

Termites get the vibe on what tastes good

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Researchers from CSIRO and UNSW@ADFA have shown that termites can tell what sort of material their food is made of, without having to actually touch it. The findings may lead to improvements in the control of feeding termites.

By offering them a choice between normal wooden blocks and specially designed blocks made of wood and other materials, the researchers found that the termites always preferred the blocks containing the most wood – even though they could not touch or see the other materials.

The results are published in the *Journal of the Royal Society Interface* ("Termites live in a material world: exploration of their ability to differentiate between food sources" by Mr RA Inta, Professor JCS Lai, Mr EW Fu and Dr T Evans (doi: 10.1098/rsif.2007.0223)).

Mr Ra Inta, from UNSW@ADFA and CSIRO Entomology, says the ability to differentiate between food sources is based on the vibrations of the food that the termites are eating, although the exact mechanism for this ability is yet to be explored.

"Scientists have known for some time that termites are receptive to vibrations," Mr Inta says. "But these results demonstrate that termites' methods of food assessment are much more sophisticated than previously thought.

"When offered a choice between blocks of their normal wooden food, and specially engineered blocks made of wood and other materials, they

could tell when there was another material attached and always chose the blocks that contained the most wood."

The researchers are designing further experiments to test termites' assessment methods in an attempt to determine precisely what aspect of the vibrations termites are responding to in assessing food.

"If we understand how they use vibrations to assess their food, we might be able to exploit this to manipulate their feeding habits, and address the very significant problem of termite damage in buildings and other structures," Mr Inta says.

Source: CSIRO Australia

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