

# All in a Day's Work

## Eoin Mac Craith – Marine Geologist, Geological Survey Ireland

**My name is Eoin Mac Craith and I work as a marine geologist with the INFOMAR national seabed mapping programme.**

[www.infomar.ie](http://www.infomar.ie)



Eoin Mac Craith

Images courtesy of Geological Survey of Ireland

### Where do you work?

I work at Geological Survey Ireland, in Dublin. I'm assigned to the INFOMAR programme, which is also run in partnership with the Marine Institute in Galway. The aim of the programme is to map all of Ireland's seabed by the year 2026 – we are well on the way, with much of the deep water already mapped and a lot of Ireland's bays and estuaries surveyed as well in great detail.

### Have you always been interested in what you do?

Yes, I have always had an interest in the seafloor. I grew up beside the sea in Spiddal, Co. Galway and spent a lot of time on the shore or in the water. I was also interested in what lay beneath the sea as I looked offshore and often wondered what the depth of the water was between the islands. I read books as a child that showed drawings of the seabed, with underwater volcanoes, canyons and bizarre deep sea creatures. It is a mysterious world and we now have the technology to see it clearly like never before.

### What training did you do to get where you are today?

After finishing school I studied geology and oceanography – joining the two together helped me find work with survey companies making maps of the ocean floor. It was this experience, in the North Sea, Central Asia and the Middle East, that gave me the training and experience to be able to join Ireland's national marine mapping programme.

### What is a day in your work life like?

While I spend the Winter months in the office analysing and reporting on our findings, the Spring to Autumn months are busy with fieldwork out at sea. A typical day involves the survey fleet casting off from a harbour such as Baltimore in the morning, with the larger vessels going out to deeper water and the smaller boats working in the shallows along cliffs and beaches. The boats use sonar to measure the water depth in a very detailed way and as the day progresses, together they build up a 3D map of the seabed. They work in a systematic way, moving along parallel lines much like a lawnmower. On board the different boats, the team keeps an eye on the data coming in, making sure the equipment is working properly and watching out for interesting discoveries such as unknown shipwrecks or unusual rock formations.

### What is your main aim?

The mapping is done for a variety of reasons, but the most important one is safety of navigation. While charts do exist of Ireland's seabed, many of them date from the 19th century and did not reveal all of the dangerous rocks around our coast – they were created using a length of rope with a weight on the end and while amazing achievements, they could not capture all the detail. With modern sonar we can find all these hazards and help to protect ships at sea. The maps can also be used for studying fish

habitats, discovering shipwrecks, understanding ancient sea level change and ensuring responsible construction at sea. An important thing is that all the data we collect is available for free for anyone to download – that's something I love about the work, the fact that it is done on everyone's behalf.

### Where does work take you?

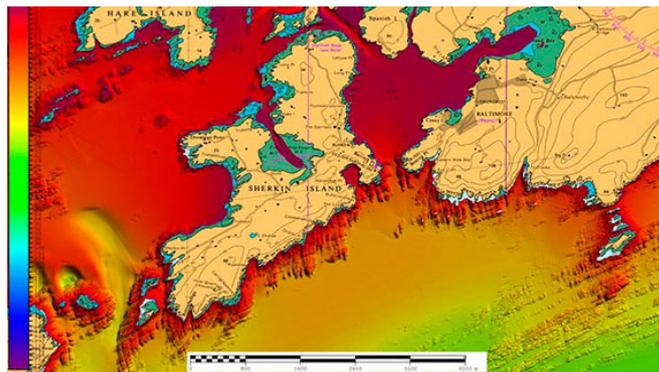
With the Geological Survey boats we travel all around the coast of Ireland, from the very edge of the water to 30 nautical miles out to sea. Beyond that limit the Marine Institute vessels take over and map the deeper waters of Ireland's continental shelf.

### What is the best thing about your job?

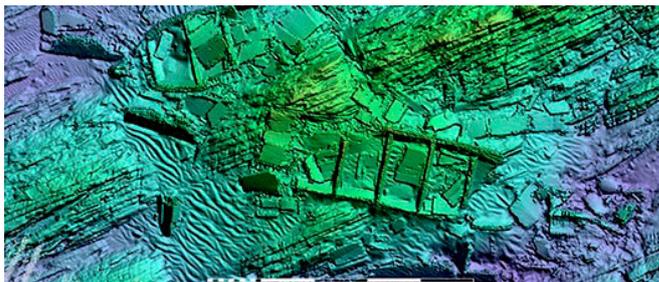
Each day is different, with interesting challenges and discoveries. One day we could be making a careful survey of a shipwreck from the Second World War and then another we could be mapping a system of underwater sand ripples that looks like the Sahara desert. As well as carrying out scientific work, we also work as crew on the ships so we get to be involved in a wide array of activities. It's a dream job for anyone who likes boats and being out at sea.



RV Mallet, one of the fleet on which Eoin Mac Craith works.



The seabed around Sherkin Island, West Cork.



The wreck of the Kowloon Bridge, lying off the Stags Rocks, near Baltimore, Co Cork.

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