

Qualifying Seminar

Ordovician Ostracoda in Laurentia and Baltica, and it's Latitudinal Diversity Gradient

Date: 16 JAN 2024 (Tue)

Time: 16:00

Venue: KBSB 6N-11

About the speaker:

Yichi Zhang is a 2nd year PhD student in the Yasuhara's lab, working under the supervision of Dr. Moriaki Yasuhara. His PhD focuses on the systematic paleontology of Ordovician ostracods, the biodiversity and the deep-time Latitudinal Diversity Gradient.

Abstract:

Ostracods range from the Tremadocian (Early Ordovician) to the present, and are one of the most diverse clades of crustaceans. Ostracod is one of the easiest-to-obtain microfossil which enables robust quantitative and statistical analyses of species diversity and faunal composition. Also, it can be a good proxy for paleoenvironmental reconstructions because it develops calcified shells with minor amounts of coprecipitated magnesium during each molting stage in its life cycle, and the Mg/Ca ratio can be used to reconstruct the marine water temperatures.



This study is to 1) systematically study our new materials from America and Estonia to create a more comprehensive understanding of Ordovician ostracod taxonomy; 2) elucidate the faunal composition, diversity and biogeographical significance; 3) provide new evidence to the rapid climate change during the Ordovician by using trace element analysis; 4) reconstruct the deep-time Latitudinal Diversity Gradient of ostracods.