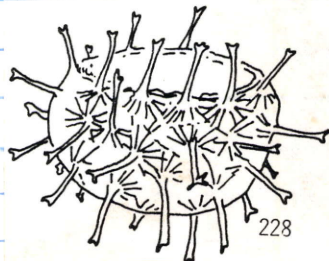


STELLIFERIDIUM

Deunff ~~et al.~~ 1974
Gorka & Rauscher

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STELLIFERIDIUM Deunff et al. 1974: "Vesicle subhemispherical, bearing a large circular to polygonal polar opening of which the diameter is equal to or larger than the radius of the vesicle. The opening may be shut off by an operculum which is occasionally serrate, of the same outline as the opening. The surface of the operculum is smooth, granulate or reticulate. The vesicle wall may be simple or double and is ornamented by processes of varying morphology but from the base of which always originates a divergent system of crests which are arranged in a star-shaped pattern. The outlines of the stars define a net of polygonal meshes on the surface of the vesicle. A veil may be present". (Cymatiogalea (= Stelliferidium) striatulum: Vavrdová 1966, pp. 411-412, Pl. 1:2, 2:3).- text-fig.3:228.



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STELLIFERIDIUM

Genus *STELLIFERIDIUM* Deunff, Górká and Rauscher, 1974

Type species. *Stelliferidium striatulum* (Vavrdová, 1966) Deunff, Górká and Rauscher, 1974

Remarks. The original description and diagnosis of *Stelliferidium* by Deunff et al. (1974) include a subhemispheric vesicle with a circular or polygonal opening, diameter of pylome equal to, or larger, than vesicle radius, and variable processes, at the bases of which crests radiate leading to a polygonal network on the vesicle surface. Servais and Eiserhardt (1995) proposed the new term "Galeate" for acritarch taxa characterized by a "hemispherical vesicle outline with a large polar exocystment opening closed by a detachable operculum". Servais and Eiserhardt (1995) included the genera *Cymatiogalea*, *Cardariola*, *Priscogalea* and *Stelliferidium*, which were discussed and re-evaluated. These authors considered that only a few of the species included in the genus *Stelliferidium* accord with the type material and that the majority should be included in other genera. They proposed the term stelliferids for all the taxa with striae radiating from the process base.

Considerable confusion has been introduced from the great morphologic similarity between *Stelliferidium* and some species of *Timofeevia*, particularly when based on thermally altered material in metamorphosed rocks. Several taxa with radiating striae at the base of the processes have been assigned to the genus *Timofeevia* (Martin and Dean, 1981; Martin and Dean, 1988; Bagnoli et al., 1988; Volkova, 1990).

Here it is suggested that *Timofeevia* can be distinguished from *Stelliferidium* by having conical or tapering processes, a thin vesicle wall with psilate or weakly granulate ornamentation, absence of exocystment opening and absence of breakage into pentagonal plates. This interpretation is based on the study (Palacios, unpublished observations) of

abundant and well preserved material of the type species *Timofeevia lancarae* from the Oville Formation in its type area of the Cantabrian Mountains, northern Spain. In light of this work, it is clear that a revision is needed of the various Furongian reports of *Timofeevia*, and that many of these reports (e.g., Vanguetaine, 1978; Martin and Dean, 1981; Martin and Dean, 1988; Welsch, 1986) refer to the material that probably should be classified as *Stelliferidium* or as stelliferids *sensu* Servais and Eiserhardt (1995).

The presence of a pylome, radiating striations and cylindrical processes with conical bases is here considered diagnostic characteristics of *Stelliferidium*. Several specimens of the new species described below have polygonal fields and/or polygonal plates. This characteristic shows great variability within the same species, as a function of

the stage of development of the cyst. We considered this last criterion diagnostic, if the number of specimens used is statistically representative of the different phases of cyst development.

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