

NEW NAME AND DIAGNOSIS FOR AN UPPER JURASSIC SPECIES OF *GONYAULACYSTA* (DINOPHYCEAE)

by W. A. S. SARJEANT

ABSTRACT. *Gonyaulacysta scarburghensis* nom. nov. is here proposed for *Gonyaulax areolata* Sarjeant 1961, junior homonym of *G. areolata* Kofoid and Mitchener 1911. The diagnosis of the species is emended.

MR. Alfred Loeblich III, of the University of California, has courteously drawn my attention to the fact that a name which I proposed for an Upper Jurassic dinoflagellate species in 1961 is preoccupied by the living species *G. areolata* Kofoid and Mitchener 1911 (p. 270). Accordingly, the name *G. areolata* Sarjeant 1961 was invalid at the time of publication under Article 64 of the 'International Code of Botanical Nomenclature'.

The species also now falls in the form genus *Gonyaulacysta*, recently proposed for fossil cysts having a tabulation corresponding to that of the modern *Gonyaulax*.

Family GONYAULACEAE Lindemann
Genus GONYAULACYSTA Deflandre 1964

Gonyaulacysta scarburghensis nom. nov.

pro Gonyaulax aerolata Sarjeant 1961, *non* Kofoid and Mitchener 1911

1960 *Gonyaulax areolata* Sarjeant, p. 12, fig. 1 (nomen nudum).

1961 *Gonyaulax areolata* Sarjeant, pp. 95–97, pl. 13, fig. 13, text-fig. 5.

Emended diagnosis. A species of *Gonyaulacysta* having an ovoid theca with the tabulation ?4', 1a, 6'', 6''', ?1pv, 1'''' and with a strong, tapering apical horn rounded distally. The whole thecal surface, except the longitudinal and transverse furrow surfaces, is covered by low ridges so distributed as to form an irregular reticulate patterning. The thecal wall is very thin, consisting of two layers, the outer layer bearing or forming the ridges. The boundaries of plates and the margins of furrows bear low, alveolate crests. The longitudinal furrow extends from the base of the apical horn to the antapex: it is narrow and of relatively constant breadth. The transverse furrow is very narrow, forming a laevo-rotatory spiral such that its two ends differ in antero-posterior position by approximately three times its breadth. Archaeopyle precingular.

Holotype. SC2/34/21, lodged in the collections of the Micropalaeontology Laboratory, University of Sheffield. *Type locality and horizon.* Oxford Clay (*Quenstedtoceras mariae* Zone), 1 foot above the top of the Hackness Rock, Castle cliff, Scarborough (National Grid reference 053890).

Dimensions. Holotype: overall length 155 μ , length of horn 25 μ , overall breadth 125 μ ; transverse furrow *c.* 10 μ wide, longitudinal furrow *c.* 5 μ wide. Range of dimensions observed (30 specimens): overall length 120–170 μ , relative proportions being fairly constant.

[Palaeontology, Vol. 7, Part 3, 1964, pp. 472–3.]

Remarks. The diagnosis here quoted differs from the earlier diagnosis of *Gonyaulax areolata* Sarjeant 1961 in the introduction of further detail and of reference to the archaeopyle. The species is described and discussed at greater length in Sarjeant 1961, pp. 96–7.

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