

2021 Report

IUCN SSC Bryophyte Specialist Group



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NUMBER OF MEMBERS

31

SOCIAL MEDIA AND WEBSITES

Website: https://eccbbryo.nhmus.hu/BSG_initial



Abietinella abietina, a common and widespread moss of base-rich habitats rarely reproduces sexually. On the image, a sporophyte, the sexual generation in the bryophyte life cycle
Photo: Lars Hedenäs

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. et al. 2019. *A miniature world in decline: European Red List of Mosses, Liverworts and Hornworts*. Brussels, Belgium: IUCN. <https://doi.org/10.2305/IUCN.CH.2019.ERL.2.en>), we now work on identifying the species that



Ulotia bruchii, which somehow mimics the Corona-virus...
Photo: Ariel Bergamini

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.

T-004 Produce Bryophyte Specialist Group publications.

T-008 Reassess species in the current Bryophyte Red List.

T-009 Investigate invasive bryophyte species.

T-010 Identify Important Bryophyte Areas (IBrA) in Europe.

T-012 Finalise national reassessment of all bryophyte species in Switzerland.

T-013 Finalise Red List of Pottiaceae of South Africa.

T-014 Analyse the endemic bryophyte element of southern Africa.

NETWORK

T-002 Train bryologists in IUCN Red List assessments.

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

T-007 Assure that SSC Plant Conservation Committee considers bryophytes.

COMMUNICATE

T-011 Develop a new Bryophyte Specialist Group website.

Activities and results 2021

ASSESS

Red List

T-001 (KSR 6)

Number of new global Red List assessments completed: 50

Result description: Work on the Top 10 initiative is ongoing, currently focusing on South America, but slow as regional bryologists cannot spend much time on the task due to economic reasons. Nevertheless, there was considerable progress in Red List assessments on a global scale due to the assessment of approx. 50 bryophyte species endemic to Columbia. The project was led by Nelson Salinas (a postdoc at the Instituto Humboldt of Colombia and Red List Authority for the IUCN SSC Colombian Plant Specialist Group) and Carolina

Castellanos (IUCN SSC Colombian Plant Specialist Group Co-Chair). Data on the bryophytes were compiled by Angelica Aponte and Jaime Uribe, both from the Colombian National Herbarium. The actual assessments were done in a workshop attended by five additional bryophyte specialists: Jaime Aguirre (Colombian National Herbarium), Wilson Álvaro (Herbario Amazónico Colombiano), Laura Campos (Herbario Museo de La Salle Bogotá), Catalina Montoya (Herbario Universidad de Antioquia), and Bernardo Ramírez (Herbario Universidad del Cauca). The bryological and biological data in the assessments have been reviewed by the BSG members Denise Costa, Yelitza Leon and César García, under the guidance of Ariel Bergamini and Irene Bisang. The assessments will now be revised by Nelson Salinas and Carolina Castellanos, and then assessments checked by a Spanish speaker before they will be ready for publication.

T-008 (KSR 6)

Number of global Red List reassessments completed: 0

Result description: Work on this target will be initiated in 2022.

T-012 (KSR 6)

Number of national Red List reassessments published: 0



Polytrichum piliferum, the Bristly haircup moss in its winter mood
Photo: Irene Bisang



Anthoceros neesii in an arable field; one of the few endemic bryophytes in Central Europe
Photo: Lars Hedenäs

Result description: The list, which contains a revised Red List status for all 1,100 bryophyte species occurring in Switzerland, has been submitted to the Federal Office for Environment. Publication of the list is expected in 2022.

T-013 (KSR 6)

Number of new national Red List assessments published: 5

Result description: The student Tsepo Hlasoa re-registered for the MTech. degree in Nature Conservation at Tshwane University of Technology. He completed Red List assessment forms for 96 species in 38 genera of Pottiaceae. The conservation status of the species was determined using IUCN Red List methodology. Corrections to a draft of the thesis are in progress.

Research activities

T-004 (KSR 5)

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

Result description: Callaghan et al. submitted a paper to the *Journal of Bryology*: 'Global geographic range and population size of the habitat specialist *Codonoblepharon forsteri* (Dicks.) Goffinet in a changing climate'.

T-009 (KSR 6)

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

Result description: A project by a Master's student, led by the Swedish Museum of Natural History and Stockholm University, investigates the effect of the invasive moss *Campylopus introflexus* on a selected entomofauna. No knowledge of invasive bryophyte species in southern Africa, but the survey will be expanded to include other experts on the bryophyte flora of the region.

T-010 (KSR 6)

Number of new Key Biodiversity Areas confirmed in the World Database of KBAs (WDKBA): 0

Result description: This work is in collaboration with the European Committee for Conservation of Bryophytes (ECCB). Nick Hodgetts is commissioned and funded by the National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland, until 2022.

T-014 (KSR 5)

Number of scientific publications about species research that acknowledge SSC affiliation: 3

Result description: The student Nonkululo Phephu re-registered for a PhD degree at the University of the Witwatersrand. Progress was slow, but she did present the paper 'Centres of bryophyte endemism in southern Africa' at the Bryophytes, lichens, and northern ecosystems in a changing world (BL2021) online conference, on 8 July 2021.

NETWORK

Capacity building

T-002 (KSR 2)

Number of people trained in assessment tools: 0

Result description: Our plan is that we can finance and hold a regional Red Listing workshop during this first year of the 2021–2025 period. We are currently discussing suitable localities and funding possibilities.

Synergy

T-006 (KSR 3)

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

Result description: March 2021: we participated in the announcement of the IAB Conservation Award, and in establishing the Evaluation Committee. There were no applicants due to travel restrictions caused by the pandemic situation. The award was put forward to 2022.

T-007 (KSR 3)

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

Result description: On request by Domitilla Raimondo, IUCN Red List Committee Plant Representative, we communicated the BSG Red List targets for the 2021–2025 period (29 September 2020). We are maintaining contacts with Cátia Canteiro, Plants and Fungi Conservation Coordinator, raising the need for increased visibility of bryophytes.

COMMUNICATE

Communication

T-011 (KSR 12)

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

Result description: Content from the previous (current) BSG website at https://eccb-bryo.nhmus.hu/BSG_initial is downloaded, permission at wsl.ch obtained, infrastructure secured, and presentation of current and new content is under development.

Acknowledgements

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Summary of achievements

Total number of targets 2021–2025: 12

Geographic regions: 8 Global, 2 Africa, 2 Europe

Actions during 2021:

Assess: 8 (KSR 5, 6)

Network: 3 (KSR 2, 3)

Communicate: 1 (KSR 12)

Overall achievement 2021–2025:

