Monarch Community Science Project

Starting in the summer of 2019, the Field Museum Keller Science Action Center asks community scientists from across the Chicago region to document the survivorship of monarch butterfly caterpillars on milkweed plants around their community.

Why do monarchs need help?
Monarch butterfly populations have declined over 80% in the last two decades. The data collected by community scientists, like yourself, helps researchers at the museum understand how successful milkweed plants in cities and towns are at providing habitat to monarch caterpillars.

Who can help?
This project is a great fit for new or experienced community scientists. We welcome anyone young or old, but we recommend that kids below 9th grade work with an adult. It is important that volunteers commit to taking data throughout the summer.

How can I help?
If you have milkweed plants in your yard or on your balcony you can become a volunteer. If you’d like to plant milkweed for this growing season there is still time. Monitors will need to commit to weekly monitoring through the season from June to the second week of September. Each session of monitoring will only take about a ½ hour along with some additional record keeping about your site. If you don’t have space to grow plants consider monitoring at your local park, school, or place of worship.

What’s the goal?
In our first year the goal of this project is to recruit 100 community scientists to monitor monarch caterpillars on milkweed plants in their yard or other small plantings near their home. We need your help to answer the question, “what is the survivorship of monarch caterpillars in urban backyards?”

How can I get involved?
Identify your milkweed patch and start surveying, or register to learn about future digital and in-person trainings at bit.ly/monarchtraining.
Community Science FAQ

1. **How long will this take?**
   The length of time needed to monitor depends on the number of plants you have. While the first week or two of monitoring may take longer we estimate that 100 plants can easily be monitored in 30 min/week. Once in the month of July you will be asked to measure the area of your patch. This one-time measurement will add some time to your monitoring but it should not exceed 45 min.

2. **How do you define a patch?**
   In our study a patch of milkweed is a group plants, or a single plant separated from other milkweed by non-flowering or non-native plants or by a distance of 5 feet. Generally this means garden patches separated by turf grass. For milkweed grown in containers, a patch would be a grouping of plants in the same pot or pots spaced close together. If you are having trouble defining your patches please reach out to us at monarchs@fieldmuseuem.org.

3. **How many milkweed plants do I need to have?**
   There is no minimum. If you have one plant that you just planted this year, we would love to have you as part of the project. If you have 400 plants, and you have time to monitor them weekly, we would love to have you.

4. **I don’t have any milkweed plants but I have other native plants. Should I monitor those?**
   Your native plants are providing important nectar resource for monarchs and other pollinators. However, we are monitoring monarch larvae which do require milkweed plants.

5. **I have milkweed plants but I never see caterpillars. What’s wrong?**
   We don’t know, but we really want data from your patch so we can find out. Getting data on patches without eggs or where larvae don’t progress is very important for our study. Please add your data so we can learn what makes a good milkweed patch. Also take a look at our educational materials to refresh yourself on finding eggs; sometimes they are hard to spot.

6. **If I bring monarch caterpillar into my house and rear it, can I still be part of this project?**
   Yes, but we ask that you refrain from collecting eggs or larvae from the patch you are monitoring.

7. **My milkweed is in pots on my patio or balcony. Can I still be part of this project?**
   Yes, and we are so excited to have you as part of our study. Not much data has been collected on monarchs and milkweed grown in containers.

8. **I don’t have any milkweed but I see some at my park, church, school, or workplace. Can I be part of the study?**
   Yes, we welcome your participation. Please get permission from the landowner and reach out to us if you have any questions about how to record the site information.

9. **I’m going on vacation for a week or two, what should I do?**
   Weekly data is important for our project. If you can get a friend, neighbor or family member to record data while you are away that would be wonderful. However, if you miss a week, that’s okay. Please continue to submit data when you return.

10. **I want to monitor with my kids or have my kid do this project alone. Is that okay?**
   We think this project is a great fit for people who are new to community science. We welcome anyone young or old, but we recommend that kids below 9th grade work with an adult. In our experience younger kids are great at hunting for eggs and larvae and can be taught to be gentle to avoid knocking caterpillars off the plant (they hold on pretty tightly).

11. **How is this project related to other butterfly conservation and monitoring efforts?**
   There are so many great projects related to pollinator conservation and to monarch conservation in particular. If your site is too large for you to count every plant, we recommend the Monarch Larval Monitoring Project. If you want a project that lets you focus on many different butterflies we recommend the Illinois Butterfly Monitoring Network. To learn more about monarch efforts across the country, please look into the Monarch Joint Venture.
Draw the plantings in your yard or balcony. Name and label each patch of milkweed that you plan to monitor. You will use these labels each week for monitoring.
We define a patch as one or a group of plants separated from other milkweed by a non-flowering plant (usually turfgrass) or by 5 feet. Front and backyard plantings count as separate patches. Monitors can choose to report data from as many or as few sites as they choose.

**Examples of Patches**

1. The most important thing is to monitor in the way you are most comfortable and that lets you record data each week.

2. We need to know the number of eggs, 1st instar larvae, 2nd instar larvae, 3rd instar larvae, 4th instar larvae, and 5th instar larvae on each species of milkweed in a patch. If you have more than one species of milkweed in your patch please be sure to record the data by species.

3. Recording patches that don’t have eggs or larvae is so important for our work. If you have milkweed and aren’t finding eggs or you have 1st and 2nd instar caterpillars but you aren’t finding 4th or 5th instar caterpillars, please still record your data. Those data are very important for helping us understand what makes a successful milkweed patch.

4. Weekly data is very important for our study, however, if you miss a week please continue to monitor.

5. As a reminder, the survey can be found at: arcg.is/1uLOuP. Please note the link is case sensitive.

For questions, contact: monarchs@fieldmuseum.org