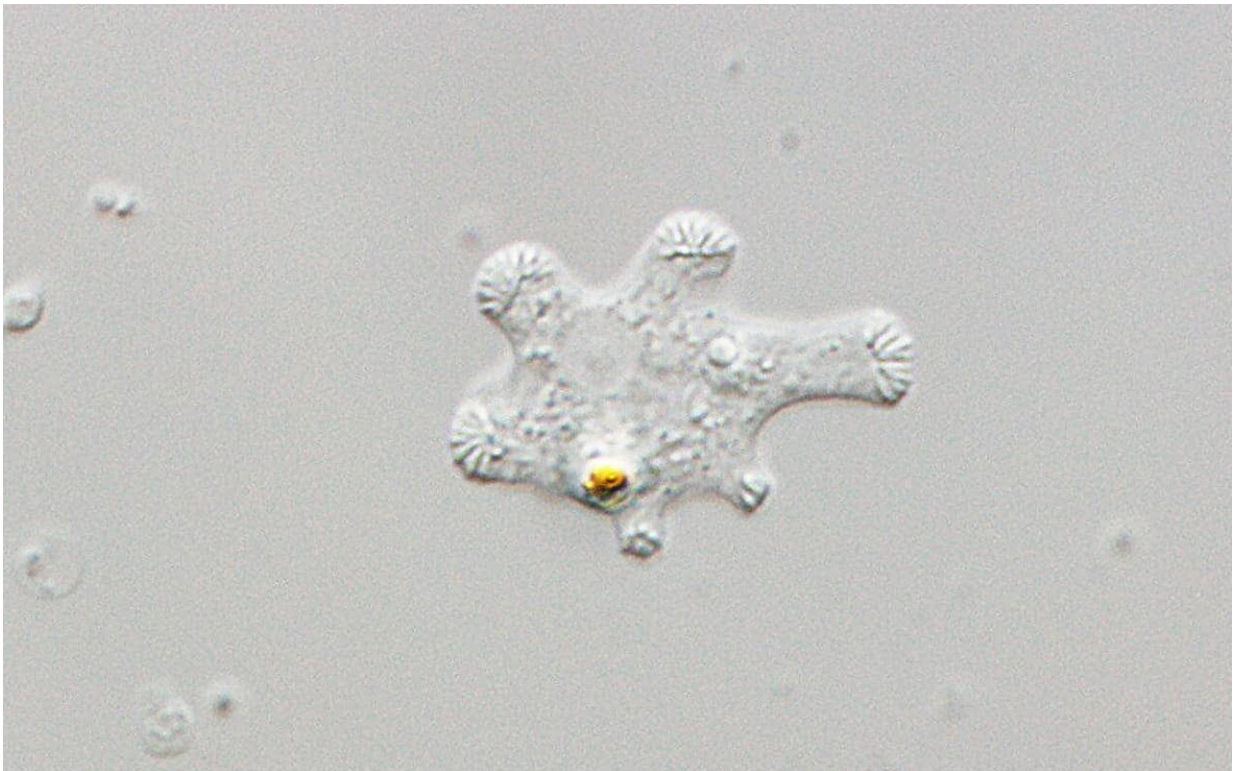


# Rediscovery of rare marine amoeba *Rhabdamoeba marina*

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Credit: University of Tsukuba

Researchers at the University of Tsukuba have rediscovered and successfully cultivated *Rhabdamoeba marina*—a rare marine amoeba that has only been reported in two cases in the past century. Using this culture strain, the team performed a comprehensive analysis of its

genetic sequence, revealing for the first time the phylogenetic position of this enigmatic amoeba, and proposed a novel taxonomic classification based on their research findings.

The research is [published](#) in the *Journal of Eukaryotic Microbiology*.

*Rhabdamoeba marina* (*R. marina*) is a small marine amoeba, first discovered and described in England in 1921. The amoeboid cells of *R. marina*, characterized by their near immobility, can produce flagellated cells with two rearward-extending flagella through budding under conditions of prey scarcity. Despite these distinct characteristics, the taxonomic classification of *R. marina* has remained unverified because only two cases have been documented, including the original description.

Researchers successfully established a culture strain of *R. marina* from seawater sourced from the coast of Tottori Prefecture, Japan. Analyzing the genetic sequence of this strain, they found that *R. marina* does not align with its previously assumed taxonomic group but is closely related to chlorarachnid algae within the phylum Cercozoa. Therefore, the researchers have advocated for the reclassification of *R. marina* into the class Chlorarachnea.

Through this study, the gene sequence of *R. marina*—a scarcely encountered and rare [amoeba](#)—has been unveiled for the first time, and its phylogenetic position has been clarified. The study highlights the importance of observing [environmental samples](#) for the rediscovery of unicellular organisms such as *R. marina* that lack [genetic data](#). Such efforts are indispensable for understanding microbial diversity.

**More information:** Takashi Shiratori et al, *Rhabdamoeba marina* is a heterotrophic relative of chlorarachnid algae, *Journal of Eukaryotic Microbiology* (2023). [DOI: 10.1111/jeu.13010](https://doi.org/10.1111/jeu.13010)

Provided by University of Tsukuba

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