



RIVERSIDE

DEPARTMENT OF ENTOMOLOGY
Entomology Seminar Series



Speaker:

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Date: Monday, May 19, 2025
Time: 4:00 pm - 4:50 pm
Format: In-Person Seminar & Virtual Access
Location: Genomics Auditorium 1102A
Zoom: 956 6969 9893
Passcode: 343307

Title:

"Can Caterpillars Pass Down What They Learn? Exploring the Inheritance of Novel Odor Preferences in *Bicyclus anynana*"

"Abstract:

How do insects develop their host plant preferences - and can those preferences be passed on? During my PhD research, I explored whether *Bicyclus anynana* caterpillars could not only learn a novel fruity odor, but also transmit the preferences across generations. Larvae that fed on the novel odor for five generations continued to prefer the odor. However, removing the odor halted this preference transmission, suggesting this might be a single-generation parental effect. In parallel, I found that surprisingly, transfusing hemolymph from odor-exposed to naive larvae immediately altered their odor choice and their offspring showed a strong preference for the novel odor. These findings point to unknown, possibly novel, epigenetic messengers in the hemolymph that influence behavior across generations.