

Diatom 15: 11-50 (英文)

小村精一：続報：珪藻被殻の蓋殻の接着状態および新分類群の記載

Seiichi Komura : Further observations on valve attachment within diatom frustules and comments on several new taxa

Abstract

An attachment mode of diatom valves is reported through SEM observations on frustules derived from the Miocene Nabuto Formation. All the frustules examined, which are of centric type either cylindrical or biconvex and consist of two thick-walled valves, and the attachment is completed by abutting their truncated or flanged edges on each other without intercalations between them.

Various types of frustules that share this particular mode of attachment have been observed in eleven new taxa (including two new combinations) described under five new genera : *Eustephanias*, close to *Stephanopyxis* Ehr., has three concentric rings of rimoportules combined with or without pericentral locking processes. *E. ramigenus*, *E. quasinermus* and *E. inermis* are included ; *Biturricula*, monotypic with *B. unca*, raised a lofty process at the valvar apex to interlock ; *Dactylacanthis* with three new species (*D. rara*, *D. proxima* and *D. invalida*) forms chains of frustules by tangling their slender processes. In *Stephanonycites*, to which *Sn. variegatus*, *Sn. Coronus* and *Sn. tabularis* belong, the marginal locking spines are hollow and complex but free from rimoportules, unlike the above ; and *Stictolecanon* has a skeletal frame of valves similar to that of *Stictodiscus* Grev. but develops a deep valve mantle and central rimoportules in the case of *Sl. papillatum* and *Sl. geminum*.

All but *Stictolecanon* are grouped into a new family Eustephaniaceae due to their sharing common features : the unique valve attachment by flanged edges, the thick silicified valves with the loculate areolae, the interlinking system and the concentric allocation of the rimoportules.

Key index words

Miocene, Nabuto diatoms, new genera, taxonomy, valve attachment.