

# Female choice benefits mothers more than offspring

October 22 2009

---

The great diversity of male sexual traits, ranging from peacock's elaborate train to formidable genitalia of male seed beetles, is the result of female choice. But why do females choose among males? In a new study published today in *Current Biology*, researchers from Uppsala University found no support for the theory that the female choice is connected to "good genes".

The great diversity of male sexual traits, ranging from peacock's elaborate train to formidable [genitalia](#) of male [seed beetles](#), is the result of female choice. But why do females choose among males? Remarkably, there is no consensus among biologists over the key question why females choose among males. At the heart of this debate lie two distinct possibilities - that female choosiness is beneficial to the females themselves or that female choice traits are favoured because of 'good genes' that males contribute to female's offspring.

Across animal kingdom, females often resist male advances and only a small fraction of [mating](#) attempts result in copulations. Mating is costly, and one straightforward explanation for female resistance is that non-resistant females will suffer a reduction in their fitness. However, by resisting mating attempts, females are selecting for most 'persistent' males. Could it be that offspring of such 'persistent' males have higher fitness? If yes, female resistance can be viewed as a way of selecting for males that provide their [offspring](#) with 'good genes'.

"We manipulated female choosiness by altering female ability to reject

unwanted males in Adzuki beetle. Female beetles are constantly harassed by ardent males and thwart male mating attempts by vigorously kicking the unwanted suitors with their hind legs. We fitted females with prongs that reduced male ability to impose copulations. Alternatively, we reduced females' ability to resist copulations by shortening their hind legs. Females with increased ability to reject male mating attempts had much higher fitness than [females](#) whose resistance was reduced. What about the 'good genes'?"

"We found no support for the idea that increased female resistance to mating results in sons that are more successful in competition with other males, or in more fertile daughters. Hence, female resistance is mostly beneficial to the female herself, while inadvertent selection for male 'persistence' plays a minor role," says Alexei Maklakov, who led the study.

Source: Uppsala University ([news](#) : [web](#))

Citation: Female choice benefits mothers more than offspring (2009, October 22) retrieved 26 April 2024 from <https://phys.org/news/2009-10-female-choice-benefits-mothers-offspring.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.