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Mammals 'choose' sex of offspring

Leopards may never change their spots, but some mammals can adjust the sex of their offspring, according to a study by biologists.

Experts from Edinburgh and Oxford Universities have found that some species are capable of influencing whether to produce sons or daughters.

Species examined for the study included zebras, gazelles, deer and goats.

The full results of the research are due to be published in the American Naturalist journal next week.

It will explain in full why some species are capable of producing sons when conditions are conducive to childbearing, and daughters at less favourable times.

Although the characteristic is well known in bees and wasps, the study is the first to offer conclusive proof of the trait in a range of ungulates - herbivorous mammals with hooved feet.

'Strong mothers'

The idea that red deer could alter the sex of their offspring was first mooted around 30 years ago by the American biologist, Robert Trivers, and gender adjustment in mammals has been fiercely debated by academics ever since.

Supporters of the theory argue that it occurs in species in which a few strong males monopolise all of the matings - therefore it is only worth producing a young male if it is going to be a high quality offspring capable of attracting mates.

The new research re-examined all of the studies that have been carried out into sex adjustment in mammals during the past 30 years and sought to explain the apparently contradictory results.

Dr Stuart West, of the University of Edinburgh's Institute of Cell, Animal and Population Biology, said: "There has been a lot of doubt on this issue for many years, but we've cleared it up by reviewing the vast amounts of data collected over the years.

"Whilst the physiology that allows this isn't known, it is clear that strong mothers do produce sons."

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