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Learning to be attractive: A test of the skills hypothesis in spotted bowerbirds (Ptilonorhynchus maculatus)

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Abstract

Male spotted bowerbirds perform vigorous courtship dances to visiting females on elaborate display arenas. Each arena is built and defended by one dominant male, which commonly tolerates one or more subordinate males. These non-territorial "auxiliary" males are thought to be inexperienced sub-adults. The skills hypothesis suggests that auxiliaries attend established bowers to practice their courtship skills, but little is known about the development of courtship motor performance and which courtship properties are refined with experience. Here we investigate whether auxiliaries are as proficient as bower owners in performing courtship. First, we investigate whether specific courtship moves are used in different contexts within a courtship routine and whether such flexible use of courtship elements is shared both by bower owners and auxiliaries. Second, we examine other fine-scale parameters of courtship dances, in order to further test for possible differences in courtship properties depending on dominance status.