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MEDIA RELEASE

Exploring the Environmental History of the Baltic Sea Challenging Expedition About to Start

On September 7th the European Consortium for Ocean Research Drilling (ECORD) will start a challenging two-month expedition to the Baltic Sea. On-board the drilling vessel *Greatship Manisha* will be a team of international scientists whose aim is to core sediments from beneath the seafloor at seven different locations - from the Kattegat to the area of Härnösand/Sweden. The cores, from water depths up to 450 metres, will provide detailed information on environmental changes in the Baltic Sea region during the past 140,000 years.

During the first days of September the 94-metre long *Greatship Manisha* berthed in Falmouth on the southern coast of England. Laboratory containers were loaded, provisions were taken on-board, and a drilling rig was installed. The vessel is now on her way to the first coring location in the southern Little Belt, the westernmost part of the Baltic Sea. During the next two months the team of scientists and technicians plan to drill at seven locations in the Baltic Sea to retrieve several thousand metres of sediment cores. This is the first time that scientific drilling beneath the sea floor will take place in this region.

Urgent measurements such as the analysis of the microbiology of the sediments will be carried out on board or samples will be transferred to land. More extensive investigation of the samples will be performed early next year in the Bremen Core Repository of the Integrated Ocean Drilling Program (IODP).

Analysis of the cores using state-of-the-art technology will help

- To understand the history of the Baltic Sea Basin during a warm interval 130,000 years ago with particular focus on how this era ended at the onset of the last ice age.
- To study the dynamic of the Scandinavian ice sheet that waxed and waned over the Baltic region between 100,000 and 20,000 years ago and to

better understand whether this ice sheet caused climatic fluctuations or if it simply responded to climatic changes during this period.

- To investigate how microbial life responded to the transitions between past glacial and interglacial periods and to specifically study the responses to major shifts between lake, brackish water, marine and terrestrial stages of the Baltic region.
- To show how the ecosystem has responded to climate change during the last 20,000 years, prior to any human influence.

Blogs, daily reports, news releases, and images can be found on the expedition website:

www.eso.ecord.org/expeditions/347/347.php

The expedition is organized and carried out by the European Consortium for Ocean Research Drilling (ECORD). ECORD is the European branch of the Integrated Ocean Drilling Program (IODP), which conducts worldwide expeditions and is led by Japan, the USA, and a consortium of 17 European countries (plus Canada). The IODP consortium also includes associates from Australia, New Zealand, India, China, South Korea and Brazil, therefore is one of the major marine research programmes in the world. Since 2004 ECORD, has completed four similar coring expeditions in the Arctic, the Atlantic, and two in the Pacific Ocean.

Information about IODP and ECORD can be found at:

www.iodp.org

www.ecord.org

More information / images / videos / interviews:

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