

Save on International Calling  
(ROLL OVER A COUNTRY FOR COST)



Vonage

START SAVING NOW >>



## 60-Second Science

Got a minute?

Blogs

Podcasts

Videos

RSS

About 60-Second Science

Mar 27, 2009 12:30 PM in [Biology](#) | [0 comments](#) | [Post a comment](#)

### Some termites skip the sex, make babies anyway

By [Katherine Harmon](#) in [60-Second Science Blog](#)

2 diggs

[digg it](#)



[NT](#)

Stumble!



Like it?



[ShareThis](#)



Spring is in the air, but that doesn't have all termites looking for love. [New research](#) published this week in *Science* says that some queen [termites](#) can reproduce both sexually and asexually, depending on the kind of baby they're making (workers or queens).

"It wasn't known that termites did this in the field," says study co-author [Ed Vargo](#), an associate professor of entomology at North Carolina State University. "We knew that the potential was there," he says, because seven termite species had been coaxed to [reproduce asexually](#) in experiments. "But it all seemed to me like a laboratory artifact."

To establish that it happens in nature, too, Vargo and his colleagues collected 30 colonies of the destructive *Reticulitermes speratus*, a Japanese species related to most common termites in the U.S. Like [bees](#) and ants, termites are social insects that have different castes for different jobs (such as workers and royalty). To the researchers' surprise, in all but one of the colonies the queen had been replaced with secondary queens but shared only her genetic makeup; all of the other worker termites, however, had genes from both queen and the king. That means, Vargo says, that the queen had mated with the king to make the workers but made her successors solo. The reason, he says: the replacement queens can mate with the king long after the original queen is gone without the danger of inbreeding to create bigger, stronger colonies faster.

Termites aren't the only insects known to reproduce asexually, notes [Phil Koehler](#), an entomology professor at

the University of Florida in Gainesville, who wasn't involved in the study. But the others are typically more solitary creatures, such as Suriname cockroaches, which are nearly all asexually reproducing females, he says. Still he was surprised to hear of it happening in a social insect. Other colony-based critters, such as bees and ants get around the inbreeding conundrum by creating new queens that leave to start their own colonies rather than stick around like the secondary termite queens.

"One big holy grail of all social insect biology," Vargo tells [ScientificAmerican.com](#), "is understanding the mechanisms that produce all the different castes." Once researchers understand those variables, they'll be able to target them to better control the populations—a major plus, he notes, given that "There are very few options other than [pesticides](#) right now."

*Image of termite king and queen founding a colony courtesy of Kenji Matsuura/Okayama University*

© 1996-2009 Scientific American Inc. All Rights Reserved. Reproduction in whole or in part without permission is prohibited.

ADVERTISEMENT