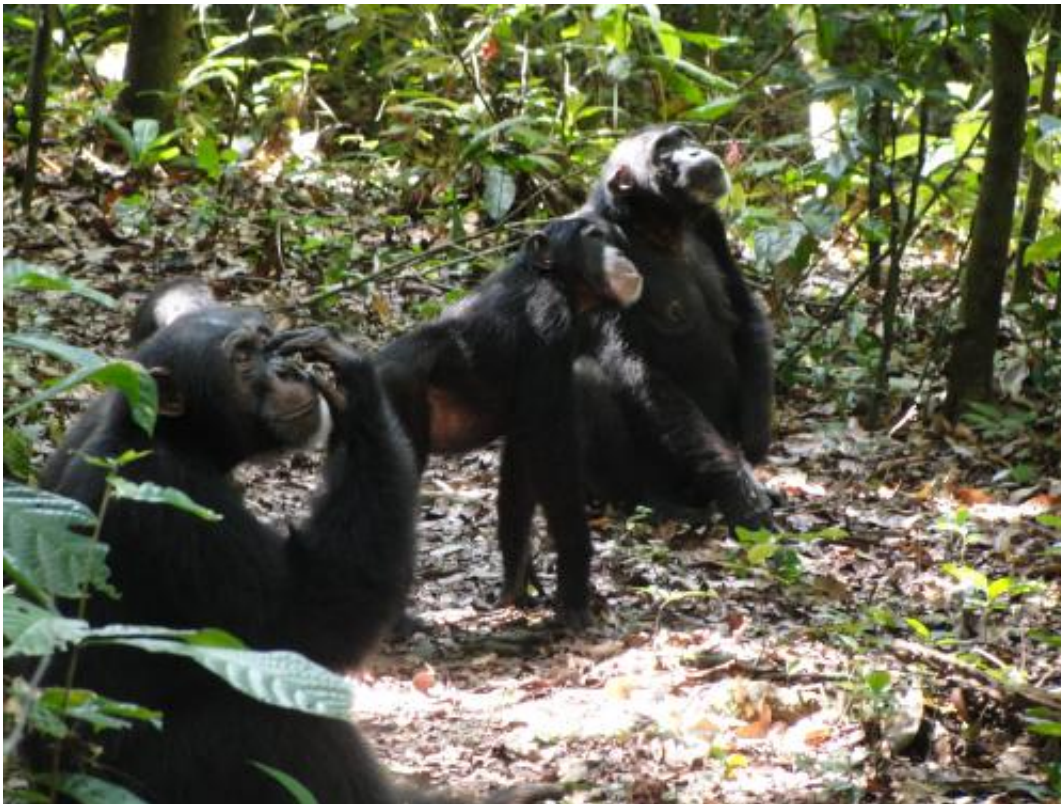


Chimpanzees use botanical skills to discover fruit

April 10 2013



This image shows chimpanzees gazing up tree crowns in search for fruit. Credit: Ammie Kalan

(Phys.org) —Fruit-eating animals are known to use their spatial memory to relocate fruit, yet, it is unclear how they manage to find fruit in the first place. Researchers of the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, have now investigated which

strategies chimpanzees in the Taï National Park in Côte d'Ivoire, West Africa, use in order to find fruit in the rain forest. The result: Chimpanzees know that trees of certain species produce fruit simultaneously and use this botanical knowledge during their daily search for fruit.

To investigate if [chimpanzees](#) know that if a tree is carrying fruit, then other trees of the same species are likely to carry fruit as well, the researchers conducted observations of their inspections, i.e. the visual checking of fruit availability in tree crowns. They focused their analyses on recordings in which they saw chimpanzees inspect empty trees, when they made "mistakes".

By analysing these "mistakes", the researchers were able to exclude that [sensory cues](#) of fruit had triggered the inspection and were the first to learn that chimpanzees had expectations of finding fruit days before feeding on it. They, in addition, significantly increased their expectations of finding fruit after tasting the first fruit in season. "They did not simply develop a 'taste' for specific fruit on which they had fed frequently", says Karline Janmaat. "Instead, inspection probability was predicted by a particular botanical feature - the level of synchrony in [fruit production](#) of the species of encountered trees."

The researchers conclude that chimpanzees know that trees of certain species produce fruit simultaneously and use this information during their daily search for fruit. They base their expectations of finding fruit on a combination of botanical knowledge founded on the success rates of fruit discovery and an ability to categorize fruits into [distinct species](#). "Our results provide new insights into the variety of food-finding strategies employed by our close relatives, the chimpanzees, and may well elucidate the evolutionary origins of categorization abilities and abstract thinking in humans", says Christophe Boesch, director of the Max Planck Institute for Evolutionary Anthropology's Department of

Primateology.

More information: Karline R. L. Janmaat, Simone D. Ban & Christophe Boesch, Taï Chimpanzees use Botanical Skills to Discover Fruit: What we can Learn from their Mistakes, *Animal Cognition*, 10 April 2013

Provided by Max Planck Society

Citation: Chimpanzees use botanical skills to discover fruit (2013, April 10) retrieved 18 April 2024 from <https://phys.org/news/2013-04-chimpanzees-botanical-skills-fruit.html>

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.