

First in-depth analysis of primate eating habits

December 5 2013



From insect-munching tamarins to leaf-loving howler monkeys, researchers at the University of East Anglia have compiled the most thorough review of primate eating habits to date. Credit: Carlos Peres, University of East Anglia

From insect-munching tamarins to leaf-loving howler monkeys, researchers at the University of East Anglia (UEA) have compiled the most thorough review of primate eating habits to date.

Findings published today in the journal *Oikos* show how some monkeys

consume their 'five a day' within a single hour and consume as many as 50 portions of [fruit](#) in a single day.

The research focuses on the amount and diversity of fruit consumed by [primates](#) in neotropical forests of South and Central America. The team compiled data from 290 primate dietary studies spanning 42 years of research across 17 countries.

They reveal how primate body mass and the amount of fruit consumed are linked – with small monkeys such as marmosets and tamarins eating more insects and less fruit.

The amount of fruit eaten gradually increases with greater body size and peaks at medium-sized primates such as saki monkeys. But fruit intake then declines in favour of leaves in larger-bodied primates such as howler and woolly spider monkeys.

Lead researcher Dr Joseph Hawes from UEA's School of Environmental Sciences said: "We examined dietary data to quantify how much different primate species feed on fruit, leaves and insects – particularly in relation to their body size. We found that different species vary widely in the amount and diversity of fruits that they eat, as well as the overall contribution of fruit to their diets.

"We found that the diet of medium-sized primates is most likely to be dominated by fruits. Meanwhile smaller primates, which have high metabolic requirements, eat more insects as they provide a high-quality source of nutrients and calories. Larger monkeys eat a lot more foliage because their guts can tolerate high levels of cellulose and toxins – which are unpalatable or indigestible to smaller primates.

"Many primates easily consume their 'five a day', often within a single hour of active foraging. For example, a single group of several

Amazonian primate species can consume as many as 45-50 species of fruit in a single day!

"One of the most surprising things that we found was that primates with wide geographic ranges do not necessarily consume a wider diversity of fruits as expected, perhaps because these species tend to be generalist feeders. Another surprise was that primates with higher prevalence of fruit in their diets were historically among the most poorly studied, meaning we still have a lot to learn about their importance as consumers and seed dispersers."

Co-author Prof Carlos Peres, also from UEA, added: "Having a good understanding of non-human primate diets in the wild is very important for the conservation planning of threatened and area-demanding [species](#), with forest habitat loss and severe forest degradation a major concern throughout the New World tropics. This is also critical to evaluate the roles of primates within forest food webs, particularly as seed dispersers for tropical forest plants."

Provided by University of East Anglia

Citation: First in-depth analysis of primate eating habits (2013, December 5) retrieved 13 March 2024 from <https://phys.org/news/2013-12-in-depth-analysis-primate-habits.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--