

Huge human population boom 40,000 to 50,000 years ago

Curious Cat Science and Engineering Blog

Interesting open access paper on looking at the Y-chromosome to explore our ancestry: [A calibrated human Y-chromosomal phylogeny based on resequencing](#) [1]. I can't understand all the details but the basic idea isn't that complicated. It is interesting to see these details as are the conclusions that can be drawn: that we had a big explosion of human population o 41,000â€”52,000 years ago.

This population explosion occurred, between the first expansion of modern humans out of Africa 60,000 to 70,000 years ago and the Neolithic expansions of people in several parts of the world starting 10,000 years ago.

“We think this second, previously unknown population boom, may have occurred as humans adapted to their new environment after the first out-of-Africa expansion,” says Dr Qasim Ayub, lead author from the Wellcome Trust Sanger institute. “We think that when humans moved from the horn of Africa to Asia, Australia and eventually Europe, they remained in small groups by the coasts. It took them tens of thousands of years to adapt to the mountainous, forested surroundings on the inner continents. However, once their genetic makeup was suited to these new environments, the population increased extremely rapidly as the groups travelled inland and took advantage of the abundance of space and food.”

The work highlights how it is now possible to obtain new biological insights from existing DNA sequencing data sets, and the value of sharing data. The majority of the DNA information used for this study was obtained from freely-available online data-sets.

This is the first time researchers have used the information from large-scale DNA sequencing to create an accurate family tree of the Y chromosome, from which the inferences about human population history could be made.

[Full press release](#) [2]

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<http://www.ecnmag.com/blogs/2013/03/huge-human-population-boom-40000-50000-years-ago>

Links:

[1] <http://genome.cshlp.org/content/23/2/388.full.pdf+html>

[2] <http://www.sanger.ac.uk/about/press/2012/121029.html>