



# 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.

Animalia

Fungi

Plantae

National Species

Disciplinary

Action Partnership

Task Force

Red List Authority

Committee

Center for Species Survival

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### Recommended citation:

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## 2022 Report

# IUCN SSC Bryophyte Specialist Group



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#### RED LIST AUTHORITY COORDINATOR

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#### NUMBER OF MEMBERS

35

#### SOCIAL MEDIA AND WEBSITES

Website: <https://iucn.org/our-union/commissions/group/iucn-ssc-bryophyte-specialist-group>

### Mission statement

The mission of the IUCN SSC Bryophyte Specialist Group (BSG) is to promote the exploration of bryological diversity across all geographic scales and its long-term conservation.

### Projected impact 2021–2025

For this quadrennium, we established several targets that will increase the number of bryophyte species (re-)assessed at the global scale, following the latest IUCN Red List guidelines, and highlight the threatened bryophyte species in publications addressing different readerships. We also collaborate closely with expert bryologists around the globe to Red List bryophytes at regional scales and to provide related information to national authorities. This will raise the awareness of extinction risk that these inconspicuous organisms currently face and provide the necessary critical information for effective conservation actions. Based on the recently published comprehensive assessment of the threat status of 1,800 European bryophytes in the European Red List of Mosses, Liverworts

and Hornworts (Hodgetts, N., Cáliz, M., Englefield, E., Fettes, N., Criado, M.G., Patin, L. et al. (2019) A miniature world in decline: European Red List of mosses, liverworts and hornworts. Brussels: IUCN, International Union for Conservation of Nature. Available from: <https://doi.org/10.2305/IUCN.CH.2019.ERL.2.en>), we now work on identifying the species that warrant highest conservation priority in Europe. We also collaborate with the European Committee for Conservation of Bryophytes (ECCB) to define 'Important Bryophyte Areas' for Europe, based on Hodgetts et al. (2019). These will be key tools to inform policy decision makers to make relevant priorities for an efficient use of the resources available for biodiversity conservation in Europe.

### Targets 2021–2025

#### ASSESS

**T-001** Top 10 Initiative: Reinforce the work on global bryophyte red listing.  
Status: On track

**T-004** Produce Bryophyte Specialist Group publications.  
Status: On track

**T-008** Reassess species in the current Bryophyte Red List.  
Status: On track

**T-009** Investigate invasive bryophyte species.  
Status: On track

**T-010** Identify Important Bryophyte Areas (IBrA) in Europe.  
Status: On track

**T-012** Finalise national reassessment of all bryophyte species in Switzerland.  
Status: On track

**T-015** Finalise Red List Assessment of Colombian bryophytes.  
Status: Achieved

#### NETWORK

**T-002** Train bryologists in IUCN Red List assessments.  
Status: On track

**T-006** Maintain relationship with the International Association of Bryologists (IAB).  
Status: On track

**T-007** Assure that SSC Plant Conservation Committee considers bryophytes.  
Status: On track

#### COMMUNICATE

**T-011** Develop a new Bryophyte Specialist Group website.  
Status: On track

*Capillolejeunea mascarena* (Lejeuneaceae), on tree root buttress in lowland tropical forest, a threatened habitat, Forêt de Mare Longue, La Réunion. Only found on Indian Ocean Islands  
Photo: Des Callaghan



*Nyholmiella gymnostoma*, with its typical leaf-borne gemmae, grows as an epiphyte on rich bark  
Photo: Lars Hedenäs



*Fissidens ah-pengae* (Fissidentaceae), on tree trunk in lowland tropical forest, a threatened habitat, Forêt de Mare Longue, endemic to La Réunion  
Photo: Des Callaghan



## Activities and results 2022

### ASSESS

#### Red List

##### **T-001 Top 10 Initiative: Reinforce the work on global bryophyte red listing.** (KSR 6)

Number of new global Red List assessments completed: 0

Result description: We provided support to a BSG member from Brazil, Paulo Camara, for a project including bryophyte diversity and conservation studies on Antarctica. We were able to make small progress in the Top-10 of South America project since Paulo Camara joined the project, while the project leader Juan Larraín remains busy with consulting work.

##### **T-008 Reassess species in the current Bryophyte Red List.** (KSR 6)

Number of global Red List reassessments completed: 0

Result description: Planning for an online “kick-off” BSG meeting, 16 March 2023, started. One point on the agenda is the revision of outdated Red List assessments. Relates to the target under KSR2.

##### **T-012 Finalise national reassessment of all bryophyte species in Switzerland.** (KSR 6)

Number of national Red List reassessments published: 1,100

Result description: The revision of the Red List of threatened bryophytes of Switzerland which was mainly done by Swissbryophytes (<https://swissbryophytes.ch/index.php/de/>) is finished and will be published in 2023 by the Swiss Federal Office of the Environment. The BSG Red List Authority coordinator, Ariel Bergamini, closely collaborated with Swissbryophytes and is a co-author of the list.

##### **T-015 Finalise Red List Assessment of Colombian bryophytes.** (KSR 6)

Number of new national Red List assessments published: 0

Result description: Carolina Castellanos (IUCN Colombian Plant specialist group chair) and her team have incorporated the reviewers' comments in the Red List assessments of Colombian endemic bryophytes. After an IUCN-internal language check, the final final assessments were published late 2022 at [www.icun.org](http://www.icun.org).

#### Research activities

##### **T-004 Produce Bryophyte Specialist Group publications.** (KSR 5)

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

Result description: Published. Co-Chair Irene Bisang of BSG is co-author and SSC affiliation is mentioned. Callaghan D.A., Aleffi M., Alegro A., Bisang I. et al. (2022). ‘Global geographical range and population size of the habitat specialist *Codonoblepharon forsteri* (Dicks.) Goffinet in a changing climate’. *Journal of Bryology* 44: 35-40. Submitted to *Bryological Times*. Co-Chairs and Red List Authority coordinator of BSG are the authors. Van Rooy J., Bergamini A. & Bisang I. ‘IUCN SSC Bryophyte Specialist Group reconstituted’.

##### **T-009 Investigate invasive bryophyte species.** (KSR 6)

Number of new invasive species accounts on the Global Invasive Species Database (GISD): 0

Result description: Master project accomplished: Jonathon Winnel, University of Stockholm, Co-Chair Irene Bisang main supervisor. ‘Impacts of the Heath Star Moss (*Campylopus introflexus*) on Entomofauna in Sweden’. Publication planned for 2023. No invasive bryophyte species were identified in South Africa.

##### **T-010 Identify Important Bryophyte Areas (IBrA) in Europe.** (KSR 6)

Number of new Key Biodiversity Areas confirmed in the World Database of KBAs (WDKBA): 1



*Ulota ecklonii* (Orthotrichaceae), on branch  
of shrub in the Fynbos Biome, Table Mountain,  
Western Cape, South Africa  
Photo: Des Callaghan



*Wardia hygrometrica* (Dicranaceae), on boulder in cascade of stream, Kirstenbosch Botanical Garden, endemic to the Western Cape, South Africa  
Photo: Des Callaghan

Result description: Funding was applied for the Indianapolis Zoo Short Term Grants, in collaboration with the European Committee for Conservation of Bryophytes (ECCB), for defining Important Bryophyte Areas based on 100,000 location data compiled by Nick Hodgetts. Decision on funding due January 2023.

#### NETWORK

##### Capacity building

**T-002 Train bryologists in IUCN Red List assessments.** (KSR 2)

Number of people trained in assessment tools: 0

Result description: As for the current Quadrennium, we have many new BSG members who are not yet familiar with IUCN, the BSG and red listing. We settled for an online “kick-off” meeting for all BSG members on 16 March 2023; planning started. This meeting will also include basic information on how to conduct IUCN red listing, and will provide sources of further education, such as webinars. The need for a regional RL workshop will be assessed.

##### Synergy

**T-006 Maintain relationship with the International Association of Bryologists (IAB).** (KSR 3)

Bryophytes, and their specific features, are included, acknowledged and communicated by SSC Plant Conservation Committee, as plants: Ongoing.

Result description: During 2022, no IAB conservation award was announced. A manuscript on the re-constituted Bryophyte Specialist Group and its goals was submitted to *Bryological Times*, the newsletter of IAB (to be published in spring 2023).

**T-007 Assure that SSC Plant Conservation Committee considers bryophytes.** (KSR 3)

Bryophytes, and their specific features, are included, acknowledged and communicated by SSC Plant Conservation Committee, as plants: Ongoing.

Result description: Fruitful contact with Catia Canteira was maintained. Co-Chair Irene Bisang participated in the IUCN SSC Plant Group meeting (ZOOM, 13 Oct 2022) and presented two major current projects with strong involvement of BSG Priority species for conservation Europe, modelling extinction risk of European bryophytes.

#### COMMUNICATE

##### Communication

**T-011 Develop a new Bryophyte Specialist Group website.** (KSR 12)

An informative, attractive, and up-to-date website with relevant information on bryophyte conservation: Ongoing.

Result description: Possibilities for a new BSG website were further discussed (content, responsibilities, technical implementation, costs), but nothing has yet been decided.

#### Acknowledgements

Irene Bisang, Jacques van Rooy and Ariel Bergamini acknowledge the continuous encouragement and financial support of their employers (Swedish Museum of Natural History, South African National Biodiversity Institute and Swiss Federal Research Institute).

#### Summary of achievements

**Total number of targets 2021–2025: 11**

**Geographic regions: 8 Global, 2 Europe, 1 America**

**Actions during 2022:**

Assess: 8 (KSR 5, 6)

Network: 3 (KSR 2, 3)

Communicate: 1 (KSR 12)

**Overall achievement 2021–2025:**

