testate amoeba

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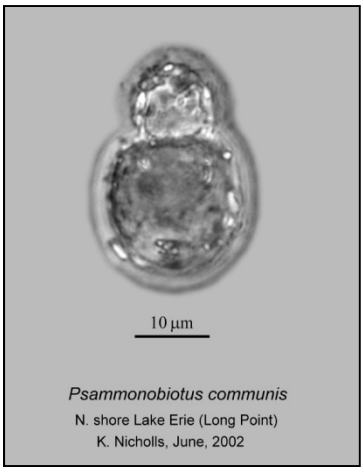
Common Name	testate amoeba
Genus & Species	*Psammonobiotus* spp.
Family	Psammonobiotidae
Order	Gromida
Class	Filosa



Diagnosis: Members of the genus *Psammonobiotus* are encased within a symmetrical shell of organic material called a test, that is covered with randomly scattered flakes of quartz minerals. Extensions of the organism's cytoplasm known as pseudopodia are used in locomotion and emerge from the test at an opening surrounded by a flat collar.

Ecology: Testate amoebae will use their pseudopodia as a mode of transportation as well as a scavenging tool for food. They use this cytoplasm to trap particles of organic material and bacteria. These organisms reproduce by the asexual process of binary fission.

Habitat & Distribution: These three species of *Psammonobiotus* have been readily found throughout all of the Great Lakes with the exception of Lake Michigan. Lake Michigan has not been surveyed for these species to date, but is expected to support similar population sizes as its neighboring lakes. Native ranges of *Psammonobiotus* include the Ponto-Caspian region of Asia and were most likely introduced to the Great Lakes through ballast water from incoming shipping vessels. The three species described here can be found utilizing the interstitial space between grains of sand, pores and cracks in rock, or on decaying organic material. Testate amoebae are most commonly found 10-105 cm deep in the lake bed sand.

Status: It is unclear when these species were first introduced to the Great Lakes due to the minimal amount of research conducted on testate amoebae. However, once introduced, the organisms thrived in their new environment and have been readily collected from four of the five Great Lakes including Huron, Superior, Ontario, and Erie. *Psammonobiotus* spp. have utilized several rivers throughout the Great Lakes and remains a threat to invasion of the Mississippi River watershed.

USGS Fact Sheet: http://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=2653