

Research reveals bonobos skillfully cracking nuts with stone hammers like chimpanzees

October 3 2016



Bonobos cracking nuts. Credit: Johanna Neufuss, University of Kent

A first of its kind study from the University of Kent found that wild-born, rehabilitated bonobos (*Pan paniscus*) can be efficient nut-crackers with a skill level not that different from wild chimpanzees.

Conducted by Johanna Neufuss from the University's School of Anthropology and Conservation, with the results published in the *American Journal of Primatology*, the research analysed the behaviour of 18 [bonobos](#) that have been cracking nuts for at least two decades at the Lola ya Bonobo sanctuary in the Democratic Republic of the Congo.

Unlike chimpanzees - sister species to the bonobo - bonobos rarely use even simple tools in the wild. Only a few studies have reported tool-use in captive bonobos, including their ability to crack nuts, but details of this complex tool-use behaviour have not been documented before.

However, the Kent study has revealed a much greater diversity of manipulative ability than previously considered including fifteen grips to hold hammerstones, ten of which have not been observed in any other nonhuman primates including chimpanzees and capuchin monkeys.

The study showed that bonobos have an exclusive hand preference for using either the right- or left-hand during nut-cracking, with the majority of individuals being right-handed. It also revealed that bonobos demonstrate a hand use strategy when hammering with larger stones, preferring either both hands or one hand/one foot.

Bonobos also actively select the most efficient hammer stones for cracking nuts and, when compared to the renowned nut-cracking chimpanzees of Bossou (Guinea), they also crack significantly more nuts per minute.

It is clear from this study that more future studies on complex tool-use behaviour in bonobos under natural conditions are required, in order to explore the full range of their manipulative and tool-use capabilities. Johanna Neufuss is a PhD student who studies the functional morphology of the hand in extant apes.

More information: Johanna Neufuss et al, Nut-cracking behaviour in wild-born, rehabilitated bonobos (): a comprehensive study of hand-preference, hand grips and efficiency, *American Journal of Primatology* (2016). [DOI: 10.1002/ajp.22589](https://doi.org/10.1002/ajp.22589)

Provided by University of Kent

Citation: Research reveals bonobos skillfully cracking nuts with stone hammers like chimpanzees (2016, October 3) retrieved 28 April 2024 from <https://phys.org/news/2016-10-reveals-bonobos-skillfully-nuts-stone.html>

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