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Parental feeding as a determinant of ecological relationships in Mesozoic terrestrial ecosystems

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The comparative physiology of living mammals strongly suggests that lactation was an early and fundamental feature of mammals. Because the young are fed on the mother's body secretions, supplying food to the neonates can be much more independent of the a vailable food resources than is the case for reptiles or for birds, whose parents must find food for them In the immediate environment.
Mammals are therefore particularly well suited to breeding in environments in which there is insufficient diversity of food available to support a breeding population of large birds or large reptiles. Mammals also sustain a very high
rate of postnatal growth, because it is the larger and more experienced parents which are doing most of the work to obtain the food which supports the growth of the young. The interval between conception and sexual maturity is very short in many mammals, very much shorter than the same interval for reptiles and most birds.
It is concluded that current thinking about the ecological relationships between Mesozoic mammals, birds and reptiles may place too much emphasis on endothermy and viviparity, and not enough emphasis on lactation and other forms of
parental feeding.

Key words: lactation, parental feeding, reproductive habit, colonizing species, energy storage, growth rate, reptiles, mammals, Mesozoic.

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