

E_{ditorial}

Half a year has gone since the start of OASIS on 1 December 2002. During this time, we had our first project cruise to Seine Seamount on R.V. Poseidon, taking physical, biological and biogeochemical samples, and also a short cruise on R.V. Archipelago to Sedlo Seamount for the deployment of moored current meters. First results from the Poseidon cruise show that there appear to be interesting differences in biological and biogeochemical features between the summit and slope regions of the seamount. Due to a delay in the refit of the ship, the Discovery cruise which was planned for summer 2003 had to be shifted to summer 2004. We are now looking forward to the cruise on R.V. Meteor in autumn, for which the preparations have already started.

The latest developments concerning the EU fisheries policy again show the acute need for projects like OASIS. The intended opening of the 50-200 nm zones of the Azores, Madeira and Canary Islands for EU fishing vessels imposes an immediate threat to seamounts, and may also directly impact the scientific work of OASIS.



S_{takeholder workshop / project meeting}

The first OASIS stakeholder workshop is planned for the third week of September and will be followed by an OASIS project meeting. Representatives from governments, fishery, industry, conservation agencies, and science will be invited to the stakeholder workshop.

Contact: Dr. Bernd Christiansen bchristiansen@uni-hamburg.de
Universität Hamburg,
Institut für Hydrobiologie und Fischereiwissenschaft
Zeiseweg 9, D-22765 Hamburg, Germany
Tel. +49 40 42838-6670, Fax +49 40 42838-6696

Poseidon cruise report

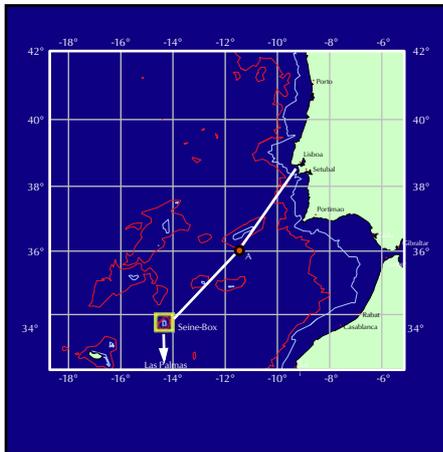
After a delay of 12 hours *Poseidon* left the port of Lisbon on 20 March, with an international scientific crew from 5 countries. The first station was reached on 22 March. The attempt to recover a Portuguese sound source mooring failed, despite being able to communicate with the release and to trigger it.



Poseidon then sailed to Seine Seamount, where it arrived in the morning of 23 March. First a moored ADCP, which is

a device to measure the water flow, was deployed on top of the seamount at a water depth of 181 m. A drifter array measuring the amount of oxygen algae produce, was deployed above the summit and recovered successfully after 24 hours. Unfortunately, the drifter array was lost after the second deployment; despite an extended search the unit could not be found.

Several CTD/rosette casts, measuring temperature and salinity and sampling water for the analysis of organic particles were performed on and around the seamount. This gear was combined with a pump system which filters water for organic particles. Water sampling was also performed for the measurement of dissolved organic carbon, oxygen, and nutrients. The water above the summit appeared to be markedly lower in organic particles and phytoplankton cells than at the other locations.



mount to sample sediment, which consisted of hard, coarse sand so that the corer penetrated into the sediment only a few centimetres.



A total of eight plankton hauls with the MOCNESS were performed on top of the seamount, at the southern and northern flank and at an oceanic far field station outside the influence of the seamount, reaching to a maximum depth of 1000 metres. The MOCNESS is a multiple plankton net with a total of 6-20 nets which can be opened and closed sequentially at different depths. A first impression of the samples indicates differences between the plankton community on top of the seamount and at the flanks, with much lower total abundance above the summit where the plankton communi-



ty consisted mainly of small copepods. At the flank stations, very high abundances of small fish and crustaceans were observed at a depth of ca 600 m. Additionally, a multinet with five nets was used to study the fine-scale vertical distribution of plankton above the summit of the seamount.

The DOS (deep observationsystem, a camera sled) proved to be very unreliable, and during the last haul water penetrated into the underwater unit and caused a short cut in the electric system. The unit could not be repaired during the cruise. The ADCP mooring was recovered successfully at the end of the cruise.

Most of the time the weather was fairly good, only for one day strong wind and high swell made the station work a bit uncomfortable. There were a few seabirds in the area, mainly petrels, and we could also observe dolphins, sea turtles, some fish and large calamaris.

Station work was finished on Sunday, 30 March; then we sailed to Las Palmas where we arrived on 1 April.

Bernd Christiansen

photos by Ana Mendonça (3), Bernd Christiansen (3), Stephan Werk (1)

Forthcoming events

In July, two members of the OASIS consortium will represent OASIS in the Marine Biodiversity Cluster Meeting in Brussels. The Marine Biodiversity Cluster consists of 16 EU projects relevant to marine biodiversity, most of them funded within the 5th framework programme. A goal of this meeting will be "to consolidate the framework of the Marine Bio-diversity Cluster by fostering improved integration between the several projects involved, with particular emphasis on sharing ideas on dissemination and result-based benefits at the end of the projects. Such improved integration will make an effective contribution towards the objectives of the European Research Area".

Two OASIS members have been invited to participate in the Seamount and Canyon Workshop in Oregon on 22-24 August. This workshop is organized by Karen Stocks from SeamountsOnline and financially supported by the Census of Marine Life programme. The goal of the workshop will be to evaluate the existing state of knowledge of seamount and submarine canyon ecology, set priorities for future research, and determine the most important next steps towards energizing research programs on these habitats internationally. The product of the workshop will be a science plan outlining the major scientific questions and laying out a strategy for collaborating and attracting funding over the next 5-7 years.

Collaborations

In January 2003, the Institute of Marine Research (IMR) in Bergen hosted the 2nd MAR-ECO planning workshop. Three members of the OASIS consortium participated in the meeting. Bernd Christiansen presented a short

overview of OASIS and of the forthcoming

cruises. The collaboration between

OASIS and MAR-ECO was confirmed, and the project description of component project PN2, one element of which comprises part of OASIS, has been revised (short description:

<http://www.mar-eco.no/sci/documents/PN2.pdf>;

full document:

<http://www.mar-eco.no/sci/documents/PN2-0204.doc>).

Åge Højnes from IMR was invited to become member of the OASIS stakeholder advisory board and act as liaison between both projects.

The collaboration between OASIS and the Deutsches Zentrum für Marine Biodiversität (DZMB, German Centre of Marine Biodiversity) has been confirmed. The DZMB will participate in OASIS cruises and study aspects of diversity and zoogeography



in meiofauna, which is a valuable addition to the OASIS research which focuses on the larger benthic organisms.



A team of the Technische Universität Hamburg-Harburg (TUHH) will join the OASIS cruise in November to

test the newly developed "adaptive pressurized ocean analysis chamber" (APROACH), a device to study deep-sea organisms in the laboratory under in situ pressure. Plankton will be sampled in a pressurized and temperature-isolated sampling chamber attached to a MOCNESS. The sampling chamber will then be coupled to the experimental chamber, where a variety of experiments can be performed on the organisms, like measurements of respiration and excretion, utilization of food etc. The sampling chamber is being built and fitted to the MOCNESS at the moment, and a sea trial is planned for early September.

Website

OASIS is just at its start, hence scientific results are not yet available. However, general information can be found on our newly designed website at:

www.rrz.uni-hamburg.de/OASIS

Open Access threatens seamount habitats and species in OASIS study area

A proposal to the EU Fisheries Council to open up the 200 nm Exclusive Fisheries Zones (EEZ) around the Azores, Maderia and the Canary Islands to industrial trawling stirred environmentalist and scientific communities in early June. A letter to European Commissioner Franz Fischler, other Commissioners and the members of the Fisheries Council, from Greenpeace, Seas At Risk and WWF, pointed out that such a move would threaten to rapidly destroy important habitats, cause a decline in fragile deep sea fish stocks and outcompete local artisanal fisheries. Subsequently, the proposal was not tabled at the EU Fisheries Council meeting on June 12 – a gain of a short timespan before it will be up for decision again. Therefore, WWF and SAR plan to start another information campaign directed at the council and advisory bodies. Support from science is most welcome.



OSPAR/HELCOM Ministerial meeting

The Ministerial Meeting of the OSPAR and HELCOM Conventions' contracting parties took place in Bremen, June 23-27. At the meeting, OSPAR and HELCOM Ministers, as well as representatives from the European Commission, discussed (separately and jointly) common problems in protecting the marine environment.

The main topics were:

- * Conservation of biodiversity with specific regard to negative impact from fisheries
- * Establishing a joint network of marine protected areas
- * Cooperation with the EU in developing and implementing a comprehensive European marine strategy
- * Application of the ecosystem-based approach as a tool for implementing the OSPAR Convention

A joint network of MPAs

After five years of preparatory work the OSPAR countries adopted the *Recommendation on the creation of an ecologically coherent network of well-managed marine protected areas*. The recommendation is the legal instrument on the basis of which the network of MPAs shall be established in a 2-step process by 2010. OSPAR will accept proposals for MPAs in the high seas and explore possibilities for how to establish effective conservation measures there. This is the first step towards a global network of MPAs as envisaged by the global community for 2012 (World Summit on sustainable Development 2001).

But keep in mind the reality: there is not yet a single offshore marine protected area in the northeast Atlantic which affords effective protection to species and habitats.

Seamount MPA proposals and submissions by WWF can be found at

<http://www.ngo.grida.no/wwfneap/Projects/MPAmap.htm>

and

<http://www.ngo.grida.no/wwfneap/Publication/pubframe.htm>

The fisheries issue

Fisheries, this means the basically industrial fisheries, nowadays pose the greatest threat to habitats and species in the offshore area. OSPAR, however does not have a mandate on fisheries, but the competence is exclusively with the national governments of Iceland, Norway and the European Commission on behalf of EU member states. Therefore the question of fisheries impacts on the environment is highly controversial and has not been resolved during the ministerial meeting.

It is uncertain, whether OSPAR will become a "toothless tiger", not being able to ensure the protection of vulnerable habitats and species. The list of threatened and/or declining species and habitats, which now finally includes seamounts, was adopted by the Ministers – now measures need to be agreed and IMPLEMENTED as soon as possible. The test case for OSPAR will come very soon.



Seamounts on the global agenda

Seamounts rank high on the priority list for global protection – not least due to the extensive illegal, unreported and unregulated (IUU) fishing reported from most oceans. UN General Assembly Resolution A/57/141 "*encourages relevant international organizations,*, to consider urgently ways to integrate and improve, on a scientific basis, the management of risks to marine biodiversity of seamounts"; In order to accelerate processes leading towards conservation measures for the high seas, WWF and IUCN initiated an action programme aiming at pulling together scientific knowledge and legal expertise. Slowly, the common understanding of the legal basis for high seas MPAs is improving – now the scientific basis has to be created and/or presented to politicians to further urge for practical implementation of measures for a full network of protected areas, imbedded in a wider ecosystem-based approach to management of human activities. YOUR CONTRIBUTION is required!

Additional information and background material can be found at

<http://www.ngo.grida.no/wwfneap/Projects/MPA.htm>



Participating institutions in OASIS

Universidad de Las Palmas de Gran Canaria, Spain (ULPGC)

National Environmental Research Council, Southampton Oceanography Centre, UK (NERC)

Universität Hamburg, Germany (UHH)

World Wide Fund for Nature, North East Atlantic Programme (WWF)

Friedrich-Alexander Universität Erlangen, Germany (FAU)

Instituto do Mar/Departamento de Oceanografia e Pescas, Universidade dos Açores, Portugal (IMAR/DOP)

Universität Rostock, Germany (URO)

National University of Ireland, Galway, Ireland (NUIG)