

126 Advancing citizen science to support and democratise conservation

RECOGNISING that citizen science is not secondary; it is essential; it must be protected, especially when it brings light to the margins of mainstream conservation;

RECOGNISING ALSO that citizen science stresses that the bonds between *custodian communities* and *territories of life* are fundamental for conserving nature. These bonds are made of livelihoods and of history and culture (languages), of knowledge and identity, of hard work and caring;

RECOGNISING FURTHER that citizen science must be incorporated into all possible activities of IUCN and should be adopted as standard practice, as it will safeguard both its integrity and the individuals who lead these efforts. It will strengthen scientific outcomes and foster a more inclusive, effective and community-driven conservation movement;

NOTING that monitoring biodiversity, geodiversity and all of nature requires widespread data to understand ecological changes and that citizen science enhances data collection, enabling large datasets, long-term monitoring, and affordable fieldwork, while fostering community well-being through ownership of conservation efforts. Beyond data collection, building capacity in data analysis at the community level is critical to empower citizen scientists not just as data collectors but as active interpreters and advocates;

ENSURING that data generated through citizen science is accompanied by transparent, community-defined verification mechanisms that respect local epistemologies and that avoid imposing external validation standards that may marginalise traditional knowledge systems;

ALSO RECOGNISING that citizen science democratises science, promotes equitable data access, and fosters environmental stewardship, strengthening community resilience and decision-making through active participation; culturally appropriate engagement methods, especially when working with Indigenous peoples and Local communities are important;

FURTHER AWARE that citizen scientists, environmental defenders and whistleblowers are crucial in detecting environmental crimes and human rights violations, as outlined in IUCN Resolution 7.115 *Protecting environmental human and peoples' rights defenders and whistleblowers* (Marseille, 2020). Legal protection and safety protocols should be in place to safeguard individuals from retaliation;

FURTHER RECALLING that citizen science fosters a sense of community and collaboration among participants, building connections and networks that can strengthen social cohesion and support ongoing scientific initiatives by working together on common goals, helping to build horizontal bridges, create networks and alliances, and empower communities, leading to increased social accountability;

ACKNOWLEDGING citizen science's role in generating data for monitoring The IUCN Red List of Threatened Species™, actively promoted by IUCN organisations to strengthen conservation;

ACKNOWLEDGING ALSO the valuable contributions of Indigenous peoples, and Local communities, particularly including context-specific information and traditional knowledge of biodiversity and geodiversity, enhancing scientific outcomes;

FURTHER RECOGNISING the validation of citizen science by IUCN, the United Nations Environment Programme, and other organisations for initiatives, including monitoring the Sustainable Development Goals;

WELCOMING the Convention on Biological Diversity 2022 Decision 15/5, which calls for community-based monitoring and citizen science to support the Kunming-Montreal Global Biodiversity Framework; and

CONSIDERING the 66th Global Environmental Facility Council Meeting, where the Scientific and Technical Advisory Panel highlighted citizen science's potential for global environmental benefits, awareness, reliable data and engagement of Indigenous peoples' and local knowledge;

The IUCN World Conservation Congress 2025, at its session in Abu Dhabi, United Arab Emirates:

1. REQUESTS the IUCN Director General to develop a strategy and action plan for citizen science engagement, including protection from nature crimes and defender and whistleblower protection, establishing a task force by the end of 2025, and appointing a senior lead; revising and updating the strategy every 2–3 years ensures the adaptability to evolving technologies and community needs;
2. REQUESTS that this Strategy include:
 - a. that digital platforms serving conservation science must be inclusive, transparent, and supported by ethical oversight, and that Democratic governance of these platforms is key to supporting the diversity of voices required to truly democratise conservation;
 - b. the definition of roles of administrators and moderators who are trained in knowledge justice, so that content from grassroots contributors also has the chance to be heard;
3. URGES Commission Chairs to integrate citizen science into their operations and to support the task force. Partnerships with educational institutions support the integration of citizen science into school curricula, fostering early engagement;
4. URGES IUCN Members to protect environmental defenders and whistleblowers, provide their incentivising, recognising their role in safeguarding resources, promoting justice and combating environmental crime;
5. CALLS on governments, non-governmental organisations, treaties and research institutions to integrate citizen science into projects, from design to monitoring, supporting the Kunming-Montreal Global Biodiversity Framework;
6. URGES stakeholders to integrate citizen science into climate adaptation strategies, forest restoration projects, marine conservation efforts, and urban ecosystem monitoring, recognising its role in early warning, social accountability and local stewardship;
7. URGES stakeholders to prioritise community-based monitoring, traditional knowledge, citizen science, and well-being data collection, promoting open-source tools, accountability and networks enhancing conservation;
8. AGREES to recognise citizen science's contributions to decision-making, deepening knowledge, optimising outcomes and addressing challenges;
9. INVITES Indigenous peoples, local communities, rangers and civil society to actively engage in citizen science, leveraging the diverse knowledge and traditional uses of biodiversity and geodiversity, promoting inclusion and encouraging participation in monitoring and decision-making. Capacity-building workshops and long-term support sustain participation;
10. ENCOURAGES multilateral organisations, governments and foundations to allocate resources, accelerating research, supporting projects and democratising science through equitable data access. Part of these resources should be earmarked for digital infrastructure, ensuring equitable access to online platforms and tools; and
11. SUPPORTS the conducting of inventories of sites of geological interest and traditional uses and knowledge of geodiversity and biodiversity, to generate resources for scientific, educational, and/or touristic purposes, to bring science closer to society and raise awareness of the need to pass on national and cultural heritage to future generations.