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The fossil record of camelids demonstrates a late divergence between Bactrian camel and dromedary

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A new compilation of the Old World fossil record of Camelidae and a recent phylogenetic analysis allow a new assessment of the timing of the clade's diversification. Using a recent implementation of the fossilized birth-death process, we show that the divergence between Bactrian camel and dromedary has a peak probability density around 1 Ma and probably occurred less than 2 million years ago. These dates are much younger than molecular estimates, which place the divergence between the dromedary and the Bactrian camel between 4 and 8 million years ago. Calibration problems in molecular dating seem to explain much of this difference.

Key words: Mammalia, Camelidae, phylogeny, divergence time, fossil record, birth-and-death models, Pleistocene, Africa.

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