

2023

CitSci India 4th Annual Conference Report



CitSci India Virtual Conference | 2nd & 3rd Dec | India



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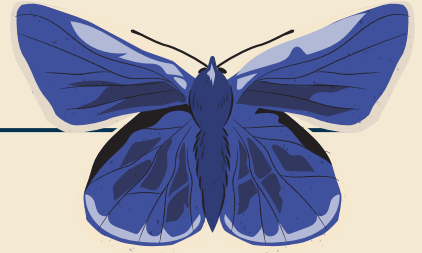
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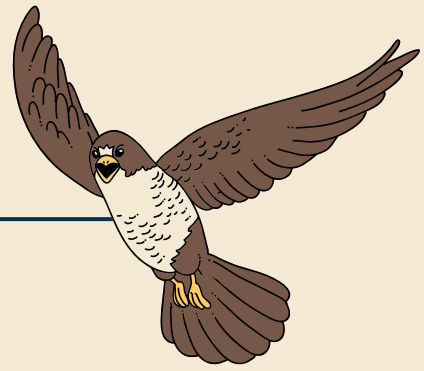


This document reports on the virtual CitSci India 2023 Conference organised under the umbrella of the Biodiversity Collaborative, and supported by conference partners, Centre for Technology Alternatives for Rural Areas, the echo network, Keystone Foundation, Metastring Foundation, Nature Conservation Foundation and the World Wide Fund for Nature–India.

We are deeply grateful to Anita Varghese and Geetha Ramaswami who helped with the curation of sessions for the 2-day conference and also in the outreach & communication of the conference.

All the technical support for the conference was provided by Amith Kumar and Tamizhan. Amith, developed the website for the conference and set up the virtual conference using platforms like Zoom, YouTube and Discord. Tamizhan helped stream all the live plenary and contributed sessions. We would also like to thank Digangana Mukherjee, for helping with the outreach and communication for the conference that really helped reach a larger audience. Finally, heartfelt appreciation to the esteemed plenary speakers for contributing their valuable knowledge and expertise, to the contributors for showcasing their inspiring work through posters and to the 400+ participants who participated in this two-day event.

OVERVIEW



The CitSci India Conference for Biodiversity is a virtual meeting of anyone involved in citizen science, including practitioners, researchers, educators, students, policy makers, and individual contributors, all of whom actively engage in citizen science.

The conference is organised under the umbrella of the Biodiversity Collaborative, a network of institutions and individuals whose shared vision is to promote biodiversity science in India and its application in conservation and sustainable development with a focus on enhancing human well-being. Earlier editions of the conference were conducted as part of a preparatory phase of the National Mission on Biodiversity and Human Well-Being (NMBHWP).

The 4th annual conference, like all other editions of the conference, was held virtually on the conference Discord server. The 2 day conference was held on the 1st & 2nd of December 2023 from 10:00 AM to 2:00 PM. The theme for Day 1 of the conference was Education and Citizen Science that was curated by Dr. Geetha Ramaswami, Programme Head at the Nature Conservation Foundation. The theme for Day 2 of the conference was Inclusion in Citizen science that was curated by Dr. Anita Varghese, Director Biodiversity Programme, Keystone Foundation.

All registered participants joined the server where all communications and discussions were text-based, facilitating multiway interactions between speakers, contributors and attendees. Plenary sessions and contributed talks were livestreamed on the conference YouTube channel via Zoom, which was embedded on dedicated channels, and posters were uploaded as PDFs and short video clips on the channels.

"The focus around long-term knowledge and problem solving approach is definitely the right attitude to instill when putting citizen science in practice!" – Mendel Wong (Co-chair of CitizenScience.Asia and participant at CitSci 2023)



PARTICIPATION

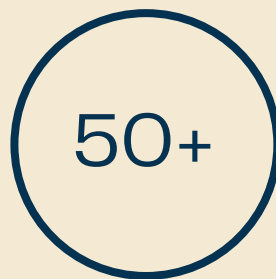
After the conference, we collated feedback from our participants through an anonymous survey. Based on 49 responses, below are some charts and testimonials on their interests, experience and learnings from the conference.

With over 420 registered participants who engaged across three platforms, and 1,284 views on the conference YouTube channel, this year's conference brought together 17 presentations from experts, practitioners, researchers and students.

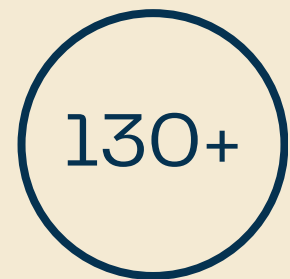
Impact Snapshot



Participants engaged through 3 different platforms



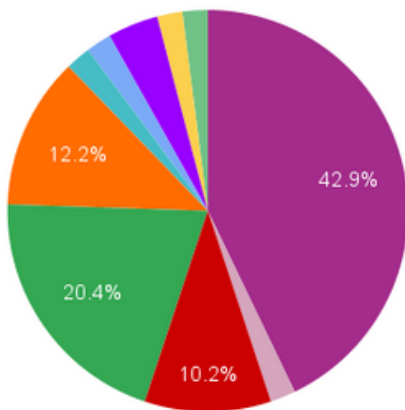
Experts and practitioners in Citizen Science joined



Organisations across 20 countries

What best describes your primary role in citizen science?

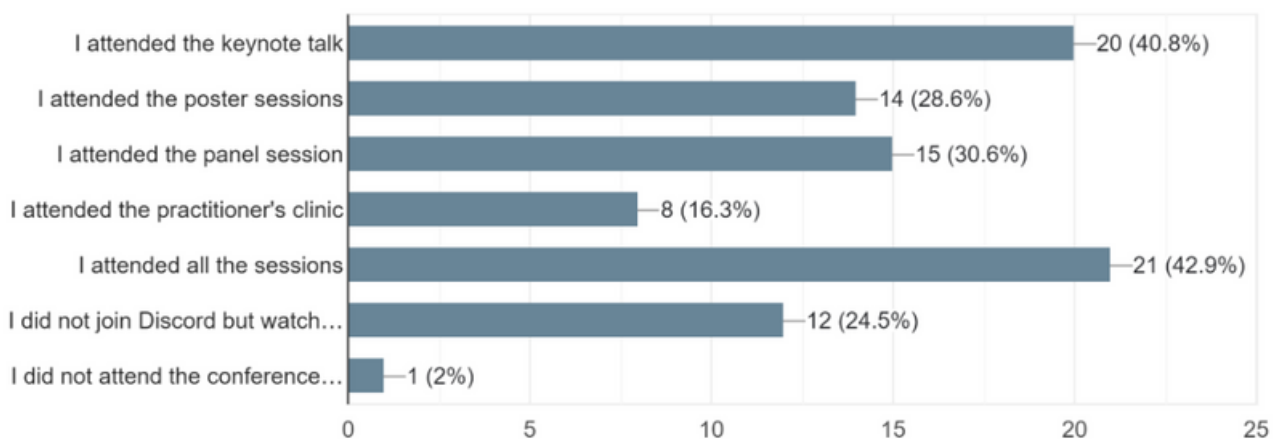
49 responses



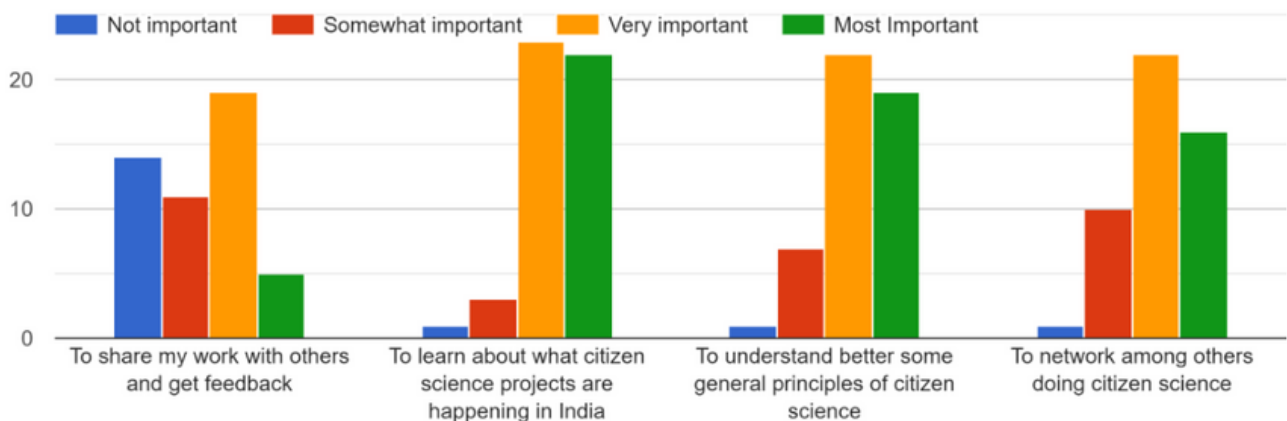
- A student (any level) interested in citizen science or participating in it
- advocate and delegate for citizen science
- Non-scientist who *designs/implements* citizen science projects (ie this is not part of your job/career)
- Professional scientist/researcher who designs/implements citizen science projects
- Non-scientist who *participates in* such projects (ie this is not part of your job/career)
- Ecologist; simply curious about citizen science
- Non-scientist who *participates in* such projects also try to promote events and efforts
- Professional scientist who participates in such projects
- A teacher who designs/implements/participates in citizen science projects.
- A Non-scientist, who would like to organize projects in my city

Which sessions did you attend at the conference?

49 responses



What was your motivation to attend this conference



FEEDBACK



I had only known about iNaturalist but engaging in conversations with other contributors, it opened my eyes to the varied scope and different fields in which one can make use of Citizen Science.

The stories I read about and heard during the conference were truly inspiring. I am all the more motivated to use Citizen Science as a pedagogical tool to get students hooked to nature and its conservation.

I think this is perfect- I'll be joining more future conferences through Discord as it is a comfortable format. Thank you for formulating it this way.

It will be good to communicate the participants on a monthly basis through some updates or one page periodicals. So that connections stay strong and it increases slowly.

I am new for this Discord, but relevant informations were meticulously looped, whenever required we could sit back and pull all the information.

DAY 1 – EDUCATION & CITIZEN SCIENCE



Therssa Crimmins
Director, USA National Phenology Network

KEYNOTE TALK

Abstract

Citizen science and education: a meaningful match

Citizen and community science offer unique opportunities for people of all ages and backgrounds, ranging from schoolchildren to senior adult volunteers, to engage in all stages of scientific discovery. The field of science benefits tremendously through the data and observations contributed by this pool of participants. In turn, participants in citizen science efforts enjoy increases in science literacy and an understanding of the process of “doing science”, a deepened sense of place, and a greater understanding and appreciation for the phenomena they are observing or measuring. The Nature’s Notebook program, a plant and animal phenology monitoring program offered by the USA National Phenology Network, engages individuals and hundreds of formal, non-formal, and informal educational institutions in tracking the timing of seasonal events in organisms. Participants regularly share how they appreciate the sense of purpose, the educational gains, connections with others that they receive through participating with others in this activity. These insights are shaping resources to further improve Nature’s Notebook participants’ experiences and to sustain long-term engagement.

[CLICK HERE](#) to watch the full talk



Arun Venkataramanan



Bhuvan Pathak



Sujatha Mundolly



Shyam Phartyal

PANEL DISCUSSION

Citizen Science and Education

The panel discussion on Citizen Science and Education was conducted with four practicing educators from school and university spaces across India who discussed the benefits and challenges of integrating citizen science with formal curriculum. Panelists spoke about:

- Framing citizen science into the formal state curriculum as a pedagogy tool in the classroom.
- The ease or difficulty of use citizen science in the learning framework of schools like Marudham farm school.
- Major challenges in making university curricula more adaptable to citizen science.
- Major learnings from having a formal course on citizen science in a university setting.

PANELISTS

Arun Venkataramanan – Conservationist, educator and forest-nurturer

Bhuvan Pathak – Assistant Professor at Ahmedabad University

Sujatha Mundolly – Primary Teacher at Govt. U.P. School, Kongad, Palakkad

Shyam Phartyal – Associate Professor at Nalanda Univesity

MODERATOR

Geetha Ramaswami – Programme Head, SeasonWacth

[CLICK HERE](#) to watch the discussion.

POSTER PRESENTATIONS – DAY 1

Citizen Rain Gauging for Education – Peeyush Sekhsaria

<https://www.youtube.com/watch?v=fpTxlcxbG-4>

Butterflies of Hyderabad and Surrounding Area: Observations of a Young Insect Enthusiast – Pradyut Baireddy

<https://www.youtube.com/watch?v=Yt4spddajgg>

Campus Phenology Network: Updates from a young network – Swati Sidhu & Saranya Nair

<https://www.youtube.com/watch?v=BVgDB5Xo4Z8>

Celebrating India's Citizens Collab for City Nature Challenge! – Ram Dayal Vaishnav & Priya Venkatesh

<https://drive.google.com/file/d/1Q2uzJkKDWmt8h6n5hBa1Yg-zrNZfCM6S/view>

Macrofauna of Stella Maris College – A Preliminary Study – Harini C & S.A. Vidhya

https://drive.google.com/file/d/1X2M_TVJV4Ju957mMrgnk5ZjgQKDOiUhj/view

Ants of Stella Maris College – Anagha S, Annette B Sebastian & S.A. Vidhya

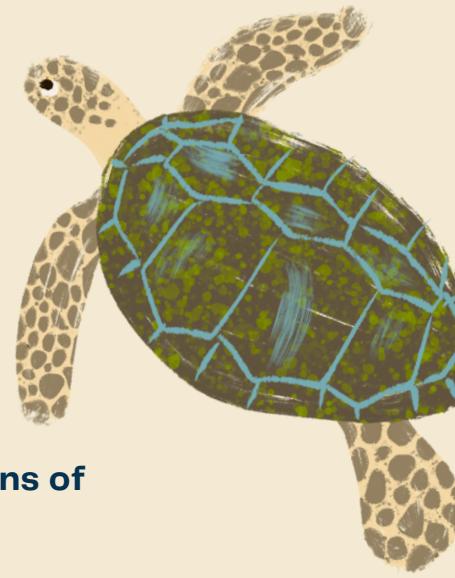
https://drive.google.com/file/d/1fitYmFSzkXL65V3MfZs8_VQ9ojd-NBWJ/view

Facilitating climate change education through citizen science – Suhirtha Muhil Maheswaran, Geetha Ramaswami & Swati Sidhu

<https://drive.google.com/file/d/13BsyHvV8NRaJamZ4c4rRQcqX7Tk7fLtK/view>

Role of education and awareness in amphibian monitoring: lessons from Monsoon Croaks bio blitz 2023 – Ahirbudhnyan M, Balakrishnan Peroth, Joseph Justine, Ashik. M.E, Nithin Divakar, Deepak. K

<https://drive.google.com/file/d/1audwKNIOOIvzAo4SI4oIcsWGMcROmpyd/view>



DAY 2 – INCLUSION IN CITIZEN SCIENCE



Domitilla Raimondo
Threatened Species Programme Manager,
South African National Biodiversity
Institute



Suvarna Parbhoo
Citizen Science Programme Leader,
South African National Biodiversity Institute

KEYNOTE TALK

Abstract

National Plant monitoring programme celebrates 20 years of inclusive citizen science participation

South Africa boasts three globally recognized biodiversity hotspots each hosting exceptional species richness – approximately 21,000 plant species, 60% of which are endemic. South Africa has received consistent investment in plant taxonomic research. In 2002, a comprehensive assessment of the threat status of its flora indicated that despite the high record of species documented, there was a lack of data required to accurately assess the rate of extinction of the flora. In response, the South African National Biodiversity Institute (SANBI) and the Botanical Society of South Africa partnered to establish a dedicated citizen science initiative, the Custodians of Rare and Endangered Wildflowers (CREW) programme, to train non-specialists to gather information on range restricted endemic and threatened species. The CREW programme provides an authentic set of objectives and has a variety of benefits for the citizen scientist – access to protected and undisturbed natural areas, plant collecting permits, plant identification workshops, scientific material and publications.

CREW is probably the only citizen science programme globally that informs national resource governance by contributing to national plant conservation strategy targets, providing data to the national Red List of plants dataset, mainstreaming data into decision making, as well as conducting in situ and ex situ conservation practices. The programme supports Biodiversity Stewardship with site assessments and ongoing site surveys in both private and communal owned land. We collaborate with a host of partners to encourage the sustainable use of plants with focus on the medicinal plant trade and illegal trade of succulent species. Just before the pandemic, our data collection migrated from paper format to digital, using the iNaturalist application. This has allowed us to streamline our data management system as well as attract citizen scientists who observe threatened species in areas where we have not worked in. The migration was not an easy changeover for our mostly retired citizen scientists though we do host regular tutorials and have produced how-to videos to guide the process. Also, data has become the most valuable resource globally yet is still at a high cost in South Africa, making connectivity, especially but not limited to rural areas, a challenge for citizen scientists. We have tested a few options have but not yet overcome this challenge. There is much discussion nationally about citizen scientists receiving a stipend for the hours contributed, we occasionally contribute to mileage costs for selected fieldtrips and provide 2-annual 3-day lesson-exchange workshops at no cost to our citizen scientists.

As we celebrate our 20th year, the CREW Programme maintains its identity and it will continue to be a mirror of the passionate people we are connected to as we monitor South Africa's plants. CREW has made citizen science, and particularly, citizen botany, a reality for so many people and with so many direct benefits to the field of botany.

[CLICK HERE](#) to watch the full talk



P. Jeganathan



Bhavya George

PRACTITIONER'S CLINIC

Barriers to Inclusivity in Citizen Science– Language, Technology, Access.

This session was an informal and interactive session for participants who led citizen science projects and experienced challenges in making their projects more inclusive. For the past 3 years, the conference has been engaging in conversations that talked about the challenges of inclusiveness in citizen science in India. This year, we aimed to address potential solutions to these challenges with Dr. P Jeganathan, Wildlife Biologist at the Nature Conservation foundation and Bhavya George, climate solutions Programme Coordinator at Keystone Foundation. Through this session, participants got personalised feedback and guidance from practitioners in the field.

A pre-poll and a question box was conducted on the Discord server to collate queries from the participants in order to get a sense of the major challenges faced related to inclusion in citizen science.

PANELISTS

P.Jeganathan addressed questions on socio – economic barriers and communication barriers for non-english speakers in citizen science projects

Bhavya George addressed questions on gender barriers and engaging with tribal communities in citizen science projects.

MODERATOR

Shannon B. Olsson – Global Director, the echo network

[CLICK HERE](#) to watch the full session

POSTER PRESENTATIONS – DAY 2

Urban Wildlife Conservation Triumph: Rescuing 38,000 Animals across 210 Species – Colonel Navaz Shariff

<https://www.youtube.com/watch?v=2pZcRGPPDyg>

Bird Collisions – what we know and how to get less charismatic topics on citizen science – Ashwin Vishwanathan & Peeyush Sekhsaria

<https://drive.google.com/file/d/1Wog99HJvBW9u1Pwa4mJLis1sc0ADjX3G/view>

Pune Bird Atlas: mapping birds in the Pune city – Pankaj Koparde, Pooja Pawar, Siddharth Biniwale, Pankaj Koparde, Kedar Champhekar, Manali Rane, Ranjana Gosavi & Madhur Rathi

<https://www.youtube.com/watch?v=gzffshENc3c>

Impact of coastal armoring on avian communities in sandy beach habitats of Kerala and Karnataka – Sanath R M & Abhirami C

<https://drive.google.com/file/d/1NMjh900pZJ8zCowl15rYqnpkaNSDqOgP/view>

The Patch Monitoring Project: Insights from systematic monitoring at local birding 'patches' – Mittal Gala & Ashwin Viswanathan

<https://www.youtube.com/watch?v=MDPXyzMgW1s>



APPENDIX

Fri, 1st Dec			
Session	Time	Discord channel	Title and Speaker/Presenter
Welcome	9:50 - 10:00	#keynote-theresa-crimmins	Introduction to the Conference + Discord server by Organising Committee
Keynote	10:00 - 10:50	#keynote-theresa-crimmins	Citizen science and education: a meaningful match by Theresa Crimmins
Panel Discussion	11:00 - 12:00	#panel-session-2023	Citizen Science and Education – Sujatha Mundolly, Arun Venkataramanan, Bhuvan Pathak, Shyam Phartyal
	12:00 - 13:00		BREAK
Poster Session	13:00 - 14:00	#1-dec-poster	Citizen Rain Gauging for Education – Peeyush Sekhsaria Butterflies of Hyderabad and Surrounding Area: Observations of a Young Insect Enthusiast – Pradyut Baireddy Campus Phenology Network: Updates from a young network – Swati Sidhu & Saranya Nair Celebrating India's Citizens Collab for City Nature Challenge! – Ram Dayal Vaishnav & Priya Venkatesh Macrofauna of Stella Maris College – A Preliminary Study – Harini C & S.A. Vidhya Ants of Stella Maris College – Anagha S, Annette B Sebastian & S.A. Vidhya Facilitating climate change education through citizen science – Suhirtha Muhil Maheswaran, Geetha Ramaswami & Swati Sidhu Role of education and awareness in amphibian monitoring: lessons from Monsoon Croaks bio blitz 2023 – Ahirbudhnyan M, Dr. Balakrishnan Peroth, Joseph Justine, Ashik. M.E, Nithin Divakar & Deepak. K
Sat, 2nd Dec			
Session	Time	Discord channel	Title and Speaker/Presenter
Keynote	10:00 - 10:50	#keynote-domitilla-suvarna	National Plant monitoring programme celebrates 20 years of inclusive citizen science participation by Domitilla Claudia Raimondo and Suvarna Parbhoo
Poster	11:00-12:00	#2-dec-poster	Urban Wildlife Conservation Triumph: Rescuing 38,000 Animals across 210 Species – Colonel Navaz Shariff Bird Collisions – what we know and how to get less charismatic topics on citizen science – Ashwin Vishwanathan & Peeyush Sekhsaria Pune Bird Atlas: mapping birds in the Pune city – Pankaj Koparde, Pooja Pawar, Siddharth Biniwale, Pankaj Koparde, Kedar Champhekar, Manali Rane, Ranjana Gosavi & Madhur Rathi Impact of coastal armoring on avian communities in sandy beach habitats of Kerala and Karnataka – SANATH R M & Abhirami C The Patch Monitoring Project: Insights from systematic monitoring at local birding 'patches' – Mittal Gala & Ashwin Viswanathan
	12:00 - 13:00		BREAK
Practitioner's Clinic	13:00-14:00	#practitioners-clinic	Barriers to Inclusivity in Citizen Science- Language, Technology, Access – P.Jeganathan, Bhavya George
Closing session	14:00 - 14:10	#practitioners-clinic	Vote of thanks by Organising Committee

PEOPLE BEHIND THE CONFERENCE



Steering Committee of the CitSci India Conference

Farida Tampal – World Wide Fund for Nature, India

Pankaj Sekhsaria – Indian Institute of Technology, Bombay

R Prabhakar – Strand Life Sciences

Shannon B. Olsson – the echo network

Suhel Quader – Nature Conservation Foundation

Co-organisers of CitSci India 2023

Anita Varghese – Keystone Foundation

Geetha Ramaswami – SeasonWatch

Conference Coordinator – Akshata Pradhan – the echo network

Communication Support

Digangana Mukherjee – the echo network

Technical Support

Amith Kumar Chowdappa – IoraStudios

Tamizhan – Freelancer