

A heliozoan devouring motile chytrid zoospores

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The case of mass consumption of chytrid zoospores by *Actinosphaerium eichhorni* is described.

INTRODUCTION

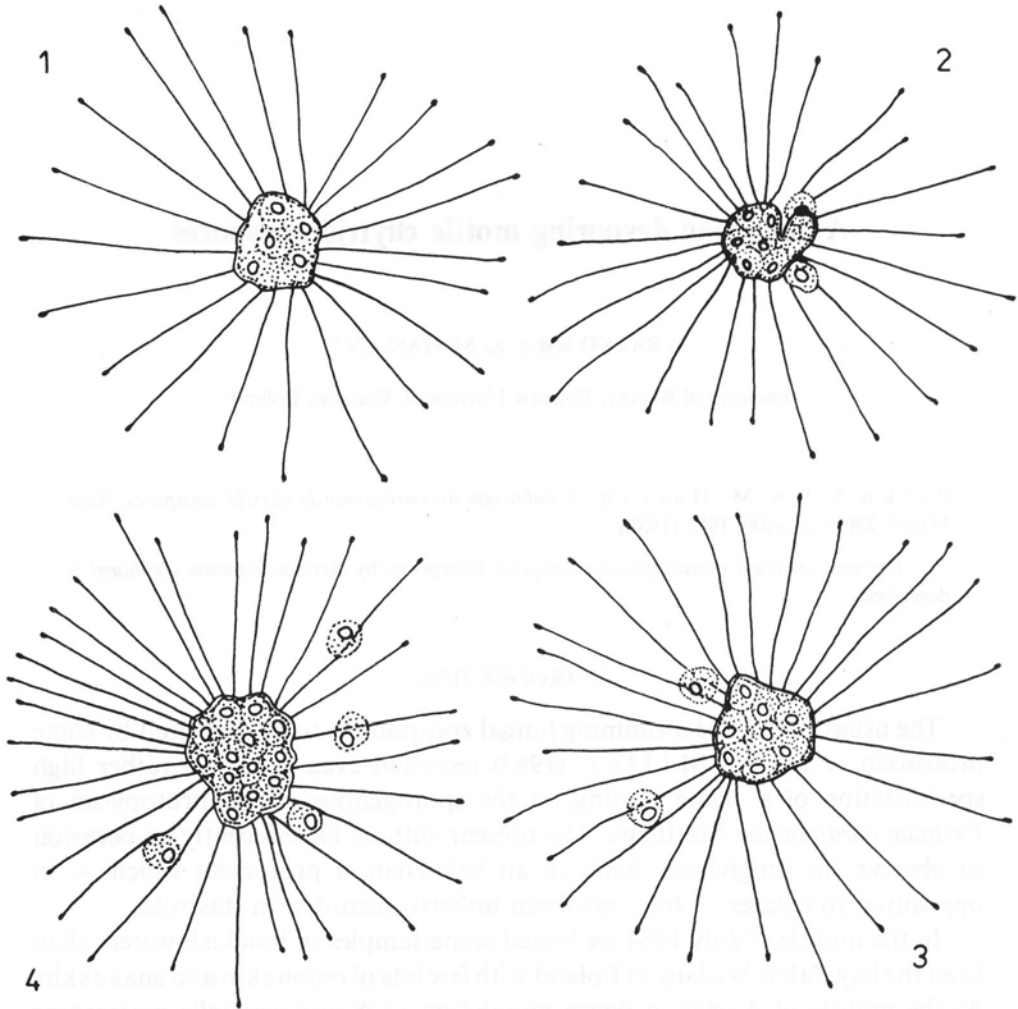
The usual fate of free-swimming fungal zoospores is to be devoured by some protozoan or rotifer. Miller (1963) recorded even a case of rather high specialization of a ciliate feeding on the sporogenous naked protoplasm of *Pythium cardinianum* Matthews. The present authors have recently an occasion to observe the fungivorous habit of an heliozoan, a protozoan which – in opposition to ciliates – have not been hitherto recorded in this role.

In the middle of July 1984 we baited some samples of brackish water taken from the bay Zalew Wiślany in Poland with few bits of onion skin and snake skin. At the middle of August, a dense population of *Nowakowskiella macrospora* Karling vigorously growing and sporulating developed on the former bait. All enrichment cultures were heavily infected with protozoans among which heliozoans and naked amoebae prevailed. The most abundant was a common *Actinosphaerium eichhornii* Ehrenberg while an other common member of this groups – *Actinophrys sol* Ehrenberg was also present.

Zoospores of *Nowakowskiella elegans* have been caught mostly by *Actinosphaerium*. Nearly all protozoan cells were filled with still undigested zoospores which stick firmly to axopodia and have been retracted inside (Figs. 1-4).

Besides of *Actinosphaerium* only a big unidentified naked amoebae with broad and short lobopodia ingest zoospores of *Nowakowskiella* in our cultures.

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Figs. 1-4. *Actinosphaerium eichhornii* catching and devouring zoospores of *Nowakowskiella macrospora*

These slowly-moving animals were unable to catch free-swimming zoospores but devoured motionless masses of zoospores freshly discharged from the zoosporangia. The time of rest of zoospores after their liberation is indeed short, about 1-3 minutes, but was sufficiently long for making amoeba to bring nearer and cover the whole aggregation of zoospores.

REFERENCE

Miller C. E., 1963, A fungivorous ciliate, *Mycologia* 55: 361-364.