

Patterns of Cooperation and Competition; Tests for Role Specialisations in the Banded Mongoose (*Mungos mungo*)

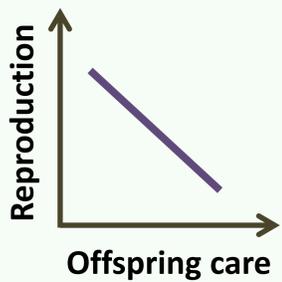


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Do individuals specialise to roles as breeders and helpers?



In cooperative animal societies a reproductive division of labour can greatly increase group productivity.
In eusocial insect societies, this division of labour arises because individuals commit to lifetime roles as breeders and helpers.
In social vertebrates individual roles are more flexible, but there may be more subtle behavioural specialisations to breeding and helping.

Here we test whether wild male banded mongooses exhibit specialisations to breeder or helper roles by investigating the covariance between individual investment in babysitting and mate-guarding.

Banded Mongooses

Highly social carnivore with low ♀ reproductive skew

Babysitting: Cooperative care of young in the den (0-4 weeks after birth)

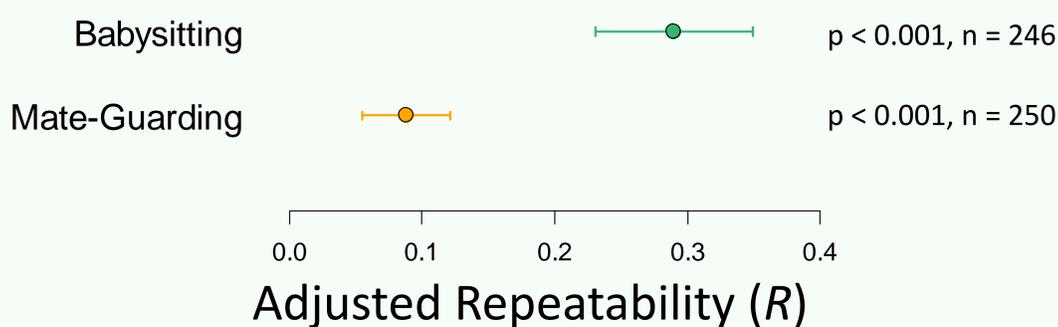
Mate-guarding: Competitive guarding of receptive females in pursuit of mating opportunities

Long-term study site (17 years, 1700+ individuals)

Banded Mongoose
Research Project



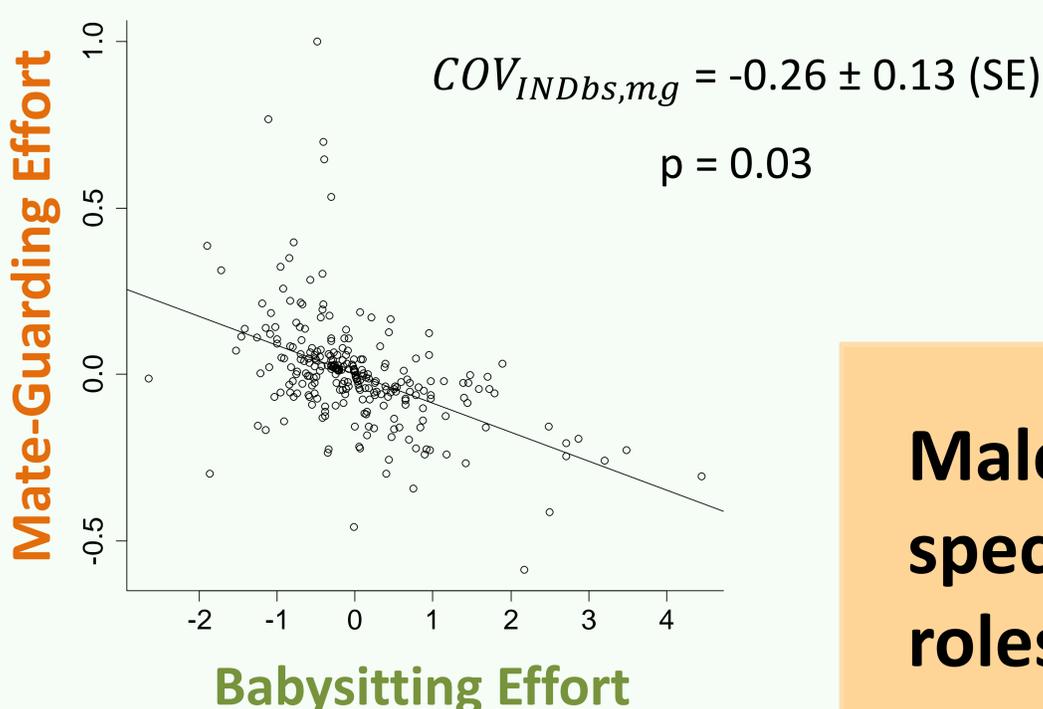
1. Are there consistent individual differences?



R calculated from GLMM controlling for differences in age, litter size, body mass, group size, number of pups, and overlap between babysitting period and oestrous

Individuals show consistent differences in their investment into babysitting and mate-guarding

2. Are consistent individual differences correlated across behaviours?



Covariance estimate from multivariate analyses in ASReml, likelihood ratio test of model with and without constraint $COV_{INDbs,mg} = 0$

Consistent individual differences are negatively correlated for babysitting and mate-guarding

Male banded mongooses are specialised to subtle behavioural roles as breeders and helpers