

The false acrobat: the puzzling case of Helmeted Manakins

Lia Kajiki

Manakins are well known for their displays and lek-mating systems. Helmeted Manakin *Antilophia galeata* is thought to be an exception to the rule – but is this really the case? A Brazilian researcher is investigating whether this attractive passerine might have adopted a unique mating system. Here she explains her emerging findings.

Birds' courtship displays are among the most interesting phenomena in nature, and the diversity of how they use their ornaments to attract a mate is perplexing. There is no doubt, however, that some birds have taken this task very seriously and pushed it to another level. In the Neotropics, manakins (in the family Pipridae) have dazzled researchers with their complex and rapid courtship displays for centuries, and some of the moves have only been uncovered recently thanks to technological developments such as high-speed cameras.

Most species of manakin are highly sexually dimorphic, and the complex courtship displays evolved in a context of polygyny, where males' mating success is highly variable and a result of female selection for sexual ornaments. Birds that present these features and where the male is completely absent from parental care are recognised as lekking birds.

Although renowned for being exquisite acrobats, some members of the Pipridae apparently deviated from the typical lekking system, and their behaviour is enigmatic. Among these unusual manakins, the genus *Antilophia* is notable for an array of odd behaviours that do not allow for a straightforward definition of their place within the family (although, surprisingly, one recent phylogenetic analysis cautiously raises the possibility that *Antilophia* may be nested within, (i.e., lumpable with) the genus *Chiroxiophia*: Leite *et al.* 2021).

Helmeted Manakin *Antilophia galeata* is endemic to the Cerrado biome; it is a large (≈ 21 g), sexually dimorphic and mainly frugivorous manakin that ranges from central Brazil to northeastern Bolivia and Paraguay (Kirwan & Green 2012, Snow & de Juana 2020). Contrary to most other manakins, it was considered to have lost the courtship

display (Prum 1994), and potentially evolved a monogamous breeding system (Marini & Cavalcanti 1992) – possibly as a consequence of differential fruit availability in its habitat (Marini & Cavalcanti 1992) and its unique preference for gallery forests in the Cerrado (Prum 1994).

The same assumptions about monogamy and the loss of the courtship display were extended to its recently discovered sister species, the Critically Endangered Araripe Manakin *A. bokermanni* (Silva & Rêgo 2004, Rêgo *et al.* 2010). Both *Antilophia* are very similar genetically and behaviourally, but differ markedly in plumage coloration. It was only recently that researchers

1 Male Helmeted Manakin *Antilophia galeata*, Transpantaneira, Mato Grosso, Brazil, September 2009 (James Lowen: jameslowen.com).

