

Silky ants turn to aphids for medicine when sick

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Formica fusca (silky ant). Credit: [Sanja565658/Wikimedia Commons](#), [CC BY-SA](#)

A small team of biologists and zoologists from Austria, the Netherlands, Germany and Finland has found evidence of silky ants consuming aphids to treat fungal infections. In their study, [published](#) in the journal *Biology Letters*, the group collected groups of silky ants and tested their approach to warding off fungal infections.

Prior research has suggested that aphids might be used as a source of medical treatment for some species due to the [hydrogen peroxide](#) that builds up in their bodies. In this new effort, the research team noted that silky ants have been known to consume aphids and wondered if they did so as a means of self-medicating. To find out, they ventured into the field at a site in Finland and collected a number of silky ants.

After bringing 30 of the ants back to their lab, the researchers gave half of them harmful fungal infections. They then gave both groups of ants a choice of food—a standard mix of honey and agar or a standard mix of honey and agar with either a small or large amount of crushed aphids mixed in.

The research team found that those ants with no infection ate only the standard mix—those with a fungal infection, however, split their meal choice 50/50 between the standard mix and the one mixed with aphids. They also found that after the [fungal infection](#) was gone, the infected ants went back to a diet of the standard mix.

The researchers note that it appears that the ants were not only self-medicating, but were doing so in amounts that proved the most beneficial. If they had eaten only the mix with the aphids, for example, they would likely have died due to hydrogen peroxide poisoning. If they had eaten too little, they would not have fought off the infection. They also note that consuming some of the standard mix with no aphids allowed the sick ants to consume the nutrients they needed to help their immune systems.

The research team next plans to study the ants and their proclivity for eating [aphids](#) when sick in a more natural environment.

More information: Jason Rissanen et al, *Formica fusca* ants use aphid supplemented foods to alleviate effects during the acute phase of a fungal infection, *Biology Letters* (2023). [DOI: 10.1098/rsbl.2023.0415](https://doi.org/10.1098/rsbl.2023.0415)

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