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African bird shows signs of evil stepdad behaviour

An African desert-dwelling male bird favours his biological sons and alienates his stepsons, suggests research published in *Biological Letters*.

"Nepotism has likely played a vital role in the evolution of family life in this species," said Martha Nelson-Flower, a postdoctoral fellow at the University of British Columbia's faculty of forestry but formerly of the University of Cape Town, where she conducted the research.

The species is the southern pied babbler, a black and white bird found in Botswana, Namibia, South Africa and Zimbabwe. The bird lives in groups, and chicks are raised by both parents as well as other adult birds. The groups can range in size from three to up to 14 birds.

The group's dominant male bird appears to decide which of the subordinate males to tolerate in the group. Nelson-Flower's research shows subordinate male birds spend less time in a group if they are unrelated to the dominant male bird. These subordinate male birds are essentially pushed out of the group by their stepdads or, in some cases, their brothers-in-law. They are then forced to join other groups as subordinates or to live alone.

Over the course of five years in the summer, Nelson-Flower observed 45 different groups of southern pied babblers in the Kalahari Desert, walking around with the birds at dawn and dusk. She also relied on data collected by her co-author, Amanda Ridley, of the University of Western Australia. Combined, the researchers analyzed data from 11 years of observation.

The preferential treatment seen in the male birds was not observed amongst the females.

"The research is some of the first to show that the sex of both dominant and subordinate birds, and the genetic relationship between them, has a significant impact on their family groups and cooperative breeding behaviour," said Nelson-Flower.

Background

While evil step-mothers are a standard feature of fairy tales, evil step-fathers aren't usually expected in the family lives of birds. Recent work has shown that in cooperatively

breeding groups of southern pied babblers, subordinate males benefit from longer periods living in groups. However, when living with unrelated dominant males, such as a step-father, these subordinate males stay in their groups for significantly shorter periods. Step-mothers had no such effects. Because males in this species must wait for optimal local breeding opportunities, step-fathers may be prioritising their own, younger sons in the queue, leading to nepotism among males.

Previous work on the southern pied babbler has shown negative outcomes for birds who live alone for longer periods, including a decreased likelihood of attaining dominance in another group and increased weight loss.

To read the full study, *Nepotism and subordinate tenure in a cooperative breeder*, [click here](#).

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