No trace of ancient colonizers' canines in Madagascar

20 May 2015

"It's a mystery," Savolainen says of the study, which sampled DNA of 145 dogs from Madagascar and 184 from the African mainland. "We were surprised when we saw the results. We expected 100 percent or 50 percent ancestry from Indonesia—but it was zero percent."

In ancient times, the expeditions of Indonesians typically included domestic animals, such as pigs, chickens, and of course, man's best friend. Along with their Austronesian culture and DNA, the Indonesians introduced their dogs' genes into populations wherever they settled. This canine DNA can still be found in Hawaii, Southeast Asia, the Cook Islands and New Zealand, among other places.

"Dogs, together with pigs and chicken, were important domestic animals in the Austronesian culture," he says. "So it would be expected that dogs were brought in the colonization of major new areas, and a seemingly total absence in Madagascar of dogs with Austronesian heritage is surprising.

One possible explanation doesn't quite hold up, Savolainen says. If the migration from Indonesia to Madagascar was "a limited event" which brought only a small number of colonizers in a few voyages, then why does the human population of the island have such a high diversity of maternal and paternal lineages with Indonesian origin?

"This indicates that there was an introduction of large numbers of people, possibly in several successive waves rather, than a severe genetic bottleneck in the founder population," he says.

Savolainen offers a more likely, if unappealing scenario. "It is possible that if the dogs were brought along on these long journeys, they died from the hardship, or were used as a food source."

Indonesian dog DNA isn't the only missing trace of...
the Indonesian diaspora in Madagascar. As Savolainen points out, the Madagascan culture is mainly influenced by Africa and, except for the language, few clear contributions remain from the initial Indonesian culture."

More information: "African origin for Madagascan dogs revealed by mtDNA analysis."
DOI: 10.1098/rsos.140552 Published 20 May 2015

Provided by KTH Royal Institute of Technology

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