ÚSTAV GEOLOGIE A PALEONTOLOGIE
PŘÍRODOVĚDECKÉ FAKULTY UNIVERZITY KARLOVY

si vás dovoluje pozvat na Paleontologický seminář (MG422S42A), který se koná
ve středu **17. dubna 2024** od **14:50** ve **Velké paleontologické posluchárně**
https://meet.google.com/hqc-mjbt-bty

INSTITUTE OF GEOLOGY&PALAEONTOLOGY

From by-catch to main dish
- echinoid spines as a new proxy in deep-sea palaeontology

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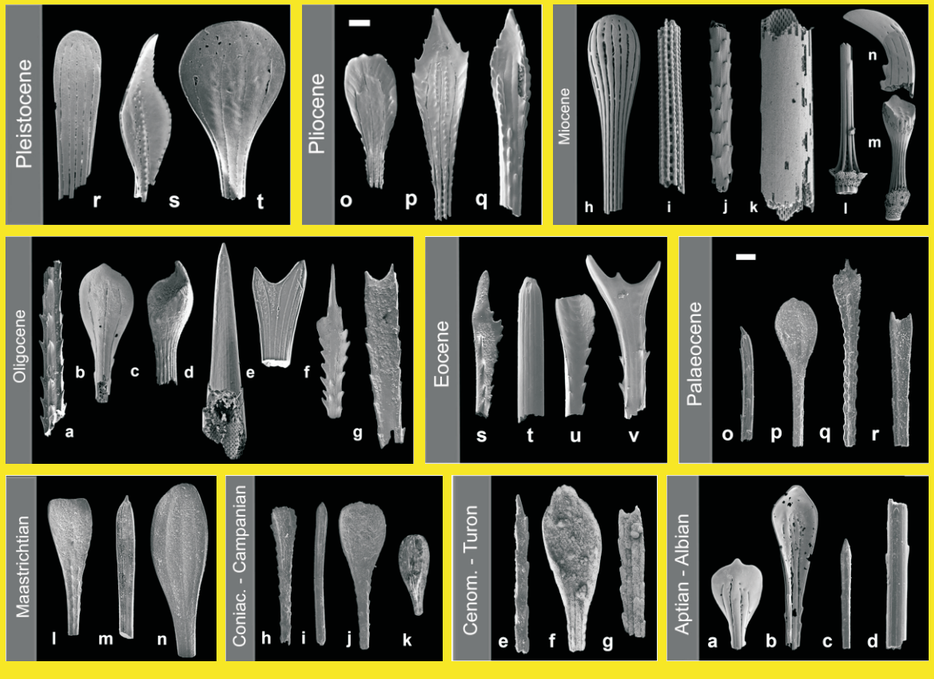
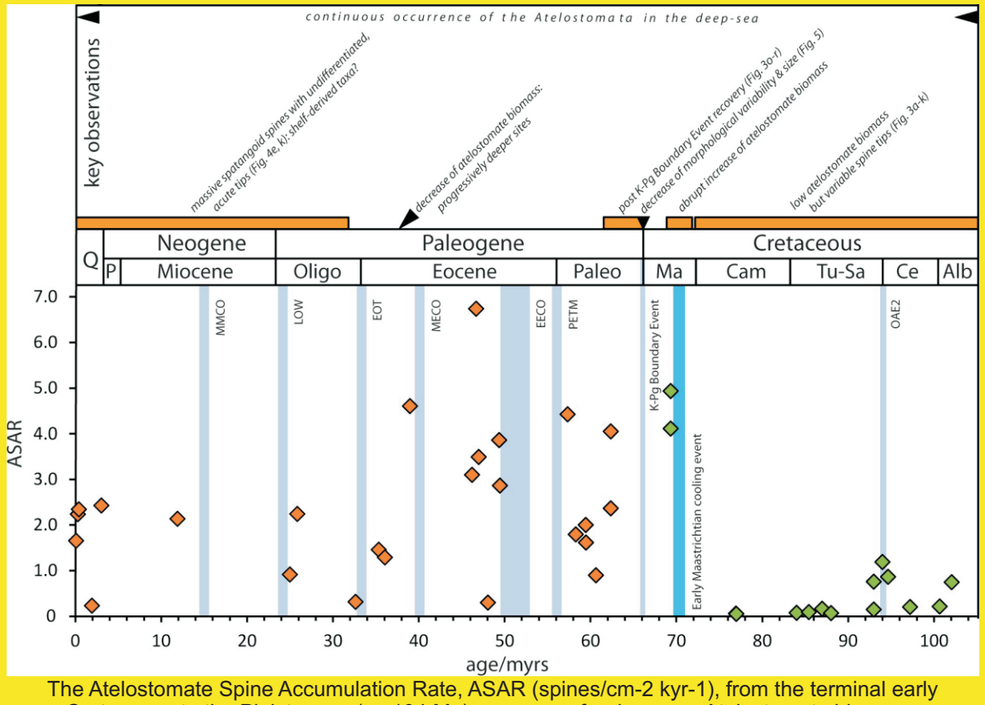
The lack of onshore sedimentary archives containing deep-sea macrofauna hampered the understanding of macrofaunal evolution in the deep-sea. However, Cretaceous to recent sediment samples from deep-sea cores provide a huge amount of echinoid spines, mainly from the Atelostomata (Spatangoida, Holasteroida). These are the only abundant macrobenthos remains, which enable quantitative analyses in the form of the echinoid mass accumulation rates. This provides, for the first time, insight into the long term evolution of deep-sea macrobethos since the Cretaceous. Likewise, the effects of short-termed climatic perturbations (e.g. Latest Maastrichtian Warming Event) and extinction events (K-Pg Boundary Event) to macrobenthic deep-sea biota can be assessed for the first time.



Examples of Aptian to Pleistocene deep-sea atelostomate spine morphologies.



The Atelostomate Spine Accumulation Rate, ASAR (spines/cm-2 kyr-1), from the terminal early Cretaceous to the Pleistocene (ca.104 Ma) as a proxy for deep-sea Atelostomata biomass.