

SERPENT scene

The Newsletter of the SERPENT Project

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SERPENT Trumps cards now available for sale!

New logo for SERPENT project

SERPENT Scene is now available available in new online format

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Editorial

No sooner it seems than we get the Christmas and New Year celebrations over, it's suddenly time for the next edition of the SERPENT Scene newsletter! It's been a very busy first quarter of the year, with SERPENT gearing up for the big Oceans on Wheels Roadshow that had it's debut on Saturday 15 March at the Oceans and earth Day at the National Oceanography Centre (NOCS) here in Southampton. The new SERPENT Deep Seas Simulator was on display for the first time and was a great hit with both children and adults alike. You can find out more in the article on this page.

Dr Daniel Jones visited the worlds largest drillship, the Stena Carron in the Faroe-Shetland Channel with the BBC's Coast tv crew and Dr Andrew Gates visited a new location for SERPENT, the Asterix prospect in the Norwegian Sea. Our man in the Gulf of Mexico, Mark Benfield has been busy as usual and reports on the latest Gulf SERPENT news and some of the fauna he encountered from Thunder Horse and Transocean Discoverer Deep Seas.

The SERPENT brand is undergoing a transformation with the launch of our new logo, so look out for the logo appearing on all new publications from now on. Let us know what you think of it. Enjoy the newsletter and have a great summer!

SERPENT on the road

The SERPENT Deep Seas Simulator, one of 5 NOCS-based Postgraduate and Post-Doctoral outreach projects funded by the University of Southampton's Oceans on Wheels Roadshow initiative, made its debut at this year's Oceans and Earth Day at the National Oceanography Centre in Southampton.



Oceans and Earth Day was one of 3,500 events that took place across the UK during National Science and Engineering Week (NSEW), a ten-day celebration of science, engineering and technology coordinated by the British Science Association, which ran from 6 - 15 March. Over 2,000 visitors had the opportunity to visit the Centre on Saturday 15th and feedback has been very positive, particularly for the exciting atmosphere and the enthusiasm of exhibitors.

Dr Tania Smith and Rob Curry had great fun training over 300 budding young ROV pilots on the day using the new simulator and were successful in enthusing adults and children alike in the SERPENT project and the science of the deep sea.

The ROVsim® software provided by Marine Simulation LLC™ performed



First look at the SERPENT Deep Seas Simulator in action at the Oceans and Earth Day event at the National Oceanography Centre in Southampton.

impeccably on the day. Two missions were available for the children to enjoy, with the Sampling mission being the most popular, although shark fans were delighted to have a go at the Video Transect mission which featured a realistic virtual Porbeagle shark occasionally cruising into camera!

The simulator was a resounding success for children and adults alike. If you are interested in the simulator or want any more information, don't hesitate to contact Rob Curry, SERPENT outreach coordinator on +44 (0)2380 596363, or contact us via the web site.

Find the yellow panel on the back page for a list of Roadshow events where you can have a go on the simulator yourself!

Left: A screengrab of the simulator

Send us your stories!

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



Gulf SERPENT updates

Gulf SERPENT partners with Shell

As this issue goes out, Gulf SERPENT is in the process of finalizing a cooperative agreement with Shell to begin surveys at five of their deepwater Mobile Offshore Drilling Units (MODUs). This collaboration will increase the number of research sites we work at to approximately 11 and will expand our coverage in the western Gulf. All of the sites have Oceaneering ROVs and at two sites, the ROVs are equipped with High Definition (HDTV) cameras, which will enable us to collect very high definition videos.



Megapixels – Gulf SERPENT Acquires Digital Stills Camera

Last year BP provided a generous donation that enabled us to purchase a digital stills camera. The system we selected is manufactured by Deep - Sea Systems in Woods Hole. Their 8 megapixel camera is completely compatible with Oceaneering ROVs and provides us with the ability to remotely control the system and store images directly to the underwater unit. This means we don't need high bandwidth to transfer data to the surface. Once the system has been recovered, it can transfer the images to a laptop over a WIFI network, eliminating the need to open up the camera can. High resolution cameras enable us to collect clearer images of marine life. Clearer images allow us to make better identifications. We will deploy the system early in 2009. Stay tuned!



Anthony Harwin (Oceaneering) and Mark Benfield with the new camera.

Data Collection Picks Up Again After Hurricanes

After a busy and productive summer, we were hit by two hurricanes – Gustav and Ike. Both storms caused substantial damage offshore and not unexpectedly, SERPENT data collection ceased while operations focused on reconstruction and repair. We were very



Hurricane Gustav in full fury in the Gulf of Mexico

pleased to receive new DVDs containing data from surveys conducted over the fall at Thunder Horse and Deepwater Horizon.

We'd love to get observations from all our sites. Please help us by conducting regular SERPENT dives whenever time permits.

Recent Sightings

Most of our data collection comes from beneath the surface but there are a few animals that are big enough to be observed from the surface. Whale sharks fall into this category. On



December 29th, Dirk Hebert sent us a nice Christmas present from Holstein in the form of pictures of a whale shark that was swimming beneath BP's Holstein spar.

Creature Feature



Solmissus imaged by Subsea7 below the Discoverer Deep Seas

One of the beautiful animals that we commonly observe is known by its scientific name *Solmissus*. One species in this genus is called the dinner-plate medusa – a name that accurately describes their flattened shape. *Solmissus* is a predator that fishes for its prey with outstretched or trailing tentacles. These jellyfish are also reported to be vertical migrators that move up into shallower water at night to feed on abundant prey. Just before dawn they descend back to deeper and darker water where they remain hidden during the day. We've seen *Solmissus* beneath just about every facility where Gulf SERPENT dives have been conducted. It's most abundant between 300 – 800 m (984 – 2625 feet).

For the full Gulf SERPENT Newsletter go to <http://zooplankton.lsu.edu/PDF/Gulf%20SERPENT%20Newsletter%20Dec08.pdf>



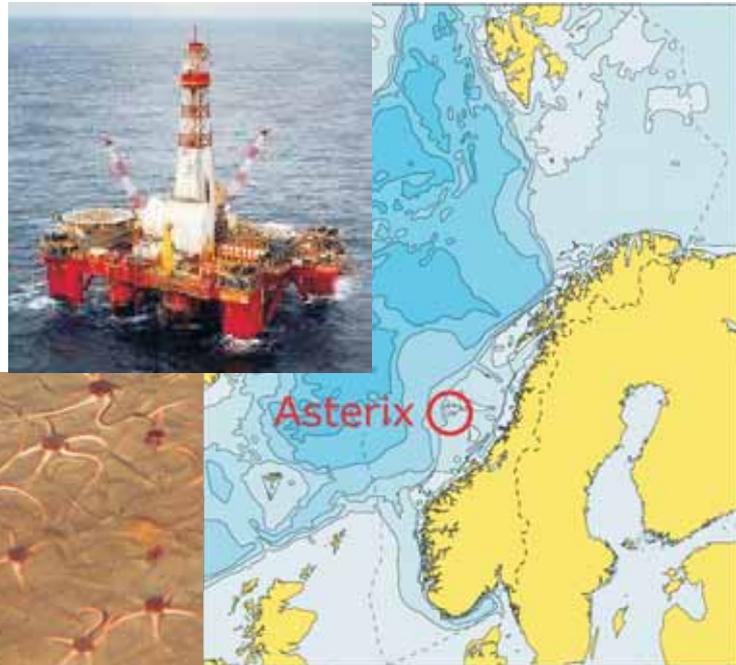
UK Missions Update

Dr Gates visits Asterix Prospect

Mid-February saw Dr Andrew Gates heading out to the Norwegian Sea on another SERPENT Mission with the Norwegian oil company StatoilHydro. This time he was to visit the Transocean Leader at the Asterix Prospect which lies in 1,360 meters of water 345 kilometers west of Sandnessjøen in the Norwegian Sea.

On a busy trip, Andy used photography, video and specimen collection to investigate the benthic megafauna in the Norwegian Sea. Additionally, he collected material to make a short documentary film about the collaboration between SERPENT and StatoilHydro on the Transocean Leader.

Specimens of an abundant species of small ophiuroids or brittle star were collected, possibly *Ophiactis abyssicola*. They will be identified on return to the laboratory.



Clockwise from top: The Transocean Leader rig; Map of the Norwegian Sea showing the location of the Asterix Prospect; Many small ophiuroids were seen at the Asterix site. You can view more pictures from the Asterix mission by visiting the online missions page at www.serpentproject.com/miss.php and selecting the Asterix mission link.

Dr Jones in Stena Carron Mission

Dr Daniel Jones has just returned from a SERPENT visit to the world's largest drillship, the 228 m long Stena Carron. The ship was working in 1200m deep water in the Faroe-Shetland Channel, 150 miles north of Scotland. This SERPENT visit, hosted by Chevron, gave us the opportunity to work with a film crew to provide material for one of the BBC's flagship marine programmes, 'Coast'. Daniel will present one of the 'postcard' segments in this summer's new series.

The visit used the two Oceaneering work-class ROVs onboard the Stena Carron during the month-long SERPENT mission. We had an extremely successful trip, collecting some very valuable specimens, mostly animals that are common in the region but unknown to science or very poorly described. One animal, an attached jellyfish or *Stauromedusae*, has been identified as a type that have never been seen since the only specimen was lost in 1880! Another animal, a giant hydroid, is the seventh specimen of its family ever collected.

We were also able to collect valuable data on the hydrography of the region, verifying that the seabed temperature was extremely cold, -1°C ! We tested some new equipment and got some great imagery of the seabed using a time-lapse camera and the Oceaneering High Definition Video Camera. These systems allowed us to document the fascinating marine communities in this deep-water area in detail not possible before.



Above: The Stena Carron is a dual-mast, ultra-deepwater, dynamically-positioned drillship, capable of drilling in water depths of up to 10,000ft and has a total drilling depth of up to 35,000ft. This technologically advanced drilling rig is designed to offer maximum safety and operational efficiency in mild and harsh environments, faster transit speed between locations and greater deck load, to accommodate more equipment.

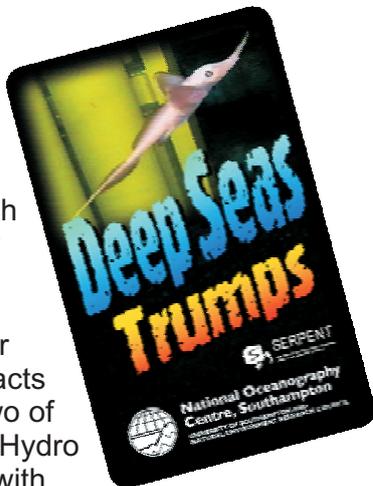
Left: A close-up view of the CTD device mounted on the Oceaneering Magnum ROV
Below: An excellent image of *Careproctus* captured on one of the frames using the time-lapse camera.



News Bites...

SERPENT comes up Trumps

The SERPENT project has produced an exciting new set of Trumps style playing cards that will be available for sale through NOCS. The cards contain some of the high definition images gathered by the project during our collaboration with oil industry partners and are a fun way for children to learn fascinating facts about deep sea creatures. Two of our industrial partners, StatoilHydro and Chevron were delighted with their own branded versions of the cards which have proved to be extremely popular with both children and adults alike and have been a highly effective tool in promoting both the partnerships and the SERPENT project, especially to a young audience. If you are a SERPENT partner and would like to receive a pack or would like us to produce your own branded version, please contact us. We do not make any profit on the cards.



“View as E-Magazine” link to view the magazine in its new format. You can drag the pages just like a real paper magazine, click on a page to zoom and jump from page to page with ease. All Serpent Scenes and the Annual Reports will be offered in this format in future.

New logo for SERPENT

Have you noticed the new SERPENT logo on the web site? We hope you like the new look logo which will be more versatile and adaptable than the old logo. See below for an example of the coloured version.



You will begin to see the new design appearing on publications and we would welcome feedback on the new logo, so either send us a message using the contact page on the website or by email to r.curry@noc.soton.ac.uk.

SERPENT Scene now an E-Magazine



If you would like to use the new logo in any way, we will be pleased to provide one for your use. The logo may not be used for any commercial or advertising use unless specifically approved by us.

Visit the Deep Seas Simulator!

Oceans on Wheels featuring the SERPENT Deep Seas Simulator will be at the following public access venues in the UK over the summer:

- 22 May**
Intech Science Centre and Planetarium, Winchester, Hampshire.
Web: <http://www.intech-uk.com/>
- 3-7 June**
The Times Cheltenham Science Festival, Gloucestershire.
Web: <http://cheltenhamfestivals.com/science/>
- 30 June - 4 July**
The Royal Society Summer Science Exhibition, London.
Web: <http://www.summerscience.org.uk/>
- 30 July - 2 Aug**
Stokes Bay Festival, Gosport, Hampshire.
Web: <http://www.stokesbayfestival.co.uk/>

Did you know that SERPENT Scene is now available in an online E-Magazine format? Go to the Publications page at www.serpentproject.com/pubs.php and click on the