

Mother kangaroos at higher health risk

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This is an eastern gray kangaroo and joey. Credit: Dr Graeme Coulson, Department of Zoology, University of Melbourne.

Mother kangaroos face higher health risks to carry and raise their young than their non-reproducing sisters; a new University of Melbourne study has shown.

The study, led by Dr Graeme Coulson and Professor Mark Elgar from the Department of Zoology, University of Melbourne demonstrated for the first time that mother Eastern Grey Kangaroos almost double their <u>food intake</u> and significantly reduce their time spent resting in order to meet the nutritional needs of their baby.

"By increasing their food intake, mothers increase their risk of parasite infection because it is harder to avoid faecal-contaminated pasture whilst consuming so much more forage," said Dr Coulson.



"This elevated risk of <u>parasite infection</u> may be a very significant additional cost for reproducing females."

"We have been able to prove that reproducing females altered their behaviour in direct response to the energetic demands of reproduction."

Professor Elgar explained that scientists have long assumed that reproducing female mammals must adjust their behaviour to compensate for increased energetic demands, but no-one had been able to prove this until now.

"This is the first <u>field experiment</u> that has been able to comprehensively compare the behaviour of females with young and females without young at the same time and place."

"In our novel study, we manipulated reproduction by giving some females within the group birth control but leaving others to reproduce naturally."

"This study has allowed us to develop a better understanding of the energetic and health costs in populations of <u>kangaroos</u> and other mammals more generally and can therefore help us better manage species."

The study will be published in the next issue of the international journal *Biology Letters*.

Provided by University of Melbourne

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