Survey response

Candidate statements and CV/resume

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

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Young

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What do you feel are the major concerns facing the citizen science community?
I think one of our biggest struggles (which I know we have been grappling with for quite awhile now) is diversity and inclusion in citizen science. How do we bring more people who might not identify directly with science to citizen science, people who won't find citizen science on their own? How to do we make it more relevant to their everyday lives? Citizen science especially could serve the role and the need as a rallying point for science in a time where distrust of science is becoming more normalized; showing how small, personal acts of science taken by all of us can collectively make the world a better place could extremely powerful in transforming how science is viewed. All science begins with observing carefully and just being curious about and interested in what you observe – something that everyone can relate to because it's something everyone has done! While I certainly don't have the full answer of how to get more people seeing their place in citizen science and how to reframe and rethink citizen science so it is more inclusive and welcome for all people, I can speak from my experiences. I see an important role in smaller, place-based and community-based citizen science projects to bring more people together around caring for the local places they know and love, while simultaneously allowing them to see these places in a new, more scientific light, and their role in contributing to that science. I see place-based citizen science as a way to build community: science is usually not a solitary endeavor, and citizen science doesn't have to be either. I have seen that the social aspect of place-based citizen science, the community that develops around coming together to better understand a local space, is often a bigger driver in bringing people back and keeping them contributing than the actual science itself. This sort of local, place-based citizen science could be supported through growing more regional citizen science collaboratives. Gathering support for citizen science, both for building a corps of participants and for the data to be used for management or policy, really happens best on a local level. While some regional collaboratives already exist, I would love to see the Citizen Science Association working to develop and support these collaboratives across the country. Regional citizen science collaboratives could bring together the citizen science programs happening within an area for a greater collective impact, especially when thinking about how data and results could be communicated with local management organizations and city governments, as well as with local residents. Or even more ambitiously how new place-based citizen science programs could be developed through listening sessions with the local community and/or to address the data needs and management questions of local agencies.

What skills and what types of experience would you bring to the CSA board?
I think I could bring a unique perspective to the CSA board. Trained as a scientist but with years of informal science education experience, I wear many hats in my current role as a citizen science practitioner and have learned to see the benefits and challenges of citizen science through many viewpoints. I've designed a citizen science program as the scientific co-PI, co-developing protocols with the citizen scientists themselves to gather the needed data in a way both I and the volunteers felt comfortable with. I've built partnerships with a huge variety of management agencies (e.g., city governments, county parks, agricultural land trusts, federal agencies) to develop citizen science projects and to hold citizen science events to address their management needs while also ensuring that participants are engaged in a meaningful way. I am a practitioner working directly with citizen scientists: I spend over 35 days each year in the field with participants and have learned an incredible amount, both directly from the volunteers as well as through the process of working with them. Through network-building, I've scaled local, place-based citizen science events into a coordinated effort to answer questions and engage people on a regional and national level. I have also served in an advisory role to other organizations interested in developing their own citizen science program, through one-on-one meetings, hosting workshops, and giving invited and accepted talks, bringing the lessons and best practices I've learned to help others. Furthermore, I am an enthusiastic supporter of citizen science in all forms and believe strongly in the potential of the Citizen Science Association to advance the field citizen science as a whole. Not only through practitioner professional development, resources, sharing best practices, and conferences, but also through supporting the development of regional collaboratives to build capacity around place-based and community-based citizen science projects, and moving the citizen science community into thinking about collective impact. I would be honored and excited to serve the Association and the citizen science community in all of these capacities and feel I have the experience to help lead these initiatives, while also keeping in mind the perspectives of participants, practitioners, scientists, educators, and managers.

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Citizen Science Experience

Citizen Science Engagement Coordinator California Academy of Sciences
August 2011 – present San Francisco, CA

My colleagues and I engage volunteers in discovering, observing, and documenting biodiversity. From the mountains to the coast, from urban to wilderness, we give people opportunities to connect to the outdoors, to science, and to each other. With our partners, we're building communities and creating stewards of nature, while providing invaluable biodiversity data for science and conservation.

Place-based Citizen Science projects, co-developer and co-leader:

- **Snapshot Cal Coast**: An annual 2-week event in June, started in 2016. We work with the California Marine Protected Area (MPA) Collaborative Network to coordinate a series of community-led bioblitzes along California's coast. This initiative is a new effort to link a series of bioblitz events across one region to scale collective impact and the ability collect species range data. In 2016, hundreds of people from Del Norte to San Diego made over 7000 observations of more than 900 species.
- **City Nature Challenge**: Started in 2016 by the California Academy of Sciences and the Natural History Museum of Los Angeles County, the City Nature Challenge was a bioblitz-style competition between Los Angeles and San Francisco, engaging the public in documenting nature to better understand our urban biodiversity. Over 20,000 observations were made by more than 1000 people in a one-week period, documenting approximately 1600 species in each location. In April 2017, the City Nature Challenge is going national, with over a dozen cities around the country joining in the competition.
- Over 40 **one-day bioblitzes** in the San Francisco Bay Area, engaging the public in exploring and documenting their local nature via iNaturalist. Partnerships with management organizations, including city and county parks, agricultural land trusts, and the National Park Service, to build species lists and inform management decisions. August 2013 - present.
- **Biodiversity inventory and long-term intertidal monitoring** of Pillar Point Reef, San Mateo County. In partnership with the Greater Farallones National Marine Sanctuary. Volunteers survey permanent plots for a suite of species to understand long-term trends and changes through time. We continue to build the species list of the reef over time as well via iNaturalist, tracking seasonality of species, range expansions, and vagrants. June 2013 – present.
- **Flora inventory of the Marin Municipal Water District** on Mount Tamalpais, Marin County. Volunteers inventoried the over 1000 plant species known to exist on the watershed, including observations added to iNaturalist and georeferenced specimens collected and added to the California Academy of Sciences' research herbarium. February 2012 – September 2016.

Other Citizen Science work with the California Academy of Sciences:

- Webinar co-host, Citizen Science Association: Citizen Science Day and how to host a bioblitz. Feb. 2017.
- Co-chair of the inaugural Citizen Science Association Conference. Feb. 2015 in San Jose, CA.
- Author of the Citizen Science Toolkit for Educators: Teaching Science Through Citizen Science (2014). A toolkit for educators to implement citizen science projects with youth in a formal or informal setting and use the projects to teach the scientific process.
- Co-founder/organizer of the Bay Area Citizen Science Coalition, bringing together citizen science practitioners around the San Francisco Bay Area to improve best practices, to network, and to work towards collective impact. June 2013 – present.
- Working group member, national Citizen Science Association. Oct. 2012 - present.
- Co-organizer of the Public Participation in Scientific Research conference in conjunction with the annual meeting of the Ecological Society of America. Aug. 2012.
- Organizer of a three-day, 75-person conference on citizen science best practices. May 2012.

Program Coordinator, LiMPETS Greater Farallones Association
September 2009 – August 2011 San Francisco, CA

- Coordinator for a long-term coastal monitoring citizen science program for grades six – college.
- Oversaw two intertidal monitoring projects: sandy beach monitoring of *Emerita analoga*, and rocky shore monitoring of 33 invertebrate and algal species.
- Conducted at-school classroom trainings followed by intertidal field monitoring.
- In charge of data quality control and analysis.
- Co-organized and facilitated professional development workshops for teachers (six per year).

Publications

Ballard, H.L., L.D. Robinson, **A.N. Young**, G.B. Pauly, L.M. Higgins, R.F. Johnson, and J.C. Tweddle. In Press. Contributions to conservation outcomes by natural history museum-led citizen science: Examining evidence and next steps. *Biol. Cons*.

Dean, A., **A. Young**, A. Nickels, J. Pearse, and A. Wasser. 2013. An Analysis of Citizen Science Data from LiMPETS. Final Report for North Central Coast MPA Baseline Program to California Sea Grant, California Ocean Protection Council, California Department of Fish and Wildlife, and California Ocean Science Trust.

Benz, S., A. Miller-Rushing, M. Domroese, H.L. Ballard, R. Bonney, T. DeFalco, S.J. Newman, J.L. Shirk, and **A. Young**. 2013. Workshop 1: Conference on Public Participation in Scientific Research 2012: An International, Interdisciplinary Conference. *Bull. Ecol. Soc. Am.* 94(1):112-117.

Jules, E.S., A.M. Ellison, N.J. Gotelli, S. Lillie, G. Meindl, N.J. Sanders, and **A.N. Young**. 2011. The influence of fire on a rare serpentine plant assemblage: a five year study of *Darlingtonia* fens. *Am. J. Bot.* 98:801-811.

Young, A.N. 2009. The effects of temperature on the composition of communities associated with *Mytilus californianus*. Masters thesis. Humboldt State University, Arcata CA.

Grants Awarded

Co-PI, **Resources Legacy Fund Foundation** grant $30,700, April – June 2016
Snapshot Cal Coast: A Coordinated Coastal Bioblitz: Developed, organized and implemented a series of over 20+ community-driven citizen science bioblitzes and casual biodiversity observations from Del Norte County to San Diego County, June 1-12, 2016.

Co-PI, **Seed Fund** grant $20,000, July 2015 – June 2017
Inspiring Communities to Protect San Francisco Biodiversity: Planning and hosting a San Francisco biodiversity convening of land managers, practitioners, and scientists to co-create citizen science projects focusing on San Francisco biodiversity.

Co-PI, **S.D. Bechtel, Jr. Foundation** planning grant $250,000, January – December 2012
California Biodiversity: Strategies for Citizen Science in the Bay Area: Developed and pilot-tested two place-based biodiversity citizen science projects in partnership with local management agencies.

Awards

2017 Environmental Education Local Hero Award Bay Nature Institute
Recognizes the achievements of an individual who has made significant contributions to public understanding and awareness of the natural history and ecology of the San Francisco Bay Area, through research, teaching, field trips, journalism, and/or other media.

Education

Humboldt State University, Arcata, CA MA in Biology (focus: Marine Biology)
Graduated May 2009 GPA: 4.0

Swarthmore College, Swarthmore, PA BA in Biology
Graduated May 2000 GPA: 3.8