

# Biocontrol in the Schools

Mile-a-minute weed as a model system

## Purpose

- Raise awareness of invasive plants and biological control
  - Students and parents
- Provide exposure to plants and insects
  - Their interactions

## 2009 pilot: JHG and 3 grad students; N, S, E, and W windows



0 weevils      10 weevils      20 weevils      Uncaged (no weevils)

### Data Sheet

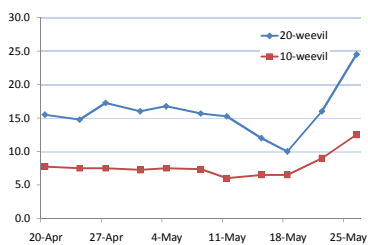
Data should be collected every **Monday** and **Friday**  
Plants should be watered only as needed

Date of sample: \_\_\_\_\_

	Number of weevils	Number of leaves*:		Feeding damage rating (none, low, medium, or high)**	Length of longest stem (cm)- uncaged plant only
		undamaged	damaged		
20-weevil plant					
10-weevil plant					
Caged plant – no weevils					
Uncaged plant					

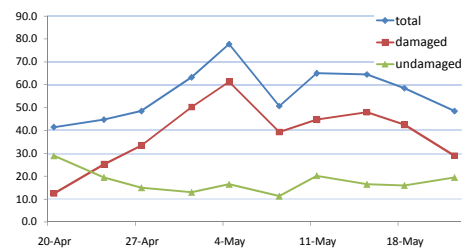
\*Do not count brown leaves; do not count group of leaves at end of terminal  
\*\*Weevil feeding damage: **None** = no visible holes; **Low** = holes in a few scattered leaves; **Medium** = holes in many leaves; **High** = extensive damage on most leaves.

## Average number of weevils counted

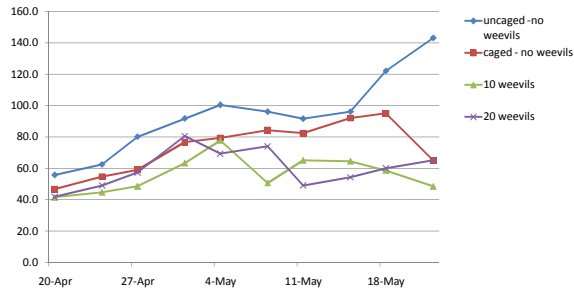


Reproduction: week 5

## Leaves counted on 10-weevil plant



## Leaves counted on all treatments



## 2010: pilot in schools

- 4 teachers, grades 4<sup>th</sup> – 7<sup>th</sup>
- We will supply each teacher with 4 cages with plants (from Trenton Lab; 16 total)
- Add 10 weevils each to 2 cages (from Trenton Lab; 80 weevils total)
- Other 2 cages left without weevils

- Start ~ April 1:
  - one classroom visit
    - deliver plants & weevils
    - explain life cycles, problem with MAM, importance of weevil etc.
    - play MAM game
  - provide teacher with brief written materials: information sheet, data sheets
  - letter for students to take home to parents

- For ~ 5-8 weeks, students
- count # weevils every Monday
  - count undamaged and damaged leaves every Friday



- Teachers can use data to teach graphing, percentages, etc. (state standards)
- Mid-May to early June:
  - students cut plants apart on white plastic bag
  - count all weevils, putting them in a container as they count
  - take them out to the field to release

- Meet with teachers all together at end
  - what worked & what didn't
  - their thoughts on making it better
- If successful, Trenton Lab could offer "kits" for sale following year?