

Wood-eating cockroach couples take turns eating each other's wings after mating

February 15 2021, by Bob Yirka



Adults of *Salganea taiwanensis* before (right) and after (left) mutual wing-eating behavior. The right individual has long intact wings. The left individual has short wings. Most part of its wings has been eaten by its mate. Credit: *Ethology* (2021). DOI: 10.1111/eth.13133

A pair of researchers at Kyushu University in Japan, has found that at

least one kind of wood-eating cockroach engages in mutual wing eating after mating. In their paper published in the journal *Ethology*, Haruka Osaki and Eiti Kasuya describe how they happened to notice chewed-off wings in a species of cockroach and what they found when they brought some into their lab to study.

Wood-eating cockroaches feast on fallen trees in the wild but have taken to eating the wood that makes up people's houses, as well. And according to Osaki and Kasuya, they have a very unusual [mating](#) ritual—they chew off parts of each other's wings. The researchers discovered this peculiar behavior when studying some of the bugs in the wild. They noticed that most of the adult roaches had wings that had been nearly chewed off. Intrigued by their find, they captured 24 young adult pairs with wings still intact and brought them into their lab for study.

The study involved filming their activities to determine what was happening with their wings. The researchers found that the cockroaches used wing chewing as part of an after-copulation grooming practice. But usually, only one of each pair was groomed in such a way after a given mating session. Also, the cockroaches varied in how much chewing they would abide. In some instances, the one eating the wings simply stopped and walked away. In other instances, the one being chewed would shake their body to let the other know that they had had enough. Out of 24 pairs, 12 chewed each other's wings down to the extent the researchers had seen in the wild samples they had observed.

Interestingly, the species of [cockroach](#) the pair were studying are known to be extremely monogamous; thus, grooming one another likely serves to ensure that their partner would survive to mate again at a later date. Cockroaches are susceptible to mites and mold infections. Eating [wing](#) tips could be a way to remove both problems.

More information: Haruka Osaki et al. Mutual wing-eating between

female and male within mating pairs in wood-feeding cockroach,
Ethology (2021). [DOI: 10.1111/eth.13133](https://doi.org/10.1111/eth.13133)

© 2021 Science X Network

Citation: Wood-eating cockroach couples take turns eating each other's wings after mating (2021, February 15) retrieved 11 May 2024 from <https://phys.org/news/2021-02-wood-eating-cockroach-couples-wings.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.