

Miocene silicoflagellates from the Paratethys

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The Paratethys, stretching from the Vienna Basin to the Caspian Sea and with connections to the Mediterranean Sea, was fully marine during the Miocene. The western portion, known as the Pannonian Sea, covered an area now centered around Hungary. Outcrops of Paratethyan sediments were studied by diatomists (particularly Josef Pantocsek and Marta Hajós) and included observations on other siliceous microfossil groups (archaeomonads, silicoflagellates, ebridians, and endoskeletal dinoflagellates). However, few detailed studies on silicoflagellates have been made on the samples collected over 100 years ago, which are curated in various diatom collections around the world. In this study, the silicoflagellates were observed, measured, and photographed using a light microscope. Samples of early-middle Miocene age are from Slovakia (Szentpéter, Nagykürtös,

Kekkő, and Felsősztergály), Romania (Borostelek and Bremia), Czech Republic (Brünn), and Hungary (Szakál). End-member morphologies and aberrants have been described as distinct taxa in the past, so it was important to carefully document both of these in order to improve silicoflagellate taxonomy. The highest diversity occurred in the Szentpéter sample, but only one species was found in the Szakál and Borostelek samples, and no silicoflagellates were observed in the Bremia and Kekkő samples. *Distephanopsis crux* and *Stephanocha speculum* were found in most samples, *Bachmannocena* spp. were very common in the Brünn sample, and *Dictyocha fibula* was only observed in the Felsősztergály sample. Compared with the assemblage data from late Miocene Mediterranean localities, those from the Paratethys are quite distinct.