

Genes shed light on pygmy history

February 4 2014, by Laurent Banguet



A group of pygmies shelter from the rain in Mubambiro village, on October 26, 2006 near Goma, Democratic Republic of Congo

Scientists on Tuesday said they could fill a blank in the history of Central Africa's pygmies, whose past is one of the most elusive of any community in the world.

At a key period in the human odyssey, these hunter-gatherer tribes shunned interbreeding with Bantu-speaking communities who were early farmers, according to a gene analysis.

The two groups first met when the Bantu groups, having acquired farming technology some 5,000 years ago, started moving out of the region of Nigeria and Cameroon into eastern, central and southern Africa.

Most of the other [hunter-gatherers](#) they encountered soon adopted the agricultural, [sedentary lifestyle](#) and even the languages of the Bantu groups.

But a few populations, like the pygmies of the central African rainforest, kept their traditional, mobile way of life.

The pygmies may have traded pottery, tools and ideas with the newcomers, but not their genes, said the study in the journal *Nature Communications*.

The evidence comes from a reading of the DNA of some 300 individuals—pygmies and Bantu-speakers from Gabon, Cameroon, Uganda, the Central African Republic and the Democratic Republic of Congo.

"This result suggests that social relations established since the two groups first met were quickly followed by a strong taboo against inter-marriage that is to some extent still observed today," co-author Etienne Patin, a geneticist at France's Institut Pasteur, told AFP.

"Anthropological research has suggested that the taboo may have something to do with the image the villagers have of pygmies as the custodians of forest magic, but also disapproval of their way of life" as mobile hunter gatherers, he added.

It was not clear why the taboo seems to have been partly lifted about a thousand years ago.

The pattern observed in central Africa was very different to what happened in the south of the continent, where the conquering farmers' encounters with San [hunter-gatherers](#) "resulted in immediate genetic exchanges", said the study.

Previous research had shown that the common ancestor of the pygmies and Bantu farmers lived about 60,000 to 70,000 years ago.

The two groups spent tens of thousands of years adapting to their different environments before meeting up again.

The latest findings challenge the accepted science that [genetic diversity](#) is closely correlated with geographic distance between human groups.

The central African pygmies are a case in point—there are only about 200,000 individuals in total, yet their genetic diversity far exceeds that of their sedentary neighbours, said the study.

The Batwa pygmies of Uganda, for example, are genetically quite distinct from the Mbuti [pygmies](#) who live a mere 500 kilometres (310 miles) away in the DR Congo.

The researchers further found that the pygmy genome could contain as much as 50 percent DNA inherited from people of Bantu origin.

And their height is directly proportional to the amount of non-pygmy DNA inherited—"the less one is pygmy, genetically speaking, the taller one is," said Patin.

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