

# Paleorivers across Sahara may have supported ancient human migration routes

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Three ancient river systems, now buried, may have created viable routes for human migration across the Sahara to the Mediterranean region about 100,000 years ago, according to research published September 11 in the open access journal *PLOS ONE* by Tom Coulthard from the University of Hull, UK, and colleagues from other institutions.

Simulating paleoclimates in the region, the researchers found quantitative evidence of three major river systems that likely existed in North Africa 130,000-100,000 years ago, but are now largely buried by dune systems in the desert. When flowing, these rivers likely provided fertile habitats for animals and vegetation, creating 'green corridors' across the region. At least one river system is estimated to have been 100 km wide and largely perennial. The Irharhar river, westernmost of the three identified, may represent a likely route of human migration across the region. In addition to rivers, the researchers' simulations predict massive lagoons and wetlands in northeast Libya, some of which span over 70,000-square kilometers. "It's exciting to think that 100 000 years ago there were three huge rivers forcing their way across a 1000km of the Sahara desert to the Mediterranean—and that our ancestors could have walked alongside them" said Coulthard.

Previous studies have shown that people travelled across the Saharan mountains toward more fertile Mediterranean regions, but when, where and how they did so is a subject of debate. Existing evidence supports the possibilities of a single trans-Saharan migration, many migrations along one route, or multiple migrations along several different routes.

The existence of 'green corridors' that provided water and [food resources](#) were likely critical to these events, but their location and the amount of water they carried is not known. The simulations provided in this study aim to quantify the probability that these routes may have been viable for [human migration](#) across the region.

**More information:** Coulthard TJ, Ramirez JA, Barton N, Rogerson M, Brücher T (2013) Were Rivers Flowing across the Sahara During the Last Interglacial? Implications for Human Migration through Africa. *PLoS ONE* 8(9): e74834. [DOI: 10.1371/journal.pone.0074834](https://doi.org/10.1371/journal.pone.0074834)

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