## The Influence of Infant Care Costs on Cooperative Infant Care Behaviour in Tamarin Monkeys



Vigilance

Amount of contribution to infant care by helpers depends on the balancing act between the costs and benefits of helping<sup>2</sup>.

## Costs<sup>2</sup>

- Death/injury
- Increased energetic costs
- Lost opportunities
- Reduced food consumption

## Benefits<sup>2</sup>

- · Parenting experience
- Social prestige
- · Inclusive fitness
- Future reproductive opportunities
- Improved survival

These factors are influenced by<sup>2</sup>:

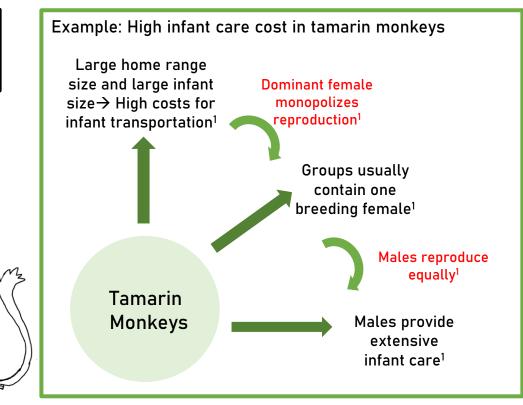
- Age
- Sex
- Group size
- Physical condition

Through a systematic review of studies, researchers determined that the costs of infant care depends on relative infant weight and home range size<sup>1</sup>.

Large infants and large home range size results in high infant care costs<sup>1</sup>

High costs result in:

- Multiple males mating and providing infant care<sup>1</sup>
- High suppression of breeding in subordinate females<sup>1</sup>
- Decreased delay in natal dispersal<sup>1</sup>
- Increased reproduction by the dominant female<sup>1</sup>





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## References:

[1] Díaz-Muñoz, S. L. (2016). Complex cooperative breeders: Using infant care costs to explain variability in callitrichine social and reproductive behavior. *American Journal of Primatology*, *78*(3), 372–387. https://doi.org/10.1002/ajp.22431

[2] Erb, W. M., & Porter, L. M. (2020). Variable infant care contributions in cooperatively breeding groups of wild saddleback tamarins. *American Journal of Primatology*, 82(12), e2319..https://doi.org/10.1002/ajp.23190

Drawings are generated and produced by Carmen Cam