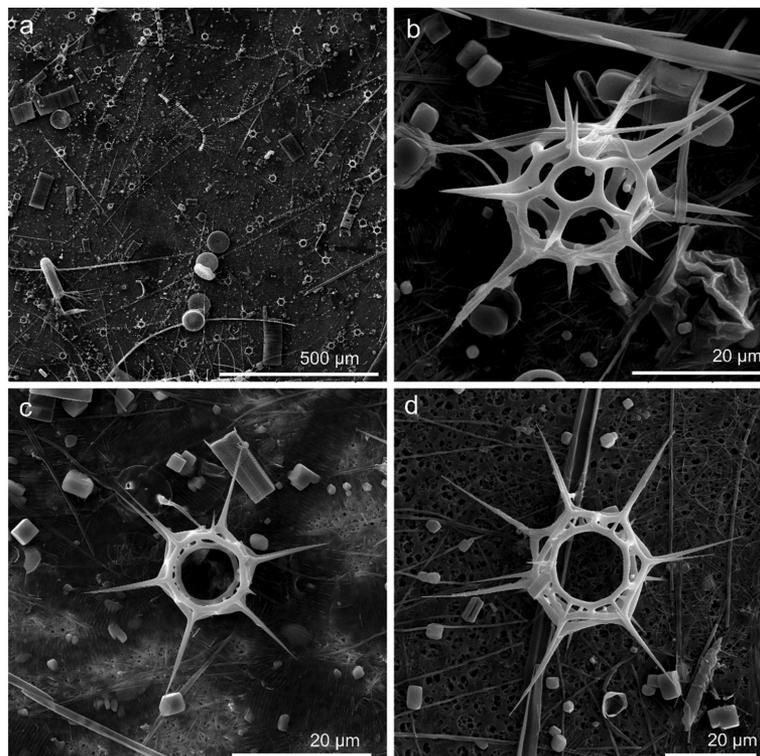
Silicoflagellates were exclusively represented by *Stephanocha speculum* (Ehrenberg) McCartney and Jordan 2015. They showed highest concentrations (up to  $20 \times 10^3$  cells  $l^{-1}$ ) in the upper 50m, which roughly corresponds to the thermocline depth, and after this concentrations rapidly decreased with depth. Integrated abundances were highest in the offshore region and decreased towards the coast with a slight increase at coastal stations.

Several morphologies of *Stephanocha speculum* were observed and counted, following the morphotypes described by Van der Spoel *et al.* (1973) and Malinverno (2010). The most common morphologies were represented by 6-sided skeletons with a large apical ring and fully coronatid ornamentation. Additional morphologies included 5-7-8-sided forms, variable apical ring width, a bipartite apical ring, and aberrant forms with a deformed apical

ring, open basal ring, and forked spines. Double skeletons, which represent the division phase with two individuals still attached at the abapical surface (McCartney *et al.*, 2014), were abundant at shallow water depths. Pairs were mainly represented by identical individuals, with some exceptions (Figure 1) that confirm the strong intraspecific variability of this species.

## References

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**Figure 1:** a) Several specimens of *S. speculum* as collected on the filter; b) 6-sided double skeleton (lateral view); c) double skeleton (apical axis view): two specimens with different apical ring width; d) double skeleton (apical axis view): 6-sided and 7-sided specimens