

MORPHOLOGICAL STUDY OF SIX MARINE DIATOM SPECIES RELATED TO THE GENUS *FALLACIA*

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Diatoms in the genus *Fallacia* are important components of intertidal benthic diatom flora, especially epipsammic and epipelagic species. However, because of the difficulties of isolation and observation of many small diatoms belong to the genus *Fallacia*, the taxonomy is problematic and confusing. There still more species never been described. In this study, six species related to the genus *Fallacia* were collected and isolated from intertidal and river mouth sediments around Tokyo Bay. Morphology of *Fallacia forcipata* var. *densestriata*, *F. tenera*, *Fallacia* sp.1, *Fallacia* sp.2, *Fallacia* sp.3 and *Navicula* cf. *dissipata* were observed and compared in detail. All six species possess the common characteristics of one basically H-shaped plastid, lateral sterna, porous conopeum, hooked external terminal fissures, internal central raphe ends deflated to one side, and diminutive helictoglossae located on the two terminals. The major differences among each species are of the shape and size of conopeum, connection structure extending from valve margin, the outline of valve face and the arrangement of longitudinal parts composed of areola. In addition, the central area also forms a large elliptical area occupying about 1/3~1/2 the valve width with “ghost striae”. However this feature was not stable in culture. The length of striae between hyaline lateral area and the punctate striae were also variable. The possibility of those characteristics used as the delimitations need further observation.