



Mapping Asia Plants (MAP) Initiative and Progress



Xuehong Xu, Keping Ma

Biodiversity Committee, Chinese Academy of Sciences

Sept. 19, 2017

Mapping Asia Plants



- **Why**
- What
- Who
- Where
- Efforts in China
- Way forward



The Global Strategy for Plant Conservation: 2011-2020

Objective I:

Plant diversity is well understood, documented and recognized

Target 1:

An online flora of all known plants.

Target 2:

An assessment of the conservation status of all known plant species, as far as possible, to guide conservation action.

Target 3:

Information, research and associated outputs, and methods necessary to implement the Strategy developed and shared.



An international initiative of the Global Partnership for Plant Conservation

Plant List	Floras and other Target 1 Projects	MOU Partners List
Documents	Objectives	<i>Follow us</i>  

[Home](#)

Welcome to the website of the World Flora Online Consortium

There are an estimated 400,000 species of vascular plants on Earth, with some 10 percent more yet to be discovered. These plants, both known and unknown may hold answers to many of the world's health, social, environmental and economic problems. A full inventory of plant life is vital if many threatened species are to be protected and if their full potential is to be realized before many of these species, and the possibilities they offer, become extinct.



In 2010, the updated Global Strategy for Plant Conservation (GSPC) of the U.N. Convention on Biological Diversity included as its first target (Target 1) the need for "An online flora of all known plants." With this background in mind, in January 2012 in St Louis, Missouri, U.S.A., representatives from four institutions: the Missouri Botanical Garden, the New York Botanical Garden, the Royal Botanic Garden Edinburgh, and the Royal Botanic Gardens, Kew—all members of the Global Partnership for Plant Conservation (GPPC) took the initiative to meet and discuss how to achieve GSPC Target 1 by 2020. The meeting resulted in a proposed outline of the scope and content of a World Flora Online, as well as a decision to form an international consortium of institutions and organizations to collaborate on providing that content.

News

World Flora Online Council Meeting Berlin, Germany - March 2017

The Spring 2017 World Flora Online Council meeting was held in Berlin, Germany on March 29-31, 2017. Hosted by the Berlin Botanical Garden and Botanical Museum.





The Plant List

A working list of all plant species



World Checklist

- [Checklist Home](#)
- [Advanced Search](#)



The International Plant Names Index

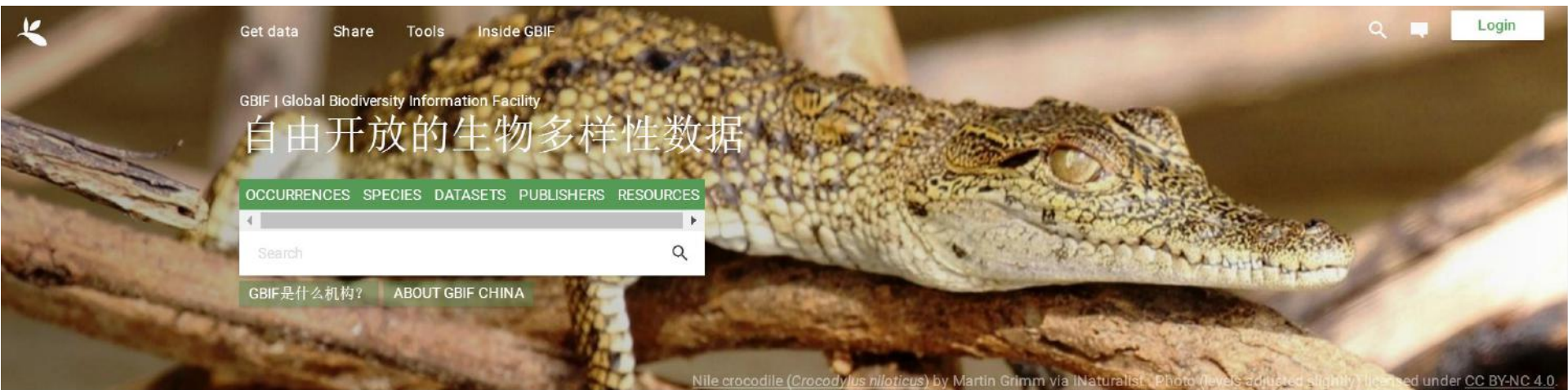
- [Search Plant Names](#)
- [Search Authors](#)
- [Search Publications](#)

- [GlobalTreeSearch >](#)
- [About GlobalTreeSearch >](#)
- [GlobalTreeSearch Acknowledgements >](#)

BGCI > GlobalTreeSearch

Welcome to GlobalTreeSearch!

Global Biodiversity Information Facility (GBIF)



Get data Share Tools Inside GBIF

Search [icon] Login

GBIF | Global Biodiversity Information Facility

自由开放的生物多样性数据

OCCURRENCES SPECIES DATASETS PUBLISHERS RESOURCES

 [icon]

GBIF是什么机构? ABOUT GBIF CHINA

Nile crocodile (*Crocodylus niloticus*) by Martin Grimm via iNaturalist. Photo (level 5 adjusted slightly) licensed under CC BY-NC 4.0.

Occurrence records
838218807

Datasets
36146

Publishers
1067

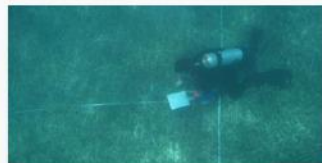
Species
Learn more about the number of species covered by data in GBIF.org.



Job opportunities for software developers
14 September 2017



Using social media to complement traditional sources of biodiversity data
12 September 2017



Introduction to sampling-event data
What is sampling-event data and why is it important?



Top tips for the new GBIF.org
Updates on new features (last updated 13 Sep 2017)



BOEN

Botanical Information and Ecology Network

The screenshot shows the iDigBio website homepage. At the top left is the iDigBio logo with the tagline "Integrated Digitized Biocollections". To the right are navigation links for "About iDigBio", "Research", "Technical Information", and "Education". Below these are search boxes for "Google Custom" and "Search", and links for "Log In" and "Sign Up".

The main banner features a background image of colorful shells. On the left, text reads: "Making data and images of millions of biological specimens available on the web". On the right, statistics are displayed: "105,429,263 Specimen Records", "21,926,865 Media Records", and "1,653 Recordsets". A green button labeled "Search the Portal" is positioned below the statistics. To the right of the statistics is a video player with the title "WHY DIGITIZE?" and a red play button. Below the video, text says "Why digitization matters" and "More about what we do and why".

Below the banner is a row of five light-colored boxes, each with an icon and a title:

- Digitization**: Learn, share and develop best practices (camera icon).
- Sharing Collections**: Documentation on data ingestion (arrows icon).
- Working Groups**: Join in, contribute, be part of the community (people icon).
- Proposals**: New tool and workshop ideas (lightbulb icon).
- Citizen Scientists**: How can you help biological collections? (microscope icon).

At the bottom, there are three sections:

- Researchers**: Learn about research directions (green arrow icon).
- Collections Staff**: Learn how your collection can benefit from our work (orange arrow icon).
- Teachers & Students**: Download lesson plans about using digitized specimens (yellow arrow icon).

Below these sections are "Upcoming Events" (SPNHC 2017) and a map showing the "Bering Land Bridge and the MyCoPortal".



RAINBIO – a compilation of tropical African vascular plants



Tiger lotus (*Nymphaea lotus*) by John Barkla. Photo licensed under [CC BY-NC 4.0](https://creativecommons.org/licenses/by-nc/4.0/).

Tropical Africa contains high levels of species diversity, but data from the region is scarce and at best, fragmented. Biodiversity data is crucial for wise and sustainable conservation assessments, but also for understanding the shifts imposed by climate change and other human-mediated activities.

This study presents a unique compilation of 13 datasets of vascular plants in



LOCATION OF RESEARCHERS

- France
- Portugal
- Denmark
- Netherlands
- Belgium
- United Kingdom
- United States
- Germany

DATA SOURCE

- Royal Botanic Gardens, Kew - Herbarium Specimens
- ICT Herbario LISC

LINK TO RESEARCH


- [RAINBIO: a mega-database of tropical African vascular plants distributions](#)

NUMBER OF RESOURCES USED


[Search using POSA](#)
[Introduction](#)
[Library](#)
[Help](#)
[Glossary](#)

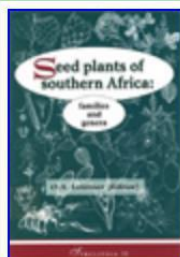
Plants of southern Africa: *floristic information*

This section of the [Plants of southern Africa](#) site provides floristic information drawn from a number of published reference works.

Click on a title below to browse that reference, or view relevant results by clicking on the Floristic information link () on the main search and results pages.

Further references will be added over time.

A big thank-you to the authors for permitting their work to be presented on this site!



Seed Plants of southern Africa: families and genera

Citation: LEISTNER, O. A. 2000. *Seed Plants of southern Africa: families and genera*. Strelitzia 10.

To purchase this book, please see the [Strelitzia publications](#) page



Seed Plants of southern tropical Africa: families and genera

Citation: LEISTNER, O. A. 2005. *Seed Plants of southern tropical Africa: families and genera*. Southern African Botanical Diversity Network Report No. 26.

亚洲植物多样性数字化计划

马克平*

(中国科学院植物研究所植被与环境变化国家重点实验室, 北京 100093)

Mapping Asia Plants: a cyberinfrastructure for plant diversity in Asia

Keping Ma*

State Key Laboratory of Vegetation and Environmental Change, Institute of Botany, Chinese Academy of Sciences, Beijing 100093

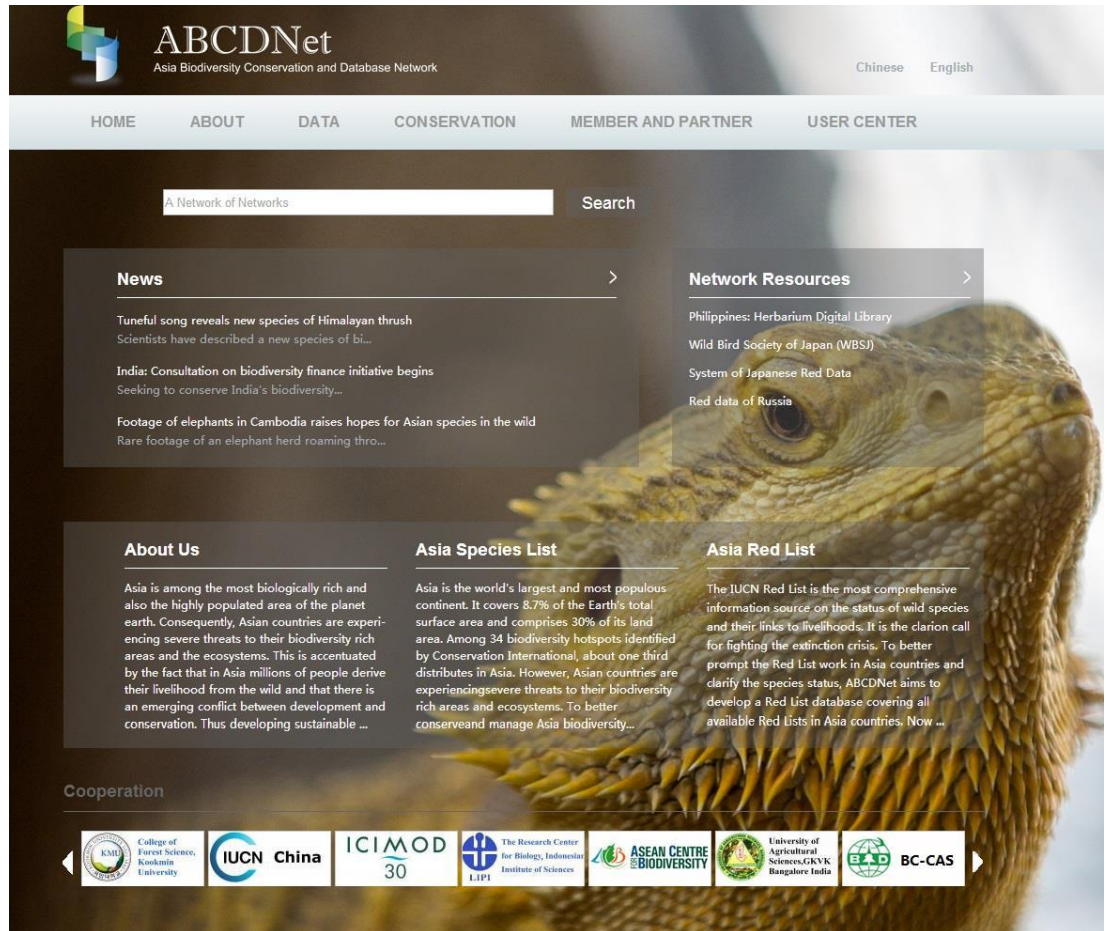
近年来,生物多样性信息学快速发展,全球和区域水平的生物多样性数据库不断建立和完善。用关键词“biodiversity”和“database”在Web of Science检索可知,2016年发表的生物多样性数据库相关的论文数量是20年前即1997年的22倍,是10年前即2007年的2倍(附录1)。全球生物多样性信息网络(GBIF)等全球大型数据库,以及若干国家水平的数据库,如澳大利亚生物多样性信息系统(Atlas of Living Australia, ALA)和美国标本数字化平台(iDigBio)等,都可以提供数千万条物种分布信息,GBIF可以提供7亿多条物种分布信息(植物信息只占约1/4)。海量的物种分布数据为生物多样性科学研究提供了有力支撑,大大促进了生物多样性大尺度格局、生物多样性保护规划、生物多样性对全球

中心的大力支持。

与MAP类似的项目为数不多。全球尺度上有Map of Life (MOL, www.mol.org/), 设置4个模块,分别是物种分布图(map species)、按照地点查物种(species by location)、变化趋势指标(indicator)和手机应用(mobile app)模块。截至2017年2月6日,该网站上已有279个数据集5.56亿条记录,涉及84.5万个物种。目前提供信息服务的类群主要有兽类、鸟类、龟鳖类(不包括海洋种)、两栖类、蝶类、天蛾类、松柏类和仙人掌类,主要是动物方面的,植物方面信息比较少。MOL旨在搜集和整合全球物种分布及其动态变化的数据和知识,为生物多样性教育、保护、研究和科学决策服务。其理念是把生物多样性画在图上(putting biodiversity on the map)。近年来,

Asia Biodiversity Conservation Database and Network

- Initiated in March 2013
- Add values to the existing biological information services



The screenshot shows the ABCDNet website homepage. At the top, there is a navigation bar with the ABCDNet logo and the text "Asia Biodiversity Conservation and Database Network". To the right of the logo are language options for "Chinese" and "English". Below the navigation bar is a search bar with the placeholder text "A Network of Networks" and a "Search" button. The main content area is divided into several sections: "News" with three articles, "Network Resources" with four links, "About Us" with a paragraph, "Asia Species List" with a paragraph, and "Asia Red List" with a paragraph. At the bottom, there is a "Cooperation" section with logos for various partner organizations: KMLU, College of Forest Science, Xi'an Jiaotong University; IUCN China; ICIMOD 30; The Research Center for Biology, Indonesia; LIPI; ASEAN CENTRE OF BIODIVERSITY; University of Agricultural Sciences, GVVK Bangalore India; and EAD BC-CAS.

ABCDNet 2015 Annual Meeting



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Mapping Asia Plants



(MAP)

Mapping Asia Plants



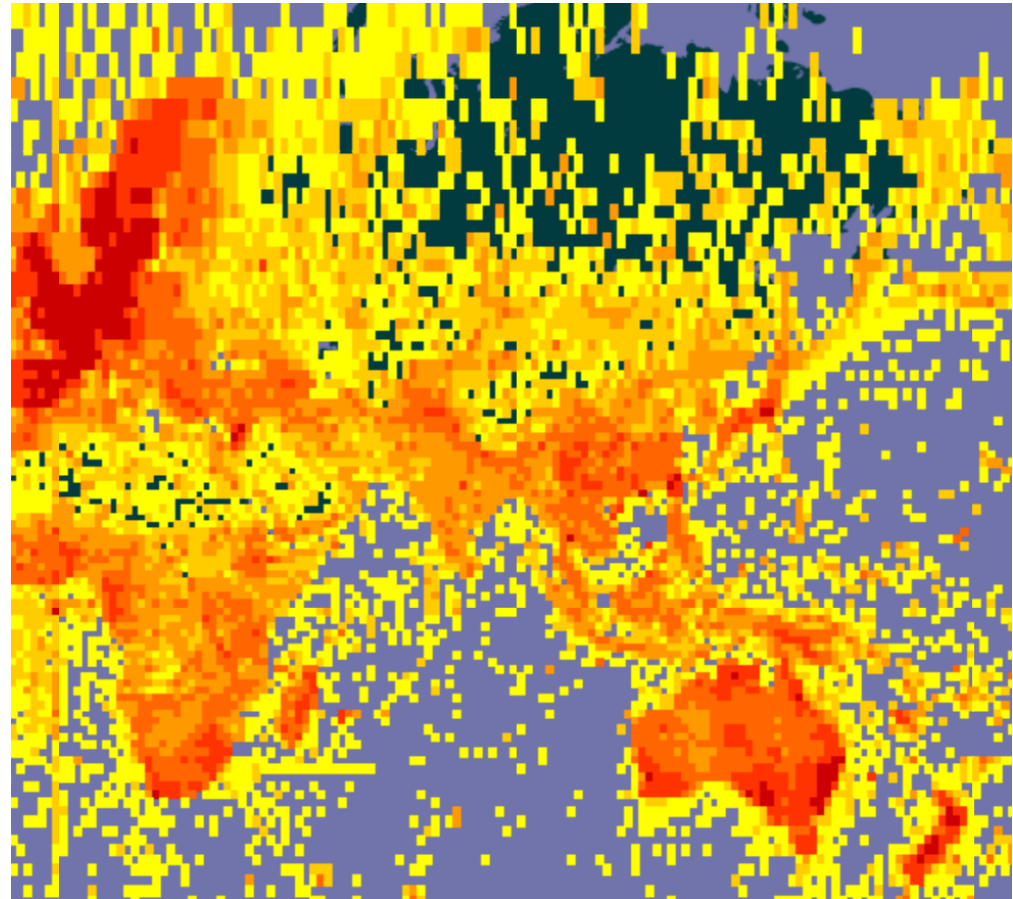
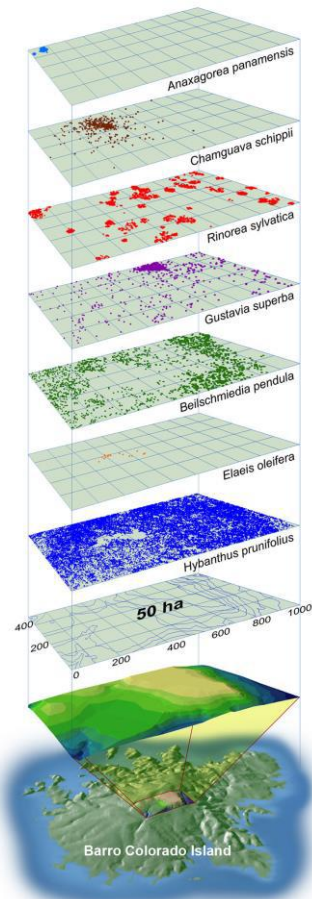
- Why
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Mission for MAP



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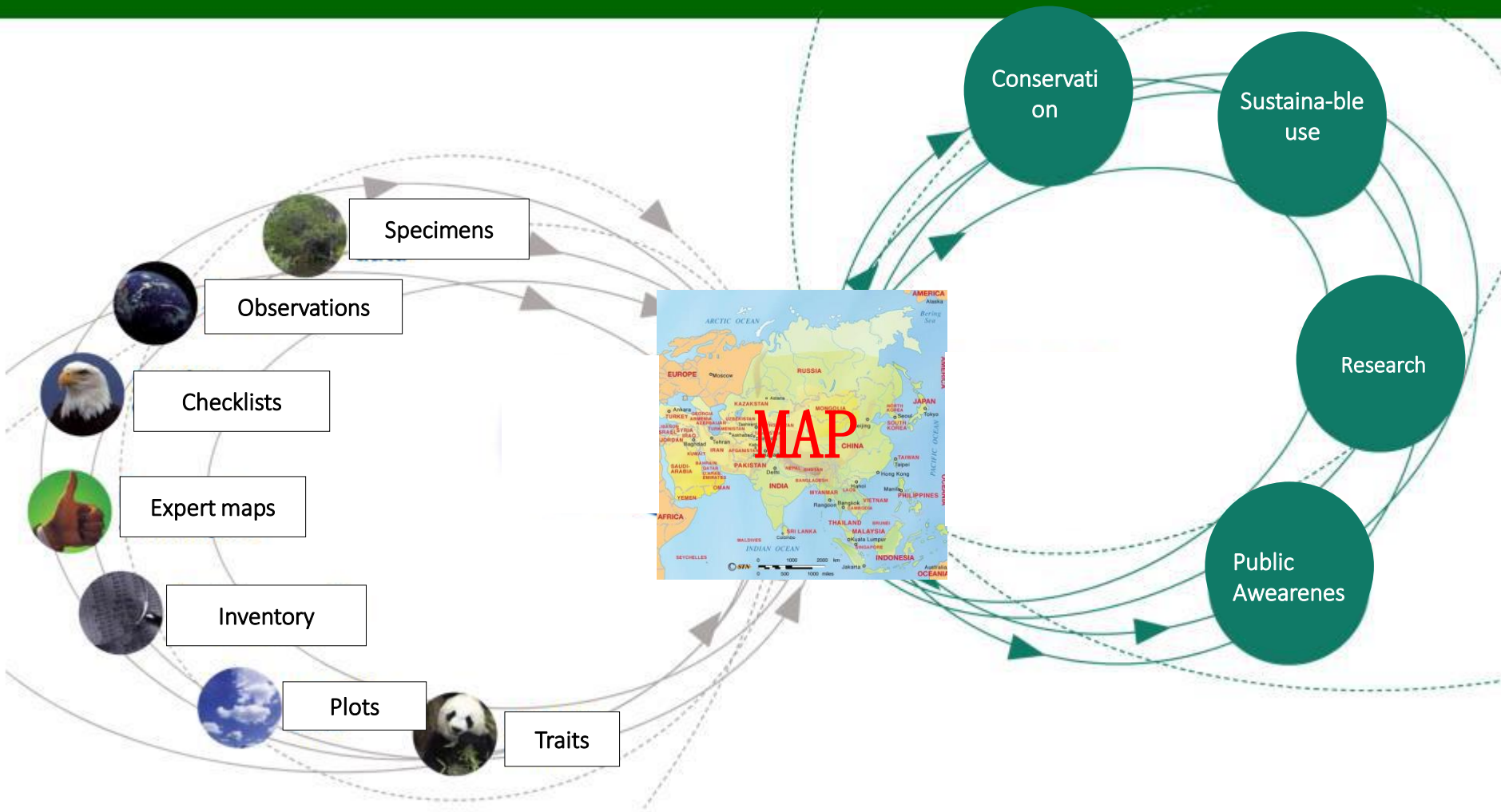
A better mapping infrastructure for plant diversity conservation in Asia



Access to

- Geographic range maps, diversity maps;
- Species checklists;
- Standardized botanical observation datasets;
- Standardized workflow and informatics engine for the integration, access, and discovery of disparate sources of botanical information in Asia.

Connecting:



• **Data sets**

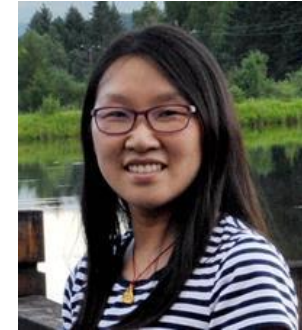
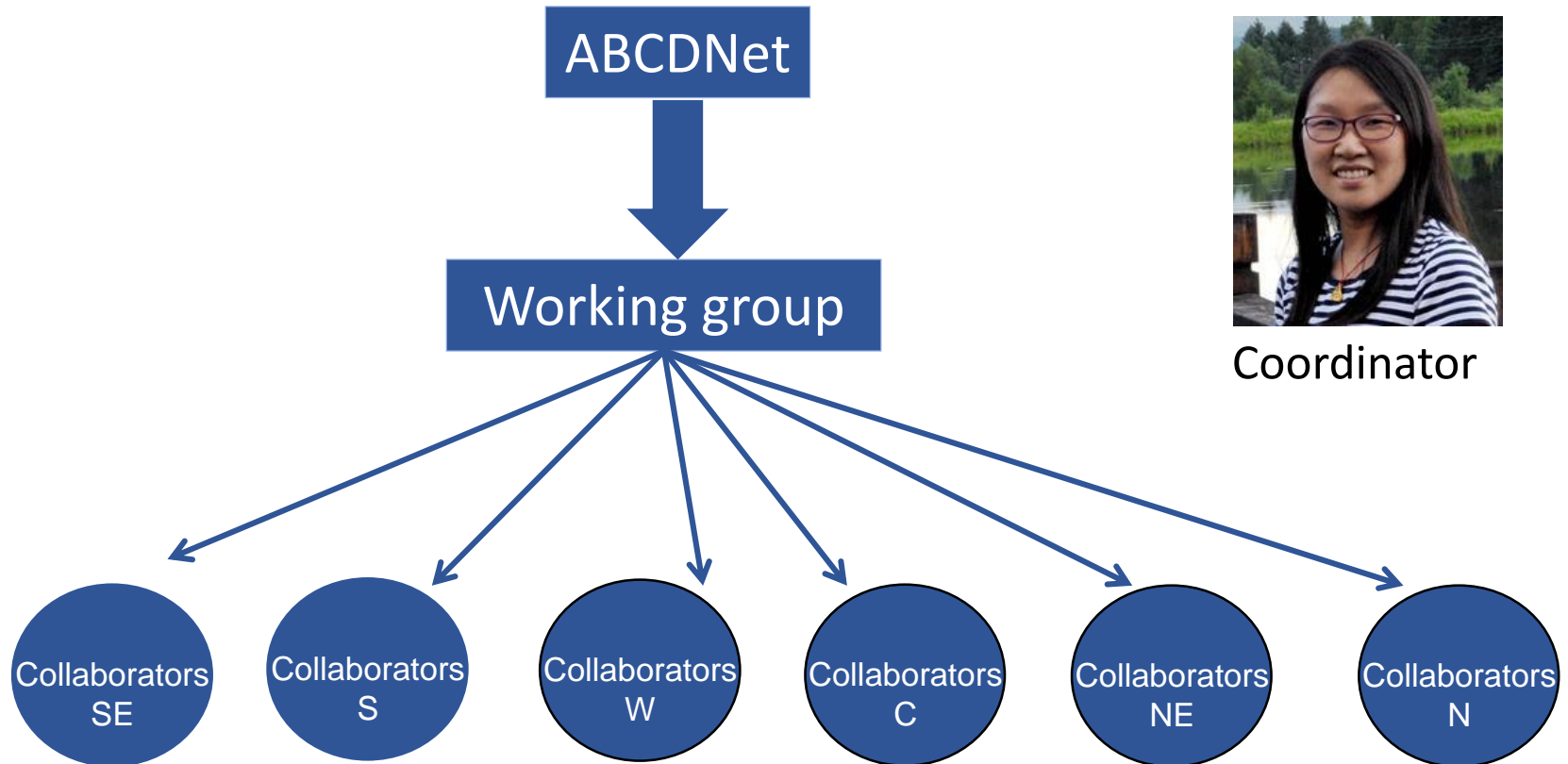
• **Services**

Mapping Asia Plants

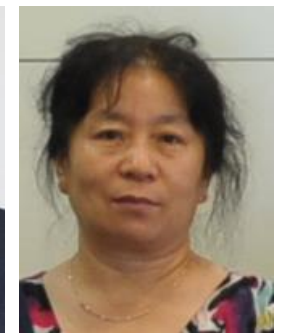


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Organization structure for MAP



Coordinator



Mapping Asia Plants



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- Way forward

MAP Study Tour in SE Asia



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MAP Workshop for Southeast Asia

(29-30 Nov, 2016, Beijing)



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MAP Workshop for South Asia

(27-29 March, 2017, Xishuangbanna)



中国·GEO



MAP Workshop for northern part of Asia

(13-14 July, 2017, Harbin)



□ Flora in Southeast Asia

- In the database of SEADiv, there are 60,103 scientific names, 1,316,708 occurrences, 52,209 literatures, 135 datasets, 7,003 institutions, 5,036 scientists and 870 projects.
- The database includes 1.32 million specimen records and 0.05 million living collection and observation records (2041 higher plant species, 553 genera, 153 families). A quarter of these records were georeferenced (0.49 million). Among the 1.32 million specimen records, 1.1 million records were from Global Biodiversity Information Facility (GBIF) and 0.22 million records from 10 major herbaria in the world.

□ Flora in South Asia

- A species checklist including more than 40,000 species, belonging to 4,979 genera, and 353 families from South Asian countries has been compiled. A database of about 180,000 plant specimen records was generated from more than 1,000,000 records from National Specimen Information Infrastructure and GBIF.

□ Flora in Central Asia

- A species checklist including more than 8,500 species, belonging to 1,329 genera and 162 families from Central Asian countries has been compiled. A database of plant specimen will be developed.

□ Flora in Northeast Asia

- A species checklist including more than 10,000 species, belonging to 2,782 genera and 262 families from Northeast Asian countries has been compiled. A database of about 1,650,000 plant specimen records was generated from National Specimen Information Infrastructure, GBIF and other herbaria.

□ Flora in North Asia

- A species checklist about 7,000 species belonging to 195 families and 1,279 genera from Flora of Asia Area of Russia (2012) was compiled.

□ Flora in West Asia

- Iran Flora of Iran(1980-2010,7576)
- Iraq Flora of Iraq (1966-1980,3222)
- Turkey Flora of Turkey and the East Aegean Islands (1965-2000, 9753)
- Cyprus Flora of Cyprus (2000)
- Israel Plants and Animals of the Land of Israel (1983)
- Kuwait Flora of Kuwait (1984)
- Oman Flora of the Sultanate of Oman (2003-2016)
- Qatar Online database
- Saudi Arabia Flora of Saudi Arabia(1974)
- Syria & Palestine Flora of Syria Palestine and Sinai(1932-1933)
- The United Arab Emirates (1989)
- Yemen Handbook of the Yemen Flora(1997)

Mapping Asia Plants



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Efforts in Mapping Plants in China

- **Catalogue of species in China**
- Collecting data from literature
- Digitization of specimens
- Occurrence data from observations
- Mapping data based research in China

Species 2000 China Node



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(<http://sp2000.org.cn>)



Home China Checklist



物种 2000 中国节点

China Node

in Settings



Catalogue of Life China
2017 Annual Checklist
中国生物物种名录

China 2017 版

中国科学院 环境保护部

科学出版社
www.sciencep.com

ISBN 978-7-89505-107-2 / Q · 5

Welcome to the Species 2000 China Node to our online database of the Chinese plants, fungi and micro-organisms.

Species 2000 China node is a regional node of the international species 2000 Secretariat, proposed by the international species 2000 Secretariat and officially launched in February 7, 2006. Chinese Academic Diversity Committee (BC-CAS), together with its partners, to support and manage the construction of species 2000 China node. The main task of the species 2000 China node, according to the species 2000 standard data format, the classification information of the distribution in China of all species to finish and check, the establishment and maintenance of Chinese biological species list, to provide free

Checklist

Committee of the organization, funded by the Ministry of Environmental Protection, Science and Technology Department, the 2016 annual CD-ROM, on May 22, 2016 in Beijing is issued. Each species contains scientific name, Chinese name, synonym, alias, literature, systematic classification, distribution data, also includes the contents of Chinese names and Chinese names in pinyin.

Publication date: 2016

中国生物物种名录
I 植物卷
苔藓植物
科学出版社

中国生物物种名录
CATALOGUE OF LIFE-CHINA

I 植物卷
Volume I Plants

苔藓植物
BRYOPHYTES

贾渝 何思 编著

科学出版社

中国生物物种名录
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蕨类植物
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“十三五”国家重点图书出版规划项目

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Species Catalogue of China

第一卷 植物
Volume 1 Plants

蕨类植物
PTERIDOPHYTES

严岳鸿 张宪春 周喜乐 孙久琼 编著

Authors: Yuehong Yan Xianchun Zhang Xile Zhou Jiujiong Sun

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种子植物 (IV)
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Species Catalogue of China

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Volume 1 Plants

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SPERMATOPHYTES (IV)

被子植物 ANGIOSPERMS
(芍药科 Paeoniaceae—远志科 Polygalaceae)

朱相云 陈之端 刘 博 编著

Authors: Xiangyun Zhu Zhiduan Chen Bo Liu

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SPERMATOPHYTES (VI)

被子植物 ANGIOSPERMS
(沟繁缕科 Elatinaceae—钩枝藤科 Ancistrocladaceae)

张志翔 侯元同 廖 帅 谢宜飞 编著

Authors: Zhixiang Zhang Yuan tong Hou Shuai Liao Yifei X

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被子植物 ANGIOSPERMS
(石竹科 Caryophyllaceae—杜鹃花科 Ericaceae)

于胜祥 郝 刚 金孝锋 编著

Authors: Shengxiang Yu Gang Hao Xiaofeng Jin

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Volume 1 Plants

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SPERMATOPHYTES (VIII)

被子植物 ANGIOSPERMS
(茶茱萸科 Icacinaceae—胡麻科 Pedaliaceae)

王瑞江 刘 演 陈世龙 编著

Authors: Ruijiang Wang Yan Liu Shilong Chen

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王瑞江 刘 演 陈世龙 编著

Authors: Ruijiang Wang Yan Liu Shilong Chen

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Plant Red List of China

(www.biodiversity-science.net/)



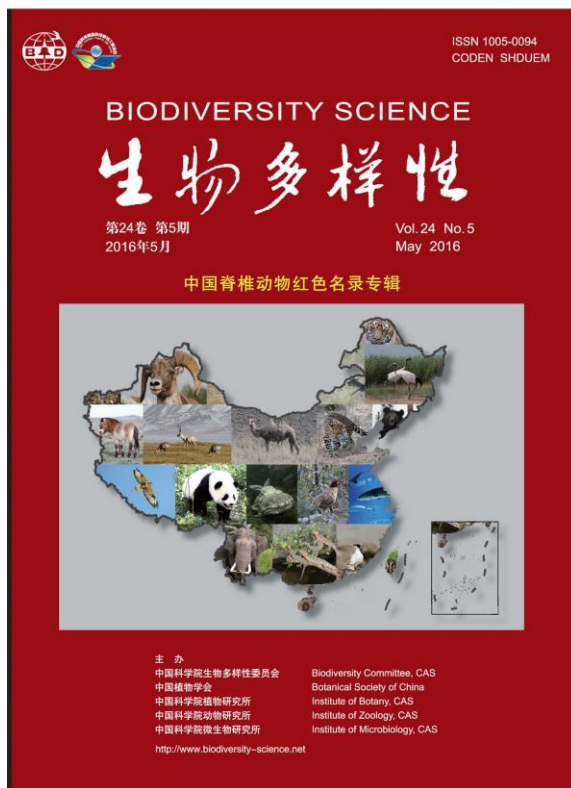
中国·GEO



- 689 Haining Qin, Lina Zhao
 Evaluating the threat status of higher plants in China
2017 Vol. 25 (7): 689-695 [Abstract] (24) [PDF 1018KB] (70)
- Haining Qin, Yong Yang, Shiyong Dong, Qiang He, Yu Jia, Lina Zhao, Shengxiang Yu, Huiyuan Liu, Bo Liu, Yuehong Yan, Jianying Xiang, Nianhe Xia, Hua Peng, Zhenyu Li, Zhixiang Zhang, Xingjin He, Linke Yin, Yulin Lin, Quanru Liu, Yuantong Hou, Yan Liu, Qixin Liu, Wei Cao, Jianqiang Li, Shilong Chen, Xiaohua Jin, Tiangang Gao, Wenli Chen, Haiying Ma, Yuying Geng, Xiaofeng Jin, Chaoyang Chang, Hong Jiang, Lei Cai, Chunxin Zang, Jianyong Wu, Jianfei Ye, Yangjun Lai, Bing Liu, Qinwen Lin, Naxin Xue
- 696 **Threatened Species List of China's Higher Plants**
2017 Vol. 25 (7): 696-744 [Abstract] (13) [PDF 2682KB] (53)
- Haining Qin, Lina Zhao, Shengxiang Yu, Huiyuan Liu, Bo Liu, Nianhe Xia, Hua Peng, Zhenyu Li, Zhixiang Zhang, Xingjin He, Linke Yin, Yulin Lin, Quanru Liu, Yuantong Hou, Yan Liu, Qixin Liu, Wei Cao, Jianqiang Li, Shilong Chen, Xiaohua Jin, Tiangang Gao, Wenli Chen, Haiying Ma, Yuying Geng, Xiaofeng Jin, Chaoyang Chang, Hong Jiang, Lei Cai, Chunxin Zang, Jianyong Wu, Jianfei Ye, Yangjun Lai, Bing Liu, Qinwen Lin, Naxin Xue
- 745 **Evaluating the endangerment status of China's angiosperms through the red list assessment**
2017 Vol. 25 (7): 745-757 [Abstract] (6) [PDF 1393KB] (48)
- 758 Yong Yang, Bing Liu, Dennis M. Njenga
 Red list assessment and conservation status of gymnosperms from China
2017 Vol. 25 (7): 758-764 [Abstract] (9) [PDF 604KB] (31)
- 765 Shiyong Dong, Zhengyu Zuo, Yuehong Yan, Jianying Xiang
 Red list assessment of lycophytes and ferns in China
2017 Vol. 25 (7): 765-773 [Abstract] (280) [PDF 624KB] (111)
- 774 Qiang He, Yu Jia
 Assessing the threat status of China's bryophytes
2017 Vol. 25 (7): 774-780 [Abstract] (6) [PDF 789KB] (34)
- De-Yuan Hong, Shiliang Zhou, Xingjin He, Junhui Yuan, Yanlong Zhang, Fangyun Cheng, Xiuli Zeng, Yan Wang, Xiuxin Zhang
- 781 **Current status of wild tree peony species with special reference to conservation**
2017 Vol. 25 (7): 781-793 [Abstract] (52) [PDF 3885KB] (40)
- 794 Zhigang Jiang, Keping Ma
 The state's will, scientific decision and citizen participation: In memory of the first provincial species red list in China
2017 Vol. 25 (7): 794-795 [Abstract] (31) [PDF 211KB] (51)

Vertebrate Red List of China

(www.biodiversity-science.net/)



Editorial

- 495 Zhigang Jiang
 Assessing the surviving status of vertebrates in China
2016 Vol. 24 (5): 495-499 [[Abstract](#)] (482) [RICH HTML](#) ^{NEW} [[PDF 332KB](#)] (926)

Red List of China's Vertebrates Articles

- 500 Hongxia Fang, Xiaoge Ping
 Red List of China's Vertebrates
2016 Vol. 24 (5): 500-551 [[Abstract](#)] (652) [RICH HTML](#) ^{NEW} [[PDF 1130KB](#)] (1470)
Zhigang Jiang, Lili Li, Zhenhua Luo, Songhua Tang, Chunwang Li, Huijian Hu, Yong Ma,
- 552 Yi Wu, Yingxiang Wang, Kaiya Zhou, Shaoying Liu, Zuojian Feng, Lei Cai, Chunxin Zang, Yan Zeng, Zhibin Meng, Xiaoge Ping, Hongxia Fang
 Evaluating the status of China's mammals and analyzing their causes of endangerment through the red list assessment
2016 Vol. 24 (5): 552-567 [[Abstract](#)] (481) [RICH HTML](#) ^{NEW} [[PDF 907KB](#)] (971)
Yanyun Zhang, Zhengwang Zhang, Lu Dong, Ping Ding, Changqing Ding, Zhijun Ma, Guangmei Zheng
- 568 **Assessment of red list of birds in China**
2016 Vol. 24 (5): 568-577 [[Abstract](#)] (785) [RICH HTML](#) ^{NEW} [[PDF 716KB](#)] (1001)
- 578 Bo Cai, Jiatang Li, Yueying Chen, Yuezhao Wang
 Exploring the status and causes of China's threatened reptiles through the red list assessment
2016 Vol. 24 (5): 578-587 [[Abstract](#)] (491) [RICH HTML](#) ^{NEW} [[PDF 493KB](#)] (831)
Jianping Jiang, Feng Xie, Chunxin Zang, Lei Cai, Cheng Li, Bin Wang, Jiatang Li, Jie Wang, Junhua Hu, Yan Wang, Jiongyu Liu
- 588 **Assessing the threat status of amphibians in China**
2016 Vol. 24 (5): 588-597 [[Abstract](#)] (503) [RICH HTML](#) ^{NEW} [[PDF 509KB](#)] (935)
- 598 Liang Cao, E Zhang, Chunxin Zang, Wenxuan Cao
 Evaluating the status of China's continental fish and analyzing their causes of endangerment through the red list assessment
2016 Vol. 24 (5): 598-609 [[Abstract](#)] (334) [RICH HTML](#) ^{NEW} [[PDF 756KB](#)] (827)
- 610 Chunxin Zang, Lei Cai, Jiaqi Li, Xiaopu Wu, Xiaoguang Li, Junsheng Li
 Preparation of the China Biodiversity Red List and its significance for biodiversity conservation within China
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Efforts in Mapping Plants in China

- Catalogue of species in China
- **Collecting data from literature**
- Digitization of specimens
- Occurrence data from observations
- Mapping data based research in China



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栽培植物专题
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东亚植物文献专题
植物学拉丁文学习专题

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物种名
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搜索

菌物 动物 **植物** 地质 极地 古籍



中国植物志系列
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新物种发现

Flora of China



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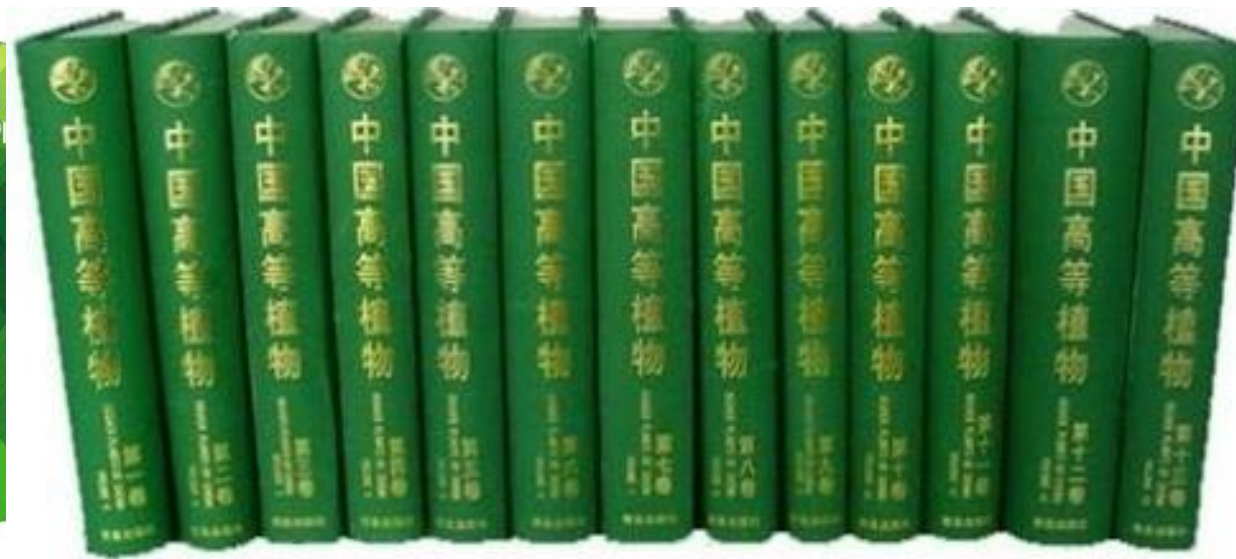
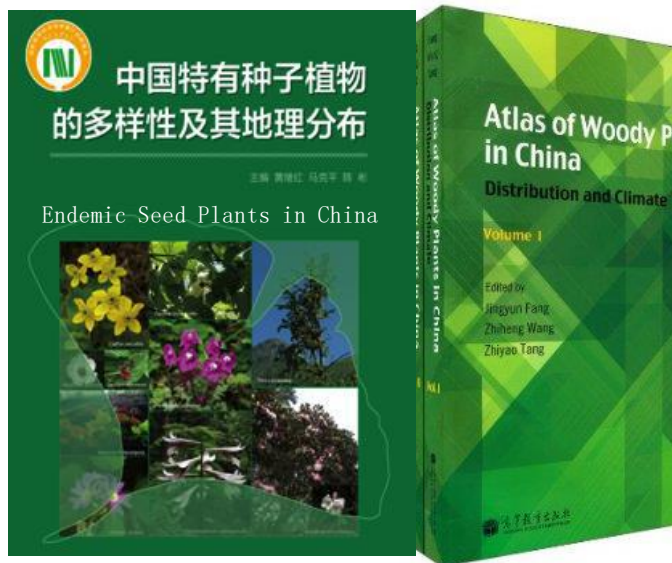
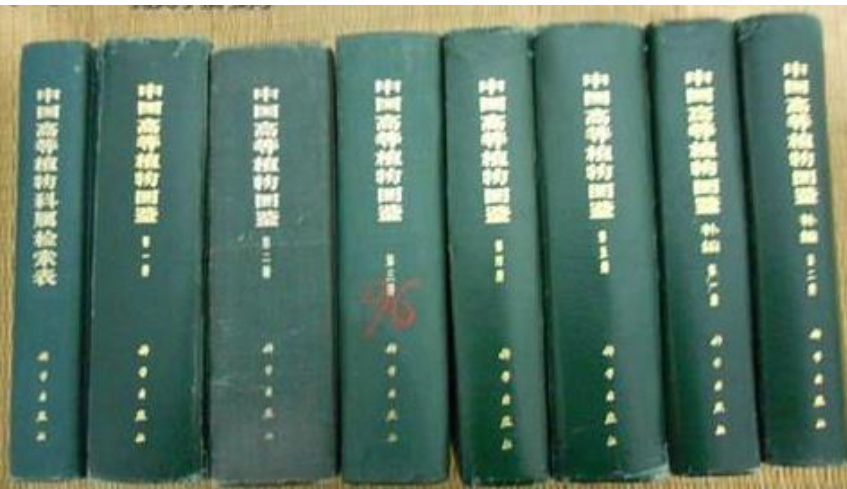
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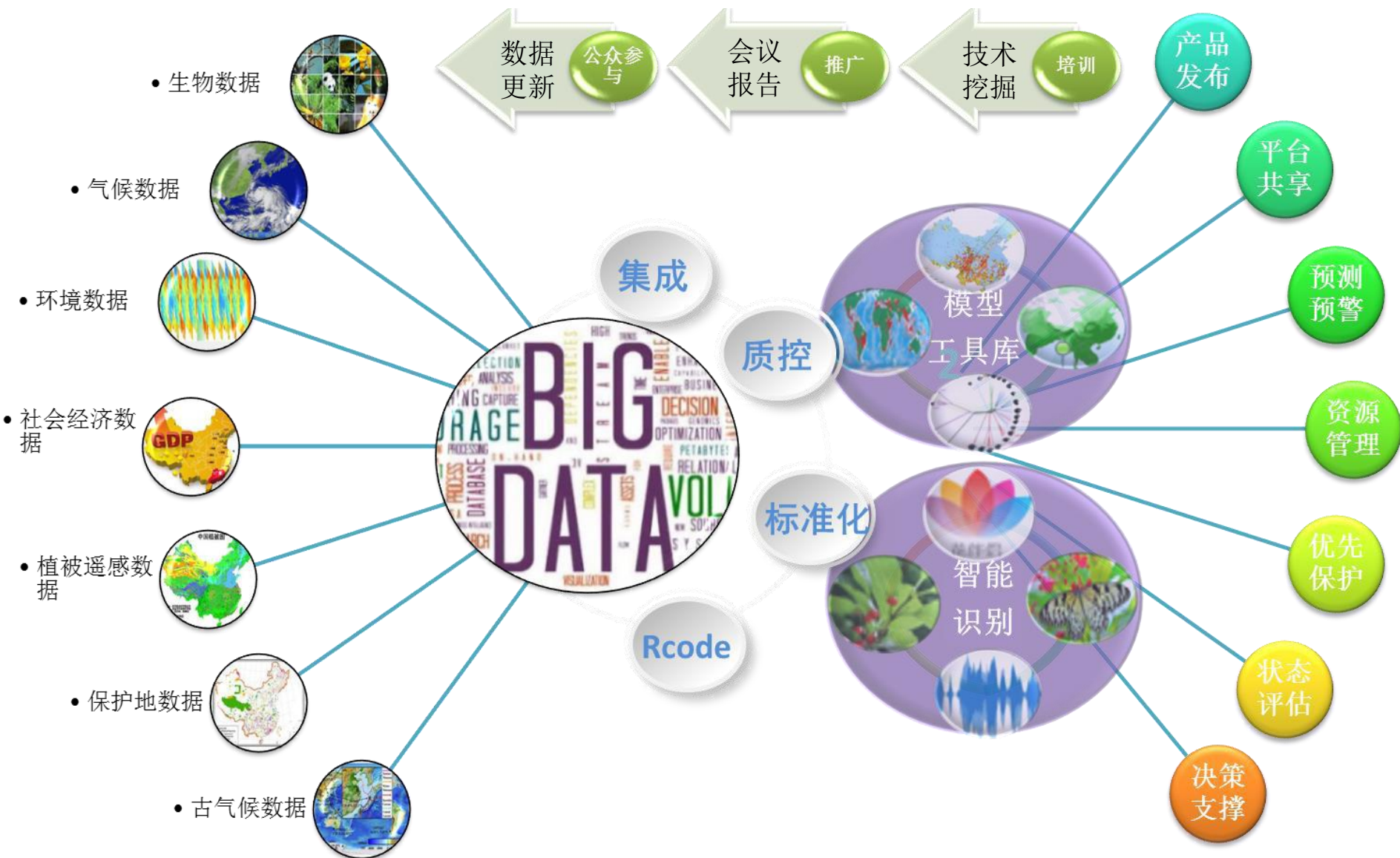


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- **Mapping data based research in China**

Mapping data Based Research in China

- Conservation planning
- Climate change
- Invasion ecology
- Phenology
- Biogeography
- Taxonomy

Features and distribution patterns of Chinese endemic seed plant species

^{1,2,3}Ji-Hong HUANG ^{1,4}Jian-Hua CHEN ⁵Jun-Sheng YING ¹Ke-Ping MA*

Biological Conservation 198 (2016) 104–112



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Diversity hotspots and conservation gaps for the Chinese endemic seed flora



Jihong Huang ^{a,b,c}, Jianhua Huang ^d, Canran Liu ^e, Jinlong Zhang ^f, Xinghui Lu ^{a,b,c}, Keping Ma ^{b,*}

Distribution and conservation of orchid species richness in China

Zejin Zhang ^a, Yujing Yan ^a, Yu Tian ^b, Junsheng Li ^b, Jin-Sheng He ^a, Zhiyao Tang ^{a,*}



Diversity and Distributions, (Diversity Distrib.) (2013) 1–11

BIODIVERSITY RESEARCH



Major declines of woody plant species ranges under climate change in Yunnan, China

Ming-Gang Zhang ^{1,2,3}, Zhe-Kun Zhou ^{1,4}, Wen-Yun Chen ⁴, Charles H. Cannon ^{5,6}, Niels Raes ⁷ and J. W. Ferry Slik ^{1,*}

RESEARCH ARTICLE

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Zhenyu Li · Keping Ma

Global Ecology and Biogeography, (Global Ecol. Biogeogr.) (2015) 24, 928–938



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Phylogenetic constraints and trait correlates of flowering phenology in the angiosperm flora of China

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ography, (Global Ecol. Biogeogr.) (2014) 23, 1284–1292

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Using species distribution models to delineate the botanical richness patterns and phytogeographic regions of China

Geographical sampling bias in a large distributional database and its effects on species richness–environment models

Wenjing Yang^{1,2,3}, Keping Ma^{1*} and Holger Kreft^{2*}

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Ming-Gang Zhang^{1,2}, J. W. Ferry Slik³ & Ke-Ping Ma¹

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5 : 9396 | DOI: 10.1038/srep09396

A phylogenetically informed delineation of floristic regions within a biodiversity hotspot in Yunnan, China
Rong Li, Nathan J. B. Kraft, Jie Yang & Yuhua Wang

Mapping Asia Plants



- Why
- What
- Who
- Where
- Efforts in China
- **Way forward**



The Way forward for Mapping Asia Plants

- Producing clean checklists for Asia, sub-parts of Asia and Asian countries;
- Establishing plant distribution database and being shared with a website;
- Developing an online platform for data mining.

Thanks for the financial
support from Ministry of
Science and Technology of
China and the Chinese
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Thanks

谢谢

