



Haining Qin

Chair

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Location/Affiliation

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Number of members

85

Social networks

Chat forum:

WeChat

Website:

www.chinaplantredlist.org



Mission statement

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

Projected impact for the 2017-2020 quadrennium

The CPSG and individual members are committed to threatened species assessment, biodiversity conservation and related activities such as science popularisation. In the past year, members of our group have completed a number of field resource investigations, carried out a number of conservation actions focusing on *ex situ* conservation, provided technical support for local institutions and other organisations in China, and published articles related to biodiversity conservation.

Targets for the 2017-2020 quadrennium

Assess

Red List: complete assessment of 2,000 species of Chinese endemic plants.

Research activities: (1) twenty research articles completed; (2) twenty wild plant resource investigations completed.

Act

Research activities: implement conservation actions related to *ex situ* and *in situ* conservation, including plant introductions.

Network

Capacity building: provide a Conservation Biology course to increase Red Listing capacities.

Activities and results 2018

Assess

Red List

i. The assessment of 2,000 endemic trees is ongoing and we expect to be able to complete it on time. (KSR #2)

ii. Our group participated in the completion of the manuscript of important medicinal plants Red Book in China (nearly 200 species in this manuscript). (KSR #2)

iii. We have launched internal workshops on Red List species assessment and expect to conduct more external technical training courses in mid-2019. (KSR #2)

Research activities

i. We have finished several research articles related to biodiversity: (1) Chen, G., et al. (2018). Conserving threatened widespread species: a case study using a traditional medicinal plant in Asia. *Biodiversity and Conservation* 28 (1): 213–227; (2) Zhao, L., et al. (2019). Spatial knowledge deficiencies drive taxonomic and geographic selectivity in data deficiency. *Biological Conservation* 231:174–180; (3) Ahmad, L., et al. (2018). Survey of pyrrolizidine alkaloids in the tribe Lithospermeae (Boraginaceae) from Pan-Himalaya and their chemotaxonomic significance. *Biochemical Systematics and Ecology* 81:49–57; (4) Zhang, G. and Yao, R. (2018). The spinescent aquatic plants in the Yangtze Delta, East China. *Israel Journal of Plant Sciences* 65(1-2):9–16. [DOI: 10.1080/07929978.2017.1279440]; (5) Zhang, G., et al. (2018). Diversity and distribution of parasitic angiosperms in China. *Ecology and Evolution* 8(9):4378–4386; (6) Zhang, G., et al. (2018). Structural diversity of naturally regenerating Chinese yew (*Taxus wallichiana* var. *mairei*)

Activity to popularize scientific knowledge
Photo: Liqiang Xu



Activity to popularize scientific knowledge
Photo: Hao Zhang

populations in *ex situ* conservation. *Nordic Journal of Botany* [DOI: 10.1111/njb.01717]; (7) Wu, Y. and Shi, H. (2018). The seed plant flora of the Qaidam Flora of the Qaidam Basin and its contiguous mountainous regions in Qinghai province. *Acta Bot. Boreal.-Occident. Sin.* 38(8):1542-1552; (8) Xin, Z.-B., et al. (2018). *Primulina zhoui* and *P. huangii* (Gesneriaceae), two new species from limestone areas in Guangxi, China. *Taiwania* 63(1):54-60; (9) Xin Hong, et al. (2018). *Primulina cangwuensis* (Gesneriaceae), a new species from the karst limestone area in Guangxi, China. *Ann. Bot. Fennici* 55:37-42; (10) Hong, X., et al. (2018). Two new species of *Primulina* (Gesneriaceae) from limestone karsts of China. *PeerJ* 6:e4946. [DOI: 10.7717/peerj.4946]; (11) Jin, J., et al. (2018). A common *Bistorta* was misidentified as a novel species in *Fagopyrum* (Polygonaceae): the confirmation of the taxonomic identify of *F. hailuogouense* by morphological and molecular evidences. *Phytotaxa* 348(3):221-228; (12) Chen, L., et al. (2018). *Petrocodon tenuitubus* (Gesneriaceae), a new species from Southeast Yunnan, China. *Guihaia*.; (13) Wang, H., et al. (2018). First report of a leaf blight caused by *Pyricularia pennisetigena* on *Cenchrus pauciflorus* in China. *Plant Disease* 103(2):370; (14) He, D.-M., et al. (2018). *Paraboea wenshanensis*, a new species of Gesneriaceae from Yunnan, China. *PhytoKeys* 95:83-91; (15) Yang, L.-H., et al. (2018). *Primulina malipoensis* (Gesneriaceae), a new species from Sino-Vietnamese border area. *PhytoKeys* 94:107-116; (16) Jiang, Y.-L., et al. (2018). Root-associated fungi diversity of eight orchid species in Liaoning, China. *Chinese Journal of Ecology* 37(10):3001-3009; (17) Xue Chenyang, et al. (2018). Comparison of morphology, photosynthesis, and growth among *Xanthium strumarium*, *X. sibiricum* and their hybrid under different nitrogen levels. *Biodiversity Science* 26(6):554-563; (18) Meng Shiyong, et al. (2018).

Consulting plant specimens at the herbarium
Photo: Hao Zhang



Activity to popularize scientific knowledge
Photo: Liqiang Xu

Research on the plant collection of Kuan-Kuang Tsoong, the forerunner of Chinese plant collections. *Biodiversity Science* 26(1):79–88; (19) Zhai, Q., et al. (2018). A supplementary study of two species of *Galinsoga* in the Liaoning Province. *Bulletin of Botanical Research* 38(3):338–342; (20) Shao, M.N., et al. (2019). Outbreak of a new alien invasive plant *Salvia reflexa* in north-east China. *Weed Research*. [DOI: <https://doi.org/10.1111/wre.12357>]; (21) Liu Quanru, et al. (2018). Atlas of wild animals in aljinshan national nature reserve. China Environmental Publishing Group, Beijing; (22) Ye, J., et al. (2019). Phylogenetic delineation of regional biota: a case study of the Chinese flora. *Molecular Phylogenetics and Evolution* 135: 222–229. [DOI: 10.1016/j.ympev.2019.03.011] (KSR #32)

ii. We have finished more than 10 targeted field investigations: (1) Liaoning grassland resources inventory (CAO Wei); (2) investigation on plant diversity and vegetation in Luojing Mountain Region (Chen Gongxi); (3) investigation in Wuling Mountain Area (Chen Gongxi); (4) the second national key species survey project, responsible for plant survey work in Zhangzhou City, Fujian Province (Hou Xueliang); (5) we participated in the second national key protected wild plant resource survey in Jiangxi Province from 2015 to 2017, and were responsible for the investigation of key protected wild plant resources in four prefecture-level cities (Tan Ceming); (6) we participated in the investigation and preservation of wild plant germplasm resources in the Southwest China Wildlife Germplasm Resource Bank (Tan Ceming); (7) China Botanical Garden Alliance: Central China Plant Survey (Li Xiaodong); (8) we participated in the work of some native plant resources coverage projects (LIU Xingjian); (9) East China Xianxia Ridge – Wuyi Mountain Range and Huangshan Mountain

– Tianmu Mountain Biodiversity Survey (Shao Jianwen); (10) biodiversity surveys and scientific research in multiple protected areas or wetland parks (Shao Jianwen); (11) investigation and analysis of rare tree species in Jiangsu Province and field monitoring (Zhang Guangfu). (KSR #12)

Act

Conservation actions

i. The members of our group have carried out the *ex situ* conservation of many wild plants step by step in 2018, including artificial breeding and rejuvenation of three species in genus *Isoetes* (Liu Baodong). (KSR #27)

ii. Observed and cultured 15 kinds of national secondary protected plants such as *Asplenium komarovii*, *Brainea insignis*, *Sphaeropteris lepifera*, and others. (Liu Baodong). (KSR #27)

iii. Introduced more than 10 kinds of protected plants into Nanjing Botanical Garden (Liu Xingjian). (KSR #27)

iv. Successfully introduced some threatened and rare species into Jiujiang Forest Herbarium, such as *Taxus mairei*, *Sinojackia rehderiana*, *Emmenopterys henryi*, *Liriodendron chinense*, *Ormosia henryi*, *Eucommia ulmoides*, and some rare species in genus *Peucedanum* (Tan Ceming). (KSR #27)

v. Habitat protection, breeding and returning to the wild rare tree species of *Emmenopterys henryi* (Zhang Guangfu). (KSR #27)

Network

Capacity building

i. In recent years, more than 20 experts of our Specialist Group are professors in their respective schools. They teach courses related to plant diversity conservation. For example, the CPSG Chair, Dr Qin, is a lecturer in conservation biology at the university of Chinese Academy of Sciences. He is mainly responsible for teaching the conservation of plant diversity. (KSR #5)

Acknowledgements

We are very grateful to all the 85 members of the China Plant Specialist Group. Their passion for biodiversity conservation gave us enough motivation to organise this volunteer team. In addition, we thank the research team that collected, cleaned and analysed the data for assessment of 2,000 species.

Summary of activities 2018

Species Conservation Cycle ratio: 3/5

Assess	5	
Act	5	
Network	1	

Main KSRs addressed: 2, 5, 12, 27, 32

KSR: Key Species Result