

# Geosciences Working Group 2011

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)

## 13th January 2011

**Lecturer:** Dr. Jürgen Titschack, Bremen

**Topic:** Mussels as climate archives in mid-latitudes

**Media:** Powerpoint



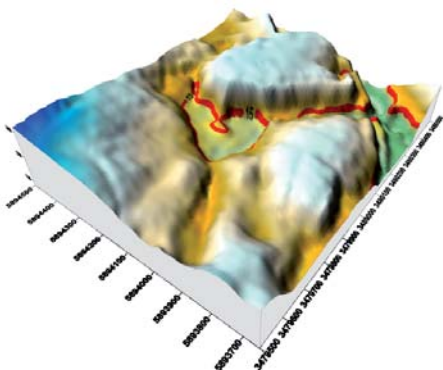
The reconstruction of the Pleistocene climate is of vital interest for science, because a good understanding of the past climate is the basis for reliable forecasts. Especially the seasonal sea surface temperatures of the oceans are hereby of general importance. The talk will provide an introduction in the method of seasonal temperature reconstruction on the example of modern and fossil thorny oysters (*Spondylus gaederopus*) of Rhodes. A focus will be set on the interpretation of the obtained geochemical datasets in the context of field observations.

## 10th February 2011

**Lecturer:** Dr. Joachim Blankenburg, Dipl. Ing. Jörg Grützmann, Prof. Dr. Uta Halle

**Topic:** New Geotopes in Bremen

**Media:** Powerpoint



In Germany a tradition was introduced to visit sites of special interest on the field of Earth history in 2002. Since then a number of localities are open to the public during one day in October - the „day of the geotope“. In the year 2010 the Ruschdahl moor has been presented for the first time, one of the deepest moores in Europe. In co-operation with the Federal Archaeologist of Bremen this talk focusses on potential geotopes in the area. All of the recent candidates for geotopes in Bremen are introduced in this talk and their genesis is discussed.

**10th March 2011**

**Lecturer:** Jürgen Reinhard, Alan Marsh und PD Dr. Jens Lehmann

**Topic:** Hunting the giant shark – fossil sharks from the Netherlands and Belgium

**Media:** Powerpoint



After a couple of million of years the only remains left over from sharks are their teeth – since they are the most resistant part of the body. In some regions of the Netherlands and Belgium fossil shark teeth are common in sands of the Miocene, a time interval dating back in between 5 and 23 million years. In the talk specimens from different localities are shown and also a brief introduction to the main techniques of collecting shark teeth is given. The determination of shark teeth helps to reconstruct the fossil environment at the edge of the ancestral North Sea. The compound picture can get even more complete by adding more information, like composition of the sediment and additional fossils, like shells of mussels and snails and whale bones.

**14th April 2011**

**Lecturer:** PD Dr. Jens Lehmann, Bremen

**Topic:** Ediacara fossils – weird life as from a distant star

**Media:** Powerpoint



Ediacara fossils are remains of macroscopic organisms that are dating back to the late Precambrian period, almost 600 million years ago. The life style of these lightweight constructions is debated as well as their classification to modern animal phyla, they are ranging in size between a few mm and about one meter. The talk gives an overview about the different hypothesis of the interpretation of these organisms and discusses if the Ediacara fossils are a dead end in evolution.

**12th May 2011**

**Lecturer:** Herbert Lange, Barssel

**Topic:** Fossils from the Isle of Møn in Denmark

**Media:** Powerpoint



The Isle of Møn is a Danish island located in the Baltic Sea. It is famous for its chalk cliff – called Møns Klint. These rocks extend along the coastline for about 6 km. The chalk has been uplifted by glaciers of the continental ice sheet during the ice ages. The beds belong to the Cretaceous period, more exactly the Maastrichtian, roughly about 65 to 70 million years ago. The end of the Maastrichtian is also characterized by the extinction of dinosaurs and ammonites – an interval that is, however, missing on the island. The chalk contains a number of well-preserved fossils, for example sea-urchins with preserved spines. The talk introduces the beautiful landscape and illustrates some fossils of the Isle of Møn.

**09th June 2011**

**Lecturer:** PD Dr. Jens Lehmann, Bremen

**Topic:** Dog eat dog – the „Cambrian explosion“

**Media:** Powerpoint



At the Proterozoic/Cambrian boundary, about 550 million years ago, ecosystems underwent a dramatic change on a global scale. A great variety of organisms arises probably very rapidly, predatory animals evolved and complex predator-prey interaction became established and built up food webs. The talk describes the change from a strange globe of algae- and bacteria mats, containing organisms of uncertain assignment, to a world of biota that can be at least partly assigned to modern animal phyla.

**14th July 2011**

**Lecturer:** Michael Guhl, Bremen

**Topic:** Flower greetings from deep time - Plant fossils of the Mesozoic

**Media:** Powerpoint



This talk gives an introduction to the flora of the Mesozoic era that is fundamentally different from the recent one. The (r)evolution of plants started with the origin of angiosperms, the flowering plants, at the end of the Early Cretaceous period about 130 million years ago. In the Late Cretaceous angiosperms occur in large areas of the world and became dominant in the Cenozoic.

**08th September 2011**

**Lecturer:** Ludwig Kopp, Ritterhude

**Topic:** Spiny monsters and volcanoes - Geology of the Eifel region in southern Germany

**Media:** Powerpoint



In the Eifel region in southern Germany a large number of different rocks occur. Clay-, sand- and limestones deposited during the Devonian time, more than 360 million years ago, are an archive of ancient life. Particularly the limestone deposits of Gerolstein indicate periodically rich life at the bottom of the Devonian sea. A group of extinct arthropods, the trilobites, occurs in a great variety and often bear spines. Additionally, the Eifel region is exciting for later times of Earth history – the volcanism did not finish until 12.000 years ago.



## 13th October 2011

**Lecturer:** Werner Liebenberg, Bremen

**Topic:** Reptiles and dripstones – the Grands Causses in southern France

**Media:** Powerpoint



The Grands Causses in the canyons of the river Tarn are forming a group of impressive plateaus. This region is famous for its bizarre erosional features, the deep karst formation with numerous dripstone caves, and its fossiliferous localities. Particularly interesting are a number of reptile tracks that have been discovered during the past few years. The talk by Werner Liebenberg focuses on the prominent aspects of this landscape and its fossils.

## 10th November 2011

**Lecturer:** Alexandra Solarczyk, Bremen

**Topic:** Germany's hidden Geo-treasures

**Media:** Powerpoint



The world natural heritage Messel pit and the chalk cliffs of the Isle of Rügen are examples for geoscientific highlights that are in the consciousness of the public. Besides these famous localities there are many more geotopes in Germany. The speaker assembled accordant examples within the framework of the master study at the University of Bremen. The topics range from the Damme mountains to exciting facts about the mineral content of the Clara mine in the Black Forest.

## 08th December 2011

**Lecturer:** all

**Topic:** „Weser Geo-highlight 2011“ award & Christmas celebration

**Media:** Powerpoint



Many Bremen citizens have collected rocks, fossils and minerals during 2011. 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 2011” 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 2012 will be released.