

Editorial

OASIS has been running now for more than one year, and the project is about to develop into a successful story. We had a total of 5 cruises on smaller vessels to one or both of our study sites, and most of the time the weather was very favourable. The preliminary results presented during our project meeting in Las Palmas in September 2003 were very promising and fed into the planning of the sampling design for our first major project cruise on R.V. Meteor which took place in November/December 2003. During this cruise, a total of 91 stations were sampled, and we brought back a load of data and samples, among others the first *in situ* photographs and videos from Sedlo and Seine Seamounts.



The opening of the EEZs of the Azores, Canary Island and Madeira to the EU fishing fleet, which threatens the seamount ecosystems located there including both our study sites, still has kept our attention. The OASIS scientists expressed their concern in a letter to members of the European Commission and to the EU fishery ministers, demanding the application of the precautionary principle. Meanwhile, a compromise may prevent the seamounts at least from bottom trawling.

After several postponements OASIS will organize its first stakeholder workshop. The event will take place on 1st and 2nd April 2004 in Horta, Azores, following the Azores Fishery Week. The purpose of this meeting is to inform stakeholders about the goals and targets of the project, first results obtained, but more importantly, also to give interested parties an opportunity to let us know their expectations on such a project and in particular their view on the conservation objectives.

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Meteor cruise M60/1

After the last provisions were loaded, METEOR sailed from Kiel on 11 November. We enjoyed the passage of Kiel Canal with cold, but sunny weather. The weather stayed calm in the North Sea, and all groups were busy to assemble their equipment and to set up the laboratories. At the western entrance of the English Channel a gale hit us with wind force 8 Bft and waves up to 8 m high which slowed our speed considerably, leaving some members of the scientific crew seasick, but the wind and the sea calmed down soon, and we could continue the preparations for the station work.

On 18 November METEOR arrived at our first study site, Sedlo Seamount. Here, a combined hydrographic/bathymetric survey was performed at the southeastern summit of the seamount which is the main area of interest for our studies. During the survey, five moorings carrying current meters which had been deployed on a cruise with the Portuguese research vessel ARCHIPELAGO in summer 2003, were successfully recovered. A baited amphipod trap was deployed on the summit of Sedlo Seamount on 21 November and recovered two days later. The catch was surprisingly small, with only a few amphipods, but several fishes.



The bathymetric survey which was sometimes impaired by high swell, was finished on 21 November. Station work continued with MOCNESS hauls (both the 10m² and the 1m² double system) and CTD-rosette casts, including SAPS (stand-alone pump systems), for the analysis of primary production, nutrients, dissolved and particulate organic matter. On 22 November the WASP (wide angle seabed photography) was lowered to the summit of Sedlo Seamount for the first time. The system produced still images and one hour of digital video film. Surprisingly, the summit plateau showed bare rock in many places, with only a few patches of sediment in between, sometimes with boulders and gravel, all this pointing to strong currents sweeping over the top of the seamount. Further WASP hauls at several locations similarly showed bare rock in most places.

Benthic sampling at Sedlo Seamount included multiple corer, box corer, amphipod trap and rock dredge which, towed at the flank of the seamount, caught a few sessile organisms like crinoids and corals.

Station work at Sedlo Seamount was finished on 30 November, and METEOR sailed to our second study site, Seine Seamount. The transit time of 2.5 days allowed us to have a great party, with excellent food (pork and duck, Bavarian potato salad, bread and cheese...), beer and wine, with singing and dancing. We arrived at Seine Seamount on 2 December in the afternoon. Strong wind and high swell did



not allow for using towed gear, so we started with several CTD/rosette casts. On the following day, the weather and sea conditions improved considerably, and one 10 m²-MOCNESS haul (down to 1000 m) and two hauls with the 1m²-double-MOCNESS (down to 4170 m) could be performed.

The remaining time at Seine Seamount was mainly used for benthic sampling, including WASP transects, multiple corer and box corer. The WASP videos showed that the summit plateau was covered with sediment. At the edges, some patches with flat rock could be seen. An epibenthic sledge haul on the summit plateau of



the seamount, at a water depth of 170-180 m, caught large numbers of megafaunal organisms, like sea urchins, sea stars, crustaceans, worms, but also benthopelagic fish like snipe fish, which are typical for seamounts.

METEOR left Seine Seamount on 5 December in the afternoon and sailed to Funchal, Madeira, where we arrived the next day in the morning.

Photographs by T. Beck (2) and B. Christiansen

for the full report see:
www.rrz.uni-hamburg.de/OASIS/publications.htm

First pictures of Sedlo Seamount

During Meteor cruise M60/1, photo and video transect were performed at Sedlo and Seine Seamount using the WASP system from SOC. At Sedlo Seamount, the seafloor was rocky at nearly all locations visited, with some sediment-covered patches in between. The summit plateau of Seine Seamount was covered with sediment, but the flanks were rocky.

The pictures below are stills from a video taken at the lower flank of Sedlo Seamount, water depth ca 2000 m.



Crinoid on top of a rock (B. Bett)



Rock with crinoid, left, and sediment with gravel (B. Bett)

Report from the OASIS cruise on R/V ARQUIPÉLAGO to Seine Seamount

The R.V. Archipelago left the port of Horta on 6 July and navigated during four days to Seine Seamount, around Madeira Archipelago. The cruise arrived at the local on 10 July but unfortunately the work only started 3 days later, because rough sea conditions. The work on the seamount finished on 19 July at 1:30 am with the last CTD being retrieved.

Eight fishing sets were made on different areas of the seamount, where longline was used as fishing gear. From the eight sets, four were from 150 to 1200m using one type of bait (sardine) and the others from 800 to 2000m with three types of bait (sardine, squid and shrimp). The gear used in the sets until 2000 m had different disposition of mainline, of which is in the vertical position instead the diagonal like in normal gear.

Different species of teleosts and elasmobranch were captured. The fishes most dominant in the deeper sets were sharks, particularly the portuguese dogfish *Centroscymnus coelolepis*. Other uncommon species like gadella (*Gadella maraldi*), bigscale pomfret (*Taractichthys longipinis*), azores rockling (*Gaidropsarus granti*), smalleyed rabbitfish (*Hydrolagus affinis*), spined pygmy shark (*Squaliolus laticaudus*), black codling (*Physiculus dalwigki*), and blue antimora (*Antimora rostrata*), where also caught.

Simultaneously, in this mission several CTD's stations (9) where also sampled in a pre-defined design until the 2000 m depth. Surface water was also collected for posterior analysis of phytoplankton.

During the mission, most of the time the weather was fairly good, only for two days high swell made the station work a bit uncomfortable. Every day we could observe dolphins, whales, sea turtles and seabirds, even a pigeon we had a board.



Smalleyed rabbitfish, *Hydrolagus affinis*



Azores rockling, *Gaidropsarus granti* (P.Niny)



Portuguese dogfish, *Centroscymnus coelolepis* (P.Niny)

OASIS Stakeholder workshop to take place 1-2 April, 2004 in Horta, Azores

The purpose of the meeting is to inform stakeholders from science, industry, government and NGOs about the goals and targets of the project, first results obtained, but more importantly, also to give an opportunity for feed back by stakeholders regarding expectations on such a project and in particular the conservation objectives. In round table discussions and working groups past, present and future human activities shall be assessed and management measures required for protecting seamounts from unsustainable exploitations shall be discussed.

The meeting will take place in conjunction with the Azores Fisheries Week 2004 - A programme can be downloaded at:

<http://www.rrz.uni-hamburg.de/OASIS/Pages/stakeholder.htm>

Sedlo and Seine inside and outside regional fisheries management

In October 2003, the EU Fisheries Council decided to reduce the formerly 200 nm exclusive fishery zone of the Azores, Madeira and the Canary Island to 100 nm, the outer 100 nm now being subject to the EU Common Fisheries Policy (Council Regulation (EC) No 1954/2003). This means that there will be less to no restrictions to the fishery on the fish stocks at seamounts in the outer 100 nm around the islands compared to the former regional fisheries management. In fact, since 1 January more than 40 Spanish longliners have already fished inside this outer zone despite an entry into force of the new regulation of 1 August 2004. The regional Government of the Azores does not accept this Regulation and seeks mitigation by the European Court of Justice. In order to keep at least the ban to bottom trawling at the seamounts, the European Commission proposes a trawling ban in rectangle shaped areas around the islands which include most of the fishable seamounts. The Fishery Council has yet to decide.

Both seamounts under investigation by OASIS, Sedlo and Seine, touch the 100 nm limit, so they could be put under conservation measures from the autonomous regional governments, fisheries measures then being subject to regional as well as European management.

For information see: Fact sheet *The Azorean Exclusive Fisheries Zone - Special environmental conditions requiring extraordinary management measures* by WWF and Seas at Risk

http://www.ngo.grida.no/wwfneap/Projects/Reports/Factsheet_Azores.pdf

The European Platform for Biodiversity Research Strategy (EPBRS)

EPBRS was created by DG Research as a forum where EU-funded science meets policy. One EPBRS meeting is organized by each EU presidency country, the topics being subject to regional and national priorities. EPBRS meetings are accompanied by an electronic discussion forum (MARBLE) on the respective topic to reflect the views of the scientific community prior to the EPBRS meeting. Ireland will host the next EPBRS meeting in May 2004 which will focus on the review of the EU Biodiversity Strategy.

www.bioplatform.info

Seamounts - new CoML project

The outlines for a new Census of Marine Life Programme focussing on seamounts world wide were drafted in a workshop, in August 2003. Presentation of OASIS project (B. Christiansen) and presentation on seamount "Research needs seen from the conservationists perspective" (S. Christiansen), to feed the discussions on the contents of the envisaged CoML project on seamounts.

The overarching question was formulated as: What roles do seamounts play in the biogeography, biodiversity, productivity, and evolution of marine organisms and what is their effect on the global, oceanic ecosystem?

Under this heading 3 areas of work were developed around the following questions:

- can we categorize seamount community structures to facilitate the development of proxy variables?
- how do communities within and between seamounts differ in their ecological structure and function?
- what roles do seamounts play in global oceanic ecosystems?

CoML will provide only for the structural framework of such a globally integrated seamount program. The research itself will have to be funded by national/regional funding agencies. However, a CoML framework program may help in some cases to acquire funds.

A workshop report can be downloaded from www.SeamountsOnline.org

Convention on Biodiversity - Conference of Parties, February 2004

At the recent meeting in Kuala Lumpur, ministers again reconfirmed their commitment to reduce biodiversity loss by i.a. the establishment of a global network of marine protected areas. The CBD 'decisions' related to marine and coastal biodiversity can be found in document - UNEP/CBD/COP/7/L.31

www.biodiv.org/doc/meetings/cop/cop-07/official/cop-07-l-31-en.pdf

Its § 30 calls for for *international cooperation and action to improve conservation and sustainable use of biodiversity in marine areas beyond the limits of national jurisdiction, including the establishment of further marine protected areas consistent with international law, and based on scientific information, including areas such as seamounts, hydrothermal vents, coldwater corals and other vulnerable ecosystems;*...

Deep Sea Conference, Queenstown, New Zealand, December 2003

The main goal of the Deep Sea Conference (www.deepsea.govt.nz) was to discuss the question how to address management and governance of deep sea fish stocks. Approximately 250 participants from almost 40 countries attended, representing a broad range of interests, sectors and expertise. Simon Cripps, director of WWF's Endangered Seas Programme, kindly presented the OASIS project briefly in his talk. The WWF/OASIS seamount report and the OASIS brochure was distributed to delegates. An interim report is available at www.Deepsea.govt.nz/CDocs/Interim Report_Deep Sea 2003.doc

New publications

OASIS Brochure
www.rrz.uni-hamburg.de/OASIS/Pages/publications/Oasis%20Brochure.pdf

Seamounts of the North East Atlantic. A WWF/OASIS report by Susan Gubbay
www.rrz.uni-hamburg.de/OASIS/Pages/publications/Seamount%20Report.pdf

The Azorean Exclusive Fisheries Zone - Special environmental conditions requiring extraordinary management measure. Fact sheet by WWF and Seas at Risk
www.ngo.grida.no/wwfneap/Projects/Reports/Factsheet_Azores.pdf

Management Directions for the Bowie Seamount: MPA Links Between Conservation, Research and Fishing. A report from WWF Canada, June 2003
www.wwf.ca/NewsAndFacts/Supplemental/BowieSeamountReport2003.pdf

Managing Risk and Uncertainty in Deep Sea Fisheries: Lessons from Orange Roughy. A report from TRAFFIC and WWF, November 2003
www.panda.org/downloads/marine/oranger0.pdf

Forthcoming cruises

Date	Ship	Target	PI	Focus
19-28.3.04	RV Archipelago	Sedlo	G. Menezes	oceanography
25.3.- 8.4.	R.V. Poseidon	Seine	B. Christiansen	pelagic sampling
April/May	RV Archipelago	Sedlo	G. Menezes	fisheries
July 2004	R.R.S. Discovery	Sedlo/Seine	B. Bett	all
1-15.9.	RV Archipelago	Sedlo	G. Menezes	fisheries

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

- Friedrich-Alexander Universität Erlangen, Germany (FAU)
- Universität Rostock, Germany (URO)
- National University of Ireland, Galway, Ireland (NUIG)
- World Wide Fund for Nature, North East Atlantic Programme (WWF)
- University of Liverpool, UK (ULIV)

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