CSA Board Nominee Statements 2017

Survey response

Candidate statements and CV/resume

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

Please enter your name and email address below. [Last Name (Surname)]
Newman

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What do you feel are the major concerns facing the citizen science community?
As founder and director of the CitSci.org citizen science support platform and current chair of the Citizen Science Association, I see a vast array of challenges and concerns being expressed by a variety of stakeholders across the growing field of citizen science - including data quality; data privacy; participant privacy; scientific rigor and use of credible data in decision making; factors affecting project educational and scientific impacts and outcomes; potential biases of participants in citizen science; inclusivity, diversity, and equity (IDE) issues and concerns with respect to who is participating; IDE concerns with respect to who is leading the field broadly, IDE concerns related to community and environmental justice; and a lack of clear definitions related to the scope of what citizen science is and encompasses. There is a vast array of flavors of citizen science including DIY science, open hardware initiatives, open source code projects, open science efforts, participatory action research projects, volunteered geographic information efforts, participatory GIS mapping projects, community based monitoring programs, and many more. A major concern moving forward for the field as a whole is better delineating and defining these various aspects of citizen science in efforts to tailor best practices emerging through research towards various design and implementation strategies. When should a new project choose a certain design and/or implementation approach? When should they choose a different approach? What factors influence these decisions? Additionally, another major concern moving forward is addressing IDE concerns raised about the language used when describing citizen science as a phenomenon and the implications of such language used with respect to the accessibility and diversity of citizen science culturally, ethically, and economically. How do we move from citizen science as viewed as “anyone, anywhere participating in scientific research” to “everyone, everywhere participating in scientific research in any way best suited for them?” Another major concern for the field is professional development and professional advancement of those doing citizen science. How can we advance and create new career tracks for practitioners in this growing field to elicit better support for such work globally and in a variety of sectors from academia to non-profits to industry? One strategy I am particularly excited to advance is gathering the best available real-time information on “who is do what in which ways” in citizen science globally and creating updated real time visualizations of these actors. There are many concerns facing this exciting growing field, but getting more support and resources in the hands of those participating at any level and to any degree will be of utmost importance moving forward.

What skills and what types of experience would you bring to the CSA board?
As the chair of the CSA board of directors over the past two years, I have learned in a “trail-by-fire” way the skills necessary for advancing a growing organization. I have learned the importance of community, partnerships, strategic planning, organizational core values statements, and delegation across strong working groups. My experiences as chair have increased my ability to bring leadership to the CSA with respect to organizational vision, character, integrity, fiscal responsibility, transparency, equity, and diversity. We have a unique opportunity to re-envision what an association is, who participates, how they participate, and how we as a community of practice can enact change. The basic tenet at the heart of citizen science (e.g., “anyone can participate in science”) not only empowers and inspires us but also mandates that we not only reinvent discovery, but also reinvent what it means to be an association. In my other role as founder and director of CitSci.org, I having worked with many different citizen science projects globally. Through these experiences, I have learned first-hand the challenges associated with managing diverse citizen science data. The data I have seen collected include species observations; species attributes; environmental site characteristics such as stream pH, soil texture, and habitat type; dog vulnerability to hip dysplasia; public health data; environmental exposure data; maple syrup production data; and even bike theft and home energy use / efficiency information. These experiences have taught me the need for generalizable and scalable data management approaches. As a board member of the Citizen Science Association (CSA), I bring an understanding of the breadth of citizen science projects and data management needs to the growing community of practice. I hope to guide the CSA in supporting small, local, grassroots citizen science projects while at the same time guiding these projects to work synergistically with each other regionally, nationally, and globally. By bringing the countless efforts of the myriads of new and existing projects together, I hope to synergize such work through strong CSA leadership to yield broad and far reaching positive scientific, social, educational, and economic impacts and outcomes. My vision is a comprehensive and dynamic understanding of “who is doing what, where, at what scale, and in which ways” to accomplish the varied and diverse outcomes and impacts common across citizen science. I hope to help the CSA develop visualizations of such phenomena so we all can see them first-hand as a growing community of practice and learn from each of them and each other through time.

Please submit your maximum 2 page CV or resume that demonstrates your qualifications to serve as a member of the CSA board of directors.
[{ "title":"CV","comment":"","size":"197.441","name":"Greg_Newman_CV_1_18.pdf","filename":"fu_4rptnp4z29rbdfd","ext":"pdf" }]

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(i) Professional Preparation

Colorado State University	Biology & Environmental Health	BS,	1995
Colorado State University	Rangeland Ecosystem Science	MS,	1999
Colorado State University	Citizen Science	PhD,	2010

(ii) Appointments

2015-present	Citizen Science Association	Board Chair
2015-present	Center for Collaborative Conservation	Executive Committee Member
2013-present	CitSci.org	Director & Founder
2010-present	CSU Natural Resource Ecology Laboratory	Research Scientist
2010-present	CSU Ecosystem Science and Sustainability	Affiliate Faculty
2010-present	CSU Human Dimensions of Natural Resources	Affiliate Faculty
1999-2010	Natural Resource Ecology Laboratory	Research Associate
1998-1999	Camp, Dresser, & McKee Federal Programs, Inc.	Restoration Ecologist
1997-1999	Forest, Rangeland, Watershed Science	Graduate Research Assistant
1994-1997	Rocky Mountain National Park	Biological Technician

(iii) Products

Most Relevant

Newman, G., M. Chandler, M. Clyde, B. McGreavy, M. Haklay, H. Ballard, S. Gray, R. Scarpino, R. Hauptfeld, D. Mellor, and J. Gallo. 2016. Leveraging the power of place in citizen science for effective conservation decision making. Biological Conservation. Biological Conservation. Available online 11 August 2016.

Ellwood, E.R., B. Dunckel, P. Flemons, R. Guralnick, G. Nelson. G. Newman, S. Newman, D. Paul, G. Riccardi, N. Rios, K.C. Seltmann, and A. Mast. 2015. Accelerating Digitization of Biodiversity Research Specimens through Online Public Participation. **BioScience** 65: 383-396.

Newman, G. 2014. Citizen CyberScience – New directions and opportunities for human computation. **Human Computation** 1:2: 103-109. DOI: 10.15346/hc.v1i2.2.

Newman, G., A. Wiggins, A. Crall, E. Graham, S. Newman, and K. Crowston. 2012. The Future of Citizen Science: Emerging technologies and shifting paradigms. **Frontiers in Ecology and the Environment**. 10(6): 298–304, DOI: 10.1890/110294.

Crall, A. W., K. Holfelder, G. Newman, J. Graham, and D. M. Waller. 2012. The Impacts of an Invasive Species Citizen Science Training Program on Participant Attitudes, Behavior, and Science Literacy. **Public Understanding of Science**. 22(6) 745-764. DOI: 0963662511434894.

Newman, G., J. Graham, A. Crall, and M. Laituri. 2011. The art and science of multi-scale citizen science support. **Ecological Informatics** 6:217-227.

Five Additional

Graham, J., C. Jarnevich, N. Young, G. Newman, and T. J. Stohlgren. 2011. How will climate change affect the potential distribution of Eurasian tree sparrows *Passer montanus* in North America? **Current Zoology** 57(5):648-654.

Crall, A., G. Newman, D. M. Waller, T. J. Stohlgren, K. Holfelder, and J. Graham. 2011. Assessing Citizen Science Data Quality: An Invasive Species Case Study. **Conservation Letters** 4:433-

442.

Wiggins, A., R. D. Stevenson, G. Newman, and K. Crowston. 2011. Mechanisms for Data Quality and Validation in Citizen Science. Paper presented at "Computing for Citizen Science" workshop. **IEEE eScience Conference**. Stockholm, SE, 5 December, 2011.

Newman, G., D. E. Zimmerman, A. Crall, M. Laituri, J. Graham, and L. Stapel. 2010. User friendly web mapping: Lessons from a citizen science website. **International Journal of Geographical Information Science** 24:1851-1869.

Newman, G., A. Crall, M. Laituri, J. Graham, T. J. Stohlgren, J. C. Moore, K. Kodrich, and K. Holfelder. 2010. Teaching citizen science skills online: Implications for invasive species training programs. **Applied Environmental Education and Communication** 9:4, 276-286.

(iv) Synergistic Activities

Serve on Data & metadata Working Group: Citizen Science Association, 2014. Organized planning and ideas for PPSR_CORE data standards for sharing citizen science project metadata.

Serve on Web Communication Committee: Citizen Science Association, 2014. Organized initial CSA communications for both the association and our first conference.

Keynote Speaker: Technology to Empower Citizen Science: new ways to use digital technology in the field, Selkirk College, Castlegar, Canada, BC May 15-16, 2013

Develop and refine research tools. Develop web based tools in support of multi-scale citizen science programs (www.citsci.org). Assist in web development for Project BudBurst.

Contribute to the science of learning. Evaluate the effectiveness of different learning modules delivered online using two different learning styles (static content and dynamic multimedia content) to inform citizen science program web content development.

Broaden participation of underrepresented groups in science. Assist underrepresented groups in participating in and using CitSci.org. Involve diverse groups in training and monitoring activities, including minority kids (e.g., Environmental Learning for Kids).

(v) Collaborators & Other Affiliations

Collaborators and Co-Editors (Total 24)

Bonney, Rick (Cornell); Crall, Alycia, Chong, Geneva (USGS); Ellwood, Libby (FSU), Flemons, Paul (ALA), Graham, Jim (NREL, CSU); Gueralnick, Rob (CU), Holfelder, Kirstin (CSU/NREL), Jarnevich, Catherine (USGS); Jordan, Rebecca (Rutgers); Kodrich, Kris (CSU), Kumar, Sunil (NREL, CSU); Mast, Austin (FSU), Laituri, Melinda (CSU), Moore, John C. (CSU/NREL), Morissette, Jeff (USGS); Newman, Sarah (NEON); Nelson, Gill (FSU); Renz, Mark (UW); Shirk, Jennifer (Cornell); Stapel, Linda (CSU), Seltmann, Katya (AMNH); Stevenson, Rob (UMASS Boston), Stohlgren, Thomas (USGS/NREL, CSU); Waller, Donald M. (UW), Wiggins, Andrea (UMaryland), Zimmerman, Don (CSU).

Graduate and Postdoctoral Advisees (Total 8)

Rina Hauptfeld (CSU), Katie Boyd (CSU), Alyssa.Borrelli (CSU), Jenael Falcao (CSU), Brian Fauver (CSU), Jia Ling (CSU), Karina Mullen (CSU), Terra Marie Smith (CSU).

Thesis Advisors and Postgraduate Scholar Sponsor (Total 2)

Melinda M. Laituri (Colorado State University); Edward F. Redente (Colorado State University)