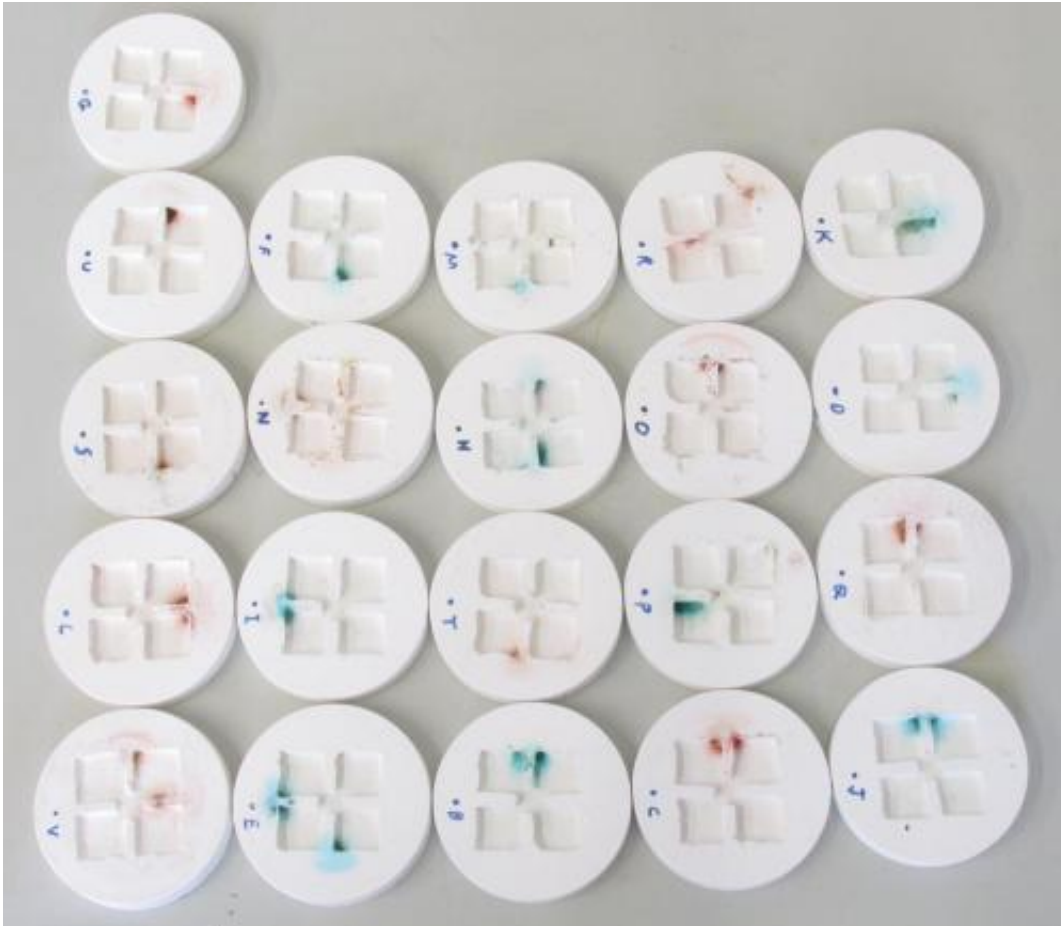


Where ants go when nature calls

February 18 2015



21 plaster nests which had been inhabited by 150-300 *Lasius niger* workers for 2 months. Dark coloured patches (= toilets) can be seen in every nest. The colour of the patch corresponds to the colour of the sugar solution the ants were fed.
Credit: Czaczkes et al.

Ants may use the corners of their nest as 'toilets,' according to a study

published February 18, 2015 in the open-access journal *PLOS ONE* by Tomer Czaczkes and colleagues from University of Regensburg, Germany.

Little research has been done on ant sanitary behavior, so the authors of this study conducted an experiment to determine whether distinct brown patches they observed forming in ants' [nests](#) were feces. They fed ants, living in white plaster nests, [food](#) dyed with either red or blue food coloring and observed the nests for the colorful feces.

They found that one or two corners of each nest started to fill with feces that was the same color as the food they were fed. The researchers found no other waste in these areas, suggesting that ants may use these areas as '[toilets](#).' They also discovered that the ants didn't just put their toilets anywhere—almost all the ants placed their toilets in the corners.

"For ants, which like us live in very dense communities, sanitation is a big problem," says Dr. Tomer Czaczkes, who led the study. "Ants normally keep a very clean nest, and usually throw out dangerous rubbish, like food remains and corpses."

The researchers are still not quite sure why the ants do this, but suggest that perhaps the piled-up waste might be useful. "Some insects use feces for defense, as building materials, as manure for their crops, and as markings. Perhaps these toilets are also gardens for crops, or even stores for valuable nutrients," added Dr. Czaczkes. Maybe, though, the [ants](#) just don't want to go outside to do their business.

More information: Czaczkes TJ, Heinze J, Ruther J (2015) Nest Etiquette—Where Ants Go When Nature Calls. *PLoS ONE* 10(2): e0118376. [DOI: 10.1371/journal.pone.0118376](https://doi.org/10.1371/journal.pone.0118376)

Provided by Public Library of Science

Citation: Where ants go when nature calls (2015, February 18) retrieved 9 April 2024 from <https://phys.org/news/2015-02-ants-nature.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.