

## **Unexpected diversity of the peculiar genus *Creneis* (Excavata: Heterolobosea)**

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*Creneis* is a recently (2014) discovered genus of marine anaerobic heteroloboseids. It comprises only a single species, *C. carolina*, with unique morphology, ultrastructure, and life cycle, quite unusual for Heterolobosea. *C. carolina* is an amoeboid flagellate with a single flagellum and ability to form a fast-swimming flagellate with more than ten flagella. In addition, the amoeboid flagellate has a unique structure of the flagellar apparatus.

*Creneis carolina* was described on the basis of a single isolate and has never been reported since. Here we show that *Creneis* is, in fact, a widespread and diverse lineage of anaerobic protists. We have established 13 marine *Creneis* strains in culture. According to the morphology and SSU rRNA gene sequences, our strains represent at least six novel species of *Creneis*. At least two new species are able to form the fast-swimming multiflagellates, which, however, possess only four or five flagella. We will present the first ultrastructure data of the unique multiflagellate form.