

New evidence of tool use discovered in parrots

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Greater Vasa Parrot in Madagascar. Credit: Wikipedia/CC BY-SA 3.0

Psychologists at the University of York and University of St Andrews have uncovered the first evidence of tool use by greater vasa parrots

(*Coracopsis vasa*).

Studying ten captive parrots, researchers in the Department of Psychology at York observed the birds adopt a novel tool-using technique to acquire [calcium](#) from seashells and also the active sharing of tools among themselves.

The birds used small pebbles or date pits to grind calcium powder from the shells or to break off small pieces of shell to ingest. This behaviour, never before seen in this species, is the first evidence of a nonhuman using tools for grinding, and one of the few reports of nonhuman animals sharing tools directly.

Observing and filming the parrots over an eight month period (March to October), researchers documented their interactions with cockle shells on the floor of their aviary. Shells are a known source of calcium for birds.

Five out of ten birds were documented using tools, placing either pebbles or date pits inside shells to grind against the shell, or using them as a wedge to break apart the seashell.

Interest in the shells was greatest from March to mid-April, just before the breeding season - this may be due to [calcium supplementation](#) being critical for egg-laying. Researchers were therefore initially surprised to find that it was the males, not the females who showed the greatest interest in [shells](#).

However, observation of the parrots' breeding behaviour showed that males often engaged in regurgitative feeding of females before copulating with them, thus potentially passing on the calcium benefits.

Megan Lambert, PhD student in York's Department of Psychology and

lead author on the study, said: "The use of tools by nonhuman animals remains an exceedingly rare phenomenon. These observations provide new insights into the tool-using capabilities of parrots and give rise to further questions as to why this species uses tools.

"Tool use could reflect an innate predisposition in the parrots, or it could be the result of individual trial and error learning or some form of social learning. Whether these birds also use tools in the wild remains to be explored, but ultimately these observations highlight the greater vasa parrot as a species of interest for further studies of physical cognition."

'A novel form of spontaneous [tool](#) use displayed by several captive Greater vasa [parrots](#) (*Coracopsis vasa*)' is published by the Royal Society journal *Biology Letters*.

More information: A novel form of spontaneous tool use displayed by several captive Greater vasa parrots (*Coracopsis vasa*), *Biology Letters*, [rsbl.royalsocietypublishing.org1098/rsbl.2015.0861](https://royalsocietypublishing.org/doi/10.1098/rsbl.2015.0861)

Provided by University of York

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