

Denmark and Greenland, Activity Report 2003

Danish IMAGES scientists include researchers from the following institutions:

- Department of Earth Sciences, University of Aarhus
- Geological Survey of Denmark and Greenland, Copenhagen

The membership is operated from the University of Aarhus. Denmark has been a member since 1997 and has paid a full contribution to the program since 2000.

The IMAGES-related scientific interests in Denmark are concentrated on studies in the North Atlantic and the Caribbean and are mainly focussed on the last deglaciation and the Holocene. The following studies are either planned or in progress:

1. The North Icelandic shelf

Studies on the North Icelandic shelf (University of Aarhus) are concentrated on biostratigraphy (foraminifera and diatoms) and stable isotope studies of Lateglacial and Holocene deposits in the IMAGES cores: MD992271, MD992272, MD992273 and MD992275 (see also Iceland report).

The last 2000 year record of the IMAGES cores MD992271 and MD992275 is included in the EU Commission funded project HOLSMEER (Late Holocene Shallow Marine Environments in Europe; see – <http://www.bangor.ac.uk/os/holsmeer/>), involving UK, Iceland, Norway, Sweden, Denmark, Germany, Spain and Portugal, and coordinated by James Scourse, University of Wales, Bangor, UK. Studies of the 8000-6000 and 2000-0 year intervals of the same cores are included in the EU-funded project, PACLIVA (Patterns of Climatic Variability in the North Atlantic; see – <http://www.bjerknes.uib.no/Research/PACLIVA/>), involving Norway, Sweden, Iceland, Denmark, UK, Germany, The Netherlands, France, Switzerland and Spain, and coordinated by Eystein Jansen, the Bjerknes Centre for Climate Research, University of Bergen, Norway.

Other activities on the North Icelandic shelf are included in the PANIS-project "Palaeoenvironments on the North Icelandic Shelf" (see - <http://www.hi.is/~jeir/panis.html>), operated from the University of Iceland (Jón Eiríksson) and with participation from the University of Aarhus, Denmark (Karen Luise Knudsen). This project is funded by the Natural Science Research Councils in Iceland and in Denmark, i.e. through the KRONPAL-project "Chronology and Palaeoclimate: Integration of marine data from Iceland with AMS14C datings, tephrochronology and Ice Cores", funded by the Natural Science Research Council of Denmark. At the University of Aarhus, three researchers, three PhD.-students and one MSc.-student are involved in the North Icelandic shelf projects. For abstracts and publication lists, see - <http://www.hi.is/~jeir/panis.html>.

2. The West and East Greenland shelf, western North Atlantic

Palaeoenvironmental research based on diatoms, dinoflagellates and foraminifera in the Holocene record of piston cores from the Greenland shelf and slope areas is in progress at the Geological Survey of Denmark and Greenland (several papers are in press).

3. The Skagerrak, eastern North Atlantic

A study of the foraminiferal stratigraphy of IMAGES core MD992286 in the Skagerrak is in progress at the University of Aarhus in co-operation with the University of Stockholm, where sedimentological analyses are carried out. Some parameters have been studied from the entire core, but at present we are mainly concentrating on the the last 2000 year record, which is included in the EU-funded HOLSMEER project (see above). Two researchers from the University of Aarhus are involved.

4. The Caribbean

During the summer 2002, the Geological Survey of Denmark and Greenland and the University of Gothenburg, Sweden, obtained an IMAGES Giant Piston core (12.70 m) in the Caribbean within the EU-CALYPSO programme. Studies of a high resolution late Pleistocene record are in progress.