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FROM RANDOM WALKS TO TRAVEL ROUTES: UNDERSTANDING PATTERNS OF PRIMATE MOVEMENT AND SPACE-USE

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Movement lies at the heart of how primates interact with their environment. Patterns of movement arise from the interplay between an individual's need to acquire resources, encounter mates, escape predators and defend a territory, and the challenges imposed by its habitat. Ranging behavior also reflects how animals perceive the world and thereby provides a window into the mind. Furthermore, information about patterns of space-use is critical to designing successful conservation efforts. Yet, despite its theoretical and practical importance, primate ranging—how and why individuals or groups choose specific travel routes and how these decisions scale to create population-level patterns of space-use—is poorly understood. While many primate researchers collect information on the movements of their study animals, analyzing data with both location and time parameters is difficult and these data sets are often underutilized. Both empirical and modeling approaches have been used to investigate how external landscape features such as resource distribution or predation risk, and internal factors, such as an individual's knowledge about their habitat, shape patterns of movement. While each method has yielded compelling results, valuable insights can be gained by combining them. This symposium aims to bring together modelers and empiricists to highlight how the wealth of information that is available on primate ranging behavior can be used to advance our understanding of primate movement and space-use patterns.

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