

Press Release: 28th May 2007

Geological Survey of Ireland / Marine Institute

***RV Celtic Explorer* Surveys the Seabed off the Dingle Peninsula**

The National Research Vessel *Celtic Explorer* will be surveying the Seabed to the north of the Dingle Peninsula and west of Kerry Head, working between the Three Sisters by Smerwick Harbour and Brandon Head, until June 2nd. It should be visible from the shore during much of this time. This is the second leg of the INFOMAR (INtegrated Mapping FOr the Sustainable Development of Ireland's MARine Resource) 2007 survey, which has already covered an area of 2,899 square kilometres in water depths between 26 and 203 m, off the Dingle Peninsula since it began on April 17th.

The seafloor in the area has not been fully surveyed since the mid 1800's when it was surveyed under direction of Captain G.A. Bedford for the British Admiralty, which was at the time under the direction of Admiral Sir Francis Beaufort, an Irishman whose father was Rector of Navan. Beaufort is celebrated as developer of the Beaufort wind scale, still the standard measure of wind and wave sea state.

The area is also within the "Biologically Sensitive Area" (BSA) as designated by the EU Commission in 2003 following lobbying by the Irish government, fisheries scientists and industry. As such, international fishing effort in the area is restricted to a pre-specified effort as a form of protection. The survey will provide more detail on the nature and resources of this important natural area.

During the first leg in the shallower inshore waters in the south east of the area surveyed, the sea floor was found to consist mainly of bedrock gullies infilled with soft sediments. The eastern part of the survey area is characterised by sands and to the south west, coarse shelly sands. In the north east a large area of sand waves has been found, possibly composed of till material deposited during the last glaciation. These sand waves are overlain by shelly sand ribbons. More recently we have discovered a major Glacial Moraine in the area which is quite significant. The direction of the crests of the sand waves (aligned northeast to southwest) and their asymmetrical shape with scarp (front) slopes facing the northwest, indicates that the dominant current is to the northwest. Magnetic measurements have detected new evidence of large extensions to known igneous rocks at Innishvickaulane and Clogher Head.

The multibeam sonar survey has identified five distinct seafloor regions within the survey area. Grab samples were collected from 49 stations across these regions to examine the biological community they support and the seabed geology. Initial inspection shows a good collection of worms, tube forming animals, echinoderm (urchin) species, cup corals and molluscs. The samples will be analysed in more detail in Galway - Mayo Institute of Technology, to better understand the ecology of the BSA. Chemical analysis is also being carried out by Dublin City University including onboard analysis during the second leg.

Six possible wrecks were identified during the survey, one of which has already been confirmed. The others have yet to be compared with known wreck lists of the area.

INFOMAR is an ambitious joint venture between the Geological Survey of Ireland and the Marine Institute to map Ireland's most productive and commercially valuable inshore waters. Covering some 125,000 square kilometres of underwater territory, INFOMAR will produce integrated mapping products covering the physical, chemical and biological features of the seabed. The INFOMAR programme began last summer with surveys of valuable fishing and fish farming areas in Bantry Bay, Dunmanus Bays and fish spawning areas off the South West Coast.

INFOMAR is exploring and mapping the seafloor using high resolution multibeam sonar, measuring gravity and magnetic variation, and recovering grab samples for biological, chemical and geological analysis.

Ends. For more information please contact Lisa Fitzpatrick, Communications Officer, Marine Institute, Tel. 091 387438/ 087 2937476 or email lisa.fitzpatrick@marine.ie