

Research helps steer mites from bees

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A Simon Fraser University chemistry professor has found a way to sway mites from their damaging effects on bees that care and feed the all-important queen bee.

SFU chemistry professor Erika Plettner and Victoria Soroker, a researcher at Israel's Agricultural Research Organization, examined several [compounds](#) found to be useful in disrupting the mite's chemosensory organ, which meant their detection systems could be re-programmed to seek older worker [bees](#) instead of young "nurse" bees.

Inducing the ectoparasitic [mites](#), known as Varroa destructor, to move away from the brood nest and onto older forager bees could mitigate the deleterious effects on nurse bees and their brood, says Plettner.

Plettner adds: "These findings are interesting because mites are notoriously difficult to control. Traditional treatment methods are very labour intensive and often involve using compounds that are somewhat toxic to the nurse bees and the [brood](#). Mites have also shown to develop a resistance to these compounds."

Plettner says the newly discovered compounds could be used in conjunction with various strategies currently in use, but with fewer side effects on the bees.

The researchers' findings were published this week in the journal *PLoS One*.

More information: Eliash N, Singh NK, Kamer Y, Pinnelli GR, Plettner E, et al. (2014) "Can We Disrupt the Sensing of Honey Bees by the Bee Parasite Varroa destructor?" *PLoS ONE* 9(9): e106889. [DOI: 10.1371/journal.pone.0106889](https://doi.org/10.1371/journal.pone.0106889)

Provided by Simon Fraser University

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