

Bear bone discovery re-writes human history in Ireland

March 20 2016, by Naomi O'leary



Radiocarbon dating of a bear's knee bone reveals that it was hunted by humans in 10,500 BC as opposed to earlier evidence of human life in Ireland dated at 8,000 BC

Analysis of a bear bone found in an Irish cave has provided evidence of human existence in Ireland 2,500 years earlier than previously thought, academics announced Sunday.

For decades, the earliest evidence of [human](#) life in Ireland dated from 8,000 BC.

But [radiocarbon dating](#) of a bear's knee [bone](#) indicated it had been butchered by a human in about 10,500 BC—some 12,500 years ago and far earlier than the previous date.

"This find adds a new chapter to the human history of Ireland," said Marion Dowd, an archaeologist at the Institute of Technology Sligo who made the discovery along with Ruth Carden, a research associate with the National Museum of Ireland.

The knee bone, which is marked by cuts from a sharp tool, was one of thousands of bones first found in 1903 in a cave in County Clare on the west coast of Ireland.

It was stored in the National Museum of Ireland since the 1920s, until Carden and Dowd re-examined it and applied for funding to have it radiocarbon dated—a technique developed in the 1940s—by Queen's University Belfast.

The team sent a second sample to the University of Oxford to double-check the result. Both tests indicated the bear had been cut up by a human about 12,500 years ago.

The new date means there was human activity in Ireland in the Stone Age or Palaeolithic period, whereas previously, scientists only had evidence of humans in Ireland in the later Mesolithic period.

"Archaeologists have been searching for the Irish Palaeolithic since the 19th century, and now, finally, the first piece of the jigsaw has been revealed," Dowd said.

Three experts further confirmed that the cut marks on the bone had been made when the bone was fresh, confirming they dated from the same time as the bone.

The results were revealed in a paper published in the journal *Quaternary Science Reviews*.

As well as pushing back the date of [human history](#) in Ireland, the find may have important implications for zoology, as scientists have not previously considered that humans could have influenced extinctions of species in Ireland so long ago.

"From a zoological point of view, this is very exciting," Carden said. "This paper should generate a lot of discussion within the zoological research world and it's time to start thinking outside the box... or even dismantling it entirely!"

The National Museum of Ireland noted that approximately two million more specimens are held in its collections and could reveal more secrets.

"All are available for research and we never know what may emerge," said Nigel Monaghan, keeper of the natural history division of the National Museum of Ireland.

"Radiocarbon dating is something never imagined by the people who excavated these bones in caves over a century ago, and these collections may have much more to reveal about Ireland's ancient past."

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