

Abstract: Paternal care is uncommon in mammals where males are more often involved in sexual competition for females than in providing care for their own offspring. However some species present greater form of paternal care than metabolic investment in sex cells, and most of the time, this phenomenon is associated with a monogamous mating system. The direct costs of paternal behaviour are relatively well documented in primates, despite little research has explored these effects in monogamous rodents and even less in some polygynous rodents. The relative rarity of monogamy and associated paternal care has been interpreted in light of the relationship between parental investment and sexual selection. The major drawback of such bias is that most current hypothesis on rodent paternal behaviour are based mostly on data obtained from a few species from temperate regions, mainly cricetids and murids, performed in controlled environment and in special conditions.