

Community Science - An Evolution of Data Collection

Community science (or C*Sci) is exciting, valuable, and widely used by scientific communities. Formerly known as 'citizen science', community science is a way of making observations and collecting data on the natural world by those who are not scientists by profession. Those who participate may do so for many different reasons. Common motivations include a love of nature and science, wanting to contribute to scientific knowledge, using the process as a hobby, and meeting people to build community.

Possibly the most familiar forms of community science are bird counts, such as Audubon's Christmas Bird Count or the Great Backyard Bird Count. Others include gathering data on garbage during beach cleanups and taking part in BioBlitzes. Now, the opportunities are as diverse as identifying organisms on trail cams in Panama to transcribing natural history notebooks to identifying galaxy shapes.

Previously, community science was looked upon with a bit of hesitancy by the scientific community because participants often lacked training and results could not be verified. However, in the last two decades, science has become increasingly community-based; many have recognized the resource limitations of traditional data collection. Many scientists now encourage community data collection by training participants in accurate and precise procedures so that the data is truly useful.

Community science participants generally meet their personal goals while contributing important information to the scientific field (and often have a lot of fun at the same time). In addition, by reaching out to the communities where data is being collected, science as a whole becomes less exclusive, more diverse and inclusive, and hopefully more equitable in communities being served and studied. Community science, when done well, is a win-win for all.

One of the most appealing aspects of community science is the variety of ways participants can be involved. From individuals and families to formal and informal learning settings, there are projects available for everyone! For example, students in biology courses at Northwestern Connecticut

Community College, take part in a wide variety of community science projects as part of their coursework. Known in higher education as course-based undergraduate research projects, or CURES, they really are a form of community science. To name just two examples, in general biology, they are researching previously unknown strains of antibiotic-resistant bacteria. In ecology, they take part in decades-long studies of the changing composition of regional forests and the health of local rivers. Students in all of these projects contribute their data to practicing scientists, who are then able to use the students' data to add to scientific knowledge as a whole.

Are you or your family interested in getting involved with a community science project in your area or online? Get outdoors and contribute through iNaturalist by photographing organisms and sharing with the community (requires an app on your phone). A great way to contribute from the comfort of your home is through Zooniverse (www.zooniverse.org), a collection of 50 different community science projects. With spring only a few months away, a project perfect for families is NestWatch (www.nestwatch.org) to help track the reproductive success of a variety of bird species.

Feel free to reach out to the District if you would like other ideas!

Tara Jo Holmberg, NWCD Board Member



NCCC students working on their citizen science projects

