

Climate crisis could pave way for global termite infestation

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Valverde-Barrantes. Credit: Florida International University

Warming temperatures unleash termites in more areas of the world, and more termites may actually accelerate warming temperatures. Scientists say it's time for climate prediction models to take note.

Not only do [termites](#) find warm and humid climates more hospitable, but they consume and decay wood at much higher rates in such climates,

according to an international team of scientists including Florida International University biologist Oscar Valverde-Barrantes. As the termites consume wood, they release stored carbon into the atmosphere. More [carbon dioxide](#) means higher temperatures—a [vicious cycle](#) not currently accounted for in current climate predictions, Valverde-Barrantes said.

As [global temperatures](#) rise, termites could expand their territories, take advantage of all the dead wood laying around, and further grow their populations. Using climatic models, the scientists concluded that termite habitats could increase by more than 30 percent of their current range. As they consume more wood, they will release carbon that has been stored in previously untapped forests for hundreds of years. As termites spread across the planet, these actions could accelerate rising temperatures.

The research team, consisting of more than 100 scientists, conducted a coordinated global experiment across 133 sites on six continents. They increased temperatures on pieces of wood—some containing termites and others without—during a two-year period. The results were published in *Science*.

So while a small percentage of the world's termite populations are consuming wood from buildings, far more are eating up wood debris in subtropical and [tropical forests](#). If the world becomes more tropical, the real threat from termites might be even warmer global temperatures.



Wood samples in Key West, Florida. Credit: Florida International University

More information: Amy E. Zanne et al, Termite sensitivity to temperature affects global wood decay rates, *Science* (2022). [DOI: 10.1126/science.abo3856](https://doi.org/10.1126/science.abo3856)

Provided by Florida International University

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