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COMMUNITY SCIENCE:
A WAY TO SHARE YOUR GARDENING KNOW-HOW

By C. T. Ward, Frederick County Master Gardener, September, 2024

Not so many years ago, community knowledge of nature and the world was something we simply lived day to day. By taking notice of the world around them, our ancestors could use their intuition, as well as information shared with neighbors and passed down through generations, to predict what a season's temperatures would be, which soil would grow the best crops, and even which seasonal pests to be aware of.

While we still often share our gardening knowledge with our kids, neighbors, and friends through oral means, today many of us keep these garden notes electronically, along with photos; and we quickly find answers to almost any question electronically, too. You might want to consider sharing your garden know-how even further—with others in "community science" projects that range from simple to complex, short-term to long-term.

How does "community science" work?

In a community science project, you may be asked to determine which birds come to your bird feeder, depending on what kind of seed you put out; to describe what you have done to keep the squash borer from decimating your zucchini; to observe and record which flowers bees, butterflies, and/or hummingbirds seem to prefer in your back yard; to count any spotted lanternflies or their egg masses appearing in your area. Or you might help to monitor best environmental practices, the health of local wildlife, or how nature is reacting to damage and the healing efforts we make.

Research scientists combine and study data from such "community science" projects, thanks to "citizen scientists" who use their gardening know-how to record data from local observations, share their data and observations with the researchers, thus contributing to an ongoing scientific project, whether it's a gardening project or some other topic.

Local opportunities to volunteer

You don't have to go big or go home. Jumping right into the thick of a new hobby or interest can be overwhelming. Start with what you can already access, perhaps even a one-time, short-term commitment. You can contribute to such scientific projects, large or small, by recording data from your own observations based on what you see in your own back yard or your neighborhood.

For example, begin a simple project, such as logging data, with a notebook and a writing utensil. You may find yourself recording data much as your grandparents did—making notes in personal journals—but also using today's technology to sort and file data—in spreadsheets, with cell phones, with cameras. Add appropriate gear or equipment as you become more comfortable with

the process in your area of interest. Submitting your data to a chosen project allows the administrators of the projects to combine your data with that given by many other people.

Find community science projects that interest you by checking with administrators of local and state parks or nature councils, whether it's counting butterflies, feeding baby trout, participating in the annual Great Backyard Bird Count, or even helping to replace invasive plants with natives. Visit well-known websites like <citizenscience.gov>, <inaturalist.org>, <societyforscience.org>, <nasa>, or <nationalgeographic> for a list of citizen science projects.

Work with what you have

Once you develop an understanding of the process of community science programs, you may well discover the same feeling that scientists and professionals around the globe often share: being part of something greater than any single person; and knowing that each little contribution helps us to more fully understand and appreciate this great world in which we live.

There is a project out there for you!

While you're exploring community science projects, check our website or Facebook for upcoming free seminars, Master Gardener certification classes, Frederick County Extension Master Gardener/Horticulture Program, gardening information and advice, and publications, as well as other announcements, at the following URLs, or call Susan Trice at the University of Maryland Extension Frederick County office, at 301-600-1596.

- Frederick County Master Gardeners' website, bit.ly/FCMG-Home-Gardening;
- Facebook, https://bit.ly/FCMGFacebook;
- University of Maryland Extension Home and Garden Information Center, bit.ly/B-WForms;
- Frederick County Master Gardeners publications, <http://extension.umd.edu/locations/frederick-county/home-gardening>.

2023 Monarch on primrose

One of the many community science projects is the Integrated Monarch Monitoring Program. According to the website, "IMMP participants use the **IMMP Data Portal** to select and register sites, enter data, and visualize results. IMMP activity data are typically collected on paper and entered by computer or tablet into the Portal. If access to cellular data or WIFI is available while in the field, data may be collected electronically on a tablet and entered directly into the Portal." (photo courtesy of the author)