

Teeth, rainfall linked to primate survival

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U.S. and Finnish scientists say primates, except for humans, can reproduce into old age under certain conditions.

Patricia Wright of the State University of New York-Stony Brook and Jukka Jernvall of the University of Helsinki say they've determined tooth deterioration may impact the primates' nutritional status and, potentially, their reproductive success.

To discover how tooth wear might influence reproduction, Jernvall, Wright and colleagues documented tooth wear in a population of Madagascar rainforest lemurs, called sifakas, during the past 20 years.

The researchers took dental casts of the sifakas' mouths and analyzed tooth wear. The sifakas' crowns were found to wear flat by 18 years of age. But despite the tooth deterioration, some sifakas were able to survive and produce healthy offspring for another 10 years, as long as there was abundant rainfall during the nursing season.

That link between tooth wear and rainfall suggests long-lived mammals may be particularly sensitive to changing environmental conditions.

The study is detailed in the online early edition of the Proceedings of the National Academy of Sciences.

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