



# GEM3

Genes by Environment  
Modeling · Mechanisms · Mapping

**Module Name:** Milkweed Leaf Character Evaluation Using Image J

**Institution:** College of Western Idaho

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**Summary:**

This lab orients and trains about how to use some functions of a common and powerful tool for evaluating phenotypic traits in plants, while contributing to original undergraduate research. This module fits into a larger course-based undergraduate research (CURE) about plant ecophysiology and restoring degraded habitats (focuses on concepts evaluated by the sagebrush components of mapping and modeling). This module has been designed to be delivered over one lab period and can be used for remote instruction as needed.

*This module has been used in CWI's Biology 3 (BIOL 113L) course.*

**Contents:**

- Video: ImageJ tutorial
- Video: Measuring Milkweed Characteristics
- Lab: Leaf characteristic analyses in ImageJ
- Guide: *Examples of Image Analyses Using ImageJ*

**Notes:**

- The data set that is hyperlinked in the activity is a live, editable data set that is still being compiled for analysis – please do not share with anyone who may modify it as we are still in the final processes of data collection (part of a summer SARE internship).
- This lab module was developed and tested by Dusty Perkins.

**Questions?** Contact the PI or the GEM3 PUI Liaison, Stephanie Sevigny, [stephanieseigny@boisestate.edu](mailto:stephanieseigny@boisestate.edu)

*Last Updated: 09/16/2021*