Calciopappus caudatus  

**Calciopappus caudatus** GAARDER & RAMSFJELL, 1954

Fig. 1 a-d — *Calciopappus caudatus*. a) Cell without spines. b) Deformed cell. c) Spine-bearing cell in dark field. d) Cell in polarized dark field, where distinct lines between rows of coccoliths can be seen. (a and d from The Faeroe-Shetland Channel, b from off the Norwegian West coast, c from the Northern Norwegian Sea).

**Description:**
See generic description.

Dimensions (on presumably intact cells): Length without spines 26-36 μ, greatest breadth 3.5-4 μ, antapical process < 1 μ broad. Length of ordinary coccoliths about 2 μ, breadth about 1 μ. Number of apical spines 8-14, length 22-30 μ.

**Remarks:**
The cells are rather hyaline and may easily be overlooked at low magnifications. Preservation usually leads to shrinkage, resulting in deformation of the cell, disarrangement of coccolith rings and loss of coccoliths (fig. 1 b). Shaking of the water sample very often causes detachment of the spines and adjacent coccoliths.

Specimens deprived of their whorl of spines were recorded as *Syracosphaera caudata* nom. nud. in Braarud, Gaarder and Grontved. The junior author observed spine-bearing specimens in plankton from the Northern Norwegian Sea. An account of electron microscope studies on this species will be published elsewhere.

This genus shows affinities to *Najadea*, *Michaelsarsia* and *Thalassopappus*. We propose to postpone the consideration of the possible relationship between these genera until electron microscope observations are available for representatives of all the genera in question.

**Type level:**
Recent.
Type locality:

Faeroe-Shetland Channel; Norwegian West coast; Northern Norwegian Sea.

Depository:

Not given.

Author:

Gaarder K.R. and Ramsfjell E., 1971, p. 155, fig. 1 a-d.

Reference:

A New Coccolithophorid from Northern Waters. Nytt Mag. for Bot., vol. 22, pp. 155-156, fig. 1 a-d.