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Effects of pregnancy on body temperature and locomotor performance of velvet geckos

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Abstract

Pregnancy is a challenging period for egg laying squamates. Carrying eggs can encumber females and decrease their locomotor performance, potentially increasing their risk of predation. Pregnant females can potentially reduce this handicap by selecting higher temperatures to increase their sprint speed and ability to escape from predators, or to speed up embryonic development and reduce the period during which they are burdened with eggs ('selfish mother' hypothesis). Alternatively, females might select more stable body temperatures during pregnancy to enhance offspring fitness ('maternal manipulation hypothesis'), even if the maintenance of such temperatures compromises a female's locomotor performance. We investigated whether pregnancy affects the preferred body temperatures and locomotor performance of female velvet geckos *Amalosia lesueurii*. We measured running speed of females during late pregnancy, and one week after they laid eggs at four temperatures (20°, 25°, 30° and 35°C). Preferred body temperatures of females were measured in a cost-free thermal gradient during late pregnancy and one week after egg-laying. Females selected higher and more stable set-point temperatures when they were