Universität Bremen

Geowissenschaftliche Sammlung FB5

# Geosciences Working Group 2024

The Geosciences Working Group of the Faculty 5 of the University of Bremen offers an introduction to geology, palaeontology and mineralogy to the public every second Thursday of the month at 7:20 pm. These meetings give the chance to discuss with each other and to get advice from a scientist. The meetings include a generally comprehensible talk on geoscientific topics. Further information can be found on our homepage: www.geosammlung.uni-bremen.de

**11th of January 2024**

**Lecturer:** Dr. Torsten Bickert
**Topic:** Tropical corals at the rim of the Baltic Sea – The Silurian of the Isle of Gotland

Gotland, Sweden‘s largest island and a popular vacation destination in the Baltic Sea, also hosts a special geology: tropical coral reefs from the Lower and Middle Silurian (435 - 423 million years before present), which are excellently preserved due to only minor subsidence and largely missing tectonic stress and give a unique impression of shelf ecosystems at the edge of the Baltic. The lecture introduces the geology, shows the evolution of the carbonate facies during the Silurian and places it into paleoclimatic model concepts based on geochemical measurements on brachiopods.

**8th of February 2024**

**Lecturer:** Gert Greitens
**Topic:** Geology and Fossils of the Isle of Skye in Scotland

In this captivating lecture, the speaker will take you into the fascinating world of Jurassic fossils discovered in one of Europe‘s most impressive natural regions, the Isle of Skye in Scotland. The lecture will not only introduce you to the geology and remarkable fossil sites of this region, but also gives a visual experience. Using stunning images, impressive film clips with appropriate music, the beauty of the Isle of Skye will come alive. In addition, you will have the opportunity to admire some of the most beautiful actual specimens. This exciting lecture takes about 90 minutes.

**14th of March 2024**

**Lecturers:** Werner Liebenberg
**Topic:** Chalk cliffs and flint beaches - A geological journey from Calais to St. Malo

We invite you to join us on an exciting journey along the French Atlantic coast, from Calais to enchanting Brittany with the beautiful harbour city St. Malo. In this lecture the fascinating geology of this unique region is explained based on the geological outcrops along the coast. Jurassic and Cretaceous rocks contain many marine organisms and preserved an incredible variety of ancient marine life as fossils.

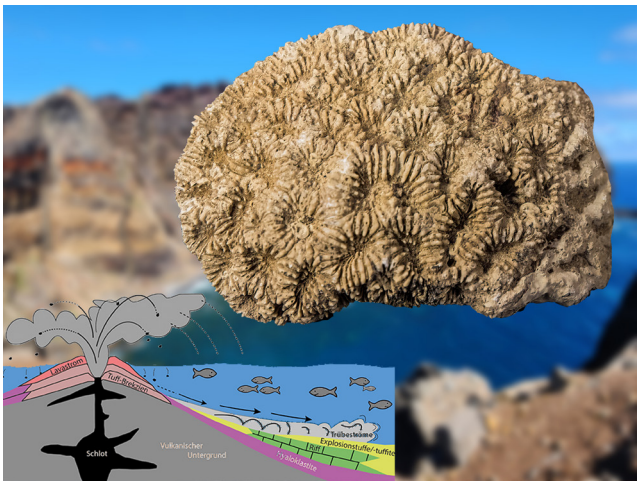
**11th of April 2024**

**Lecturer:** Prof. Dr. Jens Lehmann
**Topic:** Fossils from the glacial drift – the ice-age journey of petrified life


Collecting fossils from the glacial drift is an extremely family-friendly way to experience Earth history up close. Especially along the coasts, there are relaxed opportunities for even children to discover fossils almost anywhere. Among the popular classics are the fascinating „devil's fingers" - belemnoids and the mysterious flint sea-urchins.
But collecting drift fossils offers much more than just fun and adventure on the beach. It opens a unique opportunity to find evidence of the entire history of life since the Cambrian. Thanks to the ice-age glaciers that brought us a variety of different rocks from Scandinavia, we can trace the earth's historical development in all its diversity.

**16th of May 2024**

**Lecturer:** Prof. Dr. Jens Lehmann
**Topic:** Dance on the volcanoe – Fossils from the Miocene of Madeira




The archipelago, formed by a magmatic hotspot, is located about 500 kilometers off the northwest coast of Africa. On a volcanic island in the Atlantic Ocean, one would not normally expect to find fossils. But upon closer examination, it turns out that the archipelago of Madeira holds some paleontological treasures. This has everything to do with a fascinating „dance on the volcano". Imagine: On a sunny day, plumes of smoke spread across the Atlantic as a lava flow blankets the fledgling, small island. Incessantly, ash rains down on the animals and plants of the neighboring reef, most of which are buried under this ash. However, some of the creatures survive this dramatic event. As a result, a new reef is formed, although its fate is also predetermined.

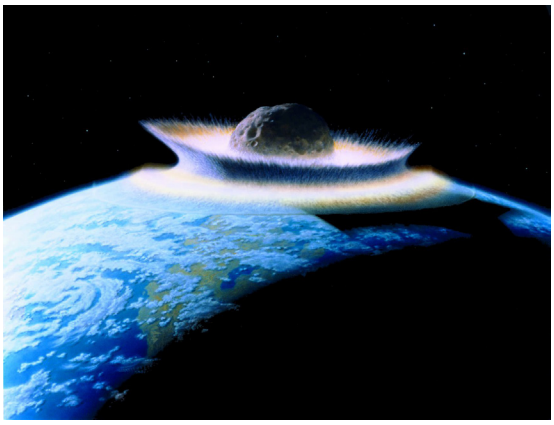
**13th of Juny 2024**

**Lecturer:** Prof. Dr. Simone Kasemann
**Topic:** Lithium of the Andes: Formation, mining, future prospects

Arid climate and active tectonics have formed and preserved numerous drainless basins on the Altiplano-Puna Plateau in the central Andes of South America since the dawn of the Cenozoic. Some of these basins contain salt lakes or salars with lithium-bearing brine deposits that currently account for about 30 % of global lithium production and represent more than 70 % of global lithium resources. The occurrence of the largest and most important lithium reserves in the Central Andes is geographically confined to the „lithium triangle," an informal term used by the mining industry to refer to the area between southern Bolivia with the Salar de Uyuni, northwestern Argentina with the Salar de Hombre Muerto, and northeastern Chile with the Salar de Atacama.

**12th of September 2024**

**Lecturer:** Jürgen Reinhardt
**Topic:** The great mass extinctions of the earth's history



Join us as we delve into the fascinating world of Earth's history and learn how dramatic events, including asteroid impacts, have shaped biodiversity on our planet. This lecture highlights the causes and effects of the Big Five mass extinctions, which wiped out entire ecosystems with its animal and plants.

**10th of October 2024**

**Lecturer:** Martin Krogmann
**Topic:** The curse of paleontological collections – An Overview of pyrite decay and pyrite preservation

**1 cm**

Fossils preserved in pyrite are often exceptionally well preserved and therefore serve as important scientific specimens. Regrettably, however, pyrite is often unstable and tends to decay over time. This presents a major challenge to conservators in paleontological collections. For more than a century, various methods have been explored to prevent the decay of pyrite. This talk will provide a comprehensive overview of potential mechanisms of pyrite decay and methods for preserving pyrite in fossils.

**14th of November 2024**

**Lecturer:** Lutz Kaecke
**Topic:** The Cretaceous of the Kristianstad Basin in Sweden

Wikipedia https://da.wikipedia.org/wiki/Kristianstadsb%C3%A6kkenet#/media/Fil:Kaolinbrottet,_Iv%C3%B6klack.jpg CC BY-SA 3.0

In the Kristianstad Basin, sediments from the Lower Cretaceous to the Late Upper Cretaceous are preserved. The Campanian deposits are particularly easily accessible. In addition to a detailed description of the geological structure of the basin and its sedimentary layers, the lecture will focus on the fossils. Furthermore, similarities and differences in the rocks and fauna between Ignaberga and the Lehrte Basin near Hannover, which belong to the same geological age, will be examined.

**12th of December 2024**

**Lecturer:** Prof. Dr. Jens Lehmann
**Topic:** Christmas Party of the Working Group - An Evening of Discoveries

In 2024, many Bremen residents have once again collected rocks, fossils and minerals. At our upcoming Christmas party, which offers a cozy opportunity to get together, the ‚Exhibit of the Year' will be awarded. Whether it comes from around Bremen, distant corners of Europe, or even overseas, we are looking for the most fascinating, beautiful, or best prepared specimen. Those present will have the opportunity to vote for the ‚Weser GeoHighlight 2024' and the winner will receive a prize.
The Geosammlung will also present its most important new acquisitions of the year in an exciting review of the year. We have used the year 2024 to expand our collection and make some impressive finds that we would like to share with you.
Look forward to an evening of discoveries and be excited about our lecture program for 2025. We cordially invite you to join us in exploring the fascinating world of stones, fossils and minerals.