TIEE Insect Predation module

Used by Lazella Lawson at The Master’s University in the Ecology laboratory

Teaching Notes

The QUBES module was modified to fit the content of an upper division Ecology lab for majors.

Assignment Prep – In a previous lab, students were asked to read “Methods to identify the prey of invertebrate predators” by Birkhofer et al. (2017) and write a summary of it.  In the next lab period, the TIEE module Instructions provided a time of discussion on Insect Predation.

Assignment – The abstract and meta-data of another recently published article on insect predation (Schultheis et al. 2015) was presented in the assignment “Using Raw Data”. The Schultheis paper was provided as a resource, but not as required reading and the EXCEL file posted on the Dryad website was downloaded for student use. Students were to form graphs and interpret the visual representation from this long-term data set that investigated native, invasive and exotic plant species with leaf damage from insects.

Birkhofer K, Bylund H, Dalin P, Ferlian O, Gagic V, Hamback PA, Klapwijk M, Mestre L, Roubinet E, Schroeder M, et. al. 2017. Methods to identify the prey of invertebrate predators in terrestrial field studies. Ecology and Evolution. [Internet]. DOI: 10.1002/ece3.2791

Schultheis EH, Berardi AE, Lau JA. 2015. No release for the wicked: enemy release is dynamic and not associated with invasiveness. Ecology. 96(9):2446-2457.

Evaluation of Project – Using long-term studies in the Ecology lab has been difficult. The lack of actual data has been the main deterrent. Now with the Dryad spreadsheet and meta-data that accompanied it, this project in the Ecology lab was possible. If using the TIEE Insect Predation module without modifications to further the upper division majors experience, the students would have missed out on a great opportunity to work with the data in evaluating some actual field work.

I felt the student level of understanding the EXCEL spreadsheet functions was excellent, given the minimal amount of intervention that was necessary in the lab with the computers. In the future, I would select the plots that gave the most visual representation of the entire sample, rather than having the students form graphs and interpret them for all 14 plots.