



# ÚSTAV GEOLOGIE A PALEONTOLOGIE PŘÍRODOVĚDECKÉ FAKULTY UNIVERZITY KARLOVY



zve všechny zájemce na seminář ze sedimentární geologie (MG421S35A),  
který se koná ve středu **16. dubna 2025** od **14:50**  
ve **Velké paleontologické posluchárně** a na <https://meet.google.com/hqc-mjbt-bty>

## The Castle Bank Biota: a Middle Ordovician Burgess Shale-type fauna from Wales, UK

**Joseph P. Botting & Lucy A. Muir**

*Amgueddfa Cymru - National Museum Wales*

Much of our knowledge of early animal evolution has been derived from the Burgess Shale-type faunas of the Cambrian and Early Ordovician. The best of these deposits are uniquely rich in terms of their completeness and preservational fidelity of a wide range of taxa, with minimal taxonomic bias in the assemblage. However, the window for this type of preservation has been believed to have closed in the Early Ordovician, before the Ordovician Radiation (Great Ordovician Biodiversification Event: GOBE) and the development of more complex ecosystems that are typical of the rest of the Palaeozoic. The Castle Bank Biota fills this gap, as a highly diverse, exceptionally well preserved assemblage of animals and other fossils from the Darriwilian (*Didymograptus murchisoni* Biozone),

preserving a community at the height of the GOBE. The fauna is constantly yielding new taxa, and work has only just begun in describing the assemblage, but the current diversity includes around 20 phyla containing some 200 species. As in the Cambrian deposits, sponges and arthropods are the most diverse groups, with a combination of surviving Cambrian lineages and a much more derived suite of taxa. Other major groups include palaeoscolecidan and priapulid worms, together with undescribed tube dwelling animals. Some of the taxa recovered so far are the only known fossil examples of their respective phyla or classes, and many are unexpectedly derived for their age. Unlike similar Cambrian deposits, the Castle Bank Biota is composed largely of small (1–3 mm) organisms, a feature more similar to modern faunas. The assemblage therefore provides a unique window into post-Cambrian diversification and ecosystem development, with much more yet to be revealed.

