

EUROPEAN COMMISSION

DIRECTORATE-GENERAL
ENVIRONMENT
Directorate E - International affairs
ENV.E.2 - Environmental Agreements and Trade

Brussels, 04 08 2006 D(2006) 15733

Subject:

CBD Notification 2006-069 - Information on research activities related to deep seabed genetic resources

Dear Mr. Djoghlaf,

In response to your notification 2006-69, in which you asked inter alia CBD parties to provide information on past, present and planned research activities that encompass the deep sea and open ocean environments, please note the following examples of research projects funded though the fifth and sixths European Union's Framework Programmes for Research and Technological Development (RTD FP-5 and RTD FP-6).

Ongoing RTD-FP6 projects:

- The Integrated Project "Hotspot Ecosystem Research on the margins of the European Seas, HERMES" http://www.eu-hermes.net/ is an international, multidisciplinary research programme investigating Europe's deep marine ecosystems and their environment. Funded by the European Commission, HERMES brings together expertise in biodiversity, geology, sedimentology, physical oceanography, microbiology and biogeochemistry so that the generic relationship between biodiversity and ecosystem functioning can be understood. Study sites extend from the Arctic to the Black Sea and include biodiversity hotspots such as cold seeps, coldwater coral mounds and reefs, canyons and anoxic environments, and communities found on open slopes.
- The overall networking objective of Network of Excellence "EUR-OCEANS" http://www.eur-oceans.org/ is to achieve lasting integration of European research organisations on global change and pelagic marine ecosystems and the relevant scientific disciplines. This will put Europe in an international leadership position in this field. The overall scientific objective of EUR-OCEANS is to develop models for assessing and forecasting the impacts of climate and anthropogenic forcing on foodweb dynamics (structure, functioning, diversity and stability) of pelagic ecosystems in the open ocean.
- MarBEF (http://www.marbef.org/) is an EC-funded network of excellence consisting of 400 scientists in 56 European marine institutes. It aims to integrate and disseminate knowledge and expertise on marine biodiversity, with links to researchers, industry, stakeholders and the general public. It will:
 - o Create a virtual European institute with a long-term research marine biodiversity programme

Commission européenne, B-1049 Bruxelles / Europese Commissie, B-1049 Brussel - Belgium. Telephone: (32-2) 299 11 11. Office: BU 9 5/172. Telephone: direct line (32-2) 29+32 2 2958569. Fax: (32-2) 29+32 2 2969558. E-mail: Hugo-Maria.Schally@cec.eu.int

- o Integrate and co-ordinate research from wide variety of disciplines in marine science
- o Provide training, exchange, outreach, links to industry and the public at large
- o Support international legal biodiversity obligations of the EU and Member States.
- MARINE GENOMICS EUROPE (http://www.marine-genomics-europe.org/)
 "Implementation of high-throughput genomic approaches to investigate the functioning of marine ecosystems and the biology of marine organisms", is an EC-funded Network of Excellence bringing together 450 scientists from 44 institutions in 16 countries. By integrating expertise in genomics, proteomics, bioinformatics marine biology and marine biodiversity from several Centres of Excellence in Europe, MARINE GENOMICS EUROPE aims to promote, develop and communicate, throughout the European Union, a broader understanding of a range of questions related to the functioning and biology of marine ecosystems and marine organisms and includes the establishment of databases of marine resources through large scale biodiversity studies.
- Research carried out by the 39 projects within the cluster BIOTA http://www.edinburgh.ceh.ac.uk/biota/ aim to assess and predict the impact of drivers of biodiversity; develop tools to promote biodiversity conservation; identify and resolve conflicts between society and biodiversity; and create databases on Europe's biodiversity.
- A project which is planned is the Network of Excellence "European Seas Observatory Network, ESONET" http://www.oceanlab.abdn.ac.uk/research/esonet.shtml. It is currently under negotiation. The aim of the ESONET is to create a European capability to implement, operate and maintain a network of multidisciplinary ocean observatories in deep waters from the Arctic Ocean to the Black Sea. Such a network of observatories will lead to scientific advances in the knowledge of submarine geology, the ecosystem of the seas and the environment around Europe.

Projects supported under RTD FP-5 in the marine field can be found under http://www.cordis.lu/eesd/ka3/clusters.htm.projects. Here a few examples particularly relevant to deep sea biodiversity:

- ECOMOUND (Environmental Controls on Mound Formation along the European Margin) http://www.geomar.de/projekte/ecomound/ecomoundstart/. The major objective of the project was to define the environmental controls and processes involved in the development and distribution of carbonate mounds on the NW European continental margin.
- ACES (Atlantic Coral Ecosystem Study) http://www.pal.uni-erlangen.de/index.php?id=181&L=1 The aim of the project was a margin-wide environmental baseline assessment of the status of Europe's deep-water coral margin with recommendation for essential monitoring and methodology requirements for future sustainable development.

- GEOMOUND (The Mound Factory-Internal Controls) http://geomound.ucd.ie/ aimed to produce a systematic inventory and data set of recorded giant mound occurrences in the selected basins (from industrial data and surveys by the project team), documenting morphologies, structural associations, patterns and temporal relationships which might identify the underlying geological control point on the genesis of mounds and on their sustained or episodic growth.
- DEEPBUG (Development and Assessment of New Techniques and Approaches for Detecting Deep Sub-Seafloor Bacteria and their Interaction with Geosphere Processes) http://www.chm.bris.ac.uk/deepbug/. This project involved an interdisciplinary group of microbiologists and organic geochemists to develop methods and approaches to explore the deep biosphere in sub-seafloor sediments. New core handling techniques are developed for deeper more consolidated sediments.

Yours sincerely,

Hugo-Maria Schally (EC CBD Focal Point)

CC. K. Zaunberger (DG RTD); F. Wakenhut, Irja Vounakis (DG ENV);

