

# Male birds adjust courtship behavior based on social context

May 17 2017

---



A male junco reacts to the site of a caged female. Credit: J. Welklin

Male birds that have already paired up with a female aren't above looking for a little action on the side. A new study from *The Auk: Ornithological Advances* explores how male juncos adjust their courtship behavior to their social landscape, finding that while both paired and unpaired males will try to get the attention of a new female on their turf, they go about it in different ways.

A male bird's [courtship](#) behavior can be affected by factors like his size and [hormone levels](#), but ornithologists are increasingly realizing that social context—whether or not the male already has a mate, and what other [birds](#) are around to witness his exploits—also plays a role. Dustin Reichard of Ohio Wesleyan University (formerly Indiana University) and his colleagues set out to tease apart the roles these different issues play in the courtship of Dark-eyed Juncos, comparing how unpaired males, paired males whose mates were present, and paired males whose mates were elsewhere behaved when presented with a new female.

They found that paired males approached females more rapidly, spent more time close to the females, were more active, and spent more time with their body feathers erect than unpaired males. Paired males also sang fewer long-range songs than their single counterparts, perhaps not wanting other birds to overhear, although the actual presence or absence of their mates didn't affect their behavior.



A male junco displays his white tail feathers during courtship. Credit: J. Welklin

Reichard had noticed variation in male juncos' behavior during previous work to record their courtship songs, which led him to start developing hypotheses about what might underlie those differences. "Our results highlight the importance of considering both intrinsic and extrinsic factors when investigating the causes of variation in male courtship [behavior](#)," says Reichard. "The focus of the field has generally been intrinsic factors, such as male condition or circulating hormone levels, but our results suggest a potential role for eavesdroppers and social context in addition to condition-dependent factors."

Reichard and his colleagues conducted their experiments at Mountain Lake Biological Station in Virginia, placing caged female juncos in front of free-living males and observing the males' reactions. After each trial, the researchers captured the male to record his size and weight and take a blood sample. "Often the male's mate would respond aggressively to the caged female, diving at the cage while pausing occasionally to chase her mate away from the area. The males were usually shameless during this process and continued to approach while singing and displaying, but to our knowledge none of the pairs in our study divorced as a result of this brief infidelity," says Reichard. "People called me a 'junco homewrecker' during these experiments, but there's little evidence to support that accusation."

In the future, Reichard hopes to explore the possibility that [males](#) use different strategies to target potential social mates—females they'll raise chicks with—versus "extrapair" mates. According to Auburn University's Geoffrey Hill, an expert on mate choice in birds who was not involved in the research, "This study shows the potential for extremely complex behavioral interactions in birds that were long thought to be bland monogamists."

**More information:** "Condition- and context-dependent factors are related to courtship behavior of paired and unpaired males in a socially

monogamous songbird" will be available May 17, 2017, at [americanornithologypubs.org/doi ... 10.1642/AUK-16-214.1](http://americanornithologypubs.org/doi/10.1642/AUK-16-214.1)

Provided by American Ornithological Society

Citation: Male birds adjust courtship behavior based on social context (2017, May 17) retrieved 10 May 2024 from <https://phys.org/news/2017-05-male-birds-adjust-courtship-behavior.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.