

“Bugs on Bugs”: An Inquiry-Based, Collaborative Activity to Learn Arthropod and Microbial Biodiversity

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“Bugs on Bugs” is an engaging, inquiry-based project in which student teams collect arthropods, swab them, and then culture microbes that live on the arthropods. “Bugs on Bugs” has been incorporated into the majors’ introductory biology sequence at University of North Georgia for three semesters. In one semester, “Bugs on Bugs” was a semester-long project in which students in the introductory course collected arthropods for student collaborators in a microbiology course, who then isolated and identified microbes. Students in both courses gave team presentations at the end of the project. In the other two semesters, “Bugs on Bugs” was a single lab activity in which students in just the introductory course collected arthropods and cultured microbes. We have two goals for our mini-workshop. First, we will actively demonstrate the field and lab techniques that students will perform in “Bugs on Bugs” and describe how data are collected, analyzed, and summarized. Second, we will discuss logistics and best practices of connecting students from two different courses to complete a lab project. Along with content knowledge such as biological diversity of unseen organisms, “Bugs on Bugs” teaches students discipline-specific research skills and improves their ability to collaborate with peers and communicate.

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