
Survey response

Candidate statements and CV/resume

Please enter your name and email address below. [First Name]

Caren

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Cooper

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What do you feel are the major concerns facing the citizen science community?

There is no one-size-fits-all model or meaning of citizen science. I feel that the citizen science community faces concern about maintaining the Association as a safe and valuable space that is inclusive to the extraordinary breadth and diversity of approaches to citizen science and people taking part. In parallel, there are concerns related to the scholarly challenges of an emerging discipline, and the hurdles of a newly recognized practice struggling against an unfair reputation of being less important or rigorous than conventional science. I think that a unified and strategic pursuit of legitimacy for the field can also function to resolve tensions between desires to have citizen science conform to, versus change, conventional scientific norms. I believe the community needs to navigate a path forward that includes a balance of strengthening some of the existing positive scientific norms and reforming other norms so that participatory methods become a credible, valued, and central part of mainstream science. Science norms do evolve and, with this mind, the community could grow by forging strategic alliances with complementary efforts to reform science, such as the open science movement, and initiatives for scientists to actively engage in science communication. By propping open a big umbrella for all approaches to citizen science, in all disciplines, the citizen science community will rapidly mature into a unified and respected field.

What skills and what types of experience would you bring to the CSA board?

I bring skills for promoting citizen science, which I could apply towards fundraising and other development efforts. For example, through my research publications, teaching, and public communication (writing, blogging, social media), I have a strong track-record of defending the scientific credibility of citizen science, and of promoting awareness of the scientific and social benefits of citizen science. I'm author of *Citizen Science: How Ordinary People Are Changing the Face of Discovery* (The Overlook Press in US; Duckworth in UK). I wrote the book to be a rallying call to help make citizen science a household phrase. I'm the founder and moderator of #CitSciChat, a Twitter discussion about citizen science and @IamCitSci, a rotating Twitter account.

I bring experience with citizen science organizations. For example, I chaired the committee to establish the CSA journal, *Citizen Science: Theory & Practice*, and served as co-editor-in-chief for its inaugural year. I formed the Ethics Working Group of the CSA and co-chaired it for its first two years. I'm a member of the Professional Development Working Group. I will serve on the local host committee for the next CSA conference (assuming it is in NC). I support other organizations with missions to advance citizen science practice. For example, I'm affiliated with SciStarter as a blogger and director of research partnerships; I serve on the advisory board of CitSci.org; I'm a subject editor at *Citizen Science Today*; I'm on the editorial advisory board of the *Journal of Human Computation* and for the Springer book series, *Environmental Discourses in Science Education*; I'm co-chair of the international CODATA/WDS Task Group on Citizen Science and the Validation, Curation, and Management of Crowdsourced Data.

I bring over 16 years of experience in citizen science, which includes using data from projects for ecological research, designing projects, funding projects, administering projects, and studying projects and participants. I have experience in ecological and social science research. I'm an associate professor of Forestry & Environmental Resources at North Carolina State University and part the Chancellor's Faculty Excellence Program in Leadership in Public Science. I administer my citizen science projects at the North Carolina Museum of Natural Sciences where I am assistant head of the Biodiversity Research Lab. I mentor undergrad and grad students in carrying out citizen science and studying citizen science. With my cluster faculty in Public Science, we are working towards developing a certificate program or minor focused on citizen science. I would like to dovetail professional development activities in higher education with professional development activities of the CSA.

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Education

- 2000 Ph.D (Biology) Virginia Polytechnic Institute & State University, Blacksburg, Virginia
1993 M.Sc. (Zoology & Physiology) University of Wyoming, Laramie, Wyoming
1988 B.S. (Zoology) North Carolina State University, Raleigh, North Carolina
1987 National Student Exchange, Humboldt State University, Arcata, California

Examples of 5 Book and Book Chapters about Citizen Science

- Cooper**, B. 2016. *Citizen Science: How Ordinary People Are Changing the Face of Discovery*. The Overlook Press, New York.
- Hoffman, C., **Cooper**, C.B., Kennedy, E.B., Farooque, M. and Cavalier, D., 2017. SciStarter 2.0: A Digital Platform to Foster and Study Sustained Engagement in Citizen Science. In *Analyzing the Role of Citizen Science in Modern Research* (pp. 50-61). IGI Global.
- Cooper** CB and BV Lewenstein. 2016. Why citizen science matters. Chapter in *The Rightful Place of Science: Citizen Science* (ed D Cavalier), Arizona State University Press.
- Cooper** CB and D Leech. 2015. Citizen science studies of avian reproduction. Chapter in *Nest & Eggs* (eds C Deeming & J Reynolds), Oxford University Press.
- Cooper** CB and A Balakrishnan. 2013. Citizen Science perspectives on e-participation in urban planning. Contributed chapter to *Citizen e-participation in Urban Governance*. IGI Press.

Examples of 5 Peer-reviewed Publications about Citizen Science

- Cooper** CB, LR Larson, A Dayer, R Stedman, and D Decker. 2015. Are wildlife recreationists conservationists? Linking hunters, birdwatchers, and pro-environmental behaviors. *J Wildlife Management* 79:446-457.
- Cooper** CB, J Shirk, and B Zuckerberg. 2014. The invisible prevalence of citizen science in global climate change research. *PLoS ONE* 9(9): e106508.
doi:10.1371/journal.pone.0106508
- Cooper** CB. 2014. Is there weekend bias in clutch-initiation dates from citizen science: Implications for studies of avian breeding phenology. *International Journal of Biometeorology*. 58:1415-1419.
- Cooper** CB. 2012. Links and distinctions among citizenship, science, and Citizen Science. *Democracy & Education* 21:13.
- Bonney R, CB **Cooper**, J Dickinson, S Kelling, T Phillips, K Rosenberg, and J Shirk. 2009. Citizen Science: A new paradigm for increasing science knowledge and scientific literacy. *BioScience* 59:977-984.
- Cooper** CB, J Dickinson, T Phillips, and R Bonney. 2007. Citizen Science as a Tool for Conservation in Residential Ecosystems. *Ecology and Society* 12(2):11.

Examples of 5 Peer-reviewed Publications *using* Citizen Science

Manna, T., **Cooper, C.**, Baylis, S., Shawkey, M.D., Waterhouse, G.I., Grim, T. and Hauber, M.E., 2016. Does the House Sparrow *Passer domesticus* represent a global model species for egg rejection behavior? *Journal of Avian Biology*.

Cooper CB, KA Loyd, T Murrante, MS Savoca, and J Dickinson. 2012. Natural history traits associated with detecting mortality with residential bird communities: can citizen science provide insights? *Environmental Management*: doi: 10.1007/s00267-012-9866-x.

Cooper CB, MA Voss, and B Zivkovic. 2009. Extended laying interval of ultimate eggs in Eastern Bluebirds. *Condor* 111:752-755.

Cooper CB, WM Hochachka, AA Dhondt. 2007. Contrasting natural experiments confirm competition between house finches and house sparrows. *Ecology* 88: 864-870.

Cooper CB, W Hochachka, TB Phillips, AA. Dhondt. 2006. Geographic and seasonal gradients in hatching failure in eastern bluebirds reinforce clutch size trends. *Ibis* 148:221-230.

Citizen-science Projects

NestWatch – nationwide program to track trends in bird reproduction. I was co-PI on funding, helped develop protocols, and published several research papers with the data. (2006-2014)

CamClickr – global online crowdsourcing project for cataloging nesting behavior of birds captured in over 600,000 images. I was co-PI on funding, conceived of the project, and was a scientific advisor. Published a lesson plan for undergraduate labs; and published one paper with cam data. (2006-2011).

Celebrate Urban Birds – global project to study avian use of urban green spaces, while integrating the arts into science learning; I helped develop the protocol and formerly a scientific advisor. (2006-2008).

My Yard Counts – a short-term module in eBird, a pilot study and precursor to YardMap. I conceived of this project, designed the protocols, recruited and managed participants, engaged two undergraduate in the research and publication of the results. (2006-2007).

YardMap© - global online micro-habitat mapping tool and social network in residential areas. I was senior personnel on its initial funding and am co-inventor on the patent. (2009)

House Sparrow Project – nationwide public discussions and research about management of nestboxes for native species. I conceived of the project, designed protocols, supervised a project manager and post-doc. Published paper on experimental results and paper about volunteer decision-making. (2013).

Sparrow Swap – Nationwide collection of house sparrow eggs, monitoring of effectiveness of removal and swapping replica eggs on nesting outcomes in boxes, and research on eggshell characteristics as bioindicators of pollution (2015 – ongoing).

Science Communication Online

Blogger at PLOS, Scientific American, SciStarter, Discover

Founder and Moderator of #CitSciChat (Twitter Q&A) and @IamCitSci (rotating account).

Professional Service

Chair committee establishing a new journal of the Citizen Science Association (2013-2014)

Inaugural Co-editor-in-Chief, Citizen Science: Theory & Practice (2015-2017)

Editorial Advisory Board member for Springer book series, *Environmental Discourses in Science Education* (2013-current)

Subject Editor, Journal of Avian Biology (2015-2016)

Subject Editor, Citizen Science Today (2015)

Editorial Advisory Board member for Journal of Human Computation (2014-2016)

Co-Chair, Ethics Working Group of Citizen Science Association (2015-current)

Co-chair, CODATA/WDS Task Group on Citizen Science and the Validation, Curation, and Management of Crowdsourced Data (2017-current)

Senior Fellow in the *Environmental Leadership Program* (2011, ongoing)

Presenter in the *Climate Reality Project* (2007)