

Ants have different 'standards' when it comes to choosing a home

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Ants use collective decision-making to select the best option when choosing a new home. Until now, the exact way in which they do this has puzzled researchers. A new study, led by the University of Bristol and published in *Royal Society Open Science*, found that while some are happy to slum it out in anything with a roof, others are so choosy that even the equivalent of a mansion will not satisfy them.

Scientists know that ants use a 'quorum'; a certain number of ants must 'vote' for any one option before the colony as a whole makes a choice, but how do the opinions of individual ants affect this? Using [mathematical modelling](#), researchers from Bristol's Schools of Engineering Mathematics and Biological Sciences have demonstrated that the answer may lie in the varying 'pickiness' of ants in a colony.

The modelling found this distribution of individual 'standards' across the colony makes for a robust, but effective, method of nest choice. When the team simulated this, their results were strikingly similar to the behaviour of real [ants](#), suggesting that, in insects often known for their uniformity, in this case at least, individuality may hold the key to their success.

More information: "Computational model of collective nest selection by ants with heterogeneous acceptance thresholds." [DOI: 10.1098/rsos.140533](#)

Provided by University of Bristol

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