

# Whorled vs. Common: What type of milkweed do Monarch caterpillars prefer?

Amanda Swain-Sheppard, Sparta High School, Sparta WI

## Introduction

I decided to do this experiment after participating in the Monarch Larva Monitoring Project. We only surveyed Common milkweed but often found monarchs on Whorled milkweed. Monarchs are reported to eat both common milkweed (*Asclepias syriaca*) and whorled milkweed (*A. verticillata*), which has a thicker stalk with many grass-like leaves.

## Methods

- The eggs for my project were received from the University of Minnesota Monarch Lab on August 31st, 2004. (Fig. 1)
- I collected common and whorled milkweed from various locations and put the stalks in plastic water pics and placed them in two different rearing containers. (Fig. 2)
- I put six caterpillars in each bucket, for a total sample size of twelve.
- I left the containers in a classroom in my school, and recorded how many caterpillars were on the whorled and common in the morning and afternoon every day.
- I changed the milkweed every two or three days when it became dry and eaten.
- I monitored the caterpillars until they all pupated (18 days).



Fig. 1: The eggs came in petri dishes.



Fig. 2: Both types of milkweed were put in each container.

## Results

Figure 3 shows the average number of larvae that were on common milkweed, whorled milkweed, or not on a plant during each observation over the first six days of the experiment. These numbers do not include dates after which larvae began pupating.

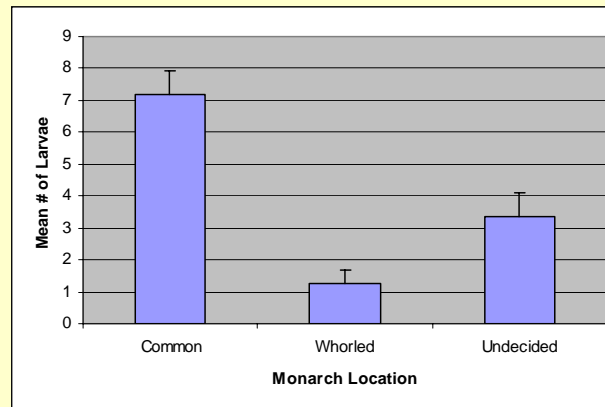


Fig. 3: The average number of caterpillars (+standard error) on each type of milkweed over the first six days monitored.

## Discussion

Most of the time the caterpillars were found on common milkweed. I observed that the days that showed more caterpillars on whorled milkweed were the days when the common milkweed had either been completely eaten or had dried out. One source of error was that I didn't have enough common milkweed in the containers. The experiment would have also been more accurate if the plants had not been cut and then given to the caterpillars. If I did this experiment again I would use other kinds of milkweed besides just the common and whorled. I would also use more caterpillars.



Fig. 4: Monarch caterpillars on common milkweed.

## References

- Mark Moran. Common Milkweed. [http://www.fcps.k12.va.us/stratfordlandingES/Ecology/images/common\\_milkweed.htm](http://www.fcps.k12.va.us/stratfordlandingES/Ecology/images/common_milkweed.htm) [2004, Dec. 23]
- The Monarch Nursery. [<http://www.furchild.net/theMonarchNursery.htm>] [2004, Dec. 11]
- Monarch Watch. <http://www.monarchwatch.org/milkweed/guide/vert.htm>