

Dating Anglesey's birth as an island and formation of the Menai Strait

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(PhysOrg.com) -- Research has revealed when Anglesey became a permanent island through the formation of the Menai Strait.

Mike Roberts, a mature student from Amlwch, conducted the research as part of his PhD at Bangor University's School of Ocean Sciences, supported by the Cemlyn Jones Trust and the Countryside Council for Wales.

His research, just published in an academic journal, reveals that the Strait became a permanent feature between 5,800 and 4,600 years ago around the time when hunter-gatherers were replaced by the first farmers in North Wales.

"About 14,000 years ago the entire region of the Menai Strait was dry land and both humans and animals could easily cross from one side to the other," explains Mike.

"Over the next few thousand years the climate warmed and melting ice caused sea levels to rise which in turn, caused the coastline of Wales to take on its familiar shape and flooded the Menai Strait from either end. Then one day sometime between 8,800 and 8,400 years ago, a high spring tide actually separated Ynys Môn or Anglesey, from the mainland for the first time."

"Sea levels kept on rising and for some 4,000 years only a tidal causeway, in the vicinity of Ynys Gored Goch in the Swellies, linked

Anglesey with the mainland at low tides. Then at some time between 5,800 and 4,600 years ago there came a moment when even the lowest of the low spring tides failed to reveal any dry land and the tidal strait as we know it today was first formed,” he said.

This newly-discovered history of how sea level changed in North Wales has also revealed information about the size of the ancient ice sheets that used to cover Snowdonia, when and how fast they disappeared and provided important information on the properties of the molten Earth beneath Britain.

Professor James Scourse, one of Mike’s Ph.D. supervisors, said “Mike’s study not only unlocks the recent geological history of the region in which we work, it also demonstrates that the NE Menai Strait is one of the most important localities for sea-level reconstructions in the whole of Europe. The amount of data from this single locality is unprecedented”.

Mike’s career demonstrates that it’s never too late to go to university and is also a testament to the effectiveness of Bangor University in training mature students. After leaving school with a few basic qualifications Mike spent the next 15 years seeking employment wherever it was available, working as a general labourer, driver, plasterer and commercial fisherman locally and in England and Germany. In his early thirties he decided to embark on a degree course at Bangor University via an Access to Higher Education Course at Coleg Menai and his exceptional abilities were rewarded with a first class Honours Degree in Ocean Sciences and a Ph.D. scholarship from the Cemlyn Jones Trust. He now works as a geological consultant within the SEACAMS project in the School of [Ocean Sciences](#).

More information: Mike Roberts’s paper in the *Journal of Quaternary Science* is available here: [onlinelibrary.wiley.com/doi/10 ... 02/jqs.1443/abstract](https://onlinelibrary.wiley.com/doi/10.1002/jqs.1443/abstract)

Provided by Bangor University

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