

# How does rodent behaviour impact on population dynamics?

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**Abstract.** Rodent social behaviour has been studied extensively but whether or not social behaviour impacts population dynamics has been questioned. Social behaviour is affected by population density and the question is whether or not this is a circular causal system. Infanticide, dispersal, sexual maturation, and direct aggression are all potential processes that are a part of spacing behaviour in rodents. We need to know both the frequency and strength of these processes in rodents, and how they change with population abundance. Recruitment in rodent populations may be limited by the presence of breeding adults, and the kin structure of populations may affect the potential rate of population growth. Survival of neonates in the nest is poorly studied in rodents and very high losses at this stage may prevent population growth in some populations. We need additional experiments to address and uncouple the potential interaction of social behaviour and extrinsic processes like predation in limiting population abundance in natural populations of rodents.