

Geosciences Working Group 2012

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

12th January 2012

Lecturer: PD Dr. Jens Lehmann & Alan Marsh

Topic: Fossils from the Jurassic period – 160 million year old findings from Franconia

Media: Powerpoint



The building site for a railway line in Franconia opened a close view into the successions of Mesozoic rocks that are usually subsurface. A number of tunnel and line excavations were attracting scientist and amateur collectors in a short period of time. The talk reports on the Bremen excursion to these fossils remains of the Jurassic sea and shows how a variety of fossils from the ancient sea floor have been collected. Beautifully preserved ammonites with whitish shells were particularly drawing the attention of people.

09th February 2012

Lecturer: Dr. Barbara Donner

Topic: Oceanic Drilling Programs – how do we know about crocodiles in the Arctic Ocean?

Media: Powerpoint



For almost 50 years drillings are undertaken in the marine realm. This takes place in the framework of internationally organised programs, concentrating on rock structures that are hidden in the depth below the modern ocean floor. In 2004 the “Arctic Coring Expedition” sampled the seafloor at the North Pole. This talk presents the results of the drilling and discusses the evolution from a tropic, crocodile inhabited sea to an iced ocean.

08th March 2012

Lecturer: Dieter von Bargen

Topic: Reconstruction of a habitat - back to the Early Cretaceous in northern Germany

Media: Powerpoint



The Cretaceous is interpreted as one of the warmest periods in Earth's history. Due to a warm climate the water masses in the oceans were stagnating, a sluggish circulation and ventilation became established and thus a number of oceanic anoxic events have been deposited. Today these events can be recognized by sediments referred to as black shales. The talk introduces a recent study of the Geosciences Collection in Bremen on a 120 million year old event in northern Germany and its floral and faunal impact.

12th April 2012

Lecturer: Werner Liebenberg

Topic: On the road of volcanoes – geology of the Massif Central

Media: Powerpoint



From the Neogene until the end of the last Ice Age a hotspot crossed the country that we call France today - from the Mediterranean Sea to Clermont-Ferrand. The volcanic activity is evident by sheets of basalt and ash, exemplified in the talk by locations of the southern foreland of Grand Causses, Margeride, Allier-Valley and the Auvergne.

10th May 2012

Lecturer: PD Dr. Jens Lehmann

Topic: Geology, fossils and landscape of the Isle of Wight, England

Media: Powerpoint



The Isle of Wight is located off the mainland in southern England, it is about 35 km long and around 20 km broad. Geological outcrops of the late Mesozoic- and Cenozoic periods can be found particularly along the coast. The rocks on the island are up to 130 million years old and at some localities a number of different types of fossils can be found, ranging from objects as different as the rough casts of dinosaur feet to delicate imprints of insects. The talk additionally illustrates the loveliness of the landscape, for example the western end is beautiful because of the "Needles" - rocky cliffs of limestone that stick up to 30 m out of the sea.

14th June 2012

Lecturer: Michael Guhl

Topic: More than dino food –Plants of the Mesozoic

Media: Powerpoint



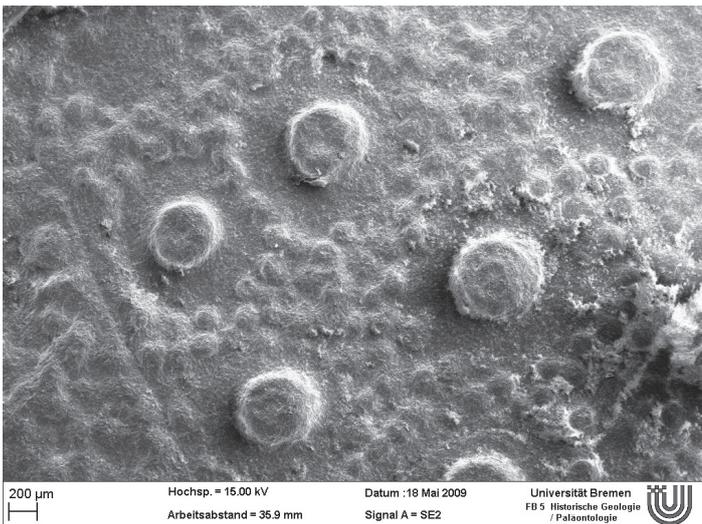
The vegetation of the Mesozoic was dominated by ginkgo, conifer and primeval cycad forests. Based on specimens collected from a locality in Lower Saxony these plants as well as the extinct groups of the bennettites and pteridospermae are focused on in this talk. Last but not least the question is raised how the ecosystem was capable to feed huge dinosaur herds, and which changes occurred by the upcoming flowering plants. .

09th August 2012

Lecturer: Martin Krogmann

Topic: Fossil preparation methods – A close-up

Media: Powerpoint



Usually fossils collected in an outcrop need to be revealed from the rock before it is possible to study it or to display it in a show case. The rock, a shelter for millions of years, has to be removed. Feasible methods are either mechanical, by brushes or sand blasting, or chemical, by acids or bases. The talk illustrates destructive effects on fossils caused by the various rock removal methods by using Scanning Electron Microscope (SEM) photography of the prepared fossils.

13th September 2012

Lecturer: Dieter von Bargaen

Topic: Les Baronnies in southern France – a geological and biological journey in the autumn

Media: Powerpoint



The talk reports about a journey through the Drome department in southern France in the autumn. In this area particularly various early Cretaceous rocks occur that are rich in fossils. The former sea was part of the northern rim of the Tethys, an ancient ocean that was expanded along the equator. Additionally, a number of living animals and plants occur, a few of those are focussed on in this talk.

11th October 2012

Lecturer: Jörg Pöhl

Topic: Gravity bears the blame

Media: Powerpoint



Almost all known geological processes are driven by gravity. The mountain building is the result of the collision of continental plates, pushed by thermal convection deep in the Earth's mantle. Mountains became eroded by rains and downhill sliding glaciers. The formation of sandstone is the result of sedimentation and compaction of the eroded grains. These are only three examples of gravity's impact on geological processes.

08th November 2012

Lecturer: Ludwig Kopp

Topic: Trilobites – armoured crab relatives of the Palaeozoic

Media: Powerpoint



Changing the morphology enabled Trilobites to adapt many environmental changes. They outlasted 300 million years of Earth's history, some changed their morphology in a very unusual way, like building long spines and bizarre tubercles. This talk deals with the up-to-date information about taxonomy, palaeobiology and personal experiences of collecting and preparation.

13th December 2012

Lecturer: all

Topic: „Weser Geo-highlight 2012“ award & Christmas celebration

Media: Powerpoint



Many Bremen citizens have collected rocks, fossils and minerals during 2012. 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 2012” and honored with a prize - no matter if it has been found 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 2013 will be released.