

## Geosciences Working Group 2014

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](http://www.geosammlung.uni-bremen.de)

**09th January 2014**

**Lecturer:** Werner Liebenberg

**Topic:** Reptile tracks – new traces from an old continent

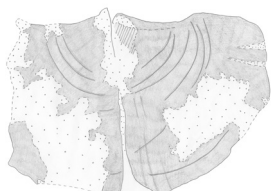


Talking about reptile tracks usually extensive tracksites come into our mind that were unearthed in North America and are including single imprints of dinosaur feet almost as big as a bath tub. However, also in Europe and especially in Germany and France many new tracksites have been discovered in recent years. Some of these were found by luck coincidences, but others by intensive digging campaigns. The talk gives an overview on old and new findings of reptile tracks from Germany and other European countries.

**13th February 2014**

**Lecturer:** Imke Gudenschwager

**Topic:** Aptychi and anaptychi



The term ammonite is often used synonymous to the most famous body part of these ancient sea creatures - the ammonite shell. That molluscs did contain a two-part jaw apparatus is less well known. In science there are still many open questions about aptychi and anaptychi. The lecturer investigated and documented many upper- and lower jaws with drawings and photographs within the framework of her bachelor thesis and the talk presents the results of this work.

**13th March 2014**

**Lecturer:** Julia Engelke

**Topic:** Ammonites – from the spiral to diversity

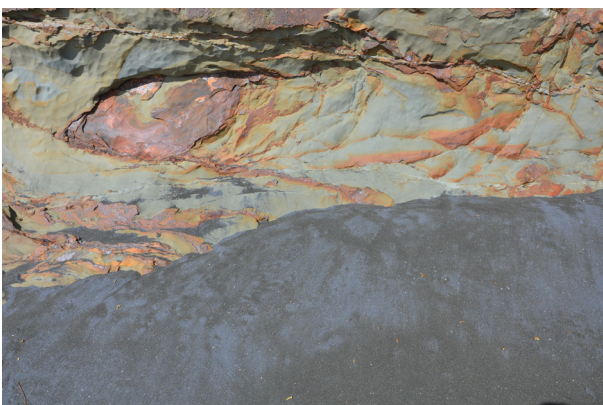


Ammonites did exist in ancient seas since the Devonian period, about 400 million years ago and became extinct at the end of the Cretaceous period about 65 million years ago. During these 350 million years they changed their external shape, but most of them did stay with a shell coiled in a plane for a long period of time. However, ammonite evolution underwent a profound change in the Mesozoic (Triassic, Jurassic, Cretaceous) when many new taxa appeared. How and why these species have been developed needs to be investigated.

**10th April 2014**

**Lecturer:** Prof. Dr. Tillo von Dobeneck

**Topic:** The magnetite sand of New Zealand

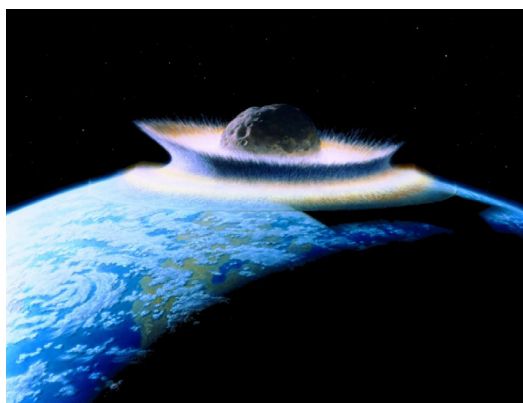


In western New Zealand bluish-blackish „blacksand“ is found - deposited along white limestone cliffs and consists of almost clean magnetite. How these immense iron ore deposits were formed - making New Zealand to an important steel exporter recently? Another question is how can we understand the process of magnetite accumulation and how can we use it within the framework of coastal research. In marine environmental physics we try to picture and understand the distribution and separation of sediments at the coast by measuring magnetic at the sea floor.

**08th May 2014**

**Lecturer:** Jürgen Reinhardt

**Topic:** News about the extinction of dinosaurs



Beyond any doubt one of the most intensively discussed geoscientific topics in the public is the extinction of dinosaurs. The public opinion is usually ruled by the theory of a meteorite impact as monocausal reason that killed all dinosaurs, but the picture is much more complex. The talk presents some new research on the topic - the mysterious extinction of the gigantic lizards.

**12th June 2014**

**Lecturer:** Michaela Kahsnitz

**Topic:** A geological expedition to the highlands of Tibet



Tibet is an expanded highland in Central Asia, administrated by the state of China, with an average high of 4500 m. Which geological processes are responsible for the origin of the Tibetan high plateau? What is special about a journey to the „roof of the world“? Which challenges are encountered during such an expedition. What has to be organised and noticed? These and further questions can be answered within the framework of this talk.

**17th July 2014**

**Lecturer:** Hartmut Benthien

**Topic:** The ice-age in the River Weser area

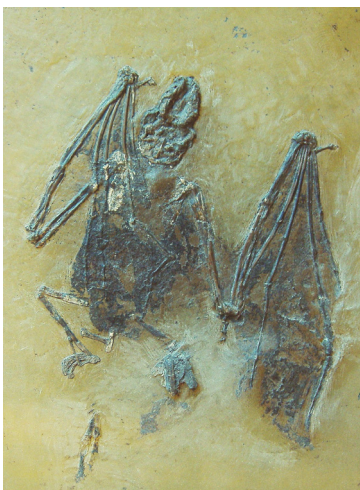


A thick cover of debris dating back to the ice-age is evident for the glaciation of Northern Germany. Despite the generally flat landscape shape in North Germany morphological differences on the surface can be noted and the conspicuous erratic boulders (geschiebes) of magmatic rocks, often used for megalithic tombs, and weighing up to several tons are reporting from the ice ages.

**11th September 2014**

**Lecturer:** Michael Guhl

**Topic:** In the shadow of dinosaurs – the evolution of mammals



The mammals evolved during a long evolutionary history. Their origin lies in the mammal-like reptiles of the Permian and Triassic most of the species kept small-sized and plain during the Mesozoic. Many of these were nocturnal, probably of avoiding to encounter the diurnal dinosaurs that were ruling the ecosystems. After the extinction of dinosaurs at the end of the Cretaceous period mammals were able to occupy all ecological niches and became dominant until today. This talk is focusing on the evolutionary history based on new and interesting fossils discovered recently.



**10th October 2014**

**Lecturer:** Ludwig Kopp

**Topic:** Amber and gemstone mines in Myanmar



Myanmar is a state in southeast Asia and one of the regions for finding amber - fossil resin - in the world. The amber from Myanmar is Cretaceous in age and is in between 100 and 110 millions of years old. It is discovered only rarely and the preservation of animal and plant inclusions is often rather poor. Besides amber Myanmar is known for various gemstones, including rubies, sapphires and jade. The talk also covers these gem localities.

**13th November 2014**

**Lecturer:** Dr. Jens Lehmann

**Topic:** Isle of Bornholm - a geological travel report



The Danish Isle of Bornholm is geological and scenically manifold. In the north rocky and steep granite coasts occur, in the south there are long sand beaches and white chalk cliffs. The lecturer reports mainly on personal experiences on the geology and palaeontology of the sedimentary rocks in the southern coast of Bornholm, about Ordovician deposits that are more than 450 million years old until those of the late Cretaceous period about 85 million years ago. Additionally, aspects of mining on phosphate, limestone and granite are discussed.

**11th December 2014**

**Lecturer:** all

**Topic:** „Weser Geo-highlight 2014“ award & Christmas celebration



Many Bremen citizens have collected rocks, fossils and minerals during 2014. Therefore, to add to the general warmth of the Christmas celebration, a prize will be given for the “Exhibit of the year”. The most interesting, most pretty or best prepared specimen will be voted as the “Weser Geo-highlight 2014” and honored with a prize - no matter if it has been found in the Bremen area, distant regions in Europe or even from overseas. In addition, the Geo-collection will present its new acquisitions of the year and the lecture programme for the year 2015 will be released.