



Species

ISSUE 63

2022 Report of the IUCN Species Survival Commission and Secretariat



The IUCN Species Survival Commission (SSC)

The IUCN Species Survival Commission (SSC) is a science-based network of thousands of volunteer experts from almost every country of the world, all working together toward achieving the vision of “a just world that values and conserves nature through positive action to both prevent the loss and aid recovery of the diversity of life on earth.”

Members of SSC belong to one or more of near 200 Specialist Groups, Red List Authorities, Action Partnerships, Task Forces, and Conservation Committees that make up the Network, each focusing on a taxonomic group (plants, fungi, mammals, birds, reptiles, amphibians, fishes, and invertebrates), national species, or a disciplinary issue, such as sustainable use and livelihoods, translocation of species, wildlife health, climate change, and conservation planning.

Framed by the Species Conservation Cycle, SSC’s major role is to provide information to IUCN on biodiversity conservation, the inherent value of species, their role in ecosystem health and functioning, the provision of ecosystem services, and their support to human livelihoods. This information is fed into the IUCN Red List of Threatened Species.

2021-2025 Species Strategic Plan

The IUCN Species Strategic Plan encompasses the joint work of the IUCN Species Survival Commission and a number of partnerships to achieve more than 2,700 targets proposed by the Network during the 2021-2025 quadrennium.

To accomplish those targets, the Species Conservation Cycle was established, which is the conceptual framework for the Network activities. The Species Conservation Cycle’s main purpose is to guide efforts for valuing and conserving biodiversity through three essential components that are linked to each other:

ASSESS: Understand and inform the world about the status and trends of biodiversity.

PLAN: Develop collaborative, inclusive and science-based conservation strategies, plans and policies.

ACT: Convene and mobilise conservation actions to improve the status of biodiversity.



Their implementation requires two transversal components:

NETWORK: Enhance and support our immediate network and alliances to achieve our biodiversity targets.

COMMUNICATE: Drive strategic and targeted communications to enhance our conservation impact.

SSC Species Report

Annual progress in the implementation of the 2021-2025 Species Strategic Plan is documented in the SSC *Species Report*, which consists of a comprehensive description and analysis of the activities and results generated by the members of the SSC Network each year. Each SSC Group contributes to this document by providing a yearly summarised description of their achievements, which is presented in stand-alone reports.

Structure of the IUCN SSC Stand-alone Report

Stand-alone reports summarize the activities conducted and results generated by each group member of the SSC. Following, is the structure of the stand-alone report and the contents under each session.

Title of the SSC Group

Photograph(s) of the Chair / Co-Chairs

Group information

Includes names of Chair / Co-Chairs, Vice-Chairs, Deputy Chairs, Red List Authority Coordinators and Program Officers, their institutional affiliations, number of members and social networks currently active.

Logo of the SSC Group

Mission statement

Includes the mission of the group.

Projected impact for the 2021-2025 quadrennium

Includes the description of the impact on species conservation resulting from the implementation of the targets formulated by the group for the 2021-2025 quadrennium.

Targets for the 2021-2025 quadrennium

Includes the targets planned by the SSC Group for the 2021-2025 quadrennium ordered alphabetically by component of the Species Conservation Cycle. Each target is labeled with a numerical code (e.g., T-001, T-012) that identifies it in the SSC DATA database and its status for the reported year is indicated (Not initiated, On track or Achieved).

Activities and results

Includes the targets for which activities were conducted and results were generated during the reported year, ordered alphabetically, first by component of the Species Conservation Cycle, and second by Activity Category. Description of activities and results includes the indicator that best describes progress, its associated quantitative or qualitative result, and the narrative description of the activity conducted or result obtained. Each activity or result reported is linked to the Key Species Result to which it is mainly associated (e.g., KSR#1, KSR#5).

Acknowledgements

Includes the acknowledgements to funding agencies, partners, and persons who contributed to the progress of the targets of the group.

Summary of achievements

Summarises information of the group's strategic plan for the quadrennium and progress achieved implementing targets for all the components of the Species Conservation Cycle during the reported year.

Example for the recommended citation:

Chau, MM, Goodale, UM, and Wolkis, D. 2023. 2022 Report of the Seed Conservation Specialist Group. In: Nassar, JM, García, L, Mendoza, L, Andrade, ND, Bezeng, S, Birkhoff, J, Bohm, M, Canteiro, C, Geschke, J, Henriques, S, Ivande, S, Mileham, K, Ramos, M, Rodríguez, A, Rodríguez, JP, Street, B, and Yerena, E (Eds.). 2022 Report of the IUCN Species Survival Commission and Secretariat. International Union for Conservation of Nature. 6 pp.

Animalia

Fungi

Plantae

National Species

Disciplinary

Action Partnership

Task Force

Red List Authority

Committee

Center for Species Survival

IUCN SSC Seed Conservation Specialist Group



CO-CHAIR

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CO-CHAIR

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China



DEPUTY CHAIR

Dustin Wolkis
National Tropical
Botanical Garden,
Kalaheo, Hawaii, US

NUMBER OF MEMBERS

102

SOCIAL MEDIA AND WEBSITE

Facebook: IUCN Seed Conservation Specialist Group

Twitter: @IUCN_Seeds

Website: <https://seedconservationsg.org/>

Mission statement

The mission of the Seed Conservation Specialist Group (SCSG) is to promote seed conservation by providing a network for knowledge sharing in different ecosystems around the world and aiding in prioritisation, capacity building and development of best practices.

Projected impact 2021–2025

By the end of 2025, we expect that the network established by SCSG in the last quadrennium will continue to identify gaps, not only in expertise but also in the seed conservation of vulnerable species. We are intentionally prioritising diversity and expanding our efforts to encourage improvements to seed banking processes in underrepresented IUCN statutory regions of Africa, Eastern Europe, North and Central Asia, Meso- and South America, Oceania and East Asia. Through gap assessments, guidelines for seed conservation, other publications, and the growth of our network, we hope that our efforts will contribute towards at least a 15% increase in species from each ecological region being conserved for the future through effective seed banking.

Targets 2021–2025

ASSESS

T-006 Complete and publish a regional and topical gap analysis of seed conservation expertise.

Status: Achieved

T-007 Assess Red List data on *ex situ* actions for plant species (prioritising those with urgent needs), and work with taxonomic and regional plant Specialist Groups/Red List Authorities to improve inclusion of seed conservation in Red List assessments.

Status: Not initiated

T-008 Improve the existing Botanic Gardens Conservation International PlantSearch database by seeking SCSG members to help update data.

Status: On track

T-009 Using the Botanic Gardens Conservation International PlantSearch database, conduct a gap analysis on taxonomic representation in seed conservation.

Status: Not initiated

T-010 Assess the feasibility and potential for a global database on seed conservation research, best practices and needs, prioritising threatened species.

Status: Not initiated

T-011 Increase visibility of SSC by including SSC affiliation in relevant publications by SCSG members.

Status: Achieved

ACT

T-012 Create IUCN Guidelines on Seed Conservation in English, linking to existing resources created by SCSG member and other organisations.

Status: Not initiated

T-013 Begin translating the Guidelines on Seed Conservation into other languages.

Status: Not initiated

NETWORK

T-001 Actively recruit SCSG members, especially from underrepresented regions and Key Biodiversity Areas, to achieve global membership.

Status: Achieved

T-002 Increase engagement of our members by creating Seed Conservation Specialist Group (SCSG) committees for quadrennium targets.

Status: On track

T-003 Explore fundraising options and develop a plan to start a Non-Governmental Organisation.

Status: On track

Students at Xi'an Jiaotong Liverpool University, School of Science, Department of Health and Environmental Science (China) learning about best practices for seed collection
Photo: Uromi Manage Goodale



Seed capsules of Pua Kala (*Argemone glauca*), a native Hawaiian plant
Photo: Marian Chau



T-004 Work with the Plant Conservation Committee to identify a Focal Point for Seed Conservation in seed-plant and *ex situ* related Specialist Groups and Red List Authorities.

Status: On track

T-005 Expand the Seed Conservation Directory of Expertise to include underrepresented regions.

Status: On track

COMMUNICATE

T-014 Create the SCSG Newsletter.

Status: On track

T-015 Improve the SCSG website.

Status: On track

T-016 Increase the SCSG web and social media presence.

Status: On track

T-017 Offer annual SCSG Membership meetings within broader scientific conferences, or as virtual meetings.

Status: On track

Activities and results 2022

ASSESS

Research activities

T-006 Complete and publish a regional and topical gap analysis of seed conservation expertise. (KSR 5)

Number of scientific publications about species research that acknowledge SSC affiliation: 1

Result description: We published “The Global Seed Bank Index: Thousands of Seed Banks Are Needed to Address Seed Supply Shortages in Ecosystem Restoration” (<https://www.terraformation.com/blog/seed-bank-index>), acknowledging SSC affiliation.

T-008 Improve the existing Botanic Gardens Conservation International PlantSearch database by seeking SCSG members to help update data. (KSR 6)

Number of institutions with updated BGCI species lists: 0

Result description: An upgraded version of PlantSearch is being implemented and will

be released in 2023. Once released SCSG members will be encouraged to include/update seed bank data.

T-011 Increase visibility of SSC by including SSC affiliation in relevant publications by SCSG members. (KSR 5)

Number of scientific publications about species research that acknowledge SSC affiliation: 3

Result description: In 2022, we tracked three publications in which authors provided SCSG and SSC affiliation, for a total of 16 in this quadrennium. Although we have reached our goal of 10 publications, we will continue to promote and track this goal throughout the quadrennium.

NETWORK

Membership

T-001 Actively recruit SCSG members, especially from underrepresented regions and Key Biodiversity Areas, to achieve global membership. (KSR 2)

Number of SSC members recruited: 102

Result description: In 2022, we recruited 102 members through the renewal process

Cover of the SCSG Newsletter inaugural issue
Photo: SCSG



Cover of the SCSG Newsletter Special Issue, featuring Jatobá seed (*Hymenaea courbaril*) germinating on the ground, with two young leaves and cotyledons in the Atlantic Forest, São Paulo, Brazil
Photo: Carlos Eduardo Camargo de Godoy and SCSG

and new applications. We were able to maintain our overall membership total and gain a slight increase in diversity by adding members in the Eastern Europe, North and Central Asia statutory regions. We also began recruitment efforts in underrepresented statutory regions of Africa and South America.

Synergy

T-002 Increase engagement of our members by creating Seed Conservation Specialist Group (SCSG) committees for quadrennium targets. (KSR 3)

Number of committees: 1

Result description: In 2022, we established the Communicate Committee, which contributed to the release of our newsletters. We will finalize the other committees in the first quarter of 2023.

T-003 Explore fundraising options and develop a plan to start a Non-Governmental Organisation. (KSR 1)

Number of 'funding' partners established and maintained: 0

Result description: We submitted two competitive grants to support the work of the SCSG. One grant was declined for funding, and one grant is pending.

T-003 Explore fundraising options and develop a plan to start a Non-Governmental Organisation. (KSR 1)

Number of 'in-kind' partnerships established and maintained: 2

Result description: In 2022, we established two in-kind partnerships that have supported the work of the Co-Chairs, and we expect these two partnerships to be maintained throughout this quadrennium.

T-004 Work with the Plant Conservation Committee to identify a Focal Point for Seed Conservation in seed-plant and ex situ related Specialist Groups and Red List Authorities. (KSR 3)

Number of Seed Conservation focal points designated: 13

Result description: In collaboration with Cara Nelson from the IUCN CEM, we led a webinar in 2022 for other SSC specialist groups, CEM members, and the public. By continuing to collaborate with Cátia Canteiro, and the Plant and Fungi Conservation Coordinator, in 2022 we identified Focal Points for Seed Conservation in 13 SSC specialist groups.

T-005 Expand the Seed Conservation Directory of Expertise to include underrepresented regions. (KSR 3)

Number of new countries represented in the directory: 0

Result description: In 2022, a survey was made publicly available to gather data on new members for the Directory of Expertise. This was shared at the SCSG members' meeting, through the members' newsletter and via email to targeted groups. Responses were received only from countries already included in the directory in 2022. In 2023, we will continue to share the survey, and the Seed Conservation Directory of Expertise will be updated.

T-005 Expand the Seed Conservation Directory of Expertise to include underrepresented regions. (KSR 3)

Number of new directory participants: 12

Result description: In 2022, a survey was made publicly available to gather data on new members for the Directory of Expertise. This was shared at the SCSG members' meeting, through the members' newsletter and via email to targeted groups. Responses were received from 12 new experts. In 2023, we will continue to share the survey, and the Seed Conservation Directory of Expertise will be updated.

COMMUNICATE Communication

T-014 Create the SCSG Newsletter. (KSR 12)

Number of Species e-bulletin, Save Our Species newsletter, SSC Groups' newsletter editions produced: 1

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LETTER


Seed banks needed to restore ecosystems

UROMI MANAGE GOODALE, ALEXANDRE ANTONELLI, CARA R. NELSON, AND MARIAN M. CHAU [Authors Info & Affiliations](#)

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1,423

CHECK ACCESS



LETTERS

Community members at the foothills of Kilimanjaro in Tanzania collect seeds from the endangered *Prioria msoo* to be stored in a local restoration seed bank.

Science Letter with SCSG coauthors, featuring seeds from the Endangered *Prioria msoo*, collected by community members at the foothills of Kilimanjaro in Tanzania to be stored in a local restoration seed bank
Photo: The Kilimanjaro Project and SCSG



Seeds of Wiliwili (*Erythrina sandwicensis*) drying in Hawai'i Island Seed Bank
Photo: Marian Chau

Result description: In 2022, we published a Special Issue of the SCSG Newsletter on our website and conducted an outreach campaign on social media. The Newsletter page on our website has been viewed over 868 times. We translated the first issue into Spanish, Portuguese, and Chinese.

T-015 Improve the SCSG website. (KSR 12)

Maintain number of annual visitors to the SCSG website: 1,702

Result description: In 2022, we had 1702 unique visitors to the SCSG website.

T-015 Improve the SCSG website. (KSR 12)

Maintain number of annual page views on the SCSG website: 3,571

Result description: In 2022, we had 3571 page views on the SCSG website.

T-015 Improve the SCSG website. (KSR 12)

Add at least one new resource page or showcased project on the SCSG website: 1

Result description: In 2022, we created new website content by adding a Global Seed Bank Index pager under our Resources on the SCSG website (<https://seedconservationsg.org/the-global-seed-bank-index>).

T-016 Increase the SCSG web and social media presence. (KSR 12)

Increase in social media followers: 70

Result description: In 2022, we added 27 members in our Facebook Group and 43 followers on our Twitter account.

T-017 Offer annual SCSG Membership meetings within broader scientific conferences, or as virtual meetings. (KSR 12)

Number of meetings held: 1

Result description: In 2022, we held one virtual membership meeting open to all SCSG members.

Acknowledgements

We are truly grateful to all the affiliated organizations of our SCSG Executive Committee for supporting us in the work we do in the Seed Conservation Specialist Group. We thank BGCi for serving as the Secretariat for SCSG, hosting our Directory of Expertise, and contributing staff time. We also thank Guangxi University, Instituto de Investigaciones Agropecuarias, Kalehua Seed Conservation Consulting, National Tropical Botanical Garden, Terraformation, and Xi'an Jiaotong-Liverpool University for contributing staff time towards the SCSG targets. We are also grateful to the IUCN SSC Chair's Office, Global Center for Species Survival, and the Commission on Ecosystem Restoration for coordinating to achieve SCSG targets. We especially thank Jon Paul Rodríguez and Cátia Canteiro for their support in achieving SCSG targets.

Summary of achievements

Total number of targets 2021–2025: 17

Geographic regions: 17 Global

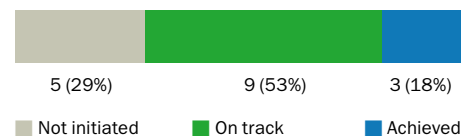
Actions during 2022:

Assess: 3 (KSR 5, 6)

Network: 7 (KSR 1, 2, 3)

Communicate: 6 (KSR 12)

Overall achievement 2021–2025:



Legend: Not initiated (grey), On track (green), Achieved (blue)