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Most British men are descended from ancient farmers

The first farmers to arrive in Britain outbred the native hunter-gatherer men and have left their mark in modern males' Y chromosome

Ian Sample, science correspondent
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Farming in the blood: More than 60% of British men have a Y chromosome that dates back to the origin of agriculture. Photograph: Howard Sochurek/Rex Features

Most men in Britain are descended from the first farmers to migrate across Europe from the Near East 10,000 years ago, scientists say.

Ancient farmers left their genetic mark on modern males by breeding more successfully than indigenous hunter-gatherer men as they made their way west, a study has found.

As a result, more than 60% of British men, and nearly all of those in Ireland, can trace their Y chromosome back to the agricultural revolution, or more precisely the sexual success of the men behind it.

The farmers' Y chromosome becomes more common in the west of England and reaches a national peak of 78% in Cornwall, scientists found.

Men with surnames including Titchmarsh and Haythornthwaite are among the most likely to carry the farmers' Y chromosome, known as R1b1b2. The Y chromosome is passed down the male line only, from father to son.

"These farmers expanded into territories with small and sparse hunter-gather populations and moved on as time passed. The Y chromosome got caught up in that and it surfed the wave of expansion," said Mark Jobling, a geneticist at Leicester University and an author of the study.

The rise of farming is one of the most important cultural transformations in the history of modern humans. Increased food production allowed communities to settle rather than wander in search for food, a shift that heralded the huge expansion of the human population.

The first European farmers came from the "fertile crescent" that stretched from the eastern Mediterranean to the Persian Gulf, but experts have argued whether the westerly spread of agriculture was driven by the cultural transmission of ideas and technology, or by migrating farmers.

Researchers led by Jobling collected DNA samples from more than 2,500 men across Europe. Around 80% of the men had the R1b1b2 type of Y chromosome, making it the most common lineage on the continent.

A map showing the distribution of the chromosome across Britain reveals that it became increasingly common but less genetically diverse from the south east to the

north west. The analysis, published in the journal PLoS Biology, suggests the R1b1b2 Y chromosome entered the country with the earliest farmers in the south east and gradually spread west as they migrated.

Genetic tests on women showed that most are descendants of hunter-gatherer females. "To us, this suggests a reproductive advantage for farming males over indigenous hunter-gatherer males during the switch from hunting and gathering to farming," said Patricia Balaresque, a co-author of the study.

"Maybe back then, it was just sexier to be a farmer."

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