## Backyard Pollinators Teaching Notes

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**Course Information**

ENV323 Conservation of Biodiversity

Department: Environmental Studies

Level: Upper Undergraduate

Course type: Lecture, discussion

Students: ENV Majors

Number of Students: 22

**Module Information**

Original Module Name: Backyard Beetles + Pollinators

Link to Original: <https://qubeshub.org/publications/2063/1>Adapted Module Name: Backyard Beetles + Pollinators Lab for BIO 3400 Ecology at Greensboro College

Link to Adapted Module: <https://qubeshub.org/publications/2178/1>

Modified Module Name: Adaptation of Backyard Beetles + Pollinators for a non-lab course on biodiversity conservation

Files associated:

* Background worksheet
* Module 1: Identify and characterize your study sites
* Module 2: Learn your insects
* Module 3: Create your quadrat
* Module 4: Floral observations and data collection
* Module 5: Enter data in class google sheets [not a file, just an assignment]
* Module 6: Data exploration
* Module 7: Data comparisons

Modification Learning Goals:

 Develop hypotheses about organisms, communities and ecosystem functions

 Identify plant and pollinator functional groups

 Record, enter, and organize qualitative and quantitative data

 Analyze data individually and collaboratively

 Compare results between sites and evaluate patterns

 Understand the importance of standardized ecological monitoring at scale

**Teaching Notes**

Some students complained that this seemed like it should be in lab class, and without dedicated lab time it was difficult to find time to meet with their partner to complete the tasks, but most enjoyed it and were highly engaged.

Students enjoyed learning the insect types and liked the technique of categorizing them into groups. They were pleasantly surprised by the numbers they were able to observe and identify, and felt that this was important and interesting work.

I originally intended for the final component of this assignment to include some very basic coding in R to create a simple network plot, code for which is available through QUBES. I ran out of steam late in the semester and kept it simple. If I use this again in the future (and I think I will), I will try to incorporate that element. Previous students have expressed an interest in learning R, and while I do not feel competent to teach a course on it, I would like to incorporate a taste of it in this assignment.