

# **No infanticide in the hystricognath rodent, *Octodon degus*: does ecology play a role?**

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## **Abstract**

The behavior of male and female *Octodon degus* (Hystricognathi; Octodontidae) was studied in captivity to examine the occurrence of non-parental infanticide, which involves the killing of immature infants by adult conspecifics other than the genetic parents. Sexually inexperienced male and female, and lactating female degus were tested for their behavior toward genetically unrelated, and socially unfamiliar, degu pups in a neutral arena. No male or female degu showed any sign of aggression toward the pups. Lactating females tended to exhibit the shortest latency to first behavioral interaction with the pup and the highest rate of social interactions with the pup, and they spent a relatively high proportion of their time in proximity with the pup. In contrast, males tended to show the longest latency to first pup contact and a reduced rate of interactions with the pup, and they spent a relatively small fraction of their time with the pup. The behavior of non-breeding females seemed intermediate between that of males and lactating females. Given that social and ecological conditions posed to promote non-parental infanticide in other rodents seemed not particularly different from what is known of degu biology, ecology, and social behavior, lack of degu infanticide may reflect phylogenetic inertia instead of an absence of conditions favoring infanticide.