



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:

Miller, J, Walker, A, Lyons, T, and Meredith, C. 2023. 2022 Report of the CSS United States: New Mexico BioPark Society. 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

CSS United States: New Mexico BioPark Society



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New Mexico, United States

Mission statement

The Center for Species Survival New Mexico, established in 2018, supports strategic species conservation across the IUCN's Species Survival Commission. From the small cacti of the desert southwest to the bees and butterflies that colour our landscape and the fishes that grace our rivers, we are committed to these organisms, no matter how small. We use tools like the IUCN Red List to produce critical baseline data that guide conservation planning and action. As of June 2022, we have contributed to over 2,000 species-level extinction risk assessments, spanning 96 countries, which will inform conservation measures taken by the ABQ BioPark, our partners in New Mexico and conservationists worldwide.

Projected impact 2021-2025

Not stated.

Targets 2021-2025

ASSESS

T-002 In partnership with The Red List Unit, offer Red List trainings to new Centers for Species Survival, the local community and the broader IUCN SSC Network.
Status: On track

PLAN

T-003 In partnership with the IUCN SSC Conservation Planning Specialist Group, support the development of the Assess to Plan tools and methodology for application in both global and national processes.
Status: On track

ACT

T-007 Add germplasm accessions for 10 threatened plant species not currently known to be held in any collections to the ABQ BioPark seed bank.
Status: On track

T-013 Facilitate the creation of a captive-reared population of the highly threatened Sacramento Mountains Checkerspot Butterfly at the ABQ BioPark.
Status: Achieved

T-019 Support insect monitoring programs to work toward lowering Data Deficiency rates among Red List-assessed invertebrates.
Status: On track

NETWORK

T-004 Continue working with community partners to offer Red List trainings outside of specialist group commitments. This will further knowledge of the Red List among conservation partners, such as local University students and faculty, government agencies and even our own ABQ BioPark staff.
Status: Not initiated

T-005 Support National Reverse the Red pilot efforts, by providing technical training to taxa experts and coordinating parties involved in each step of the One Programme Charter.
Status: On track

T-006 Establish close collaborative ties with local indigenous communities and facilitate seed banking and technical support for conservation initiatives.
Status: Achieved

T-012 Support the establishment of new Centers for Species Survival by facilitating access to necessary tools such as SIS, supporting workplan development with relevant Specialist Group or National stakeholders, and ensuring regular communication between Species Survival Centers.
Status: On track

T-018 Conduct a Gap Analysis on the conservation status and needs of New Mexican species.
Status: Achieved



Clay Meredith and Tim Lyons conducting a rare plant monitoring transect
Photo: Anna Walker

COMMUNICATE

T-009 Communicate the achievements of the Center for Species Survival New Mexico to the SSC Network by contributing one article per year to the SSC Quarterly Report.
Status: On track

T-011 Communicate the work of the Center for Species Survival New Mexico to tax experts, industry professionals and the general public through webinars or presentations.
Status: On track

T-014 Create brand elements, such as a logotype, to facilitate marketing and add visibility to the Center for Species Survival New Mexico.
Status: Achieved

T-015 Contribute articles on species conservation work to the New Mexico BioPark Society's *BioScape* Quarterly Magazine.
Status: On track

T-016 Give interviews to the media on the work of the CSS New Mexico.
Status: On track

T-017 Communicate the work of the Center for Species Survival New Mexico to biologists, conservationists and industry experts at conferences via presentations or posters.
Status: On track

T-020 Contribute conservation themed articles to Scientific Publications.
Status: On track

Activities and results 2022

ASSESS

Red List

T-002 In partnership with The Red List Unit, offer Red List trainings to new Centers for Species Survival, the local community, and the broader IUCN SSC Network. (KSR 6)

Number of people trained in Red List Assessment and/or Red List Trainer Training: 59

Result description: In March of 2022, with help from Monika Bohm (Co-Chair of the Butterfly and Moth Specialist Group), Anna Walker delivered a remote Red List Assessor Training to 12 members of invertebrate IUCN SSC Specialist Groups. In October, 2022, with help from Janet Scott (RLU), Clay Meredith delivered two Red List Trainer Trainings, one in person and one remote, to 12 people. In December, 2022, with help from Monika Bohm (Co-Chair of the Butterfly and Moth Specialist Group), Anna Walker delivered a remote Red List Assessor Training to 35 members of invertebrate IUCN SSC Specialist Groups. Throughout 2022, Clay helped the Red List Unit run a webinar series and was the presenter for the session on Mapping. Webinars reached more than 500 total participants.

PLAN

Planning

T-003 In partnership with the IUCN SSC Conservation Planning Specialist Group, support the development of the Assess to Plan tools and methodology for application in both global and national processes. (KSR 8)

Number of Assess to Plan processes contributed to: 1

Result description: Through the Firefly Specialist Group, we have been collaborating with CPSG to utilize Assess to Plan for a number of Southeast Asian mangrove fireflies.

ACT

Conservation actions

T-007 Add germplasm accessions for 10 threatened plant species not currently known to be held in any collections to the ABQ BioPark seed bank. (KSR 10)

Number of threatened species benefiting from *ex situ* conservation action: 1

Result description: As of the end of 2022, one new species has been added to our germplasm collection (*Astragalus tortipes*). Funding was obtained to expand physical collection space and additional capacity is now in place for long-term storage, funding has been secured for additional collections and at least four new species will be collected in the 2023 field season.



Sacramento Mountains Checkerspot Butterfly caterpillars on New Mexico penstemon host plant
Photo: Anna Walker

T-013 Facilitate the creation of a captive-reared population of the highly threatened Sacramento Mountains checkerspot butterfly at the ABQ BioPark. (KSR 10)

Number of threatened species benefiting from *ex situ* conservation action: 1

Result description: Working with partners including the US Forest Service, the US Fish and Wildlife Service, and the Institute for Applied Ecology, we caught four individuals from the field and transported them to BioPark to start a captive-reared population. We also secured the necessary host plants for the species.

T-019 Support insect monitoring programs to work toward lowering Data Deficiency rates among Red List-assessed invertebrates. (KSR 10)

Number of field seasons where monitoring for butterflies and fireflies has been carried out: 2

Result description: In 2022, we completed our second season of butterfly monitoring through the New Mexico Butterfly Monitoring Network. We had 34 volunteers conducting surveys on 31 routes. We also completed our second season of firefly surveys in the State of New Mexico. We

again partnered with the Western Firefly Project and were able to confirm two sightings submitted by community scientists in New Mexico. Forest fires disrupted many of our survey plans but we were still able to confirm the presence of a firefly in northern New Mexico which is likely another new state record. We were also able to see firefly populations in neighbouring states (Arizona, Utah and Colorado) which will help us put our New Mexican species into context. In addition, we worked with the Xerces Society to roll out a new firefly data entry system that will collect and provide long-term monitoring data for firefly populations.

NETWORK Agreements

T-006 Establish close collaborative ties with local indigenous communities and facilitate seed banking and technical support for conservation initiatives. (KSR 3)

Number of collaborations undertaken: 1

Result description: In 2021 our team signed a cooperative agreement to serve as the seed bank, and to deliver technical support for rare plant monitoring for the Ute Mountain Ute Tribe, which has been operative in 2022 as well.

Capacity building

T-012 Support the establishment of new Centers for Species Survival by facilitating access to necessary tools such as SIS, supporting workplan development with relevant Specialist Group or National stakeholders, and ensuring regular communication between Species Survival Centers. (KSR 1)

Number of training tools/materials created and number of CSS Partners supported: 1
Result description: Our team developed several training resources to guide new Centers for Species Survival through the onboarding process. These resources will be incorporated into the One-Stop-Shop resource center.

T-018 Conduct a Gap Analysis on the conservation status and needs of New Mexican species. (KSR 4)

Number of Gap Analysis Documents Produced: 1

Result description: Our team successfully completed a Gap Analysis on the conservation status of New Mexican taxa, habitats, and ecosystems. This process has helped us better understand where the Center for Species Survival New Mexico can make the biggest impact for species conservation in the State.

COMMUNICATE Communication

T-011 Communicate the work of the Center for Species Survival New Mexico to taxa experts, industry professionals and the general public through webinars or presentations. (KSR 13)

Number of presentations or webinars delivered: 11

Result description: In 2022, we delivered eight presentations to a wide variety of audiences and attended four tabling events to discuss our work with community partners. Presentations included: (1) 'The Power of Community Science Data' for the Illinois Butterfly Monitoring Network, a presentation to members of the Electric Power Research Institute (EPRI) about the IUCN Red List and how the monarch



Jason Schaller, ABQ BioPark Invertebrate Curator, explaining the Sacramento Mountains Checkerspot Butterfly (*Euphydryas anicia cloudcrofti*) rearing set up. Photo: Anna Walker

assessment was made; (2) an October conservation report delivered at the NMBPS Annual Meeting; (3) a conservation presentation to be utilized in ABQ BioPark internal keeper and aquarist training program titled 'Species Conservation at Zoos & Aquariums: A Shared History and Modern Overview'; (4) a guest lecture for University of Florida's Introduction to Herpetology Course titled 'Center for Species Survival New Mexico- Insights Into Red Listing'; (5) a brownbag presentation to all-staff and volunteers at ABQ BioPark titled 'Center for Species Survival New Mexico — An Introduction and Update'; (6) a presentation on 'Trillium Conservation at the ABQ BioPark' to the Native Plant Society of New Mexico; (7) a brownbag presentation for ABQ BioPark staff members entitled 'Crab Apples and Conservation', and (8) a presentation on conservation actions at the BioPark for the Native Plant Society of New Mexico. Table events included: (9) a visit to the UNM Earth Day celebrations to engage students and speak about the value of the IUCN in conservation; (10) a presence at the Botanic Garden for National Public Gardens Day to talk about our work, and (11) an appearance at the Santa Ana Environmental Fair delivering information on conservation projects at the ABQ BioPark and our collaboration with the IUCN.

T-014 Create brand elements, such as a logotype, to facilitate marketing and add visibility to the Center for Species Survival New Mexico. (KSR 12)

Number of brand elements created: 1

Result description: In 2022, our team created a logotype for the Center for Species Survival New Mexico and revised our communication guidelines to ensure the CSS New Mexico brand is featured in outreach and media communication materials.

T-015 Contribute articles on species conservation work to the New Mexico BioPark Society's BioScape Quarterly Magazine. (KSR 13)

Number of articles in the *BioScape* Magazine written by or about the work of the CSS New Mexico: 5

Result description: In 2022, our team authored five articles in *BioScape*. In the summer edition, we contributed with: (1) 'Golden Delicious Conservation: Featuring the crab apple, learn how experts assess a species for the IUCN Red List' and (2) 'Counting Butterflies: Butterfly surveys can offer insight into the status of the insect world and environmental health'. In the winter addition, we contributed with: (3) 'Butterfly Rescue Mission: The small team focused their gaze, hoping for a glimpse of the rare butterfly'; (4) 'It Takes a Village: What happens when the primary food source of an endangered insect is hard to come by?', and (5) 'Species Conservation at the ABQ BioPark'.

T-016 Give interviews to the media on the work of the CSS New Mexico. (KSR 13)

Number of articles run by media (local to international) mentioning the work of the CSS New Mexico: 6

Result description: In 2022, we were interviewed for six media stories about our work. In May, our work on Trillium appeared in the *New York Times*. In July, the *New York Times* picked up another story on the Red List assessment of the Migratory Monarch, which we authored. In July, two stories on our work with fireflies ran. One was by the *Santa Fe New Mexican* and the second was a radio piece that ran on Colorado Public Radio (CPR) highlighting our fieldwork in New Mexico. There was also a WAZA Magazine article on the CSS network and a Freshwater Life blog about Caribbean freshwater fishes.

T-020 Contribute conservation themed articles to Scientific Publications. (KSR 13)

Number of scientific publications authored on: 1

Result description: In 2022, we contributed to one scientific publication on 'The Conservation Status of Trillium in North America'.

Scientific meetings

T-017 Communicate the work of the Center for Species Survival New Mexico to biologists, conservationists and industry experts at conferences via presentations or posters. (KSR 12)

Number of presentations delivered in scientific events: 3

Result description: In 2022, we attended three events: (1) the Coordinator attended the International Firefly Symposium in Gaia, Portugal, in June 2022. She gave a talk on the work of the CSS New Mexico and the Xerces Society in writing North American Firefly IUCN Red List assessments and presented a poster on the projects led by the Xerces Society in response to the assessment project; (2) Tim Lyons attended the CPSG Annual Meeting in October 2022, presenting on shared onboarding resources for the CSS network, and facilitating two additional sessions; (3) Tim Lyons also attended the WAZA Annual Conference in October 2022, presenting as a panellist speaker on Reverse The Red and the CSS network.

Summary of achievements

Total number of targets 2021–2025: 17

Geographic regions: 7 America, 10 Global

Actions during 2022:

Assess: 1 (KSR 6)

Plan: 1 (KSR 8)

Act: 3 (KSR 10)

Network: 3 (KSR 1, 3, 4)

Communicate: 6 (KSR 12, 13)

Overall achievement 2021–2025:

