

2021 Report

IUCN SSC China Plant Specialist Group



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NUMBER OF MEMBERS

98

Mission statement

The mission of the China Plant Specialist Group (CPSG) is to contribute to increasing current knowledge on the identification and conservation of threatened species of China's flora.

Projected impact 2021–2025

Ca. 4,000 threatened species, 11% of China's flora, assessed first in 2013 and updated in 2020, will be fully documented by publications and be widely applied to guide flora conservation at national and provincial levels by organising a training course, workshops and other actions.

Targets 2021–2025

ASSESS

T-008 Publish a book on seed plants of China: checklist, uses and conservation status.

ACT

T-007 Conduct an Orchid Diversity Survey in China.

NETWORK

T-005 Reorganise China Plant Specialist Group (CPSG) membership in the quadrennium 2021–2025.

COMMUNICATE

T-006 Organise two symposiums on endangered plants online.

Activities and results 2021

ASSESS

Red List

T-008 (KSR 5)

Number of publications produced in SSC group: 1

Result description: Qin published the book *Seed plants of China: checklist, uses and conservation status*. This book contains more than 35,000 species of wild seed plants and important cultivated plants in China. The information on each species includes catalogues, resource utilisation and threatened status. Catalogue information includes name, life forms, altitude, domestic and international distribution, etc. The status of threatened species includes IUCN Red List category, whether it belongs to the List of National Key Protected Wild Plants in China and the appendix of CITES, etc. This book represents a major stepping stone on the pathway to national biodiversity survey, monitoring and assessment,

resource conservation and sustainable utilisation, and is an indispensable resource for anyone working on botany, ecology research and teaching, agriculture, forestry and environment.

ACT

Conservation actions

T-007 (KSR 10)

Number of actions addressing major drivers/emerging threats of species or population loss: 8

Result description: I. Orchid conservation biology: (1) pollination biology, (2) population genetics and (3) mycorrhizal associations. II. National orchid conservation actions: (1) orchid diversity survey in China, (2) revision of the List of National Key Protected Wild Plants, (3) important ecological programmes, (4) construction of protected areas with national parks as the main body, (5) other actions.

T-007 (KSR 10)

Number of threatened species benefiting from in situ conservation action: 1,166

Result description: Our analyses based on botanical surveys and specimen information indicated that approximately 1,100 species (ca. 65%) are found in national



Conservation biology of
Paphiopedilum gratrxianum Rolfe
Photo: Xiaohua Jin

protection list and priority area identification, regional protection status, group protection status, endangered mechanism and four other topics. The presentations included the investigation and monitoring of rare and endangered protected plants and important distribution areas, the analysis of risk factors and mechanisms, the development of endangered protection list, in situ and ex situ protection actions and technologies, as well as protection effect evaluation and protection countermeasures, and involves many disciplines such as taxonomy, phylogeny, species genetics, community ecology, cultivation and so on. Dr Haining Qin pointed out in the summary that the presentations of this meeting represent the latest scientific research achievements of rare and endangered protected plants in China in recent years, and the participants benefited a lot and discussed greatly. On behalf of the organising committee, Dr Qin thanked the experts and scholars who gave presentations and said that this is the first National Symposium on endangered plants held by the Red List special committee of China planting Association and IUCN SSC China plant expert group since its establishment, and such academic exchange activities will continue in the future.

Acknowledgements

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Summary of achievements

Total number of targets 2021–2025: 4

Geographic regions: 4 Asia

Actions during 2021:

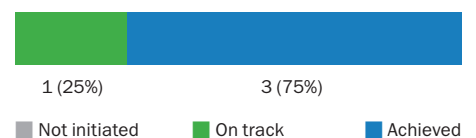
Assess: 1 (KSR 5)

Act: 4 (KSR 10)

Network: 2 (KSR 2)

Communicate: 2 (KSR 12)

Overall achievement 2021–2025:



nature reserves, and another approximately 66 species are found in provincial nature reserves.

T-007 (KSR 10)

Number of threatened species benefiting from ex situ conservation action: 802

Result description: Liu et al. (2020b) reported living collections for approximately 802 Chinese orchid species in at least one botanical garden or state-owned research institute. Based on checklists of Lin (2018) and Huang (2014), orchids from subtropical and tropical regions (southern and eastern China) are well protected in botanical gardens; however, there is a gap in the ex situ conservation of species in alpine and/or northern temperate regions. Among approximately 300 native orchid species in alpine regions and northern China, approximately 50 species are included in living collections in botanical gardens.

T-007 (KSR 10)

Number of quadrats for field investigation: 78,000

Result description: The orchid investigation team has completed the field investigation of about 78,000 quadrats in 16 provinces including Yunnan and Guizhou.

NETWORK

Capacity building

T-005 (KSR 2)

Number of working groups created: 3

Result description: Three working groups have been created: Red List Assessment and Publication Working Group, Red List Application Working Group, and Awareness and Capacities Working Group.

Membership

T-005 (KSR 2)

Number of SSC members recruited: 98

Result description: We reviewed the membership of the group and increased the number of youths and taxonomists by inviting 35 new experts; in addition, we invited 15 members of the CPSG during the last quadrennium to renew their membership. Most of the members are major in Plant Taxonomy and Systematics, Biodiversity, and Plant Resources. One fifth are women

and 80% are senior titles. Among the members, 66 have doctoral degrees and 17 have master's degrees. Nearly 40% of the members come from scientific research institutes, 40% from universities, and the rest from botanical gardens, museums and reserves.

COMMUNICATE

Scientific meetings

T-006 (KSR 12)

Number of presentations delivered in scientific events: 5

Result description: We successfully organised the first online symposium on endangered plants on 13–14 November 2021. There were five presentations about the IUCN Red List delivered in this meeting: (1) Lesson at the works 'Red Data Book of Medicinal Plants in China' by Qi Y.D., The Institute of Medicinal Plant Development; (2) 2020 China Biodiversity Red Lists and their Future Update by Qin H.N., Institute of Botany, the Chinese Academy of Sciences; (3) Comparison of Red Lists of Plants in Northeast Asian countries by Wang H.F., Northeast Forestry University; (4) Assessment and Red List of Endangered Higher Plants in Guangdong Province by Wang R.J., South China Botanical Garden, Chinese Academy of Sciences; (5) Advances in KBA Research in China and Prospects for Investigation and Application related to Plant ES by Wu J.Y., Nanjing Institute of Environmental Sciences, Ministry of Ecology and Environment.

T-006 (KSR 12)

Number of participants: 500

Result description: More than 500 people from the Institute of Botany, Chinese Academy of Sciences, South China Botanical Garden, Kunming Botanical Research Institute, Nanjing Institute of Environmental Sciences, Chinese Academy of Agricultural Sciences, Shenzhen Fairy Lake Botanical Garden, Nanning Normal University, Nanjing Normal University, Sichuan University, Chongqing University, Beijing Normal University and other units registered to attend the meeting. A total of 32 academic reports were set up, including specially invited reports, endangered