

# Mysteries of the Atlantic

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Cardiff University scientists will shortly set sail (March 5) to investigate a startling discovery in the depths of the Atlantic.

Scientists have discovered a large area thousands of square kilometres in extent in the middle of the Atlantic where the Earth's crust appears to be missing. Instead, the mantle - the deep interior of the Earth, normally covered by crust many kilometres thick - is exposed on the seafloor, 3000m below the surface.

Marine geologist Dr Chris MacLeod, School of Earth, Ocean and Planetary Sciences said: "This discovery is like an open wound on the surface of the Earth. Was the crust never there? Was it once there but then torn away on huge geological faults? If so, then how and why?"

To answer some of these questions Dr MacLeod with a team of scientists, led by marine geophysicist Professor Roger Searle, Durham University, will travel to the area which lies mid-way between the Cape Verde Islands and the Caribbean.

The expedition will be the inaugural research cruise of a new UK research ship RRS James Cook. The team intends to use sonars to image the seafloor and then take rock cores using a robotic seabed drill. The samples will provide a rare opportunity to gain insights into the workings of the mantle deep below the surface of the Earth.

Source: Cardiff University

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