

Female birds call the shots in divorce

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Female Purple-crowned Fairy-wren is pictured. Credit: Kaspar Delhey, Monash University

Research is shedding new light on the causes of divorce in monogamous year-round territorial birds. A Monash University study of the

endangered Purple-crowned Fairy-wren has discovered the females are calling the shots when it comes to breaking up.

Published in the journal *Behavioral Ecology*, the School of Biological Sciences' research studied 317 breeding pairs to learn what was driving the behaviour. As many as one in five avian pairs ended in divorce over nine years, and lead researcher Associate Professor Anne Peters said they were surprised to find it was the [females](#) who were more likely to break up.

"Females exhibit long term planning and are more likely to end their relationship when the opportunity for a better territory arises.

"We found females were prepared to wait, sometimes up to three years, for a good vacant spot to come up - where the female owner has died or moved on."

Found in Western Australia's Kimberley region, it's estimated less than 10,000 Purple-crowned Fairy-wrens remain in the area. Unlike birds that move away from their territory and separate after breeding, the Fairy-wrens live together in pairs, year-round, in the same patch.

"These females are sitting there, they're not happy with their partner or their territory; they have an affair on the side and they're more likely to divorce. With divorce they get a different partner and a different territory. The territory seems to be more important than the partner," Associate Professor Peters said.



Male and female Purple-crowned Fairy-wren. Credit: Michelle Hall, Monash University

PhD candidate and first author Nataly Hidalgo Aranzamendi said the females were prepared to take drastic action to gain a better territory. "We found that older females sometimes kicked younger females out of their territories to claim these as their own."

According to Ms Hidalgo Aranzamendi, divorce presented a significant advantage. "We believe divorce is a female strategy to improve reproductive success in the long term, and the immediate benefit is a better territory.

"This endangered bird lives in a harsh, unpredictable environment where 80 per cent of nest attempts end in failure, so females are prepared to [divorce](#) for a better territory because a good site for nesting will pay off," Ms Hidalgo Aranzamendi said.

This research shows how important intact high quality habitat is for these birds, and to what lengths they will go to secure a top spot. The information can be used to improve conservation efforts.

More information: Nataly Hidalgo Aranzamendi et al, Incest avoidance, extrapair paternity, and territory quality drive divorce in a year-round territorial bird, *Behavioral Ecology* (2016). [DOI: 10.1093/beheco/arw101](#)

Provided by Monash University

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