

Fiji ants farm plants, study shows

November 21 2016



A Squamellaria 'field', up in a Macaranga tree, farmed by a colony of Philidris nagasau ants. The tree overlooks the Fijian archipelago at sunset on Taveuni island. Credit: Guillaume Chomicki

Ants found in the Pacific islands of Fiji behave as miniature farmers, carefully sowing and fertilising the seeds of at least six types of plant, a study said Monday.

Ants have previously been observed farming fungi for food, but this is the first study to show the insects cultivating [plants](#), said researchers from the University of Munich who published their findings in the journal *Nature Plants*.

The ant, known as *Philidris nagasau*, gathers seeds from the fruit of six different types of *Squamellaria* plant, then nestles them in cracks it finds in trees.

They regularly visit the growing seedlings, which form hollow chambers inside the trees.

The ants "defecate inside to fertilise the young plant and help it grow," said a media summary issued by *Nature*.

As they expand, the chambers in turn offer nesting space and protection for [ant colonies](#).

"The ants and plants are interdependent and one cannot survive without the other," said the statement.

Reconstructing the evolutionary history of the insects and their crops, the

authors concluded the relationship stretches back about three million years—long before [modern humans](#), history's most prolific farmers, even existed.

Squamellaria are so-called epiphytic plants, which grow harmlessly on trees—relying on them for structural support but not for water or food, which they extract from the air and from rain.

More information: Obligate plant farming by a specialized ant, *Nature Plants* 2, Article number: 16181 (2016)
[nature.com/articles/doi:10.1038/nplants.2016.181](https://doi.org/10.1038/nplants.2016.181)

© 2016 AFP

Citation: Fiji ants farm plants, study shows (2016, November 21) retrieved 26 April 2024 from <https://phys.org/news/2016-11-fiji-ants-farm.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.