

Ladybugs taken hostage by wasps

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Are ladybugs being overtaken by wasps? A Université de Montréal entomologist is investigating a type of wasp (*Dinocampus coccinellae*) present in Quebec that forces ladybugs (*Coccinella maculata*) to carry their larvae. These wasps lay their eggs on the ladybug's body, a common practice in the insect world, yet they don't kill their host.

"What is fascinating is that the ladybug is partially paralyzed by the parasite, yet it's eventually released unscathed," says Brodeur, who is also a biology professor and Canada Research Chair in Biocontrol. "Once liberated, the ladybug can continue to eat and reproduce as if nothing happened."

A larva cocoons between the ladybug's legs and moves on once it matures. Brodeur is currently studying the phenomenon at the Université de Montréal Institut de recherche en biologie végétale. He hopes to

understand the cycle duration, success rate and the host-parasite relationship.

"Can the ladybug refuse to be used? We don't know. Our plan is to reproduce a variety of situations in the lab and see which is most favourable to reproduction," he says.

Wasps aren't alone in offloading their offspring, stresses Brodeur, since magpies look after the chicks of great spotted cuckoos. The cuckoo visits the nests where it leaves its young and kills those magpies that don't protect their offspring. And a variety of parasite behaviours exist in the insect world, yet the dynamic between the *Dinocampus coccinellae* and *Coccinella maculata* is unusual and one Brodeur hopes to better understand.

Source: University of Montreal ([news](#) : [web](#))

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