

MICROPALAEONTOLOGY NOTEBOOK

***Prolixosphaeridiopsis spissus* gen. et comb. nov. for the dinoflagellate cyst *Cleistosphaeridium spissum* McIntyre & Brideaux, 1980**

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ABSTRACT – The monotypic genus *Prolixosphaeridiopsis* gen. nov. is created for the taxon *Cleistosphaeridium spissum* McIntyre & Brideaux, 1980 which has previously been questionably assigned to *Prolixosphaeridium* Davey *et al.*, 1966.

INTRODUCTION

In their work on Valanginian palynomorphs from the Northern Richardson Mountains of the District of Mackenzie, Canada, McIntyre & Brideaux (1980) described the species *Cleistosphaeridium spissum*. The species was characterized by an ovoid, elongate shape, a lack of archaeopyle formation and a covering of numerous hollow, flattened processes. It was also noted that the orientation of many specimens was unknown and that on rare specimens, rows of proximally connected acuminate processes possibly delineated a paracingulum. Lentin & Williams (1981) questionably transferred the species to *Prolixosphaeridium*.

During analyses of Jurassic–Cretaceous sediments from northwest Europe and the Russian platform, numerous specimens have been observed by the present authors. It occurs in significantly older strata than originally described, with a total recorded range of Bathonian to Valanginian. Despite these widespread occurrences, it has not been figured by other authors since publication.

The nature of the hollow, tapering, distally bifurcate to trifurcate, aculeate processes is not consistent with the genus *Prolixosphaeridium*. Furthermore an archaeopyle has neither been observed in the numerous specimens seen by the present authors, nor from the type material. For these reasons we propose a new acritarch genus, *Prolixosphaeridiopsis*, to accommodate these forms.

SYSTEMATIC TAXONOMY**Algae Incertae Sedis**

Group *Acritarcha* Evitt, 1963

Genus *Prolixosphaeridiopsis* gen. nov.

Type species. *Prolixosphaeridiopsis spissus* (McIntyre & Brideaux, 1980) comb. nov. = *Cleistosphaeridium spissum* (McIntyre & Brideaux, 1980), p. 20, pl. 1–4.

Diagnosis. Medium to large palynomorphs, ovaloidal to cylindrical, consisting of a single wall layer or two layers in close contact. Wall ornamented with numerous, apparently hollow processes which are flattened, distally tapering before expanding into bifurcate or trifurcate terminations. Individual process elements may be proximally linked to adjacent elements to form a reticulum which may be medially aligned. No excystment aperture observed.

Derivation of name. In reference to the similarity of the genotype to the genus *Prolixosphaeridium* Davey *et al.*, 1966.

Remarks. The genus differs from all other genera in its combination of elongate shape, numerous hollow flattened processes and lack of excystment aperture. The genus is not considered a dinoflagellate cyst due to its lack of archaeopyle and additional features such as paratabulation. McIntyre & Brideaux (1980, p. 20) comment that, 'rows of acuminate processes, seemingly connected basally, may represent pericingular parasutures'. This feature is clearly observable on the holotype.

***Prolixosphaeridiopsis spissus* (McIntyre & Brideaux, 1980) comb. nov.**

1980 *Cleistosphaeridium spissum* McIntyre & Brideaux, 1980, p. 20, pl. 7, figs 1–4.

1981 *Prolixosphaeridium ?spissum* (McIntyre & Brideaux) Lentin & Williams, 1981, p. 234.

Holotype. McIntyre & Brideaux, 1980, p. 20, pl. 7, figs 1–4.

Remarks. McIntyre & Brideaux, 1980 illustrate three specimens in the original description of the species. The holotype (McIntyre & Brideaux, 1980, pl. 7, figs 1–4) exhibits an ovoid outline, whereas the other completely illustrated specimen (McIntyre & Brideaux, 1980, figs 7–9) is cylindrical. The holotype and a second specimen (McIntyre & Brideaux, 1980, figs 5–6) exhibit a distinctly medially aligned reticulum whereas a third specimen (McIntyre & Brideaux, figs 7–9) shows a much less clearly aligned reticulum. Considerable variation in morphology has been observed although strong medial alignment of the reticulation as exhibited on some of the type material has not been observed by the present authors.

A notable feature feature of the holotype material was the considerable size range recorded. Specimens presently observed range between 20 and 40 μ in width and 50 and 90 μ in length.

Stratigraphical distribution. Valanginian, Canada (McIntyre & Brideaux, 1980), Zarázskensis Zone, Middle Volgian, Gorodische, Russian Platform (N. M. Hogg, pers. obs.), Bathonian to Volgian of northwest Europe (N. M. Hogg & D. A. Bailey, pers. obs.).

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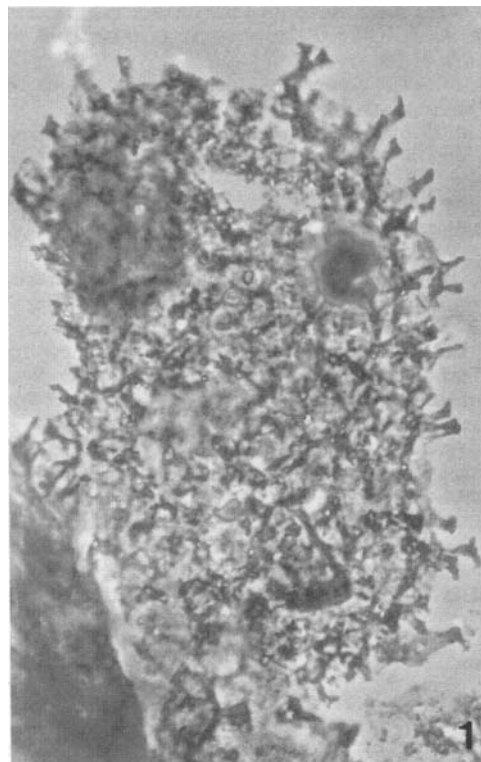


Fig. 1. *Prolixosphaeridiopsis spissus* gen. et comb. nov.