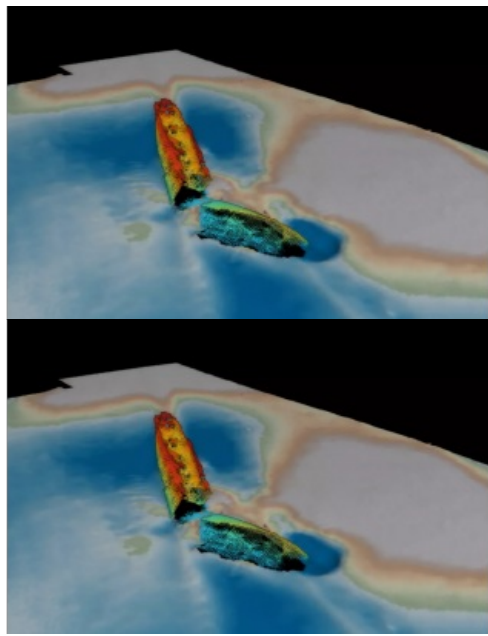# Multibeam sonar reveals ship that warned Titanic of icebergs

The ship that sent an iceberg warning to the RMS *Titanic* before the ocean liner sank has been identified in the Irish Sea. Using state-of-the art multibeam sonar, researchers at Bangor University have finally been able to positively identify the wreck and reveal its position for the first time.

In 1912, the merchant steamship SS *Mesaba* was crossing the Atlantic and sent a warning radio message to the RMS *Titanic*. The message was received, but never reached the bridge. Later that night, the supposedly unsinkable *Titanic* hit an iceberg and sank on her maiden voyage, taking 1,500 lives and becoming the world's most infamous shipwreck. The steamship continued as a merchant ship over the next six years before being torpedoed while in convoy in 1918.

Enabling highly detailed seabed mapping

Multibeam sonar proved to be the solution to identify the wreck. For marine archaeologists, this technology has the potential to be as impactful as the use of aerial photography was for landscape archaeology. Multibeam sonar enables seabed mapping of such detail that superstructure details can be revealed on the sonar images.

The SS *Mesaba* was one of 273 shipwrecks lying in 12,000 square kilometres of Irish Sea that were scanned and cross-referenced against the UK Hydrographic Office's database of wrecks and other sources. It was thought that 101 wrecks were unidentified, but the number of newly identified wrecks was far higher, as many – the SS *Mesaba* included – had been wrongly identified in the past.

Details of all the wrecks have been published in a new book, *Echoes from the Deep,* by Dr Innes McCartney of Bangor University, conducted under a Leverhulme Fellowship while at Bournemouth University.

The SS Mesaba. (Courtesy: State Library of Queensland / Bangor University)

Game-changer in marine archaeology

McCartney commented: "The results of the work described in the book have validated the multidisciplinary technique employed and represent a 'game-changer' for marine archaeology. Previously, we would be able to dive to a few sites a year to visually identify wrecks. The *Prince Madog*'s unique sonar capabilities have enabled us to develop a relatively low-cost means of examining the wrecks. We can connect this back to the historical information without costly physical interaction with each site. It should be of key interest to marine scientists, environmental agencies, hydrographers, heritage managers, maritime archaeologists and historians."

Dr Michael Roberts, who led the sonar surveys at the University's School of Ocean Sciences, explained: "The expertise and unique resources we have at Bangor University, such as the *Prince Madog,* enable us to deliver high-quality scientific research in an extremely cost-effective manner. Identifying shipwrecks such as those documented in the publication for historical research and environmental impact studies is just one example of this. We have also been examining these wreck sites to better understand how objects on the seabed interact with physical and biological processes, which in turn can help scientists support the development and growth of the marine energy sector."

Using state-of-the art multibeam sonar, researchers at Bangor University have finally been able to positively identify the SS Mesaba wreck and have revealed her position for the first time. (Source: Bangor University)