Tom Wakeford

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

- Inequality and discrimination permeate many of our institutions. Scientists have been enmeshed in these problems until now, but – through citizen science – could be an increasingly important part of the solution.

- I want the Citizen Science Association to be equipped to involve anyone who could potentially be part of our global movement, whatever their background. The current Board has already blazed a trail in this area.

- Our supporters can be found in places that are shaping the future, from the White House to the smart phones of the indigenous peoples hunting in the Kalahari Desert or farmers practicing agroecology in India.

- Many areas of science are being transformed, but citizen science takes place in an imperfect world. People's knowledge is socially constructed and evaluated on the basis of their place in entrenched social hierarchies.

If we are to make citizen science a truly inclusive practice we must devote significant time and resources to confronting inequality and injustice. When we see discrimination arising from people's race, gender, sexual orientation, health status, educational background or economic position, we should be equipping citizen scientists to take practical steps in support of those calling both for all citizens to be treated as equals and for their knowledge to be valued. We can make a practical demonstration of our commitment to tackling injustice in how we organize CitSci2017 in North Carolina.

A start would be ensuring there is a balance in participants between citizen science professionals and those of our fellow citizens who can enrich our understanding of struggles for justice.

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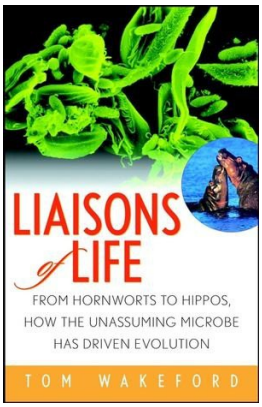
What skills and what types of experience would you bring to the CSA board?

In a world in which many people do not feel valued as citizens, my experience will help deepen our discussions about how our fundamental rights as human beings can be made central to the CSA, and how it builds alliances between scientists and the rest of society.

I would use my skills as a communicator (and former UK Young Science Writer of the Year) to act as an effective voice for citizens on the CSA Board, whether they are citizen scientists of the present or those who could become them in the future.



None of the CSA's bold plans can be realized without funding. I bring experience of international fundraising, including the Rockefeller Foundation, the Dutch government, the UK Research Councils, Wellcome Trust and Unilever. Since 2007, I have personally led initiatives that have raised $3.2million for citizen science and related activities, such as Beacons for Public Engagement (driving culture change towards better dialogue with citizens in six UK universities) and Web of Connections (supporting young refugees to build community and capacity through research).

Citizen science, perhaps even more than traditional science, is a collective endeavor. The experience I bring to the CSA, is not so much the product of merely personal achievement but reflects my skills as a team-builder and participatory worker. The gains won through working collectively and in solidarity with those struggling for justice, (summarized in my résumé below), will guide my work on the Board.

Tom Wakeford

Résumé

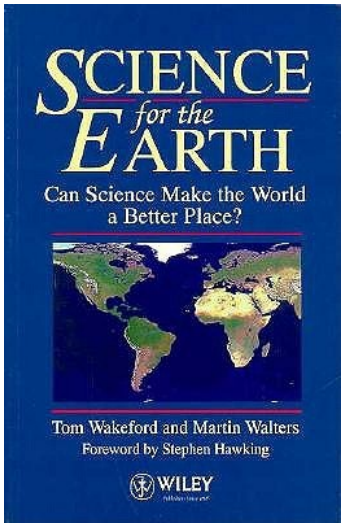
Current positions

- Reader in Public Science, Centre for Agroecology, Water and Resilience, Coventry University, UK.
- Citizen Science Advisor, European Commission Joint Research Centre, Ispra, Italy.

I combine the practice of citizen science with developing constructive critiques so that we can do better. My expertise has been built up over twenty-five years, working both in the UK and internationally, (for information on which see my previous roles and publications).

Early career

My journey to citizen science began at Cambridge University, UK in the early 1990s, where my undergraduate degree in the Natural Sciences (Ecology) fueled my interest in the science of conservation, but also in the contribution amateur naturalists had played in the some of great scientific discoveries, such as the Darwin-Wallace theory of evolution by natural selection. In the wake of the Rio Earth Summit of 1992, I organized *Science for the Earth*, a conference featuring keynotes by Stephen Hawking and Lynn Margulis, later the winner of the US President's Science Medal. It was a call for scientists and their fellow citizens to work together to address the growing environmental and humanitarian crisis engulfing the much planet. It led to a best-selling edited collection of essays, featuring a foreword penned by Hawking.



Tom Wakeford

During my ecology PhD (University of York) and first teaching position at the University of East London, I became increasingly inspired by early work on citizen science internationally. I organized a space for dialogue between scientists and their fellow citizens about the future of food and farming in the wake of Britain's epidemic of mad cow disease (Bovine spongiform encephalopathy). This Citizen Foresight initiative received nationwide TV coverage for the way in which citizens had come to an informed consensus on the dangers of introducing ever more industrial technologies into agriculture without proper democratic safeguards.

Citizen Foresight won a national award and a few months later I was asked to apply similar citizen science approaches in India for ActionAid International, an aid and development agency. I worked with citizen science groups in India over three years and then used my learning to advise similar projects in Brazil and Zimbabwe.

Social citizen science

Returning to the UK in 2002, I turned my attention to the use of citizen science to address social problems. Working with colleagues in the medical school of Newcastle University, I created and led a do-it-yourself citizens' jury, which allowed scientists and citizens to collaborate on a joint exploration of science-related issues in order to improve people's lives. The issue they chose was the ageism associated with medicines administered to the over 50s in the UK state healthcare system.

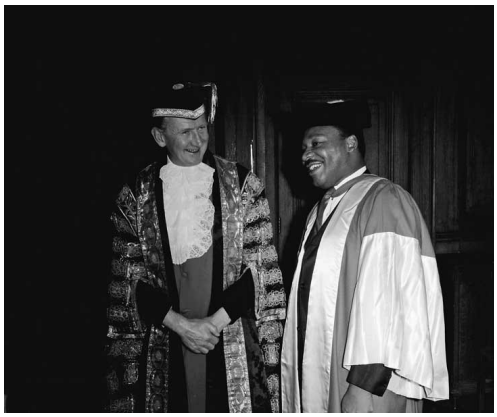
Based on the success of this pilot, I was invited by the anti-racism team of Rowntree, a major UK foundation, to apply this approach to the tensions which were arising in communities targeted by far-right groups creating an increase in hate crimes against citizens of Indian and Pakistani heritage.

This was a turning point for me, as I was able to experience for the first time the depth of racism in British society. From now on, I decided to make addressing racism integral to all my work, including citizen science.

On being awarded a 'Beacon for Public Engagement', a $2million grant that formed part of a national pilot for citizen science and other forms of engagement, people of color in my advisory group disclosed the depth of racism within universities.

Tom Wakeford

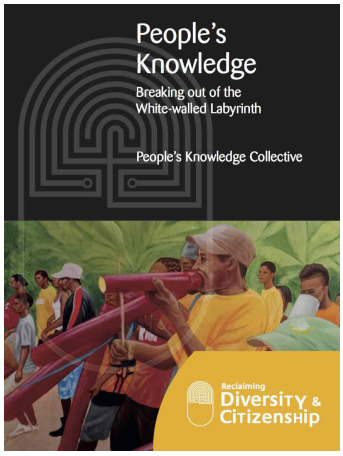
I nominated two, community-based researchers, for honorary degrees at my university in recognition of their work on the problems faced by women of color in a northern city. They were proud to receive these degrees and sign their names in the book of honor a few pages below Martin Luther King, who the university had similarly honored in November 1967.



We approached the university's management to offer our help in addressing problems of institutional racism in this leading university. Sadly, the leadership team was unable to acknowledge there were any such issues.

Re-imagining citizen science

For the last five years at Edinburgh and Coventry universities, I have had the privilege of working in partnership with RefugeeYouth, a youth-led organization of young people from refugee backgrounds living all over the UK. Together we have designed processes of citizen science, or '[participatory action research]', their preferred variant, which address a wide range of issues affecting young refugees. Last year they began to train fifty scientists and PhD students employed at a newly established [Centre for Agroecology, Water and Resilience], where I am now based.



Together we are exploring the forms of citizen science that respect the knowledge of indigenous peoples and others who have traditionally been treated by government authorities as non-citizens. They have also joined me in a collective editing a book of essays, the majority of authors of which are from outside the world of professional research. *People's Knowledge: Beyond the White-walled Labyrinth* will be published early in 2017.

It was the voices of RefugeeYouth and other authors that were ringing in my ears as I collaborated in organizing a dialogue session at CSA2015: "Re-Imagining Citizen Science for Knowledge Justice". It was here that I met a range of citizen science practitioners who shared a passionate commitment to justice. Two of them, Nicole Colston and Jacqueline Vadjunec, joined me in writing a journal article, in which we highlighted some of the ethical questions that face us as citizen science practitioners that just won't go away: How is the research question decided? Who owns the data? What is commitment to work with communities over the long-term?

The CSA's Integrity, Diversity, and Equity Working Group, of which I am a member, is already building new partnerships and developing new visions to ensure that the voices of diverse citizens have an equal place in shaping the association. I will continue to work with my co-chairs, Shannon Dosemagen, Tim Vargo and Daniela Soleri to ensure that the values of equality and justice underpin CSA2017.

Last month Daniela Soleri, Jacqueline Vadjunec and, Ron Salaj, a Kosovan grassroots-based citizen scientist, joined me on an international panel about the ethics of citizen science, which I organized with a member of the CSA Working Group, Ângela Guimarães Pereira of the European Commission's Joint Research Centre. This provides some lessons for how future CSA conferences deal with issues of justice.