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News Release

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Meerkats' sinister side is secret to their success, study shows

The darker side of meerkats – which sees them prevent their daughters from breeding, and kill their grandchildren – is explained in a new study.

Research into the desert creatures – which live in groups with a dominant breeding pair and many adult helpers – shows that the alpha female can flourish when it maintains the sole right to breed.

The study shows how this way of life, also found in many animals such as ants and bees, can prove effective despite its sinister side.

Dominant meerkats control breeding within their group through violence, by banishing any other females who reproduce, killing their offspring, to ensure plentiful resources for the alpha pair's pups.

Scientists studied the impact of giving contraceptive jabs to adult female helpers in 12 groups of meerkats in the Kalahari Desert, to ensure that they could not reproduce for six months.

During this time, dominant females were less aggressive towards helpers and foraged more, gaining more weight and having bigger pups. The female helper meerkats experienced less violence than usual from the alpha female, and provided more care and food for the pups.

The study, published in *Nature Communications*, was carried out by the Universities of Edinburgh, Cambridge, Exeter and Pretoria with the Kalahari Meerkat Project in South Africa. It was supported by the Natural Environment Research Council.

Dr Matthew Bell of the University of Edinburgh's School of Biological Sciences, who led the study, said: "The meerkat way of life is a paradox, in which alpha females will attack their daughters, banish them from the group and infanticise their offspring.

"Our study reveals that dominant animals are worse off when subordinates in their group try to breed – explaining why they brutally suppress others much of the time. We expected this result, but its impact exceeded our expectations."

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