

Female finches are picky but pragmatic when choosing a mate

November 4 2021



A female zebra finch closely inspecting one of two males. Credit: Wolfgang Forstmeier, CC BY 4.0 (creativecommons.org/licenses/by/4.0/)

Female zebra finches are choosy but flexible when it comes to finding a mate, allowing them to avoid the fitness costs of being too selective

when competition for males is high, report Wolfgang Forstmeier at the Max Planck Institute for Ornithology in Germany, and colleagues, in a study publishing November 4th in the open-access journal *PLOS Biology*.

Female mating preferences are thought to drive [sexual selection](#) in males, but overly choosy females risk missing out on a mate when competition over preferred males is intense. To investigate the fitness costs of female choosiness, researchers studied four captive populations of zebra finches (*Taeniopygia guttata*), a monogamous species with regional song dialects, in which females prefer to mate with males of the same dialect.

The birds were housed in 10 aviaries, each with 12 females and 12 males of the same genetic population but different dialects. In each aviary, two song dialects were represented at a 2:1 ratio, such that four females could choose from eight males with the same song dialect (relaxed competition), while the other eight females had to compete over four preferred [males](#) (high competition). They found that while 31% of females experiencing high competition chose to pair with a male of a different [dialect](#), 26% refused to settle and remained unpaired throughout the experiment. However, these "wallflowers" produced the same number of successful fledglings as breeding pairs, on average, because they were able to use alternative reproductive strategies, such as sneaking their eggs into the nests of successful couples.

The study is the first to quantify the fitness costs to females of being too picky. By helping to overcome these costs, behavioral flexibility can facilitate the evolution of female choice and male sexual selection in [monogamous species](#), the authors say.

Forstmeier adds, "Our study asks how [females](#) cope with the situation that their mate preferences are difficult to satisfy. The answer is: more successfully than we had expected."

More information: Forstmeier W, Wang D, Martin K, Kempenaers B (2021) Fitness costs of female choosiness are low in a socially monogamous songbird. *PLoS Biol* 19(10): e3001257.
doi.org/10.1371/journal.pbio.3001257

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Citation: Female finches are picky but pragmatic when choosing a mate (2021, November 4) retrieved 12 May 2024 from <https://phys.org/news/2021-11-female-finches-picky-pragmatic.html>

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