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

Projected impact for the 2017-2020 quadrennium
By the end of 2020, we expect that substantially more bryophyte species will be properly assessed or reassessed at the global scale, following the latest IUCN guidelines. We expect the European Red List of Threatened Bryophyte Species, to be published in autumn of 2019, will support priority making for conservation actions and inform policy decisions on biodiversity conservation in Europe. It will serve as a critical instrument to measure some aspects of the progress towards achieving the EU 2020 Biodiversity strategy. The European Committee for Conservation of Bryophytes (ECCB) currently works on defining 'Important Bryophyte Areas' for Europe, based on the European Red List data. Many members of the Bryophyte Specialist Group (BSG) and other bryologists are now, after having attended the IUCN Red Listing workshop (https://www.bryology2019.com/iucn-red-listing-workshop/), familiar with the IUCN methodology for Red List assessment and its application. Several work on assessing species for the global Red List, while others focus on national and regional levels.

Targets for the 2017-2020 quadrennium
Assess
Red List: (1) complete assessment of 1,800 European bryophytes and publication of a European bryophyte Red List; (2) Top 10 Initiative; (3) Red List assessment of all Swiss bryophytes; (4) Red List assessment of South African Pottiaceae; (5) critical terms necessary for the application of Red List categories and criteria refined to be suitable for clonal organisms, and consistently used in the assessments of European bryophytes.
Research activities: analysis of the endemic bryophyte elements of southern Africa (South Africa, Botswana, Namibia, Swaziland, Lesotho).

Network
Capacity building: capacity building among BSG members through a training workshop on IUCN Red List methodology.

Communicate
Communication: publish paper on the most strongly threatened African bryophytes.

Activities and results 2019
Assess
Red List
i. For assessment of European bryophytes, 1,817 species were considered, 1,796 assessments were completed, and 21 species were Not Assessed. The European Red List has been published (ISBN: 978-2-8317-1994-8, print version): Hodgetts N., et al. (2019). A miniature world in decline: European Red List of Mosses, Liverworts and Hornworts. Brussels, Belgium: IUCN. Assessments were conducted in the IUCN SIS database and published on the IUCN Red List website (https://www.iucnredlist.org/). Endemic species were assessed, mapped and published at the global level. (KSR #1, 2)
ii. The list of Top 10 African species has been published, but not yet assessed. Sporobolus brasiliensis Warnst., endemic to a very small area in Brazil, was assessed, reviewed, and submitted to IUCN for publication. Contacts were established with botanists in Chile, Borneo, US, Canada, Australia and Switzerland, who plan to work on Top 10 for South America, Southwest Asia, Oceania, North America, Australia, and Europe. (KSR #1, 2)

iii. Approximately half of the 1,100 bryophyte species of Switzerland have been evaluated in 2019. The revision of the national Red List of threatened bryophytes of Switzerland makes good progress, the aims for 2019 have been reached and the list will be finished in 2020. The revision is mainly done by the Swiss bryophytes Network (www.swissbryophytes.ch). The BSG Red List Authority Coordinator has an advisory role. (KSR #1, 2)

Research activities

i. Student re-registered at Wits University for 2019. The databases were completed, and the student is working on a draft manuscript analysing endemism (Centres of Endemism and Areas of Endemism) in southern Africa. The student presented the poster ‘Centres of endemism across mainland Africa and adjacent islands’ by Phephu, N., Witkowski, E.T.F., Van Rooy, J., Sim-Sim, M.M., and Papo, L., at Island Biology 2019 – III International Conference on Island Evolution, Ecology, and Conservation, held 8–13 July 2019, at the University of La Réunion, Saint-Denis, La Réunion Island, France. (KSR #26, 43)

Network

Capacity building

i. Twenty-nine bryologists participated in the workshop on IUCN Red Listing methodology. The IUCN Red Listing workshop was held as a pre-conference event (before the IAB IMOSS SEB 2019 Conference) on 7–8 July 2019, in Royal Botanic Garden in Madrid. Two certified facilitators from the IUCN Centre for Mediterranean Cooperation Malaga, the IUCN Global Species Programme Red List Unit Cambridge, the Royal Botanic Garden (RBG, CSIC) Madrid, and the International Association of Bryologists. Jacques van Rooy, Ariel Bergamini and Irene Bisang acknowledge the continuous encouragement and financial support of their employers (South African National Biodiversity Institute, Swiss Federal Research Institute, Swedish Museum of Natural History). Special thanks to Jesus Muñoz (RBG) and Olivier Hasinger, former SSC Network Coordinator, for their facilitation of the Red Listing training.

Summary of activities 2019

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Main KSRs addressed: 1, 2, 5, 26, 43

Acknowledgements

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