

Elephants call each other by unique names, new study finds

From [Amy Jones, SpeciesUnite.com](#)

June 2024

Posted on All-Creatures June 26, 2024

Scientists used an AI algorithm to discover that elephants are the first non-human animals identified to communicate with each other using individual name-like sounds.



Elephants create individual, name-like calls for each other using rumbles and grumbles, according to a new study.

Researchers from [Colorado State University \(CSU\)](#), in collaboration with [Save the Elephants](#) and [ElephantVoices](#), used an artificial intelligence algorithm to analyze the calls of two wild herds of African savanna elephants in Kenya.

“They have this ability to individually call specific members of their family with a unique call,” said Michael Pardo, an acoustic biologist at the Cornell Lab of Ornithology and an author of a [study published Monday](#) in the journal *Nature Ecology & Evolution*.

Animals, like dolphins and parrots, are known to imitate the sounds of others, but this remarkable discovery makes elephants the first non-human animals known to use unique names to communicate with each other.

The researcher’s findings “not only shows that elephants use specific vocalisations for each individual, but that they recognise and react to a call addressed to them while ignoring those addressed to others”, said Dr Pardo. “This indicates that elephants can determine whether a call was intended for them just by hearing the call, even when out of its original context.”



The researchers studied elephant “rumbles” recorded at Kenya’s Samburu National Reserve and Amboseli National Park between 1986 and 2022.

Using a combination of machine learning and playback experiments in the field, researchers identified 469 individual calls, including 101 elephants issuing a call and 117 receiving one.

“They recognise and react to a call addressed to them while ignoring those addressed to others.”
— Michael Pardo, study author and biologist

Names were not always used in the calls, but when they were, it was often from adult elephants speaking to baby elephants, or elephants calling to each other over a long distance.

When a recording of an elephant’s friend or family member calling out their name was played, the elephant reacted positively and “energetically”, moving towards the speaker. However, the same elephant showed little interest when the names of others were played, according to the researchers.

“I was super excited,” Dr. Pardo said, “especially when we got the playback results, because I think that’s the strongest piece of evidence that the elephants can actually tell, just from hearing the call, if it was intended for them or not, and they respond more strongly to the calls that were originally directed to them.”



The researchers say we need further study to determine if elephants assign names to other things in their lives, such as food, water, and locations, and to explore the evolutionary roots of this name-calling ability.

"The evidence provided here that elephants use non-imitative sounds to label others indicates they have the ability for abstract thought," said senior study author George Wittemyer.

These insights into how elephants communicate show "how important that social fabric is to the very existence of this animal," emphasized Wittemyer. "Social bonding is fundamental to everything about elephants."

Wittemyer believes that gaining a deeper understanding of the similarities between elephants and humans could have a positive impact on conservation efforts and help mitigate human-wildlife conflicts.

"It's tough to live with elephants, when you're trying to share a landscape and they're eating crops," he said. "I'd like to be able to warn them, 'Do not come here. You're going to be killed if you come here.'"