



Home Garden Seed Association

how nature grows

Citizen Science Opportunities for the Home Gardener

It's never been easier than it is today for an organization or individual to gather information about insect populations, bloom times, plant performance, and other topics. Expanding the reach of a data-collecting study by enlisting the help of ordinary people is generally known as Citizen Science. You may also find projects under the labels "amateur science," "crowdsourced science," or "public participation in scientific research."

In recent times there has been an explosion of opportunities for gardeners to participate in data collection. One way to learn about opportunities is to visit SciStarter.com, an organization that helps bring together citizen scientists throughout the world, and provides resources that will enable you to pursue and enjoy thousands of projects, or to start your own.

Citizen Science: People Power!

You can participate in climate science research, help stop the spread of pest insects, collect data on pollinators, and assist scientists in many other efforts. There are local, national, and worldwide projects, free mobile apps, facebook groups, and online support systems. Here is a sampling of the many Citizen Science projects out there:



Big Bug Hunt (bigbughunt.com) is an international research project that invites gardeners to report sightings of bugs as they appear. The project has already found patterns of when and how key pests spread, but more reports will speed up development of a prediction system that will send out alerts when pests are heading your way.

The Great Sunflower Project (greatsunflower.org), started by researchers at San Francisco State University in 2008, asks participants around the country to focus on a particular site (or a particular sunflower), count the number of visits by pollinators, and then enter the data on the website. The goal is to gather information about urban, suburban and rural bee populations and to learn where pollination is weak and where it is strong. The project now has the largest single body of information about bee pollinator service in North America.



The Lost Ladybug Project (lostladybug.org), was set in motion way back in 2000, when Cornell researchers, concerned that once common native ladybugs were becoming rare, coordinated with Master Gardeners to survey ladybug populations across New York State. Since that time the project has greatly expanded, with over 4000 contributors from the US, Canada, and Mexico. Researchers ask that participants look for ladybug species, particularly the unusual ones, and send pictures. The website includes a basic field guide showing different species as well as a pictorial key, and detailed information on

how to find, collect and photograph the insects.

Nature's Notebook (NaturesNotebook.org), presented by the USA National Phenology Network, tasks its participants with recording regular observations of seasonal changes in plants and animals. Its purpose is twofold: to connect people of all ages to the life cycles of the plants and animals in their backyards, and to generate long-term data sets used for scientific discovery and decision-making.



budburst

a project of the Chicago Botanic Garden

Begun in 2007, it is now hosted by the Chicago Botanic Garden, and boasts tens of thousands of participants from all 50 states. The project focuses solely on plants—when they flower, when seeds ripen, when fruits drop and leaves wither—and these observations are used to help understand how plant species and ecosystems respond to changes in climate locally, regionally, and nationally.

Project Budburst (budburst.org), similarly, brings together researchers, educators, gardeners, and citizen scientists to discover how plants are affected by a changing climate.

Vegetable Varieties for Gardeners (<http://vegvariety.cce.cornell.edu/>), a Cornell University project, seeks to share information about how particular vegetable varieties perform under different conditions. The concept is simple: Gardeners visit the VVfG website and report what varieties perform well, or not so well, in their gardens. Other gardeners visit to view the variety ratings and read the reviews to decide which might work well for them. With these gardener observations researchers can gain new insights into the performance of vegetable varieties under a wide range of conditions and practices.



Habitat Network

powered by yardmap



Habitat Network (yardmap.org) was launched in 2012 by the Cornell Lab of Ornithology. Individuals around the country are asked to draw maps of their backyards, parks, farms, favorite birding locations, schools, and gardens using an online mapping tool, and are provided tools that promote better decisions about creating habitat. The program is designed to help individuals

connect to other citizen scientists, solve problems, share maps and good ideas all while helping to build an invaluable database of habitat data for the Cornell Lab of Ornithology and The Nature Conservancy.