

# Ant's social network similar to Facebook

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Weaver ants collaborating to dismember a red ant (the two at the extremities are pulling the red ant, while the middle one cuts the red ant until it snaps). Image: Wikipedia.

(PhysOrg.com) -- A recent study in the *Journal of the Royal Society Interface* presents findings that show that not all ants are as social as others. Similar to your friends on Facebook, some ants communicate with only a few fellow ants, while others are social butterflies and communicate with a much larger circle.

A team of researchers at Stanford University, led by biologist Noa Pinter-Wollman studied the interactions of the red harvester ants (*Pogonomyrmex barbatus*), native to the deserts of the American Southwest.

All ants utilize a system of [chemical signals](#) to communicate. Molecules are secreted through their exoskeletons and are transferred to other ants

in the colony when their antennae rub the molecules. This allows them to share information such as where they have been, any food sources they may have found, or if predators are in the area.

Using a mock chamber entrance, the team of researchers measured the [information exchange](#) between ants from two different colonies.

Videotaping the exchanges, the team then used a computer program designed to identify each individual ant and count its interactions with others. A total of 4628 interactions were recorded.

On average, each ant had around 40 interactions. However, around 10 percent of the ants made more than 100 contacts with other ants. Further research is examining just what makes these more social ants different than the others within the colonies.

The researchers compare this type of [socialization](#) to that seen on sites like Facebook. While most people have a relatively small number of [Facebook friends](#), there are some with a friends list in the thousands. It is these friends that act as a sort of information hub, spreading information out to a large number of readers. These particular [ants](#) are functioning as a large social hub of information.

**More information:** The effect of individual variation on the structure and function of interaction networks in harvester ants, *J. R. Soc. Interface*, Published online before print April 13, 2011; doi: 10.1098/rsif.2011.0059 [rsif.royalsocietypublishing.org/.../f.2011.0059.abstract](http://rsif.royalsocietypublishing.org/.../f.2011.0059.abstract)

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