

161. *Palaeomicula* Varol & Jakubowski (1989)

Type species: *Tetralithus quadrisphenus* WORSLEY, 1971.

Diagnosis: A nannolith composed of four triangular to subrectangular wedge-shaped elements whose peripheral edges form a square outline in plan view. The sutures between the elements diagonally bisect the square outline and are generally straight or occasionally, inclined.

Description: This square-outlined nannofossil has strongly birefringent elements and the sutures between them define a swastica under cross-polarised light. A notch may or may not be present at each corner of the square but this depends upon the shape of the elements.

Remarks: *Palaeomicula* is distinguished from the ill-defined *Tetralithus* GARDET, (1955) by having all its elements strongly birefringent under cross-polarised light, whereas *Tetralithus* has two birefringent and two non-birefringent elements. This new genus differs from *Quadrum* PRINS and PERCH-NIELSEN in MANIVIT et al. (1977) by having sutures which diagonally bisect the square outline, in *Quadrum* the sutures are perpendicular to the peripheral edges. *Palaeomicula* is distinguished from *Micula* VEKSHINA (1959) by having wedge shaped elements. The colour distribution of *Palaeomicula* under cross-polarised light, with a gypsum plate inserted in the light-beam, in the standard orientation (at an angle of 45° to the polarization direction), is opposite to that of *Micula* (see Fig. 1). Together with this structured distinction, the new genus has a distinctly different stratigraphic range: *Micula* (upper Coniacian to Maastrichtian), *Quadrum* (Turonian to lower Maastrichtian), *Palaeomicula* (Kimmeridgian to Hauterivian).

Varol, O. & Jakubowski, M., 1989. Some new nannofossil taxa. *International Nannoplankton Association Newsletter*, **11(1)**: 24-29.