



# Species

ISSUE 63

## 2022 Report of the IUCN Species Survival Commission and Secretariat



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## 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.

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### 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.

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### 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.

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## 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.

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### Title of the SSC Group

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### Photograph(s) of the Chair / Co-Chairs

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### 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.

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### Logo of the SSC Group

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### Mission statement

Includes the mission of the group.

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### 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.

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### 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).

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### 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).

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### Acknowledgements

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

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### 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.

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### Example for the recommended citation:

Rowe, H. 2023. 2022 Report of the Sonoran Desert Plant 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. 4 pp.

Animalia

Fungi

Plantae

National Species

Disciplinary

Action Partnership

Task Force

Red List Authority

Committee

Center for Species Survival

## 2022 Report

# IUCN SSC Sonoran Desert Plant Specialist Group



<p><b>CHAIR</b> Helen Rowe Northern Arizona University, Flagstaff, AZ, US</p>	<p><b>RED LIST AUTHORITY COORDINATOR</b> Linda Howard Center for Biology and Society, Arizona State University, Arizona, US</p>	<p><b>NUMBER OF MEMBERS</b> 23</p>
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**Mission statement**

The mission of the IUCN SSC Sonoran Desert Plant Specialist Group (SDPSG) is to assess the extinction risk of all Sonoran Desert plant species, educate the public about Sonoran Desert species and threats, and implement conservation plans supported by the Red Listing process.

**Projected impact 2021–2025**

We strive by the end of 2025 to have made substantial progress towards the ambitious agenda of assessing all Sonoran Desert species. At the same time, we expect to make progress in surveying and removing high priority invasive species through greater coordination. Conservation planning will begin concurrently with the Red List assessments on high priority species chosen through the process of prioritising Sonoran Desert plants for assessment and by working with other specialist groups to create a comprehensive list of threatened species across taxa.

**Targets 2021–2025**

- ASSESS**
- T-001** Coordinate with other groups to coordinate on overlapping species.  
Status: On track
  - T-002** Complete assessments for 250 Fabaceae species.  
Status: On track

- T-004** Submit three funding proposals to support assessments and expert workshops.  
Status: On track
- T-005** Complete a draft list of Fabaceae species endemic to the Sonoran Desert.  
Status: Achieved
- T-010** Develop a threats map of the Sonoran Desert to assist in drafting assessments.  
Status: On track

- PLAN**
- T-008** Initiate conservation planning for threatened plant species in the Sonoran Desert using IUCN conservation planning guidance.  
Status: Not initiated

- ACT**
- T-009** Map distribution and remove priority invasive plant species in the Sonoran Desert.  
Status: On track
  - T-011** Advance *in situ* and *ex situ* conservation (seeds and living collections) of Critically Endangered and Endangered plants and preventive sampling of seeds of the more widely distributed plant taxa.  
Status: Not initiated

- NETWORK**
- T-006** Hold annual SDPSG meetings (possibly during regional meetings).  
Status: On track

- COMMUNICATE**
- T-003** Create and complete logo.  
Status: Achieved
  - T-007** Include sessions/discussion panels on the activities and deliverables of the SDPSG in the Arid Lands Symposium or other relevant regional or international meetings.  
Status: On track

**Activities and results 2022**

- ASSESS**
- Red List**
- T-001** Coordinate with other groups to coordinate on overlapping species. (KSR 6)  
Number of new global Red List assessments completed: 1  
Result description: We continue to coordinate with other groups to ensure that we have no overlapping work. Besides contacting other groups directly, we also look in SIS for draft assessments of Sonoran Desert plants.
  - T-002** Complete assessments for 250 Fabaceae species. (KSR 6)  
Number of global Red List reassessments completed: 69  
Result description: After a review process of eliminating species that were not at least 5% present in the Sonoran Desert and removing species being assessed by other



Mormon Tea (*Sphedra aspera*)  
Photo: Melanie Tluczek

Banana Yucca (*Yucca baccata*)  
Photo: Marianne Jensen

groups, we were left with only 69 Fabaceae species. We have completed draft assessments for all of these, and they are currently in the review process.

**T-004 Submit three funding proposals to support assessments and expert workshops.** (KSR 6)

Number of new global Red List assessments completed: 1

Result description: We received SSC funding for completing the Fabaceae assessment and review process (\$2,500).

**Research activities**

**T-005 Complete a draft list of Fabaceae species endemic to the Sonoran Desert.** (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 1

Result description: We completed the list of 15 Fabaceae species regionally endemic to the Sonoran Desert: 1) *Acmispon rigidus*; 2) *Astragalus aridus*; 3) *Astragalus magdalenae*; 4) *Calliandra californica*; 5) *Dalea mollis*; 6) *Dalea mollissima*; 7) *Desmanthus fruticosus*; 8) *Errazurizia megacarpa*; 9) *Hoffmannseggia microphylla*; 10) *Marina evanescens*; 11) *Marina peninsularis*; 12) *Marina vetula*; 13) *Prosopis articulata*; 14) *Psoralea emoryi*; 15) *Senna covesii*.

**T-010 Develop a threats map of the Sonoran Desert to assist in drafting assessments.** (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 1

Result description: The threats map has been completed and is now useable in a freely available program, QGIS. We have processed 16 possibly threatened Fabaceae species through this tool to identify threats and protections. We plan to publish on the tool in 2023.

**ACT**

**Conservation actions**

**T-009 Map distribution and remove priority invasive plant species in the Sonoran Desert.** (KSR 10)

Number of actions addressing major drivers/emerging threats of species or population loss: 1

Result description: In collaboration with the McDowell Sonoran Conservancy, we have treated over 100 acres of the invasive species buffelgrass and fountain grass.

**NETWORK**

**Membership**

**T-006 Hold annual SDPSG meetings (possibly during regional meetings).** (KSR 2)

Number of SSC members recruited: 0

Result description: Although we did not hold an annual SDPSG meeting, the Chair Helen Rowe made a presentation on the IUCN work we are doing at a regional conference in September 2022. We will look for opportunities this coming year.

**COMMUNICATE**

**Communication**

**T-007 Include sessions/discussion panels on the activities and deliverables of the SDPSG in the Arid Lands Symposium or other relevant regional or international meetings.** (KSR 12)

Number of presentations delivered at scientific events: 1

Result description: Chair Helen Rowe presented the talk 'Sonoran Desert threats and protection mapping for rare, threatened, and endangered plant species' which highlighted our IUCN work at the 16<sup>th</sup> Biennial Conference of Science and Management on the Colorado Plateau and Southwest Region – September 12-16, 2022.

**Acknowledgements**

We thank the SSC grant program for support in completing Fabaceae assessments and McDowell Sonoran Conservancy for providing support for assessing plants of the McDowell Sonoran Preserve. We thank students from Northern Arizona University and Arizona State University for drafting species assessments. We appreciate the time and contributions of the reviewers.

**Summary of achievements**

Total number of targets 2021-2025: 11

Geographic regions: 4 Global, 7 America

**Actions during 2022:**

Assess: 5 (KSR 5, 6)

Act: 1 (KSR 10)

Network: 1 (KSR 2)

Communicate: 1 (KSR 12)

**Overall achievement 2021-2025:**

