Poster Session 1 – Rodent Behaviour

9 Reproductive behaviour of mothers facing infanticide risk

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The threat of losing offspring to infanticidal conspecifics is widespread in the animal kingdom. If infanticide occurs, this poses enormous fitness costs to parents, in terms of losing out on reproductive investment. Therefore, the level of infanticide risk that a parent perceives should affect its behavioural strategy, for instance, in terms of offspring protection. Using the bank vole, *Myodes glareolus*, as a model species we experimentally investigated how infanticide risk affects behaviour. Bank voles have rapid reproductive cycles, producing a new litter every few weeks, and infanticide has been shown to occur, especially by conspecific males that are unrelated to the offspring. Females show post-partum estrus, i.e. are receptive immediately after giving birth. Therefore, they need to encounter a mate to fertilize them while also providing parental care and protection to their existing litter. This makes rodent females especially prone to the trade-off between current and future reproduction, and ideal to study the existence of behavioural reproductive strategies in response to the level of infanticide risk. Females were mated indoors with known males and, shortly after parturition they were released (non-pregnant) with their litter in a nest box in outdoor enclosures. By spreading either the familiar scent of her litter's sire or the scent of a male unfamiliar to the female (stranger) in the enclosure, we simulated low and high infanticide risk respectively. Using automated radio telemetry and RFID reading stations, we studied the effects of scent treatment on female spatial behaviour, including her presence/absence at the nest, activity level and movement pattern. We discuss findings of how infanticide risk posed by a potential mate partner affects female behaviour indicative of her investment in future reproduction (e.g. time away from the nest to find the mate) versus current reproduction (e.g. time at the nest to guard her litter).

459
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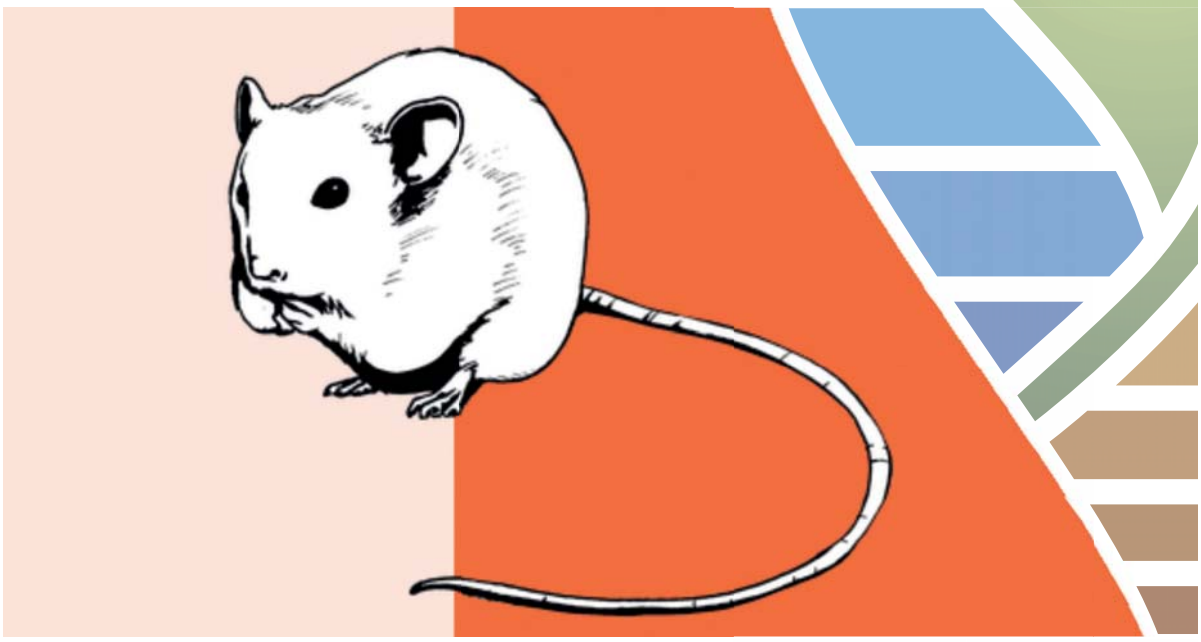

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459
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