

# Mantis males engage in riskier mating behavior if deprived of female access

25 April 2012



Mantis males engage in riskier mating behavior if deprived of female access. Credit: Phil Hastings

Male praying mantises are more likely to engage in risky mating behavior if they have not had recent access to females, as reported Apr. 25 in the open access journal *PLoS ONE*. Female praying mantises are known for their cannibalistic behavior toward their mates, and males take a large risk when they attempt to reproduce.

In the current work, led by William Brown of State University of New York at Fredonia, the researchers found that males modulate this risk by altering their approach rate and courtship behavior depending on how recently they have had access to females.

Specifically, males that had not had recent access to mates approached females more rapidly and to closer proximity than did males who had daily female encounters. They also found that this higher-risk behavior resulted in higher rates of sexual cannibalism when paired with hungry females.

"Male cannibalism by females in praying mantids represents an extreme example of [sexual conflict](#) in which males risk the complete loss of future reproduction. Our results suggest that males have evolved to alter their acceptable risk of attack

depending on mate availability", says Dr. Brown.

**More information:** Brown WD, Muntz GA, Ladowski AJ (2012) Low Mate Encounter Rate Increases Male Risk Taking in a Sexually Cannibalistic Praying Mantis. *PLoS ONE* 7(4): e35377. [doi:10.1371/journal.pone.0035377](https://doi.org/10.1371/journal.pone.0035377)

Provided by Public Library of Science

APA citation: Mantis males engage in riskier mating behavior if deprived of female access (2012, April 25) retrieved 23 September 2021 from <https://phys.org/news/2012-04-mantis-males-engage-riskier-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.*