



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:

Hochkirch, A, and Umbers, K. 2023. 2022 Report of the Grasshopper Specialist Group. In: Nassar, JM, García, L, Mendoza, L, Andrade, ND, Bezeng, S, Birkhoff, J, Bohm, M, Canteiro, C, Geschke, J, Henriques, S, Ivalde, 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

2022 Report

IUCN SSC Grasshopper Specialist Group



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NUMBER OF MEMBERS

130

SOCIAL MEDIA AND WEBSITE

Facebook: IUCN SSC Grasshopper
Specialist Group

Mission statement

The mission of our group is to foster the conservation of orthopteroid insects, i.e., Grasshoppers, Katydid, Crickets, Mantids, Stick Insects, and their habitats around the world. We assess their conservation status, raise awareness, and engage in practical conservation of this amazing and highly diverse group of insects.

Projected impact 2021–2025

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

Targets 2021–2025

ASSESS

T-002 Complete Red List assessments of 200 Tanzanian Orthoptera species.
Status: Not initiated

T-004 Complete Red List assessments of Razor-Backed Bush-Hoppers (Xyronotidae).
Status: On track

T-005 Complete Red List assessments of Tanoceridae Grasshoppers.
Status: On track

T-006 Complete Red List assessments of 100 Malagasy Grasshoppers.
Status: On track

T-007 Complete Sampled Red List Index for Orthoptera.
Status: On track

T-008 Develop monitoring standards for Orthoptera in Europe.
Status: Not initiated

T-009 Complete Red List assessments of Socotran Endemic Orthoptera.
Status: On track

T-010 Complete Red List assessments of Dichoroplina Grasshoppers from South America.
Status: On track

T-011 Complete Red List assessments of Grasshoppers from the Western Ghats (India).
Status: On track

T-016 Complete Red List assessments of Orthoptera species from Pakistan.
Status: On track

T-017 Complete Red List assessments of North American Mantises.
Status: Not initiated

T-019 Complete Red List assessments of Anatolian *Saga* species.
Status: On track

T-020 Examine the effects of land use changes in dry karst regions on threatened Orthoptera.
Status: Not initiated

T-021 Examine the effects of wildfires on the Madeiran Green Bush-cricket (*Psalmatophanes barretoii*).
Status: Achieved

T-022 Examine the effects of wildfires on Australian Orthoptera.
Status: Achieved

T-023 Complete Red List assessments of Cameroon endemic Orthoptera species.
Status: On track

T-030 Complete Red List assessments of Vietnamese Mantodea.
Status: Not initiated

PLAN

T-018 Develop a conservation strategy for Bei-Bienko's Plump Bush-cricket (*Isophya beybienkoi*) in Slovakia.
Status: On track

T-025 Update the conservation strategy for Crau Plain Grasshopper (*Prionotropis rhodanica*).
Status: On track

ACT

T-012 Implement the conservation action plan for Adriatic Marbled Bush-cricket (*Zeuneriana marmorata*) in Italy.
Status: On track

T-013 Implement the conservation action plan for Adriatic Marbled Bush-cricket (*Z. marmorata*) in Slovenia.
Status: On track



Female of the Critically Endangered Albanian Saddle Bush-cricket (*Uromenus dyrrhachiacus*)
Photo: Michèle Lemonnier-Darcemont

T-014 Conduct population monitoring for the Atlantic Beach-cricket (*Pseudomogoplistes vicentae*) in the British Isles.

Status: On track

T-024 Implement guidelines for the protection of the Giant-cricket (*Brachytrupes megacephalus*).

Status: Not initiated

T-026 Implement the conservation strategy for Crau Plain Grasshopper (*P. rhodanica*).

Status: On track

T-027 Translocate the Common Field-cricket (*Gryllus campestris*) in Cologne.

Status: Achieved

T-028 Develop and implement habitat management for the Common Saw Bush-cricket (*Barbitistes serricauda*).

Status: On track

T-032 Implement the conservation strategy for the Cika Mountain Grasshopper (*Peripodisma ceraunii*).

Status: On track

T-038 Submission for legal protection of Mt. Buffalo Skyhopper (*Kosciuscola restrictus*) on the Environment Protection and Biodiversity Conservation Act (EPBCA).

Status: Not initiated

T-039 Implement conservation measures for the Albanian Saddle Bush-cricket (*Uromenus dyrrhachiacus*).

Status: On track

NETWORK

T-001 Organise the Third European Congress on Orthoptera Conservation.
Status: Achieved

T-033 Hold virtual meetings of the Grasshopper Specialist Group.
Status: Achieved

T-034 Expand the membership of the Group by adding more phasmid experts.
Status: Achieved

T-036 Organise a symposium on *Prionotropis* conservation.
Status: Achieved

T-040 Expanding membership in Asia.
Status: Not initiated

T-041 Organise the 2nd Symposium on Grasshoppers.
Status: Not initiated

COMMUNICATE

T-029 Publish the next volume of the *Newshopper*.
Status: On track

Activities and results 2022

ASSESS Red List

T-004 Complete Red List assessments of Razor-backed Bush-hoppers (Xyronotidae). (KSR 6)

Number of new global Red List assessments completed: 0

Result description: In 2022, Ricardo Mariño-Pérez conducted two expeditions to find Tanaoceridae (California and Nevada, USA) and Xyronotidae (Veracruz, Oaxaca and Chiapas, Mexico). These expeditions were funded by the SSC EDGE Internal Grants. The data will now be used to update the Red List assessments.

T-005 Complete Red List assessments of Tanaoceridae grasshoppers. (KSR 6)

Number of new global Red List assessments completed: 0

Result description: In 2022, Ricardo Mariño-Pérez conducted two expeditions to find Tanaoceridae (California and Nevada, USA) and Xyronotidae (Veracruz, Oaxaca and Chiapas, Mexico). These expeditions were funded by the SSC EDGE Internal Grants. The data will now be used to update the Red List assessments.

T-006 Complete Red List assessments of 100 Malagasy grasshoppers. (KSR 6)

Number of new global Red List assessments completed: 0

Result description: Assessments of Malagasy Grasshoppers have been initiated and it is planned to submit 30 assessments in 2023.

T-009 Complete Red List assessments of Socotran endemic Orthoptera. (KSR 6)

Number of new global Red List assessments completed: 0

Result description: Assessments of 29 Socotran endemic Orthoptera have been started and will be submitted in 2023.

T-011 Complete Red List assessments of Grasshoppers from the Western Ghats (India). (KSR 6)

Number of new global Red List assessments completed: 0

Result description: Dhaneesh Bhaskar has created the first draft Red List assessments of Grasshopper species from the Western Ghats (India).

T-019 Complete Red List assessments of Anatolian Saga species. (KSR 6)

Number of new global Red List assessments completed: 0

Result description: Some first-draft assessments of Anatolian Saga species have been created by Denis Şirin.

Research activities

T-021 Examine the effects of wildfires on the Madeiran Green Bush-cricket (*P. barretoii*). (KSR 5)

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

Result description: Howon Rhee and co-researchers have published a paper on the effects of wildfires on the Madeiran Green Bush-cricket (*P. barretoii*) and the Gran Canaria Green Bush-cricket (*Calliphona alluaudi*) (Rhee, H, et al. (2022). 'Strong negative effects of recent wildfires on two endemic Macaronesian Bush-crickets'. *Insect Conservation and Diversity*. Found at: <https://doi.org/10.1111/icad.12618>).

PLAN

Planning

T-018 Develop a conservation strategy for Bei-Bienko's Plump Bush-cricket (*I. beybienkoi*) in Slovakia. (KSR 8)

Number of conservation plans/strategies developed: 0

Result description: In order to develop a conservation action plan for the Bei-Bienko's Plump Bush-cricket (*I. beybienkoi*),

some initial research was undertaken. A total of 213 individuals were found between 2021 and 2022 on all plateaus of the Slovak Karst National Park, doubling the estimated Extent of Occurrence (EOO) from 46 km² to 93.3 km². Some individuals with intermediate morphologies were found, which might be explained by hybridisation with other *Isophya* species. A capture-mark-recapture experiment using a fluorescent dye was carried out on two study sites in 2022. Recaptures of most individuals suggest a very limited dispersal ability of this flightless Bush Cricket. In most cases, recaptured animals were found sitting in the same place compared to previous visits or individuals moved within a very small radius between 2 and 20 m (maximum 62 m). Studies on habitat preferences revealed that the major habitat of this rare species is sub-xerophilous fringe vegetation in contact zones with xero-thermophilous grasslands and broad-leaved semi-dry grasslands. The major threats to the Bei-Bienko's Plump Bush-cricket are habitat degradation through succession of plant communities caused by grassland abandonment, unsuitable times of mowing and grassland use, and habitat degradation due to hunting activities. Most sites with occurrence of Bei-Bienko's Plump Bush-cricket are threatened by secondary succession and thus conversion of grasslands into shrublands and subsequent forests. All results obtained in this project will be a part of the upcoming conservation plan.

T-025 Update the conservation strategy for Crau Plain Grasshopper (*P. rhodanica*). (KSR 8)

Number of conservation plans/strategies updated: 0

Result description: The Crau Plain Grasshopper conservation project is led by the French NGO CEN-PACA. Lisbeth Zechner (CEN-PACA and member of the Grasshopper SG) successfully applied for LIFE funding from the European Commission. In 2023, a

translocation workshop will be held, in order to establish a new population. So far, only three populations of this species are left.

ACT

Conservation actions

T-012 Implement the conservation action plan for Adriatic Marbled Bush-cricket (*Z. marmorata*) in Italy. (KSR 10)

Number of conservation translocations conducted: 0

Result description: The translocation in 2021 led to a successful establishment of a new population in a locality with suitable habitat.

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

Result description: The presence of Adriatic Marbled Bush-cricket at Lisert raised the attention of local authorities, promoting the status of the habitat as a protected area ("biotope").

T-014 Conduct population monitoring for the Atlantic Beach-cricket (*P. vicentae*) in the British Isles. (KSR 10)

Number of monitoring years: 0

Result description: A new population of the Atlantic Beach Cricket was discovered in Pembrokeshire, Wales. Our member Karim Vahed (Buglife) is currently applying for funding to monitor all English populations from 2023-2025.

T-026 Implement the conservation strategy for Crau Plain Grasshopper (*P. rhodanica*). (KSR 10)

Number of conservation translocations conducted: 0

Result description: First analyses of potentially suitable translocation sites for the Critically Endangered Crau Plain Grasshopper have been made and a translocation strategy will be drafted in 2023. A workshop will be held in March 2023 to compile the translocation strategy, which will then be implemented in 2024.

A male of the Madeiran Green Bush-Cricket (*Psalmatophanes barretoii*). Vulnerable in IUCN Redlist
Photo: Howon Rhee



Number of species with increased or prevented decrease in population or range size, as a result of conservation actions: 0

Result description: Conservation management in the remaining habitats of the Crau Plain Grasshopper has been adapted with fencing an important area in Peau de Meau to avoid negative effects from grazing. A translocation strategy is currently being drafted so that the species will likely increase in range in the near future.

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

Result description: LIFE funding has been secured (1.9 million euros) to ensure adequate conservation management of the remaining populations of the Crau Plain Grasshopper. More information at: <https://www.lifecriquetdecrau.com/en/>.

Number of areas under management for the species or group of species: 1

Result description: Grasshopper-friendly management is carried out on the Peau de Meau site for the Crau Plain Grasshopper.

T-028 Develop and implement habitat management for the Common Saw Bush-cricket (*B. serricauda*). (KSR 10)

Number of technical consultations provided to support conservation actions: 1

Result description: As a first result of the project to preserve the Common Saw Cricket, a forester has made a pledge to convert a spruce plantation and a Douglas-fir (*Pseudotsuga menziesii*) plantation in Germany into natural oak-dominated forest types.

T-032 Implement the conservation strategy for the Cika Mountain Grasshopper (*P. ceraunii*). (KSR 10)

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

Result description: A conservation action plan for the Cika Mountain Grasshopper was coordinated by Michèle Lemonnier-Darcemont and Christian Darcemont in collaboration with local stakeholders. This plan is now being implemented.

Number of areas under management for the species or group of species: 1

Result description: Conservation management of the habitat of the Cika Mountain Grasshopper in Llogara National Park is now following advice from the Conservation Action Plan for this species.

T-038 Submission for legal protection of Mt. Buffalo Skyhopper (*K. restrictus*) on the Environment Protection and Biodiversity Conservation Act (EPBCA). (KSR 10)

Number of technical documents provided to support conservation actions: 1

Result description: Invertebrates Australia is currently assessing the species Mt. Buffalo Skyhopper against the EPBC Act criteria based on the impacts of fire on its already restricted range.

T-039 Implement conservation measures for the Albanian Saddle Bush-cricket (*U. dyrrhachiacus*). (KSR 10)

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

Result description: The Albanian Saddle Bush-cricket is endemic to a small area around Durres, Albania. Most populations went extinct due to urbanization and industrial development. One new population was discovered in 2022, which is also threatened by construction works. Michèle Lemonnier-Darcemont has successfully applied for funding from the Mohamed bin Zayed Species Conservation Fund to start an *ex situ* breeding programme to save the species from extinction.

NETWORK

Membership

T-001 Held the Third European Congress on Orthoptera Conservation. (KSR 2)

Congress completed: Achieved.

Result description: The Third European Congress on Orthoptera Conservation was held from 31 March to 2 April 2022 in Leiden, Netherlands. The congress was very successful, with about 150

participants, of which 60 were present in Leiden. Highlights were a pub quiz and the naming of a new species of *Leptophyes* (*Leptophyes axeli*) after Axel Hochkirch, the founder of the congress. Links to the lectures and photos can be found on the congress page:

<https://www.grasshoppersofeurope.com/content/european-congress-orthoptera-conservation-ecociii-1-2-april-2022>.

Acknowledgements

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Summary of achievements

Total number of targets 2021–2025: 36

Geographic regions: 6 Global, 3 Africa, 4 America, 6 Asia, 15 Europe, 2 Oceania

Actions during 2022:

Assess: 7 (KSR 5, 6)

Plan: 2 (KSR 8)

Act: 12 (KSR 10)

Network: 1 (KSR 3)

Overall achievement 2021–2025:

