

Archamoebae is a small group of anaerobic protists belonging to the eukaryotic supergroup Amoebozoa. Historically, they were regarded as primitively amitochondriate. However, a mitochondrial remnant has been found in some archamoebae. Phylogenetic analyses showed that Archamoebae are closely related to the aerobic slime moulds (Mycetozoa).

Trophozoites of archamoebae are amoeboflagellates or aflagellated amoebae. The group includes both parasitic (*Entamoeba*, *Endolimax* and, possibly, *Endamoeba* and *Iodamoeba*) and free-living (*Mastigamoeba*, *Mastigella*, *Pelomyxa*) genera. The genus *Mastigina* comprises both endozoic and free-living representatives.

Flagellated genera *Mastigina*, *Mastigamoeba*, *Mastigella* and *Pelomyxa* possess a single basal body associated with a microtubular cone which may or may not be associated with nucleus. The cone is a common feature for Archamoebae and mycetozoan slime moulds.

The phylogeny of Archamoebae has not been fully elucidated yet and the taxonomy of free-living representatives is confusing. In the present study, we obtained 42 stable isolates of free-living Archamoebae. We sequenced and analyzed SSU rDNA of 15 of them. The Archamoebae split into five lineages. Based on TEM, we were able to recognize genera *Mastigamoeba* and *Mastigella*. The isolate IND8 probably represents a new genus. However, we were unable to determine the specific status of most isolates, the exceptions being isolates of *Mastigamoeba punctachora* and *M. simplex*. Many of our isolates likely represent undescribed species.