



Deep-water oyster cliffs at La Chapelle Bank (Celtic Margin)

D. Van Rooij (1), V. Huvenne (2), E. Le Guilloux (3), A. Foubert (1), A. Wheeler (4), P. Staelens (1), J.-P. Henriot (1) and the HERMES Belgica GEO shipboard party

(1) Renard Centre of Marine Geology, Ghent University, Gent, Belgium, (2) Geology and Geophysics Group, National Oceanography Centre, Southampton, United Kingdom, (3) IFREMER, Laboratoire Environnement Profond, Plouzané, France, (4) Department of Geology, University College Cork, Cork, Ireland (david.vanrooij@ugent.be)

The maiden voyage of Ghent University's ROV GENESIS on-board R/V Belgica (13-20 June 2006) has succeeded in contributing to several objectives of the EU-projects HERMES and EURODOM, as well as of the ESF Euromargins project MoundForce. After several trials in the Bay of Douarnenez, GENESIS made its first deep-water survey dives off the Banc de la Chapelle, on the Celtic margin, down to 700 m.

The French canyon system near the Banc de la Chapelle offered a perfect location for rigorous trials of GENESIS: reported cold-water coral finds, rugged topography and hydrodynamics in a setting linking the shelf seas to the deep marine realm. The area was first surveyed using R/V Belgica's multibeam echosounder, imaging deep canyons and thalweg channels between prominent spurs where corals had been reported. High-resolution seismic sparker lines provided a geological context and linked in to the existing seismostratigraphy.

Two successful dives revealed a sandy-muddy seabed with curious bedforms and erosion exposing consolidated sedimentary sequences, often cut by vertical cliffs up to 10m high. At the base of the cliffs, fallen blocks provided settlement sites for sessile organisms whilst the cliffs and protruding banks revealed dense communities of unidentified giant ostreidae (probably *Neopycnodonte* sp) forming 3D assemblage with occasional cold-water coral colonies (*Lophelia pertusa*). Though deep-water 'oyster banks' of *Neopycnodonte cochlear* had already been reported in the Bay of Biscay by ..Le Danois (1948) based on dredges, these dramatic seascapes had re-

mained largely hidden to the human eye up to now.

References

.Le Danois, E. (1948). *Les profondeurs de la mer*. Payot, Paris, 303 pp.