

SERPENT scene

www.serpentproject.com
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➔ North Sea SERPENT offshore

Construction of the North Sea Buzzard platform was completed in 2006 and first oil was produced in January this year. The platform is operated by Nexen Petroleum U.K. Limited on behalf of its co-venturers BG Group, Petro-Canada, EOG (Edinburgh Oil and Gas). With support from Nexen, the Aberdeen-based SERPENT team has been very busy over the last couple of months monitoring the fish activity around the platform. In April, Iain Penny, SERPENT team member at FRS Marine Laboratory, made two visits to the platform. The first was a short 2 day visit to plan with the crew onboard how to deploy the baited camera system from the platform. Following this initial visit, equipment was shipped out to Buzzard and Iain returned for 5 days and completed 5 successful deployments from the Wellhead Platform crane. The position of the camera was just metres from the base of the jacket and the photos indicate high numbers of hagfish and flatfish, mainly Common dab (*Limanda limanda*) present in the vicinity.

Following this success, the 2007 baseline survey was carried out during the last week of April. The pelagic fishing vessel MFV Prowess was chartered for the one week trip and for once, weather conditions were perfect and the team completed 30 deployments around the perimeter of the exclusion zone and at the control site. Over the next few months, Fugro-Rovtech Ltd will be carrying out inspection surveys of the pipelines and jackets at Buzzard. This footage will provide further valuable information on the changing fish and invertebrate community and it is hoped that SERPENT PhD student Iñigo Martinez will have an opportunity to visit Buzzard during the jacket inspection to carry out opportunistic ROV surveys. The Aberdeen SERPENT team would like to thank the Nexen staff onshore and all the Buzzard platform staff who helped make the recent visit such a success, in particular John Owens and Tom Brady and the Sparrows Offshore Crane operator Paul Barrowclough.



Flatfish, hagfish & haddock attracted to mackerel bait deployed from the platform crane

Baited camera being deployed from MFV Prowess, Buzzard platform in the background



➔ SERPENT database live!

Our new image and video database is now live online and open to everyone to access. You can view it by going to the main SERPENT website and clicking on the menu button, or directly at

<http://archive.serpentproject.com/>



The repository so far holds over 1,000 image and video records, and will grow even more over the coming months as we update it. We hope you find it useful and interesting, and are keen to hear any feedback you might have - email Lis at Lkm@noc.soton.ac.uk with any comments.

➔ Gulf SERPENT

The Gulf SERPENT project welcomes Chevron and Subsea7 as industrial partners. Chevron has a large program in the Gulf of Mexico and we will begin by collecting video data from the drillship Discoverer Deep Seas. We are grateful for the cooperation and resources that Chevron is providing to this component of the SERPENT Project.

Gulf SERPENT currently focuses on marine life that lives in the water column of the Gulf of Mexico and is coordinated through Louisiana State University (LSU). Gulf SERPENT began shortly after Hurricane Katrina with studies at sites operated by BP using ROVs from Oceaneering. Funding for the program was from NOAA's Office of Ocean Exploration. Based on the success of our pilot study, we have submitted a proposal to the Minerals Management Service (MMS) through the LSU Coastal Marine Institute, to fund Gulf SERPENT for three years through August 2009.

For more information contact Dr. Mark Benfield, LSU Department of Oceanography and Coastal Sciences, +1-225-578-6372, E-mail: mabenfie@lsu.edu

Send us more...!



Do you have any questions, interesting stories, images or videos? Share them with us! Email lkm@noc.soton.ac.uk

➔ Community Outreach Day at the University of Sydney

In April, 70 students from years 10 to 12 from local schools visited the University of Sydney to participate in a series of lectures and workshops put on by the Physics, Biology and Chemistry departments. Biology day included an “Investigating the Ocean with Robots” activity, produced and run by SERPENT team member Dr Adele Pile and Dr Stefan Williams from the Australian Centre for Field Robotics.



Adele and Stefan introducing the challenges for the day

Students were shown footage of Adele’s undersea investigations and heard how on one occasion she had to scrounge for materials only found on the oil rig in order to quickly make a device for catching eels. The task was set; in groups of three or four, the students created eel-catchers with an aim of collecting as many 'eels' - plastic fish - as possible from a testing tank. The materials provided included steel collanders, metal spoons, plastic buckets, milk-crates, gaffa-tape, rope, PVC piping and netting. The objective was to manipulate their constructions with two toy robotic claws, with the added challenge that the driver could not see what they were doing but had to rely on someone issuing them with instructions.

There was a great deal of creativity shown by many of the groups, each having to explain their design to the class. In the end, the most successful solution was found to be the simplest - a net, similar to a butterfly catcher.



A student explaining his team’s device, and one of the solutions in action!

➔ Rosebank visit West of Shetland

Collaboration is the lynch-pin behind the success of the SERPENT Project. Here, SERPENT Research Assistant, **Dr Andrew Gates**, shares his experience of visiting the Transocean Rather to deploy experimental equipment at the Rosebank field, his first offshore visit as part of the SERPENT team.

“To get a marine biologist out to an oil rig 100km West of Shetland to study deep-sea ecology is itself an achievement of collaboration and teamwork, in this case between the SERPENT Project office at the National Oceanography Centre, Southampton (NOCS), Chevron, Transocean and Subsea 7, the project team involved in the Rosebank explorations.

On board the rig, SERPENT work is reliant on the expertise of the Remotely Operated Vehicle (ROV) team, and on the Rather I was able to work with a very enthusiastic group; they even came to listen to my presentations about the work we were planning, despite having put up with me during their shift! Behind their enthusiasm was some previous experience of SERPENT work. The ROV supervisor had been involved with SERPENT in the early days of the project, which proved invaluable for the planning of operations involving the use of ROV technology for biological sampling and highlights the benefits of collaboration between the project team.

After my visit to the Rather I was pleased to have the opportunity to show the ROV supervisor around the National Oceanography Centre, Southampton and introduce him to other members of SERPENT. To me this emphasized the interest shown by the people I had worked with on board the Transocean Rather and gave the opportunity to discuss the ongoing SERPENT operations at Rosebank.

At the beginning of June, this collaboration with Chevron, Subsea 7 and Transocean will continue. I am making a second visit to the Rather and Rosebank to recover equipment and collect samples from the experiments that the ROV team helped set up for us. We are looking forward to getting some very exciting results to show for the hard work put in by everyone, and hopefully plenty of new opportunities for future deep-sea research.”

