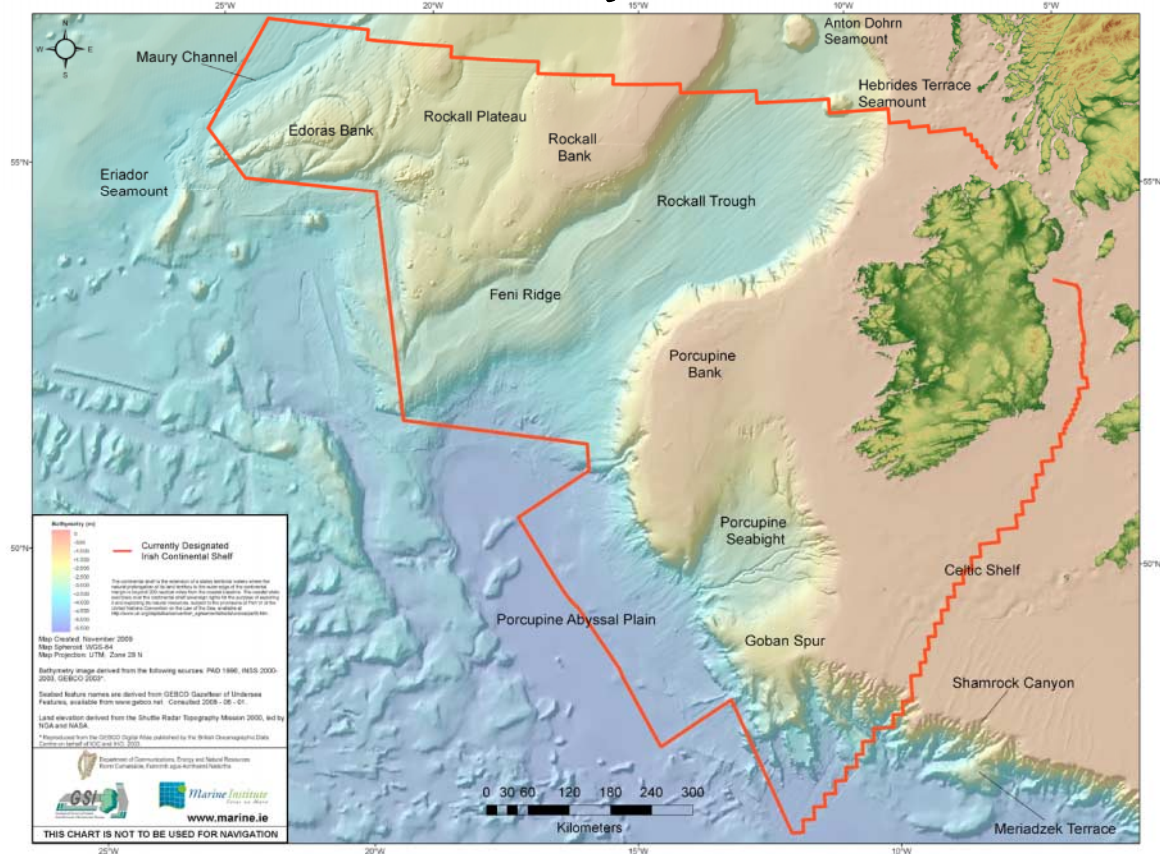


The Real Map of Ireland



The island of Ireland itself covers 20,863,360 acres of land. Ireland can also claim over 220 million acres of marine and undersea territory which is ten times greater than the size of the island of Ireland. Kevin Sheehan (page 7), who works for the Marine Institute, is one of the people helping to map this territory. Here is some interesting information on this valuable resource:

The Real Map of Ireland shows three areas under the sea which include:

- The continental shelf
- The continental slope
- The abyss

The Continental shelf: Ireland's continental shelf is a flat area of gently sloping land around the edge of the continents. Most of our fishing grounds are over the continental shelf as it is more fertile due to sediments washed out from rivers. This increases the amount of plankton for fish to feed on.

The Continental slope: Where the shelf changes to a slope the seabed is often cut by canyons.

The Abyssal plain: The Abyssal Plain

lies beyond the Real Map of Ireland territorial zone. The Abyss is similar to the desert on land, it is scarred or featureless without a hill for thousands of square kilometres. It is intensely cold (-0.6°C to 3.5°C), dark and is under high pressure. The bottom of the abyss is covered with a slippery and cold substance called ooze.

Seamounts: Volcanic peaks can be found more than 1km above the Abyssal plain. These may also be called seamounts. Seamounts that have been flattened by wave erosion are called tablemounts.

Ocean ridges: Mid ocean ridges are a mountainous ridge that breaks the abyss. It is here that the new crust is

formed by an up welling of magma from mantle below. In places these huge ridges appear above the surface of the sea to form islands. Iceland is an example of an island formed in this way.

Ocean trenches: Ocean trenches are formed where the mantle currents drag the plates towards each other and one sinks below the other. The deepest trench in the world, the Mariana trench is over 11,000m, this is in the Pacific.

The Gulf Stream: The Gulf Stream keeps Ireland warmer than would be expected in the winter by carrying heat in the form of warm water from the south western Atlantic near South America and Mexico. Any big weather event, such as a hurricane, typhoon, flood or drought, is generated by ocean conditions.

Children can learn more about the Real Map of Ireland through online worksheets and resources via the "Education & Events" link on the Marine Institute's website: www.marine.ie