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ORIGINAL ARTICLE

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Arboreal monkeys facilitate foraging of terrestrial frugivores

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- 1. Background, what is known
- 2. Gap, unknown, problem
- 3. Research aim, question, hypothesis
- 4. Approach, study system, methods
- 5. Key results, important stats/numbers
- 6. Conclusion, answer the question, fill the gap
- 7. Broader implications, meaning, recommendation

Abstract

Terrestrial animals feed on fruit dropped by arboreal frugivores in tropical forests around the world, but it remains unknown whether the resulting spatial associations of these animals are coincidental or intentionally maintained. On Barro Colorado Island, Panama, we used a combination of acoustic playback experiments, remote camera monitoring, and GPS tracking to quantify the frequency of such interactions, determine who initiates and maintains spatial associations, and test whether terrestrial animals adopt a strategy of acoustic eavesdropping to locate fruit patches created by foraging primates. Indeed, 90% of fruits collected in fruit fall traps had tooth marks of arboreal frugivores, and terrestrial frugivores visited fruit trees sooner following visits by GPS-collared monkeys. While our play back experiments were insufficient to support the hypothesis that terrestrial frugivores use auditory cues to locate food dropped by arboreal primates, analyses of movement paths of capuchin monkeys (*Cebus capucinus*), spider monkeys (*Ateles geoffroyi*), and coatis (*Nasua narica*) reveal that observed patterns of interspecific attraction are not merely a byproduct of mutual attraction to shared resources. Coatis were significantly more likely to initiate close encounters with arboreal primates than *vice versa* and maintained these associations by spending significantly longer periods at fruiting trees when collared primates were present. Our results demonstrate that terrestrial frugivores are attracted to arboreal primates, likely because they increase local resource availability. Primates are often among the first species in a habitat to be extirpated by hunting; our results suggest that their loss may have unanticipated consequences for the frugivore community.

Abstract in Spanish is available with online material.

KEYWORDS

attraction, camera trapping, eavesdropping, GPS tracking, interspecific associations, Panama, tropical forest

GROUP DECISIONS

Shared decision-making drives collective movement in wild baboons

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Conflicts of interest about where to go and what to do are a primary challenge of group living. However, it remains unclear how consensus is achieved in stable groups with stratified social relationships. Tracking wild baboons with a high-resolution global positioning system and analyzing their movements relative to one another reveals that a process of shared decision-making governs baboon movement. Rather than preferentially following dominant individuals, baboons are more likely to follow when multiple initiators agree. When conflicts arise over the direction of movement, baboons choose one direction over the other when the angle between them is large, but they compromise if it is not. These results are consistent with models of collective motion, suggesting that democratic collective action emerging from simple rules is widespread, even in complex, socially stratified societies.