Mother goats do not forget the sound of their kids' voices, even a year after they have been weaned and separated, according to scientists from Queen Mary, University of London.

Writing in the journal *Proceedings of the Royal Society B*, Dr Elodie Briefer and Dr Alan McElligott from Queen Mary's School of Biological and Chemical Sciences (and Monica Padilla de la Torre at the University of Nottingham) found that mother goats remember the calls of their kids for up to 11-17 months (7-13 months after weaning).

In most species, parents and their offspring mainly use vocalisations to recognise each other at long distances. The team studied nine pygmy goat mothers and their kids between 2009 and 2011. They recorded the kid calls at five weeks old and played the calls back to the mothers 12-18 months later.

They found that the mother goats were not only able to recognise their individual kids' calls at five weeks, but still remembered them at least one year after weaning. This suggests that even after kids are separated from their mother, the memory remains and mothers can still differentiate their kids' calls from the calls of other animals' offspring.

Dr Briefer explains: “Because of the difficulties involved in following the same individuals over years, long-term recognition has been studied in only a few species. Our study shows that animals remember socially important partners.

This behaviour could help mother goats and their daughters to maintain social relationships, and could also prevent mother goats mating with their sons, when those are sexually mature.

Long-term recognition of social partners helps to maintain social relationships in group living species. This could be particularly important in species that experience long periods of separation, like migration or hibernation, or that live in complex societies, like goats.

Dr McElligott adds: “Understanding the cognitive capacities of our domestic animals is important for animal welfare and providing the best possible living conditions, particularly if they have such long memories.”

More information: ‘Mother goats do not forget their kids’ calls’ will be published in the *Proceedings of the Royal Society B* on Wednesday 20 June 2012.

Provided by Queen Mary, University of London

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