Analysis finds Neanderthal genome 'less fit' than humans, likely contributed to their demise

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Interbreeding with Neanderthals was likely a mixed bag for our ancestors.

The regions of DNA around our genes are conspicuously absent of Neanderthal DNA, suggesting that natural selection weeded it out. Now Rasmus Nielsen of the University of California, Berkeley, and Kelley Harris of Stanford University have used the uneven distribution of Neanderthal DNA in our genomes to predict what Neanderthal populations might have been like 50,000 to 100,000 years ago.

According to the <u>new findings</u>, published in *Genetics* on June 2016, Neanderthal genomes were rife with harmful DNA that significantly reduced the species' fitness. The researchers conclude that Neanderthals were roughly 40 percent less fit than modern humans, meaning they were less likely to produce offspring.

That's not surprising. By the time early humans arrived in Europe, Neanderthal populations were relatively small. Closely related individuals would have mated, allowing harmful mutations to accumulate in these groups. Indeed, the influx of fresh DNA that came from interbreeding with modern humans likely slowed the Neanderthals' decline.

Read full, original post: The Downside to Neanderthal DNA