



2022 Report of the IUCN Species Survival Commission and Secretariat



Stand-alone report IUCN SSC Spider and Scorpion Specialist Group 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.

ASSESS ACT PLAN

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.

Animalia

Fungi

Plantae

National Species

Disciplinary

Action Partnership

Task Force

Red List Authority

Committee

Center for Species Survival

Example for the recommended citation:

Henriques, S, and Bushell, M. 2023. 2022 Report of the Spider and Scorpion 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.



2022 Report

IUCN SSC Spider and Scorpion Specialist Group





CO-CHAIR Sergio Henriques Global Center for Species Survival, Indianapolis Zoo, Indianapolis, US

CO-CHAIR Melissa Bushell Bristol Zoo, UK

Mission statement

The main objectives of the Spider and Scorpion Specialist Group (SSSG) are to assess the extinction risk of a representative sample of arachnid species globally; assist with international law and agreements (e.g. Habitats Directive, Convention on International Trade in Endangered Species – CITES); contribute towards national and regional legislation protecting threatened species; develop scientifically sound species conservation strategies in cooperation with relevant authorities, and promote the public knowledge of arachnids.

Projected impact 2021–2025

Improving the status of threatened arachnids by implementing conservation action based upon sound knowledge, Red List assessments and conservation planning.

Targets 2021–2025

ASSESS

T-001 Assess the extinction risk of *Hypochilus bernardino* and monitor the impact of wildfires on its habitat suitability. Status: Not initiated

T-008 Publish a new assessment of the conservation status of New Zealand spiders. Status: Achieved

RED LIST AUTHORITY COORDINATOR Sergio Henriques Global Center for Species Survival, Indianapolis Zoo, Indianapolis, US NUMBER OF MEMBERS

T-012 Assess arachnid species impacted by trade in Asia. Status: Not initiated

T-013 Assess arachnid species impacted by trade in South America. Status: On track

T-016 Understand how/what/when scorpions impact park rangers in Malawi and adjacent countries. Status: Not initiated

T-017 Assess the extinction risk of the Batu Caves Trap-door Spider (*Liphistius batuensis*).

Status: Achieved

T-018 Assess the extinction risk of Malay Trap-door Spiders (Liphistiidae). Status: Achieved

T-019 Assess the extinction risk of Segmented Ttrap-door Spiders (Liphistiidae) outside of Malaysia. Status: Achieved

T-020 Assess the extinction risk of monogeneric families of spiders. Status: Not initiated

PLAN

T-024 Conservation action plan of the Mexican Black Velvet (*Brachypelma/ Tliltocatl schroederi*). Status: On track

ACT

T-009 Measure the impacts of habitat restoration of a Nature Reserve, by replacing exotic for native vegetation. Status: On track

T-014 Implement captive rearing of the Deserta Grande Wolf Spider (*Hogna ingens*). Status: On track

T-026 Removing the main threat to the Deserta Grande Wolf Spider's habitat – the invasive *Phalaris aquatica*. Status: Achieved

NETWORK

T-007 Participate in an umbrella meeting of regional or habitat-specific Specialist Groups.

Status: On track

T-010 Develop strategic partnerships with cross taxa Specialist Groups. Status: Not initiated

T-015 Engage with the Cactus and Succulent Plants Specialist Group to communicate with Mexican nopal farmers on the importance of spiders as pest control for their crops.

Status: On track

T-022 Engage with local stakeholders on the remaining habitat of *Nemesia berlandi* and the best approaches to protect it. Status: On track



SOCIAL MEDIA AND WEBSITE Facebook: @IUCNSpiders Instagram: @iucnspidersg Twitter: @IUCNSpiderSG An Ox-head-opilion (*Latybunus bucephalus*) from the highlands of Transylvania, Romania Photo: Sergio Henriques



Female of Desertas Wolf Spider (*Hogna ingens*) at London's Zoo Photo: Sergio Henriques



T-023 Support funding application for young SSSG members in the global south. Status: Achieved

COMMUNICATE

T-003 Engage with local stakeholders on the remaining habitat of *Hypochilus bernardino* and the best approaches to protect it.

Status: Not initiated

T-004 Engage local school children at sites of particular conservation interest. Status: Achieved

T-006 Promote spider conservation action on national television.

Status: Achieved

T-021 Find a 'lost species' of Portuguese Trap-door Spider.

Status: On track

T-025 Generation of a profile for the first amazing species of scorpion. Status: Achieved

Activities and results 2022 ASSESS Red List

T-017 Assess the extinction risk of the Batu Caves Trap-door Spider (*L. batuensis*). (KSR 6)

Number of global Red List reassessments completed: 5

Result description: The conservation profile of this species was completed, and local experts are now being contacted to revise it before publication. Range country partners have been involved from the onset and were also updated on progress. Contacts were already initiated with journal editor and the grant provider was also updated via a final grant report. Other narrow-endemic invertebrates to this cave system were also assessed and we aim to publish them all as soon as possible – namely *Damarchus cavernicola*, *Dhanus sumatranus*, *Pseudoparonella doveri* and *Ascetophacus macclurei*.

T-018 Assess the extinction risk of Malay Trap-door Spiders (Liphistiidae). (KSR 6) Number of new global Red List assessments completed: 18

Result description: Data gathering for these species has been completed, and local experts are now being contacted to revise it before publication. Range country partners have been involved from the onset and were also updated on progress. Contacts were already initiated with journal editor and the grant provider was also updated via a final grant report.

T-019 Assess the extinction risk of Segmented Trap-door Spiders (Liphistiidae) outside of Malaysia. (KSR 6)

Number of new global Red List assessments completed: 157

Result description: Data gathering for these species has been completed, and local experts are now being contacted to revise it

Interviews about human wildlife interactions with local inhabitants Photo: Kiran Thapa Magar



before publication. Range country partners have been involved from the onset and were also updated on progress. Contacts were already initiated with journal editor and the grant provider was also updated via a final grant report. Thirty new species belonging to our target taxonomic group have been described since the grant was awarded (145 species were known at the time we submitted the project, 19 of them included in different targets), but we decided that all 175 species of this suborder should be assessed, hence raising the indicator from 127 to 157.

Research activities

T-013 Assess arachnid species impacted by trade in South America. (KSR 5)

Number of research projects completed or supported by SSC members per taxonomic group and region: 0

Result description: Meetings have been held regularly to advance this project and most or all of the data has been analysed, with very meaningful results. The research project has not been completed, but the technical report is progressing well and is close to completion. A funding application was also submitted to continue this line of work.

АСТ

Conservation actions

T-014 Implement captive rearing of the Deserta Grande Wolf Spider (*H. ingens*). (KSR 10)

Number of conservation translocations conducted: 0

Result description: In 2022, 1,257 spiders were reared, held at 11 institutions across Europe, and coordinated as part of a European Zoo captive breeding conservation programme. Habitat work has been completed and surveys are being completed to assess the wild population of the spiders; current indications are that the population is stable and slightly increasing, which is encouraging. This will continue to be assessed in regards to potential reintroductions.

T-026 Removing the main threat to the Deserta Grande Wolf Spider's habitat – the invasive *P. aquatica*. (KSR 10)

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

Result description: Action was taken to reduce the population of the invasive grass *Phalaris aquatica* and to allow the native vegetation to recover.

NETWORK

Synergy

T-007 Participate in an umbrella meeting of regional or habitat-specific Specialist Groups. (KSR 3)

Participation in regional/habitat specific umbrellas groups: 0

Result description: Discussions we initiated to set up an SSC 'Cave Invertebrates Meeting', potentially focused on red listing prioritisation, assessment for planning and declared KBAs, and gathering the leadership of all caves relevant invertebrate committee chairs.

COMMUNICATE

Communication

T-004 Engage local school children at sites of particular conservation interest. (KSR 13) Number of digital communication outputs developed in relation to specific taxonomic groups: 1

Result description: In 2022, we met with children of a small village that is the only known site where a narrow-range species occurs. We encouraged the preservation of local arachnofauna and local children have reported their findings to their teacher, who has been sharing them with us. This approach proved successful, and we are now reaching out to a local institution that works in the area of another narrow-range species, towards making local people aware of it and become empowered to protect it.

T-006 Promote spider conservation action on national television. (KSR 13)

Number of digital communication outputs developed in relation to specific taxonomic groups: 2

Noninvasive monitoring of Haplocosmia nepalensis via photographic records. Photo: Kiran Thapa Magar



Result description: BBC and CBeebies produced and broadcasted a TV show on the importance of spiders and spider captive-rearing projects in the UK.

T-021 Find a 'lost species' of Portuguese Trap-door Spider. (KSR 13)

Number of digital communication outputs developed in relation to specific taxonomic groups: 0

Result description: We are waiting for the project to be completed so that the results can be communicated. Progress was made on the DNA analysis section, as well as the taxonomical revision. Range country partners have been involved from the onset and were also updated on progress. Contacts were already initiated with journal editor and the grant provider was also updated via a final grant report. **T-025** Generation of a profile for the first amazing species of scorpion. (KSR 13)

Number of communication products using innovative tools: 1

Result description: The profile was written, and it is now published on the IUCN Red List.

Acknowledgements

We would like to acknowledge Re:wild for continued support towards spider species in their Lost Species program and for supporting several members of our specialist group to conduct this project. We would also like to thank Bristol Zoo for the support of the *ex situ* project of *Hogna ingens* and their hosting of the group's Co-Chair. To Indianapolis Zoo for all the support in science education on spider species and their hosting of the group's Co-Chair. Finally, we would like to thank the SSC for all their support to our group's work via the EDGE SSC Grant, which is not completed.

Summary of achievements Total number of targets 2021-2025: 23

Geographic regions: 5 Global, 2 Africa, 5 America, 5 Asia, 5 Europe, 1 Oceania

Actions during 2022:

Assess: 4 (KSR 5, 6) Act: 2 (KSR 10) Network: 1 (KSR 3) Communicate: 4 (KSR 13)

Overall achievement 2021-2025:

