



#### ANIMAL CULTURE

encompasses social behaviors like the clicks and whistles taught in orca pods and the emotional bonds shared in elephant herds.



## Cultured Creatures

Scientists have compiled a searchable database of animal cultures, with many more yet to come.

**CULTURE** is widely understood as the transmission of behavioral patterns through social learning. While it is often viewed as a uniquely human phenomenon, many animal species have developed their own cultures. The enduring behaviors of the animal kingdom — from whale and bird songs to chimpanzee dances — have been gathered into a database cataloging decades of research on animal cultures, as described in the journal *Scientific Data* in June 2025.

The Animal Culture Database documents more than 100 socially transmitted behaviors across some 60 species of birds and mammals. It includes data from over 120 separate wild populations, drawn from papers ranging from 1949 to the present. Its creators define the behaviors as those that are population-specific and are not due to genetic or ecological differences — they are clearly learned.

“The idea is to capture all the animals that have the capacity for social learning and have developed interesting traditions in different populations,” says lead author Kiran Basava, a cultural anthropologist and information scientist at the University of Arizona.

These behaviors are wide-ranging, from the development of vocal dialects and migratory routes to the use of tools and the cultivation of unique foraging behaviors.

“We’re erring on the side of being very inclusive and broad,” Basava says. “If there’s the potential that [a behavior] is socially transmitted, and it seems to have spread among a population, we would include it.”

#### EARLY SUGGESTIONS

of culture in animals date back to the days of Aristotle, who noticed that some birds learned their songs.

However, it was not until the middle of the 20th century that the concept began to gain traction in the scientific world, following observations of great tits (*Parus major*)

learning to open milk bottles and Japanese macaques (*Macaca fuscata*) learning to wash sand off of sweet potatoes by observing other members of their species.

According to the authors, one of the goals is to devote more attention to the behaviors of species that have largely gone unrecognized in animal culture research.

“There is one insect species in the database as of right now. Is that just a consequence of that group being understudied?” asks co-author Cristian Román-Palacios, a phylogeneticist and machine learning specialist at the University of Arizona.

The authors also hope to identify inconsistencies in terminology and definitions that may allow for more objective documentation. A better understanding of animal behaviors, the authors claim, may have conservation implications as well, as they are key indicators of adaptability and resilience to human disturbance.

— RICHARD PALLARDY