



## Citizen Science Association Conference Workshops and Field Trips

### Brief Overview of Workshops: as of 4/12/17 (NOTE: ITEMS MARKED AS \*\* HAVE CHANGED DATES OR TIMES SINCE REGISTRATION OPENED)

(click the name to jump to the workshop description)

Name	Type	Date/Time	Capacity	Cost
** Create Together	Hackathon	Wed. 5/17, 8:45am-4:30pm	100	\$45.00
** Collective Troubleshooting and Problem Solving	Workshop	Wed. 5/17, 9am-12pm	30	none
Citizen Science Day	Workshop	Wed. 5/17, 10am-11:30am	Unlimited	none
Elevating the Value of Citizen Science Projects by Developing Approaches to Communicating Data Quality	Workshop	Wed. 5/17, 10am-4pm	30	none
** Recruitment, Retention, Research & Evaluation Using SciStarter 2.0 Tools	Workshop	Wed. 5/17, 11:30am-12:30pm	Unlimited	none
Citizen Science at the College Level: Learning, Research and Mentoring	Workshop	Wed. 5/17, 1pm-4pm	50	none
** Learn to Create Data Visualizations: A Hands On Workshop	Workshop	Wed. 5/17, 1pm-4pm	20-30	\$50.00
Sparking Positive Youth Development with Citizen Science	Workshop	Wed. 5/17, 1pm-4pm	35	none
** What is Your Impact? Learn to Evaluate Your Citizen Science Project	Workshop	Wed. 5/17, 1pm-4pm	20-30	\$15.00
** Writing Competitive Proposals to Federal Agencies	Workshop	Sat. 5/20 8:30am-11:30am	Unlimited	none
Filling the "Ethics Gap" in Citizen Science Research	Workshop	Sat. 5/20, 9am-12pm	Unlimited	none
Cedar Creek Field Trip	Field Trip	Sat. 5/20, 8am-1pm	50	\$35.00
Mississippi River Canoe Day Trip	Field Trip	Sat. 5/20, 8:30am-12:30pm	54	\$55.00



## Citizen Science Association Conference Workshops

**Title:** Create Together

**Type of Meeting:** Hackathon

**Intended Audience:** Anyone Interested

**Capacity:** 100

**Fee:** \$45.00

**Date:** Wed. 5/17

**Time:** 8:45 AM - 4:30 PM

**Conveners:** Lucy Fortson, Brooke Simmons, Hugh Dickinson, Andrea Simenstad, Mark SubbaRao and others.

**Abstract:** Collaborate with other conference goers to play with (or create) data tools that can be used for citizen science. Create a Zooniverse project in a day, visualize your geographic data, create new education and outreach materials, or think about how to use virtual reality in citizen science projects. Bring your data, bring your devices, bring your project ideas - we'll supply breakfast, lunch and endless coffee (or water!). We expect a diverse group with a wide variety of skills and we will have experts on hand to help with some of the most popular tools. We'll work in self-organized teams with several all-group check-in points throughout the day, culminating in a lightning show-and-tell session to see what's been created. Space is limited so sign up ASAP!



**Title:** Collective Troubleshooting and Problem Solving

**Type of Meeting:** Workshop

**Intended Audience:** Beginners to Advanced

**Capacity:** 30

**Fee:** none

**Date:** Wed. 5/17

**Time:** 9:00 AM - 12:00 PM

**Presenters:** Malin Clyde, UNH; Dana Buchlinder; Michelle Prysby, UVA; Hannah Webber, Schnoodic Institute

**Abstract:** The professional development working group will facilitate a workshop focused on problems with implementing citizen science. We've all been there before - we run into snags in our projects, even with the best laid plans. In this workshop we will crowdsource solutions to different problems that practitioners are struggling with. What to bring? Problems you are struggling with and a willingness to strategize and troubleshoot collectively.



**Title:** Citizen Science Day

**Type of Meeting:** Workshop

**Intended Audience:** Professionals: Beginners to Advanced

**Capacity:** Unlimited

**Fee:** none

**Date:** Wed. 5/17

**Time:** 10:00 - 11:30 AM

**Presenters:** Alison Young, California Academy of Sciences; Lila Higgins, Natural History Museum of LA County; Catherine Hoffman, SciStarter

**Abstract:** During this meeting, we will work with the founding members of the CSA's Citizen Science Day task force and any other interested people to plan a sustainable approach for Citizen Science Day. Goals include: 1. To solicit community feedback on the recurring date/time for Citizen Science Day. 2. To review Citizen Science Day 2016 and 2017 and to generate feedback for the planning of Citizen Science Day 2018. 3. To discuss risks and difficulties of Citizen Science Day events and to strategize future resources needed to overcome these difficulties and 4. Solicit feedback on planning a wide-scale, annual evaluation plan for Citizen Science Day. The feedback generated on these objectives will lay the groundwork for the Citizen Science Day working group's objectives for the next year and determine what additional expertise is needed within the working group.



**Title:** Elevating the Value of Citizen Science Projects by Developing Approaches to Communicating Data Quality

**Type of Meeting:** Workshop

**Intended Audience:** Anyone interested in Data Quality

**Capacity:** 30

**Fee:** None

**Date:** Wed. 5/17

**Time:** 10:00 AM - 4:00 PM

**Presenters:** Robert Stevenson, UMass Boston; Anne Bowser, Woodrow Wilson International Center for Scholars; Greg Newman; CSA Data & Metadata Working Group

**Abstract:** This workshop addresses a fundamental issue in citizen science (CS), “How good are data from citizen science projects and can the data be trusted?” From the point of view of CS practitioners the question is “How can CS projects best communicate their efforts regarding data quality & management to different audiences including participants, data users, funders, scientists, policy-makers, and other projects?” Skeptics argue the scientists undergo years of training and mentoring to learn how to collect data carefully and accurately. Therefore it is not obvious that untrained citizens will be able to collect useful data. In our experience, however, most citizen science programs are aware of the need to attend to data quality. Because of the recent wide adoption of the CS approach, program efforts have been focused on recruiting and engaging participants and building software infrastructure rather than on data quality. Even if citizen science projects have developed data quality assurance and control mechanisms, there are as yet no established procedures to communicate these mechanisms or measurements to others.



**Title:** Recruitment, Retention, Research & Evaluation Using SciStarter 2.0 Tools

**Type of Meeting:** Workshop

**Intended Audience:** All are welcome, but we are especially interested in project owners, those who evaluate citizen science projects, and those who study outcomes for individuals involved in citizen science.

**Capacity:** Unlimited

**Fee:** none

**Date:** Wed. 5/17

**Time:** 11:30AM - 12:30 PM

**Presenters:** Darlene Cavalier, SciStarter and Arizona State University; Caren Cooper, North Carolina State University and North Carolina Museum of Natural Sciences; Catherine Hoffman, SciStarter

**Abstract:** With an AISL NSF award we developed a suite of new tools and functionality in SciStarter.com to better support volunteers and project owners. We want to hold a workshop at the CSA conference to showcase to practitioners the opportunities presented by the SciStarter 2.0 tools to deepen volunteer learning and growth by addressing cross-project skew, evolving motivations, seasonal gaps, untapped synergies across projects via movements of volunteers, and other unanticipated factors that can be addressed with intentional planning in the SciStarter network but cannot be addressed via management within project silos. We also want to solicit input from project owners and evaluation/researchers to further improve the site. We anticipate the workshop involving a brief review of the new tools and functionality, some hands-on activities to try out the tools, and concluding with discussion and feedback. We hope to empower project owners to consider how they can leverage synergies with other projects and demonstrate to evaluator/researchers how they can expand their repertoire of techniques beyond surveys to include embedded tracking of volunteer activity across projects and embedded assessment. We hope to set priorities for further improvements to the site based on feedback and discussion.



**Title:** Citizen Science at the College Level: Learning, Research and Mentoring

**Type of Meeting:** Workshop

**Intended Audience:** College Educators and K-12 educators interested in supporting curriculum with citizen science

**Capacity:** 50

**Fee:** none

**Date:** Wed. 5/17

**Time:** 1:00 - 4:00 PM

**Presenters:** Colleen Hitchcock, Brandeis University; Aerin W. Benavides, The University of North Carolina at Greensboro; Julie Feldt, Adler Planetarium; Terry A. Gates, North Carolina State University; Thomas Tisue, Muskegon Community College; Leslie Ries, Georgetown University; John R. Jungck, University of Delaware.

**Abstract:** This workshop will unite undergraduate educators to discuss best practices for developing citizen science research within their university classes. Facilitators will discuss experiences with citizen science as a tool for active engagement, inquiry, independent study, mentorship and internship. Examples of how to include citizen science, the opportunities/challenges offered, and student feedback to research experiences will be shared. Attendees will have the opportunity to work in small groups to develop citizen science research opportunities and collaborations for their classes. Breakout groups will be organized based on research interests, assignment types and student learning goals. Focus will be on identifying research opportunities, student learning goals, objectives and outcomes, as well as, grading and engagement logistics. Ideally, participants will come prepared with a course or a project identified for citizen science education integration, although this is not required.

Our perspective is varied and considers a diversity of institutional types (community college through research institutions), of populations (both science majors and non-majors), and of course levels (introductory through advanced studies). Our implementation showcases course formats from independent-study through large lecture and models from contributions in national campaigns to collaborative, co-created and place-based programs. By featuring such diversity we will share how citizen science is both a tool for learning in the undergraduate classroom and a means to increase the range of citizen science participants. Finally, this workshop will bring together a community of undergraduate educators poised for future collaboration and idea dissemination.



**Title: Learn to Create Data Visualizations: A Hands On Workshop**

**Type of Meeting: Workshop**

**Intended Audience:**

**Capacity: 20teams**

**Fee: \$50.00**

**Date: Wed. 5/17**

**Time: 1:00 - 4:00 PM**

**Presenters: Rhiannon Crain; Kevin Ripka**

**Abstract: Citizen science projects collect data. First, we will discuss why and how to use that data to meaningfully engage & motivate participants by creating data visualizations. Next, we learn about data viz as a communication device and sketch prototypes for an interactive data visualization using your data, design principles, and the annotation layer. Finally, we'll touch on tools for turning your prototype into an interactive data visualization. After discussing technologies for designing and delivering various types of visualizations, we'll explore some free, easily configurable (but slightly limiting) tools before diving into the basics of d3, one of the most popular open source frameworks for bespoke data visualizations on the web.**



**Title:** Sparking Positive Youth Development with Citizen Science

**Type of Meeting:** Workshop

**Intended Audience:** Anyone interested in using citizen science with youth

**Capacity:** 35

**Fee:** none

**Date:** Wed. 5/17

**Time:** 1:00 - 4:00 PM

**Presenters:** David Bild - Coordinator, Teen & Young Adult Programs, Chicago Academy of Sciences / Peggy Notebaert Nature Museum; Kelly A. Borden - Citizen Science Education Lead, Adler Planetarium/Zooniverse; Sarah Carter - Manager, STEM Media and Outreach, SciGirls/Twin Cities PBS; Ryan Collay - Director, Education by Design; Alexa Maille- NYS 4-H STEM Specialist, Cornell Cooperative Extension; Andrea Lorek Strauss, Extension Educator, University of Minnesota Extension

**Abstract:** Educational research increasingly finds that learning beyond school walls is essential to engage and develop STEM-literate and curious citizens. Organizations ranging from primary and secondary schools, museums and universities, and community-based organizations provide out-of-school time programming to supplement as well as complement learning in classroom and home environments. Educators and researchers incorporate citizen science into out-of-school time programs because of its unique opportunity to engage young people in authentic STEM investigations. Positive Youth Development is an important program design and evaluation tool when designing effective educational programs. It recognizes the traits innate in young people as assets and uses the Five C's: competence, confidence, connections, character, and caring to engage youth within their communities. In this workshop, facilitators and participants will work collaboratively to create concrete strategies for designing and implementing programs that meet the developmental needs of teens as well as the needs of researchers depending on data collected or analyzed by citizen science volunteers. After an overview of the tenets of the Positive Youth Development, out-of-school time program designers will share short "program snapshots" speaking to their individual program's successes, needed improvements, and best practices for integrating teens into citizen science's communities of practice. Workshop participants will be invited and encouraged to share their own program design experiences into the conversation. Next, breakout groups will form for a deep-dive into specific Positive Youth Development program design aspects and create strategies for integrating them into existing or newly created programs. After sharing recommended strategies, workshop participants will come away with an understanding of a research based program design framework and be armed with practical implementation strategies they can bring back to their programs, educational colleagues, and home organizations.

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**Title:** What is Your Impact? Learn to Evaluate Your Citizen Science Project

**Type of Meeting:** Workshop

**Intended Audience:** Practitioners with little or no prior evaluations experience looking for guidance on evaluating their projects

**Capacity:** 20-30

**Fee:** \$15.00

**Date:** Wed. 5/17

**Time:** 1:00 - 4:00 PM

**Presenters:** Camellia Sanford; Alycia Crall; Tina Phillips

**Abstract:** This workshop is intended to provide attendees with a basic understanding of the evaluation process and will cover the following topics: What is evaluation and how is it different from research; what, when, and why to evaluate; planning your evaluation; describing your project using logic models and theory of change; creating an evaluation plan; best practices for implementing your evaluation; collecting data and sharing your results; and resources for further reading. Attendees will work individually and in small groups, and will leave with a preliminary plan for initiating an evaluation within their own programs.



**Title:** Writing Competitive Proposals to Federal Agencies

**Meeting:** Workshop

**Intended Audience:** Professionals/Researchers/Project Managers. Note that in most cases, recipient organizations of federal funds have to have substantial financial capacity (policies and procedures in place) to receive federal funds.

**Capacity:** none

**Fee:** none

**Date:** Sat. 5/20

**Time:** 8:30 - 11:30 AM

**Presenters:** Ellen McCallie, National Science Foundation; John McLaughlin, National Oceanic and Atmospheric Administration; Tony Beck, National Institutes of Health; Helen Wechsler, Institute of Museum and Library Services; Tim Watkins, National Park Service

**Abstract:** This workshop aids researchers and practitioners in submitting proposals to federal agencies, such as the National Science Foundation (NSF), National Oceanic and Atmospheric Administration (NOAA), National Institutes of Health (NIH), and the Institute of Museum and Libraries Services (IMLS). The workshop focuses on: 1) funding programs and opportunities; 2) proposal review process and merit review criteria; 3) characteristics of competitive proposals; and 4) common weaknesses of proposals. The workshop is targeted toward those who have not yet been awarded a federal grant as well as anyone seeking to improve their proposal writing skills. In addition, the National Park Service will discuss mechanisms for conducting research in parks, in-kind support, helping PIs understand science priorities of parks.



**Title:** Filling the "Ethics Gap" in Citizen Science Research

**Type of Meeting:** Workshop

**Intended Audience:** Practitioners and participants interested in ethical issues arising in CS research

**Capacity:** Unlimited

**Fee:** none

**Date:** Sat. 5/20

**Time:** 9:00 AM - 12:00 PM

**Presenters:** Anne Bowser, Wilson Center; Caren Cooper, North Carolina State University and North Carolina Museum of Natural Sciences; Lisa Rasmussen, University of North Carolina, Charlotte

**Abstract:** We have received an NSF grant to sponsor a small NSF workshop to explore ethical issues in citizen science this summer. As a prelude to that workshop, we want to hold a CSA pre-workshop at the CSA conference to solicit input from a wide variety of CS participants and practitioners to inform the conference. We anticipate this CSA workshop being very discussion-intensive, including round table discussions and report-backs to the larger group. The result, we hope, will be insights into the current ethical culture in citizen science, plus a list of ethical concerns, a list of current ethical practices, and some priority-setting regarding the most urgent ethical challenges facing the field.



**Title:** Cedar Creek Field Trip

**Type of Meeting:** Field Trip

**Intended Audience:** Anyone interested

**Capacity:** 50

**Fee:** \$35.00

**Date:** Sat. 5/20

**Time:** 8:00 AM - 1:00 PM

**Abstract:** The University of Minnesota's Cedar Creek Ecosystem Science Reserve is an incredible natural laboratory for ecological research, teaching, education and outreach: 5600 acres containing an astonishing diversity of ecosystems, from prairies to pine forests to oak savannas to peat swamps, and all these habitats' associated plants and animals. Over the last 75 years, scientists working at Cedar Creek have pushed the boundaries of our understanding of the natural world - the modern science of ecosystem ecology and food webs was developed here, as was the technology to track wildlife using radio collars. Current research on biodiversity, prescribed burning and climate change continue to shape the way we understand the world around us and our impact on it. Cedar Creek also has a strong education and outreach program. We host thousands of K-12 students on field trips each year, provide tours and programs for adults, special interest groups, and the community, and run several citizen science initiatives. One of these, the Red-headed Woodpecker Recovery Project, is an 8-year old volunteer research and monitoring project studying declining woodpecker populations in Minnesota. Another, the Cedar Creek Wildlife Survey, is a new project that documents and studies the diversity, abundance and habitat use of wildlife on Cedar Creek's property. Both these programs will be highlighted at CitSci 2017. We are also in the process of developing a participatory phenology and cultural history trail for visiting school groups and the general public that will open in spring 2017, and host one-off citizen science events throughout the year (Christmas Bird Count, Breeding Bird Survey, BioBlitz, etc). CitSci 2017 attendees are invited to visit Cedar Creek for a tour of our long-term research experiments and citizen science projects and to learn more about the work we do with citizen scientists of all ages and backgrounds.



**Title:** Mississippi River Canoe Day Trip

**Type of Meeting:** Field Trip

**Intended Audience:** Anyone interested

**Capacity:** 54

**Fee:** \$55.00

**Date:** Sat. 5/20

**Time:** 8:30 AM - 12:30 PM

**Abstract:** Slice through the heart of the Twin Cities in 9-person voyageur canoes as we join guides on this scenic morning paddle down the Mississippi River. These popular adventures take place in the local National Park - the Mississippi National River and Recreation Area (MNRRA). You will discover wildlife and experience the amazing human history of the River.