transferred out by Taylor and King (1937). Refs. Larsson et al. (1992), Purrini (1980), Taylor and King (1937)
TYPE SPECIES: *Malamoeba locustae* Taylor & King, 1937

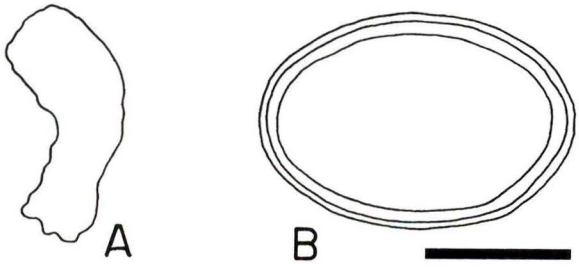

Fig. 63. *Malamoeba locustae* (after King and Taylor, 1936). Scale bar=5 µm.

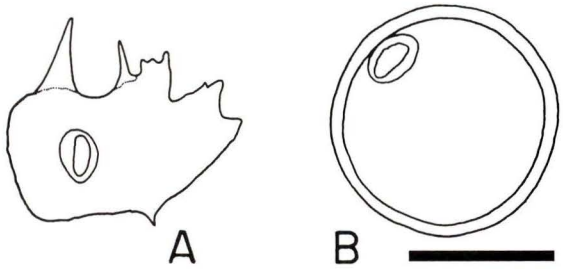

Fig. 64. *Malpighamoeba mellificae* (after Prell, 1926). Scale bar=5 µm.

Malpighamoeba Prell, 1926.

One species of amoeba parasitizing insect Malpighian tubules or digestive system of insects, transmission by ovoid cysts. Ultrastructure studied by Schwantes and Eichelberg (1984). Ref. Harry and Finlayson (1975, 1976).
TYPE SPECIES: *Malpighamoeba mellificae* Prell, 1926

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SCHIZOCLADIDAE

by
TOMAS CEDHAGEN and STEFAN MATTSON

Reticulate plasmodium, with few, large nuclei, embedded in a matrix consisting of endogeneous and exogeneous particles in a clear, mucilaginous substance. No solid wall structures. Longitudinal supportive rods run through the plasmodium and the matrix. Body, up to 10 mm, branched dichotomously 3-4 times, bush-like, funnel-shaped (Fig. 1). Branching dichotomous, achieved by splitting of the branches of the latest order simultaneously along their entire length. Eleven distal branches in holotype; branches nearly circular in cross-section.

Body surface even and smooth. Brown-yellow grey with an olive tinge. A mainly longitudinal arrangement of the plasmodium and matrix makes the body look longitudinally striated (Fig 1). Body very soft, non-elastic, droops even when submerged in water. A pressure mark made on the body remains without any tendency of reversion.

The plasmodium is formed as a network of irregularly anastomosing sheets and strings, mainly running longitudinally. Few nuclei, 33-44 µm in diameter; each contains a large number (>1,000) of small bodies, possibly nucleoli, ca. 0.5 µm in diameter. The plasmodium also contains some scattered particles similar to those in the matrix (see below).

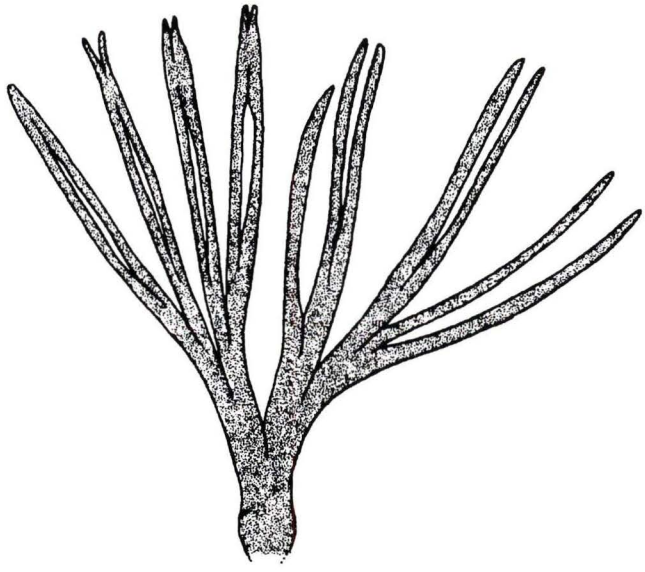

Fig. 1. *Schizocladus sublittoralis*. Diagrammatic sketch showing the branching pattern. Length=10 mm.

Plasmodium interwoven with a reticulate matrix. Matrix semitransparent, consisting of endogeneous and exogeneous particles in a clear, mucilaginous substance and of the same consistency as the plasmodium. Relative volume of matrix largest near base of body and decreasing towards branch ends. There are two kinds of endogeneous particles, the most numerous being flattened, rounded, clear crystals of 4-24 µm in diameter, which are probably calcareous. The other kind are rounded, yellowish brown xanthosomes (11-35 µm in diameter). The exogeneous particles are small detritus particles, such as mineral grains, fragments of sponge spicules and crustacean exoskeletons, diatom tests, etc. Each branch contains at least one longitudinal, unbranched, elastic, supportive rod running through the plasmodium and the matrix. The rods are >1mm, circular in cross-section, 3.5-8 µm thick, of constant diameter, and have a smooth surface. They are composed of longitudinal fibers, but the fibers are only visible as such in splintered rods.

Schizoclada differ from the Xenophyophorea and the Foraminifera primarily in its lack of solid wall structures. Its basic organization can be likened to that of a xenophyophore without test and organic lining. Distribution: On clay bottoms at 55-75 m depth in Gullmarsfjorden, Swedish west coast. Monospecific.

Type species: *Schizocladus sublittoralis* Cedhagen & Mattson, 1992

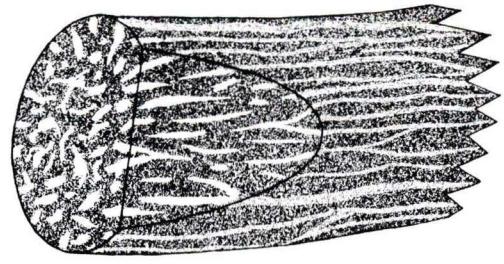

Fig. 2. *Schizocladus sublittoralis*. Diagram of branch fragment, cut transversely and obliquely, showing organization of plasmodium (light) and matrix (dark).

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TESTATE AMOEBAE WITH FILOPODIA

by RALF MEISTERFELD

Amoebae with filopodia, and cell body in a test.

Species with these characters are traditionally grouped in the subclass Testaceafilosia de Saedeleer, 1934 or the order Gromiida Claparède & Lachmann, 1858 (e.g. Lee et al., 1985). It is now generally accepted that they do not form a natural assemblage. *Gromia* with its complex life cycle, gametes and test structure probably has closer affinities to the foraminifera and can no longer be considered a member of the Filosea. The ordinal name Gromiida should not be used for filose testate amoebae (Page, 1987).

Morphology of the shell. Filose testate amoebae have **proteinaceous** or **agglutinated** shells. The former can either be flexible (Chlamydophryidae) and sometimes very thin (*Rhogostoma*), or rigid