

# Social networking elephants never forget

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Asian elephants typically live in small, flexible, social groups centered around females and calves while adult males roam independently. However, new research published in BioMed Central's open access journal *BMC Ecology* shows that while Asian elephants (*Elephas maximus*) in Sri Lanka may change their day to day associations they maintain a larger, stable, network of friends from which they pick their companions.

Researchers followed the friendships among over a hundred female adult Asian [elephants](#) in the Uda Walawe National Park in Sri Lanka for five seasons and analyzed how these relationships changed over time. While the elephants tended to congregate in groups containing three adult females, there could be as many as 17 in a single group. Social strategies were also variable, with some elephants always being seen in each other's company while others were 'social butterflies' who frequently changed companions. Surprisingly, 16% completely changed their 'top five' friends over the course of the study. Elephants who had few companions were very faithful to them, whereas those who had many tended to be less loyal.

Analysis of elephant 'ego-networks' showed that Asian elephants tended to also associate with larger sets of companions, especially in dry seasons. [Social bonds](#) were especially strong when resources were scarce, even to the extent of expelling unfamiliar elephants from sources of water. This may be due in part to the ecology of their environment, because other elephants, which live in drier areas, congregate in greater numbers in wet seasons. It was previously thought that, unlike African

savannah elephants, Asian elephants had no extensive social affiliations, but at the [population level](#), extensive clusters of interconnected groups were discovered.

Dr Shermin de Silva from the University of Pennsylvania explained that, "Elephants are able to track one another over large distances by calling to each other and using their sense of smell. So the 'herd' of elephants one sees at any given time is often only a fragment of a much larger social group. Our work shows that they are able recognize their friends and renew these bonds even after being apart for a long time."

**More information:** The dynamics of social networks among female Asian elephants, Shermin de Silva, Ashoka D.G. Ranjeewa and Sergey Kryazhimskiy, *BMC Ecology* (in press)

Provided by BioMed Central

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