

Why some fairy-wrens can be more 'aggressive' in the wild

October 20 2022



Male superb blue-wren (*Malurus cyaneus*). Credit: Andrew Katsis (Flinders University / University of Vienna)

Contrary to their pretty name and appearance, some Australian superb fairy-wrens can be "aggressive" in the wild—which may be important

for their survival.

When it comes to nest defense or territory intrusions, international bird experts have found that the well-known fairy-wren (*Malurus cyaneus*) can display differing levels of aggression depending on their "personality."

With predation from other [bird species](#), feral and [domestic animals](#), and humans impacting [native species](#), it is important to understand which innate qualities of Australian flora influence their survival, say the animal behavior experts from Flinders University and the University of Vienna.

Researchers studied the perky little songbirds in Australian bushland and captured wild superb fairy-wrens to assess their personalities in short-term captivity. Their results have been published in *Animal Behavior* and *PeerJ*.

"Personality syndromes in animals may have adaptive benefits for survival," says researcher Dr. Diane Colombelli-Négrel, principal investigator from the BirdLab at Flinders University.



Aggressive behaviour can help superb fairy-wrens protect their offspring from predation in the nest. Credit: Andrew Katsis (Flinders University / University of Vienna)



Female superb fairy-wrens were studied in the Flinders University research.
Credit: Andrew Katsis (Flinders University / University of Vienna)

The tests applied were based on birds' shyness-boldness, exploration vs avoidance behavior, and low-high aggression. The birds were then released in the wild and tested in different threat situations.

"In one experiment, [wild birds](#) that attacked their mirror image responded more strongly to predator audio playback compared to those with low aggressiveness," says Dr. Colombelli-Négré.

"We also observed that birds with extreme exploration behavior were more aggressive (approached closer, faster and for longer periods of time) against these stimuli."

Another interesting observation was that blue-wren pairs with mismatching [exploration](#) behaviors also responded strongly to intruders, researchers found.

The studies, published in two journal articles, support the ecological validity of personality measured in short-term captivity for survival-related contexts in the wild.

More information: Jack Bilby et al, When aggressiveness could be too risky: linking personality traits and predator response in superb fairy-wrens, *PeerJ* (2022). [DOI: 10.7717/peerj.14011](https://doi.org/10.7717/peerj.14011)

Diane Colombelli-Négrel et al, Superb fairy-wrens with extreme exploration phenotypes respond more strongly to simulated territory intrusions, *Animal Behaviour* (2022). [DOI: 10.1016/j.anbehav.2022.08.015](https://doi.org/10.1016/j.anbehav.2022.08.015)

Provided by Flinders University

Citation: Why some fairy-wrens can be more 'aggressive' in the wild (2022, October 20) retrieved 7 August 2024 from <https://phys.org/news/2022-10-fairy-wrens-aggressive-wild.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.