

WHEN DOES A MOTHER CARRY HER INFANT IN JAPANESE MACAQUES?

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Infant-carrying is one of the most costly forms of maternal investment. Mothers may choose when to carry their infant, according to its cost and benefit.

In this study, I predict that mothers will carry their infants less in the situation with relatively high cost, such as when they are foraging. I also predict that they will carry infants more in risky situations for infants, such as moving in steep or in provisioning site where aggression over food is high. I observed 6 mother-infant dyads of Japanese macaques (*Macaca fuscata*) longitudinally from birth to 6 months old on Koshima Islet, Miyazaki, Japan.

Mothers decreased the infant-carrying rate according to infants' growth. Moreover, they changed the rate according to the situations even in the same developmental stage. Mothers carried their infants less frequently when foraging than when moving, since carrying infants is likely to reduce feeding efficiency. On the other hand, they carried infants more in the risky situations. They did more in the coast where movement is difficult and in the provisioning site where agonistic interaction rate is high.

The results suggest that Japanese macaque mothers flexibly adjust the frequency of infant-carrying, according to the cost of foraging inefficiency and the benefit of infants' security.

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