



## **An assemblage of primitive monothalamids (Foraminifera) from the Lower–Middle Ordovician Klabava Formation in the Czech Republic: implications for foraminiferal diversification**

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The Ordovician-Silurian boundary coincides with the first of the “Big-5” mass extinction events, but the response of the foraminiferal communities at this time is poorly known. Our initial studies of the Lower Silurian deposits in Saudi Arabia revealed the presence of a surprisingly diverse agglutinated foraminiferal assemblage (Perdana & Kaminski, 2017). In an effort to quantify the change in foraminiferal diversity across the O/S boundary we focused our attention on the Ordovician assemblages from Gondwana and its former terrains.

During the Ordovician, the Barrandian area of the Czech Republic was peri-Gondwanan terrain that occupied a high southern latitude position. The Prague Basin contains well-preserved Lower Paleozoic deposits with well-documented stratigraphy and with rich faunas. The Early to Middle Ordovician is represented by the Klabava Formation, which is traditionally assigned an Arenig age based on acritarchs, chitinozoans, conodonts, and graptolites. According to the chitinozoan biostratigraphy, the age of the Klabava Formation corresponds to the Floian to the early Darriwilian. The foraminifera from the Klabava Formation, however, remained unstudied until now.

We report the occurrence of a low-diversity agglutinated foraminiferal assemblage from the lower part of the Klabava Formation consisting entirely of monothalamids. The assemblage is dominated by the genus *Thuramminoides*, with subdominant *Amphitremoida*, and rare *Stegnammina*. This assemblage is assigned a Floian–Dapingian age based on chitinozoans. We did not observe any multichambered foraminifera in the assemblage. The low diversity and high dominance of the foraminiferal assemblage points to harsh (dysaerobic) paleoecological conditions on the high-latitude Gondwanan margin.

Compared to the Lower Silurian of Gondwana, the Klabava fauna is much less diverse, which confirms our initial speculation that foraminifera diversified in the Early Silurian.

Perdana, P. & Kaminski, M.A. 2017. First Discovery of Early Silurian Foraminiferal Assemblages from the Upper Qusaiba and Lower Sharawra members, Qasim Region, Saudi Arabia, and their paleoenvironmental implications. *Geophysical Research Abstracts*, Vol. 19, EGU2017-4580.