

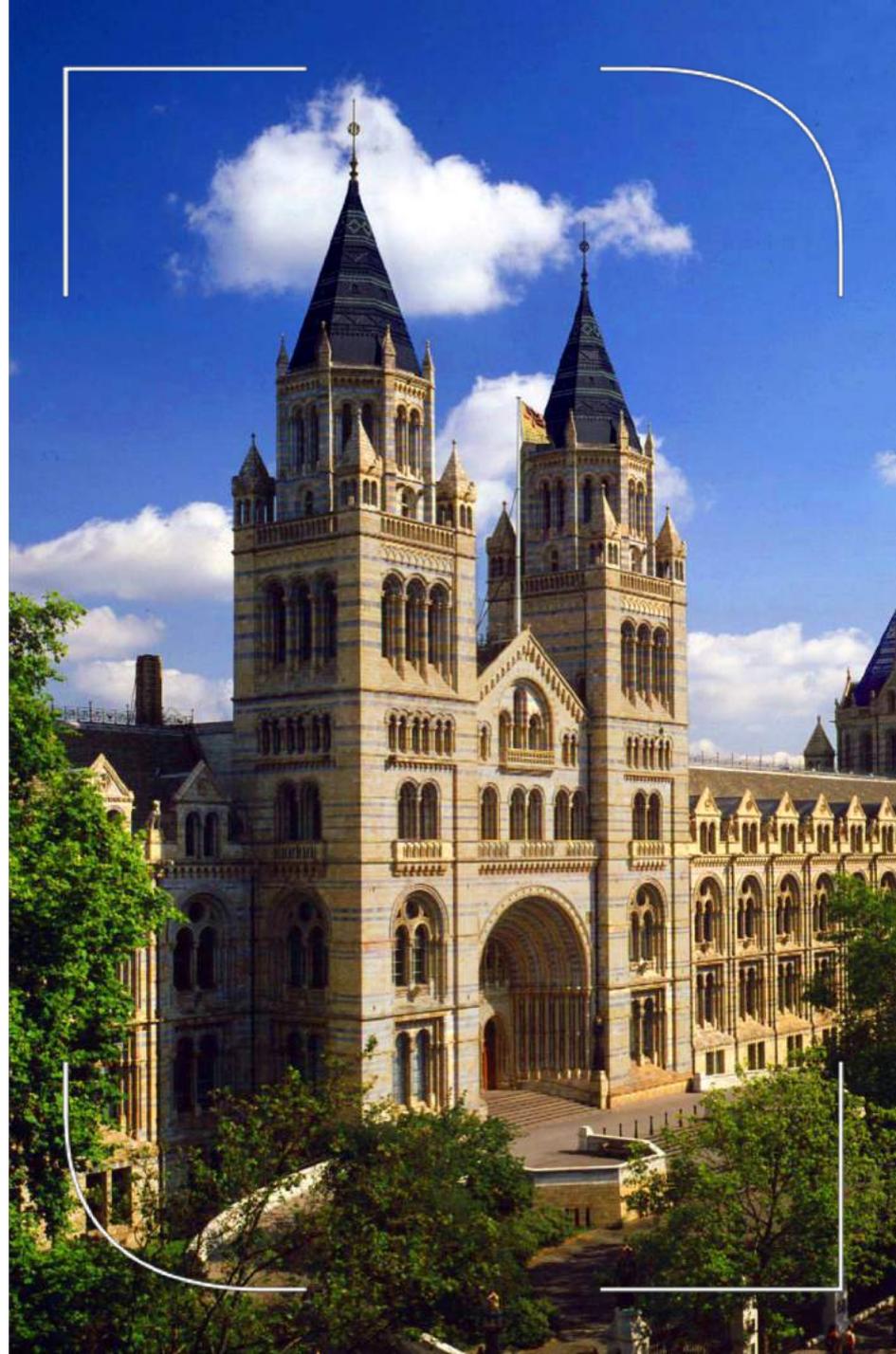


EUROPEAN CITIZEN SCIENCE ASSOCIATION

Lucy Robinson
ECSCA Vice Chair

My background...

- Citizen Science Programme Manager at the Natural History Museum in London
- BSc Zoology; MSc Biodiversity and Conservation
- Lead a varied programme of citizen science projects
- Develop knowledge exchange / best practice guides including Guide to Citizen Science (2012), Guide to Running a BioBlitz (2013) and Ten Principles of Citizen Science (2015)



What is citizen science?

Oxford English Dictionary: *“Scientific work undertaken by members of the general public, often in collaboration with or under the direction of professional scientists and scientific institutions.”*

Can include multiple / all aspects of the research process and can be community-led.

One route to Responsible Research and Innovation:

- ensures research is societally-relevant
- involves people in problem-solving



What is it NOT?

- It's not new!
- Science surveys or activities where the data are not used or usable
- The same as learning, engagement and science communication activities – there is overlap and it can fulfil each of these objectives but we need to design projects differently
- A replacement for existing research or monitoring activities
- Suitable in all circumstances
- Free – doing citizen science well requires resources. Cost vs value.
- It's not an 'easy option' – you need to support and train the citizen scientists to maintain their support and ensure data are fit for purpose

Models of citizen science

CONTRIBUTORY: *Contributory projects are led by a researcher's scientific enquiry and involve the public through data collection/analysis.*

COLLABORATIVE: *Collaborative projects start with a scientist asking a research question, but participants are involved in more elements of the scientific process.*

CO-CREATED: *Public and professional scientists are involved from the start. Often based around a community issue. Work together to design and run the research project.*

CITIZEN-LED: *DIY science, UK biological recording schemes*





Introduction to ECSA

Inspired by the OPAL (Open Air Laboratories) network, a UK-wide citizen science project, who drew together a network of partners across Europe.

Established in 2013.

We encourage the development and expansion of the citizen science movement in Europe and beyond.

Our aim:

- To foster the **growth of citizen science** and **champion excellence** in all aspects of this approach.

Introduction to ECSA

We achieve this through:

- our advocacy work
- research programmes and funded projects
- working groups
- conference and other convening and networking activities
- international collaborations with citizen science Associations in the USA, Australia, and emerging networks in Asia, Africa, South America and others.



Meet the team

Board of Directors: Muki Haklay, Luigi Ceccaroni, Soledad Luna, Andrea Sforzi and Svetlana Klessova

Headquarters: Gaia Agnella, Claudia Göbel, Margaret Gold, Simone Rüfenacht, Tim Woods, Marzia Mazzonetto and the student assistants Barbara Carneiro and Giulia Mellili.



Who are our members?

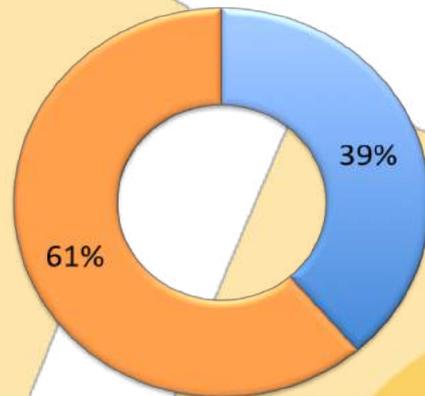
Practitioners, academic researchers, social sciences researchers, education professionals, and many more.



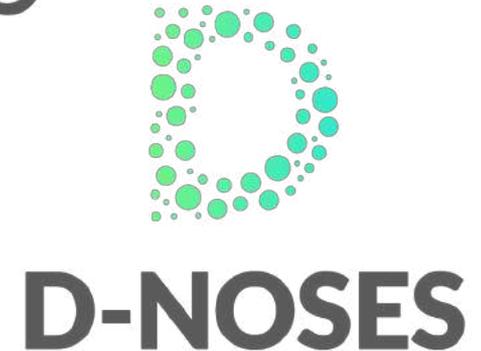
Membership Types 2018

Individual members

Organizational members



ECSA's funded projects



Distributed Network for Odour Sensing,
Empowerment and Sustainability



These projects have received funding from the European Union's Horizon 2020 research and innovation programme

ECSA Working Groups

ECSA Working Groups are at the heart of our work, and address key issues and opportunities in citizen science:

- Sharing best practice and building capacity for citizen science
- Citizen science and Open Science
- Projects, data, tools, and technology
- Learning and education
- Policy, strategy, governance and partnerships
- Empowerment, inclusiveness and equity
- BioBlitz
- International conference
- Air quality

Plus global collaboration on Global Mosquito Alert, and Citizen science and the UN Sustainable Development Goals

Ten Principles of Citizen Science

- These statements set out some of the key principles which we, as a community, believe underlie good practice in citizen science.
- Developed by the ECSA working group 'Sharing best practice and building capacity for citizen science' with input from many ECSA members.
- Available in 27 languages.



Ten principles of citizen science

Citizen science is a flexible concept which can be adapted and applied within diverse situations and disciplines. The statements below were developed by the 'Sharing best practice and building capacity' working group of the European Citizen Science Association, led by the Natural History Museum London with input from many members of the Association, to set out some of the key principles which as a community we believe underlie good practice in citizen science.

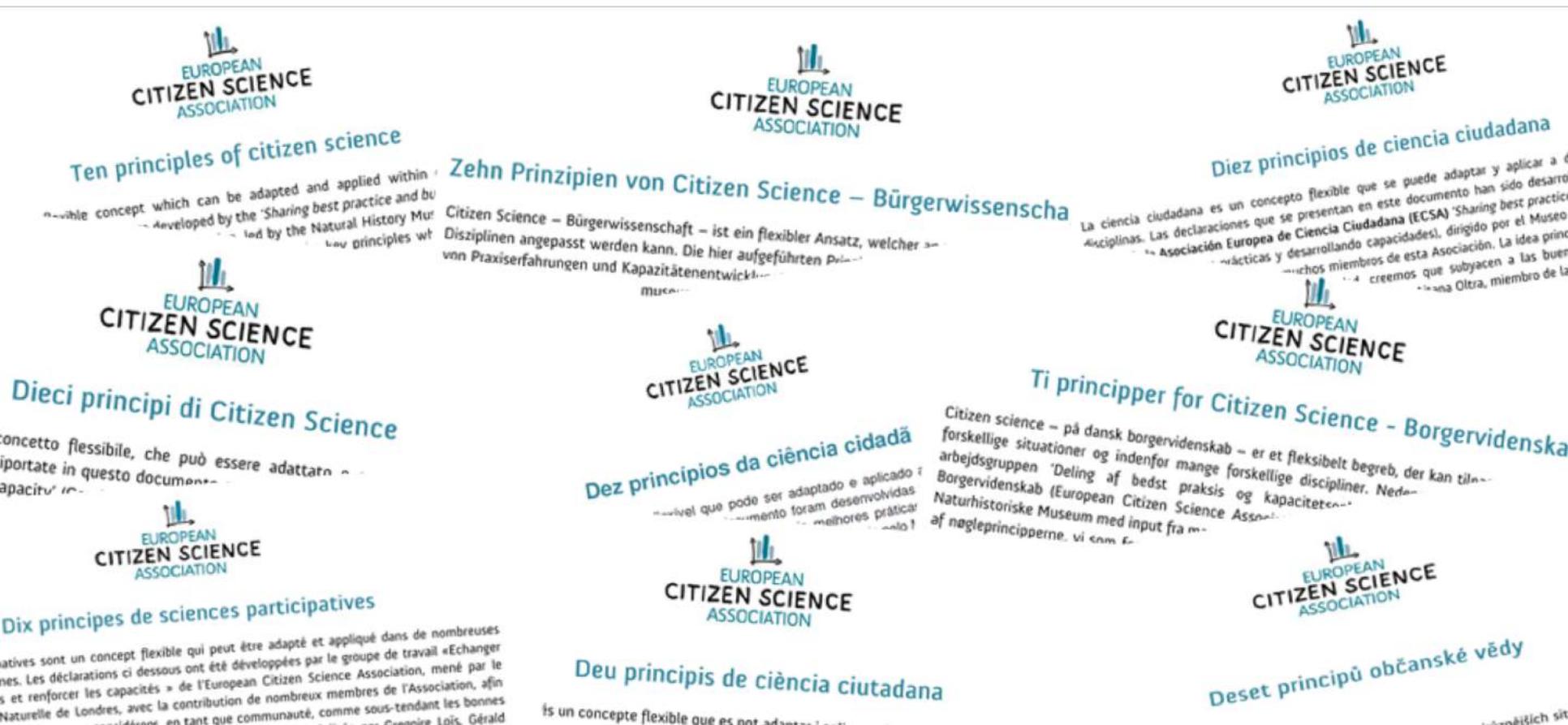
1. Citizen science projects actively involve citizens in scientific endeavour that generates new knowledge or understanding.
Citizens may act as contributors, collaborators, or as project leader and have a meaningful role in the project.
2. Citizen science projects have a genuine science outcome.
For example, answering a research question or informing conservation action, management decisions or environmental policy.
3. Both the professional scientists and the citizen scientists benefit from taking part.
Benefits may include the publication of research outputs, learning opportunities, personal enjoyment, social benefits, satisfaction through contributing to scientific evidence e.g. to address local, national and international issues, and through that, the potential to influence policy.
4. Citizen scientists may, if they wish, participate in multiple stages of the scientific process.
This may include developing the research question, designing the method, gathering and analysing data, and communicating the results.
5. Citizen scientists receive feedback from the project.
For example, how their data are being used and what the research, policy or societal outcomes are.
6. Citizen science is considered a research approach like any other, with limitations and biases that should be considered and controlled for.
However unlike traditional research approaches, citizen science provides opportunity for greater public engagement and democratisation of science.
7. Citizen science project data and meta-data are made publicly available and where possible, results are published in an open access format.
Data sharing may occur during or after the project, unless there are security or privacy concerns that prevent this.
8. Citizen scientists are acknowledged in project results and publications.
9. Citizen science programmes are evaluated for their scientific output, data quality, participant experience and wider societal or policy impact.
10. The leaders of citizen science projects take into consideration legal and ethical issues surrounding copyright, intellectual property, data sharing agreements, confidentiality, attribution, and the environmental impact of any activities.

September 2015, London

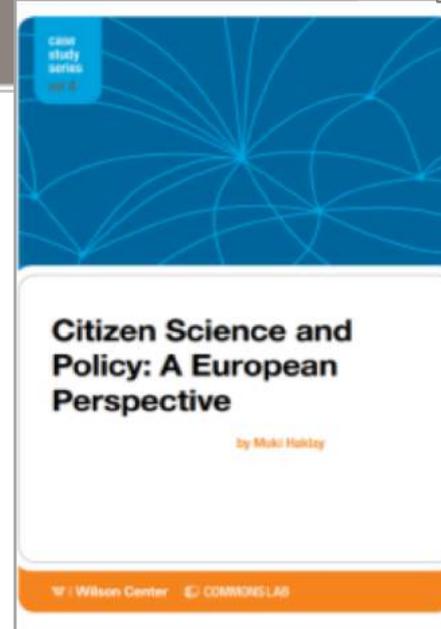
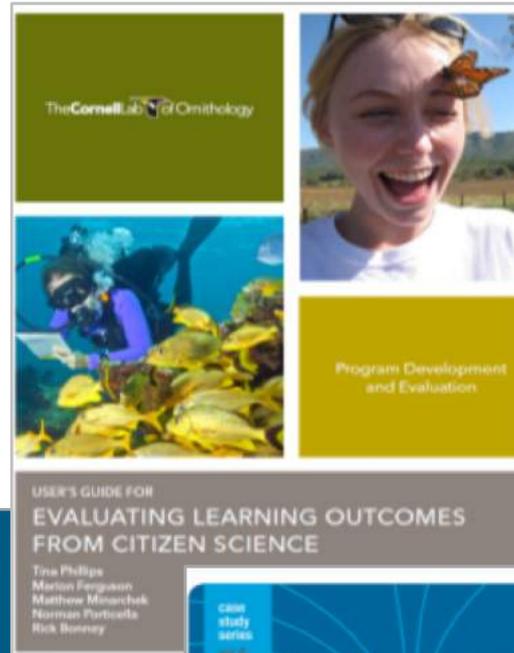
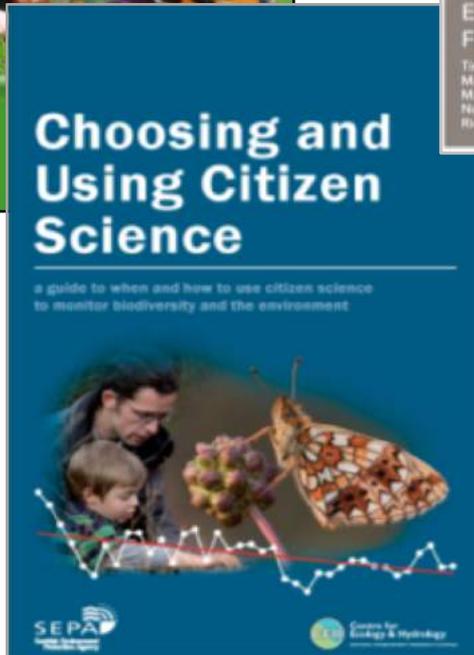
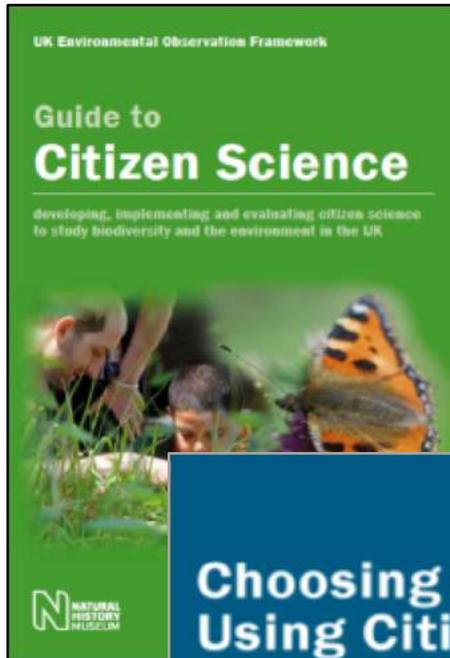
Ten Principles of Citizen Science

Are they available in your language?

<https://ecsa.citizen-science.net/documents>



Tools to support you





EU-Citizen.Science

A new knowledge sharing and training platform...

ECSA has recently secured funding to co-develop an online training platform to share good practice and facilitate collaboration and knowledge exchange globally.

The platform will launch in Spring 2020 with dedicated training and resource sections for citizen scientists, practitioners new to the field, academic researchers, science journalists and policy-makers.

<http://eu-citizen.science/>

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824580



Citizen Science: Theory & Practice journal

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CITIZEN SCIENCE:
THEORY AND PRACTICE

Start Submission

A Framework for Articulating and Measuring Individual Learning Outcomes from Participation...

Behavior & Stewardship
Measurable actions resulting from engagement in citizen science such as place-based and global stewardship, new participation, and community or civic action

Interest
The degree to which an individual assigns personal relevance to a science or environmental topic or endeavor

Self Efficacy
The extent to which a learner has confidence in his or her ability to participate in a science or environmental activity

Motivation

Content, Process and Nature of Science

Skills of Science Inquiry
Procedural skills such as asking questions, designing studies, collecting, analyzing and interpreting data, experimenting, argumentation, synthesis, technology use, communication, and critical thinking

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A Citation Study of Citizen Science Projects in Space Science and Astronomy
Odenwald — 26 Oct 2018

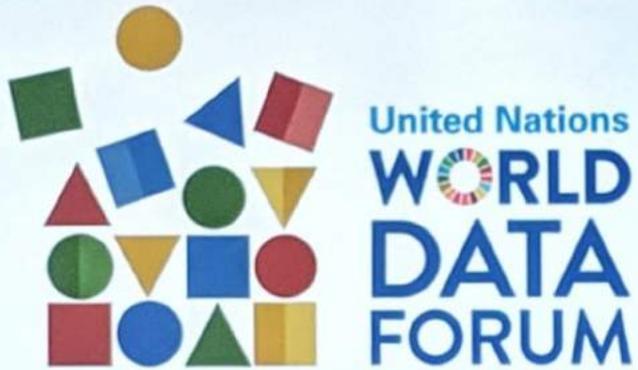
Community-Based Monitoring of Tropical Forest Crimes and Forest Resources Using Information and Communication Technology - Experiences from Prey Lang, Cambodia
Brofeldt et al. — 21 Sep 2018

A Framework for Articulating and Measuring Individual Learning Outcomes from Participation in Citizen Science
Phillips et al. — 28 Aug 2018

Comparison of Two Citizen

About this Journal

Citizen Science: Theory and Practice is an open-access, peer-reviewed journal published by Ubiquity Press on behalf of the Citizen Science Association. The journal focuses on advancing the global field of citizen science by providing a venue for citizen science researchers and practitioners to share best practices in conceiving, developing, implementing, evaluating, and sustaining projects that facilitate public participation in scientific endeavors in any discipline. Authors include scientists, educators, community organizers, information technologists, conservation biologists, evaluators, land-use planners, and more. Readers include anyone interested in understanding and improving practice of the growing citizen science field. As an open-access journal no fees are charged to view any part of the journal, which is supported by nominal author's fees.



منتدى
الأمم المتحدة
العالمي
للبيانات



International Cooperation: Citizen Science Global Partnership meeting in Dubai in October 2018.





Satya S Tripathi UN Assistant Secretary-General and Head of New York Office joins the global Citizen Science Delegation for a group photograph at the **UN Science Policy Business Forum in Nairobi Kenya, March 2019**. Delegates are from China (Hong Kong), Africa, USA, Europe & Australia

ECSA Conference 2020

International conference, every two years

Trieste, Italy

Hosted by Sissa Medialab, the science communication company of the International School for Advanced Studies in Trieste.

Dates for your diary: 25-26 May 2020



ECSA's priorities for the years ahead:

Provide expertise and support to all stakeholders;

Convene networks (large and small) to innovate and explore the full potential of citizen science;

Advocate for this approach amongst peer, academic and policy audiences;

Innovate within citizen science projects and in research on citizen science as a field of practice



Get involved...

- Join us! Membership gives you access to member newsletter and events, plus other benefits
- Collaborate with us on shared projects and funding proposals
- Join a Working Group
- ECSA conference 2020
- Contribute to, and benefit from, the EU-Citizen.Science platform





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