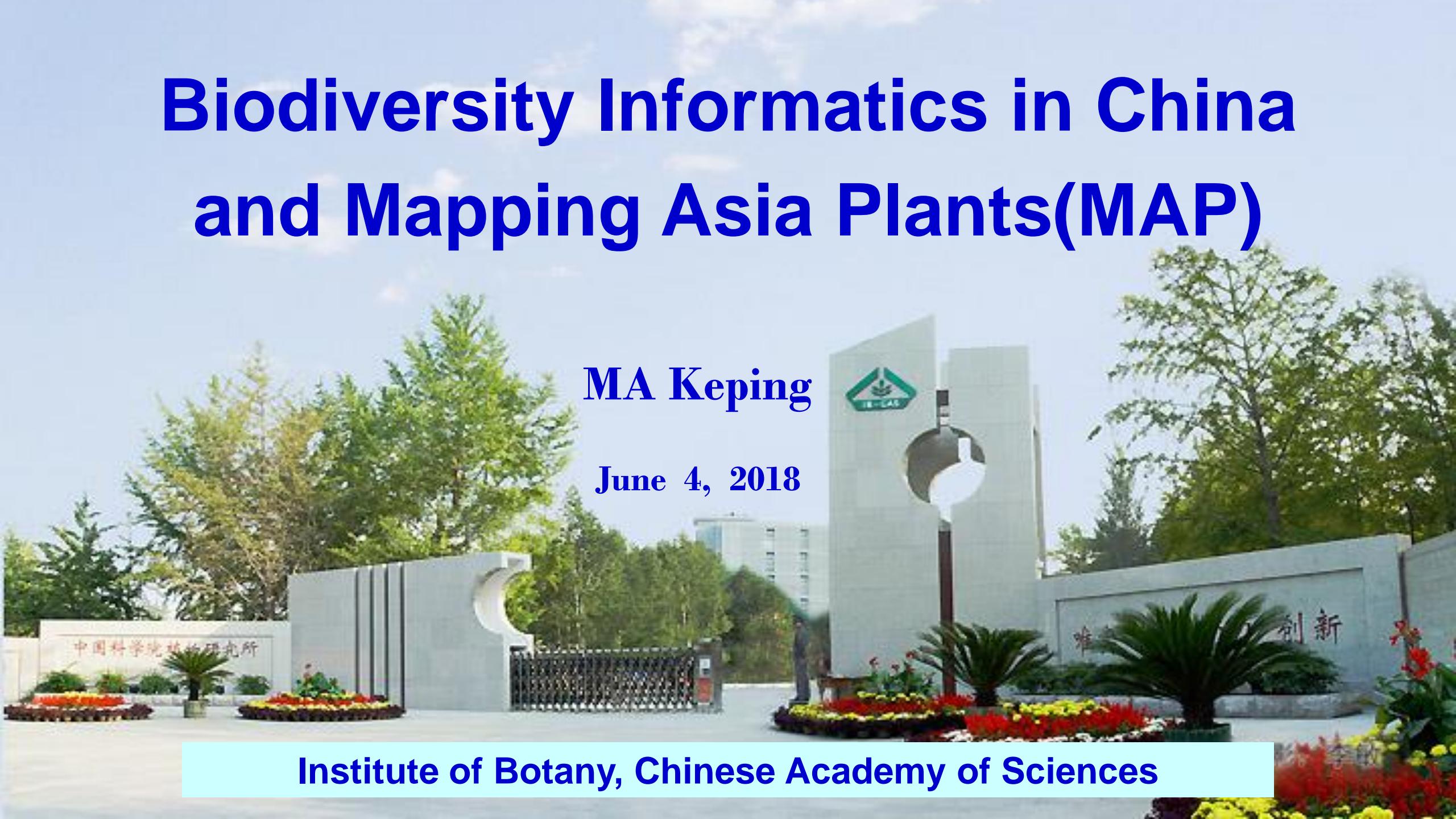


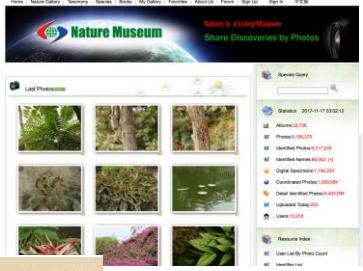
# Biodiversity Informatics in China and Mapping Asia Plants(MAP)

MA Keping

June 4, 2018



Institute of Botany, Chinese Academy of Sciences



14.3 M



0.02 M

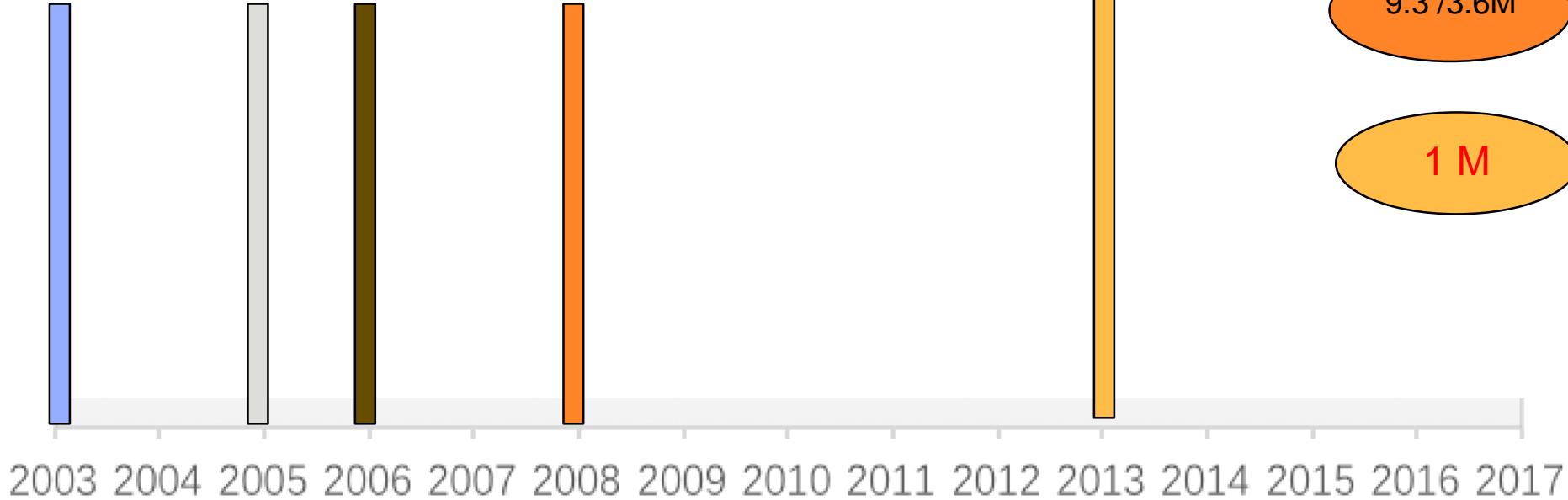
PPBC  
NSII BHL-CNCFH CoL-CN

GBIF-CAS

9.7 M

9.3 /3.6M

1 M





Home

中国  
Catalog



98317 taxa  
86203 species  
12114 infraspec



中国绿发会

# Catalogue of Life--China

-  浏览
-  检索
-  信息

## 物种详细信息

拉丁学名:	<i>Pinus koraiensis</i> Siebold et Zucc. (accepted name)	
中文学名:	红松	
异名:	<i>Apinus koraiensis</i> (Siebold et Zucc.) Moldenke (synonym) <i>Pinus mandschurica</i> Rupr. (synonym) <i>Pinus prokoraiensis</i> Y. T. Zhao, J. M. Lu et A. G. Gu (synonym) <i>Strobus koraiensis</i> (Siebold et Zucc.) Moldenke (synonym)	   
俗名:	海松 Chinese 果松 Chinese 韩松 Chinese 红果松 Chinese 朝鲜松 Chinese	
分类等级:	Plantae - 植物界 Phylum Gymnospermae - 裸子植物门 Class Coniferopsida - 松柏纲 Order Pinales - 松杉目 Family Pinaceae - 松科 Genus <i>Pinus</i> - 松属	
分布地:	Heilongjiang; Jilin	
分布地(中文):	黑龙江; 吉林	
附加信息:	-	
源数据库:	<a href="#">China checklist of higher plants, 1, Mar. 2007</a>	
审核专家:	Yang, Yong(杨永), 2009-05-25 15:11:50	
在线资源:	-	

# Species 2000 China Node

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



物种 2000 中国 节点

Species 2000 China Node

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China Checklist

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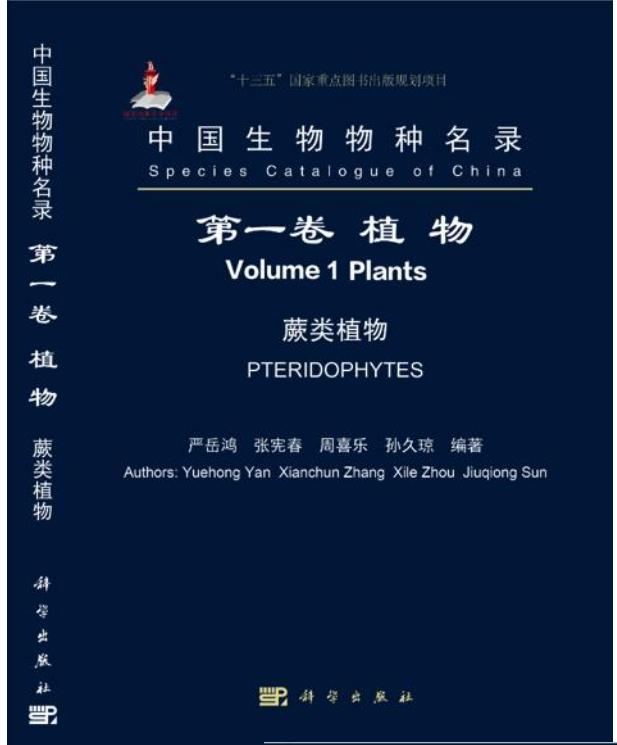
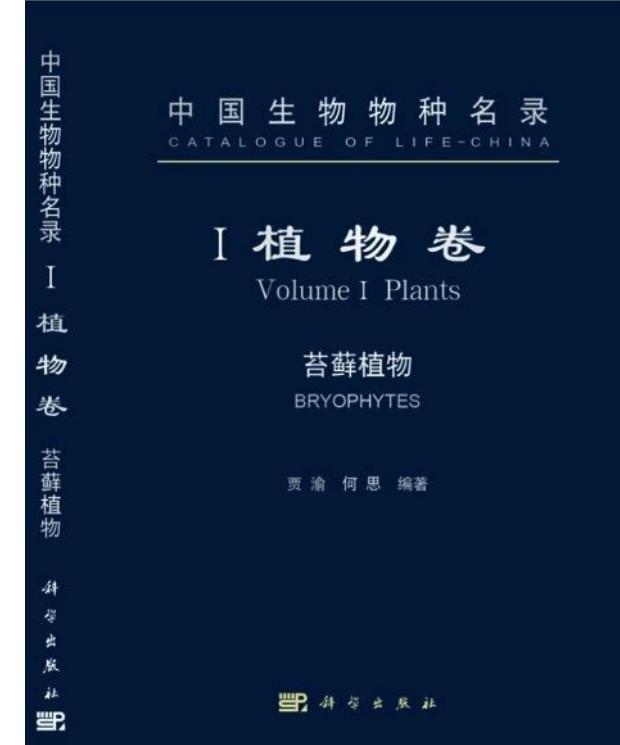
Welcome to the Species 2000 China Node website. The gateway to our online database of the Chinese known species of animals, plants, fungi and micro-organisms.

Species 2000 China node is a regional node of the international species 2000 project, proposed by the international species 2000 Secretariat in October 20, 2006, was officially launched in February 7, 2006. Chinese Academy of Sciences, biological 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

## Catalogue of Life: 2016 Annual Checklist

In the Chinese Academy of Sciences Biodiversity Committee of the organization, funded by the Chinese Academy of Sciences and the Ministry of environmental protection, Science Publishing House of Chinese Journal of biological species list "version of the 2016 annual CD in International Biodiversity Day on the eve of the edited, on May 22, 2016 in Beijing is published. Follow the species 2000 data standard, list each species contains scientific name, synonym, alias, literature, systematic classification, distribution data, also includes the contents of Chinese names and Chinese names in pinyin.

Publication date: 2016



# Plant Red List of China

## ([www.biodiversity-science.net/](http://www.biodiversity-science.net/))

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**BIODIVERSITY SCIENCE**  
**生物多样性**

第25卷 第7期  
2017年7月

Vol. 25 No. 7  
July 2017

中国高等植物红色名录专辑



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中国科学院生物多样性委员会  
中国植物学会  
中国科学院植物研究所  
中国科学院动物研究所  
中国科学院微生物研究所  
<http://www.biodiversity-science.net>

Biodiversity Committee, CAS  
Botanical Society of China  
Institute of Botany, CAS  
Institute of Zoology, CAS  
Institute of Microbiology, CAS

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)

696 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, Yuanlong 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  
 Threatened Species List of China's Higher Plants  
2017 Vol. 25 (7): 696-744 [Abstract] (13) [PDF 2682KB] (53)

745 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, Yuanlong 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  
 Evaluating the endangerment status of China's angiosperms through the red list assessment  
2017 Vol. 25 (7): 745-757 [Abstract] (6) [PDF 1393KB] (48)

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765 Shiyong Dong, Zhengyu Zuo, Yuehong Yan, Jianying Xiang  
 Red list assessment of lycophytes and ferns in China  
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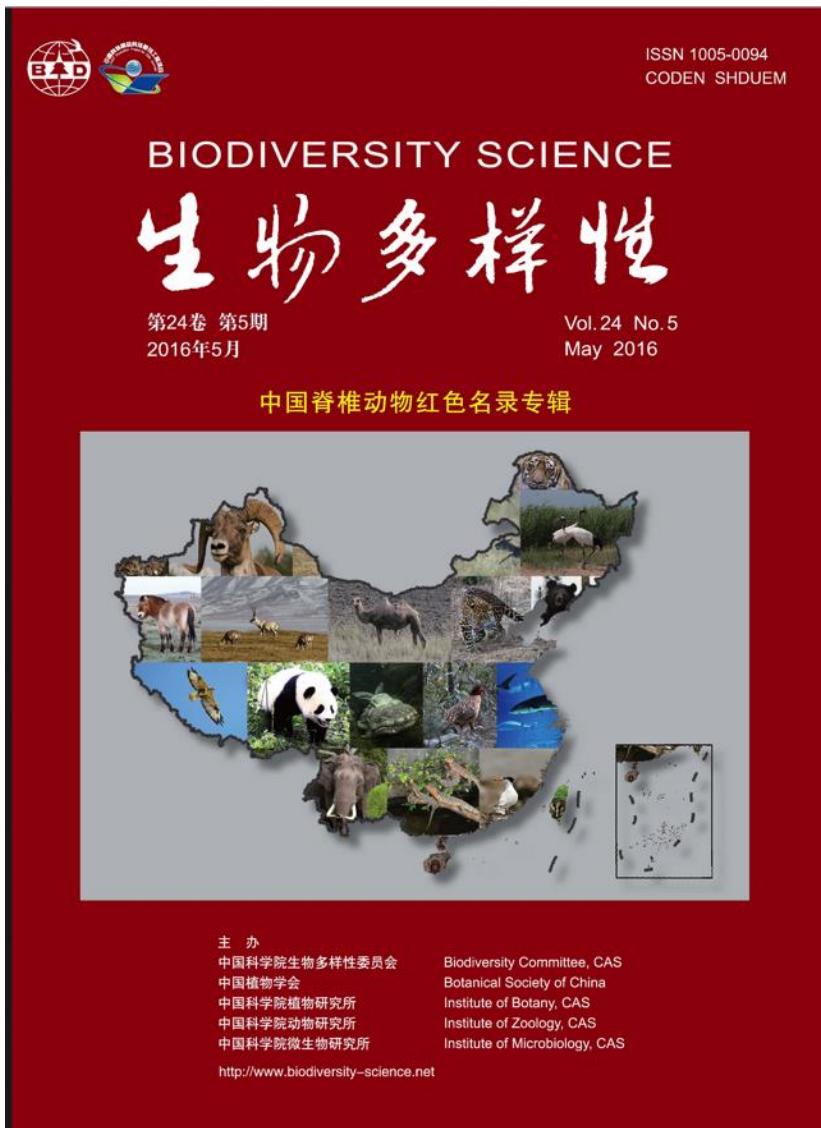
774 Qiang He, Yu Jia  
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781 De-Yuan Hong, Shiliang Zhou, Xingjin He, Junhui Yuan, Yanlong Zhang, Fangyun Cheng, Xiuli Zeng, Yan Wang, Xiuxin Zhang  
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794 Zhigang Jiang, Keping Ma  
 The state's will, scientific decision and citizen participation: in memory of the first provincial species red list in China  
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# Vertebrate Red List of China

## ([www.biodiversity-science.net/](http://www.biodiversity-science.net/))



### Editorial

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 **Red List of China's Vertebrates**  
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 552 Yi Wu, Yingxiang Wang, Kaiya Zhou, Shaoying Liu, Zuojian Feng, Lei Cai, Chunxin Zang, Yan Zeng, Zhibin Meng, Xiaoge Ping, Hongxia Fang  
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 **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 )  
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 **Assessing the threat status of amphibians in China**  
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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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卷册索引

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中文索引

分省名录

经济用途

高级检索

总论

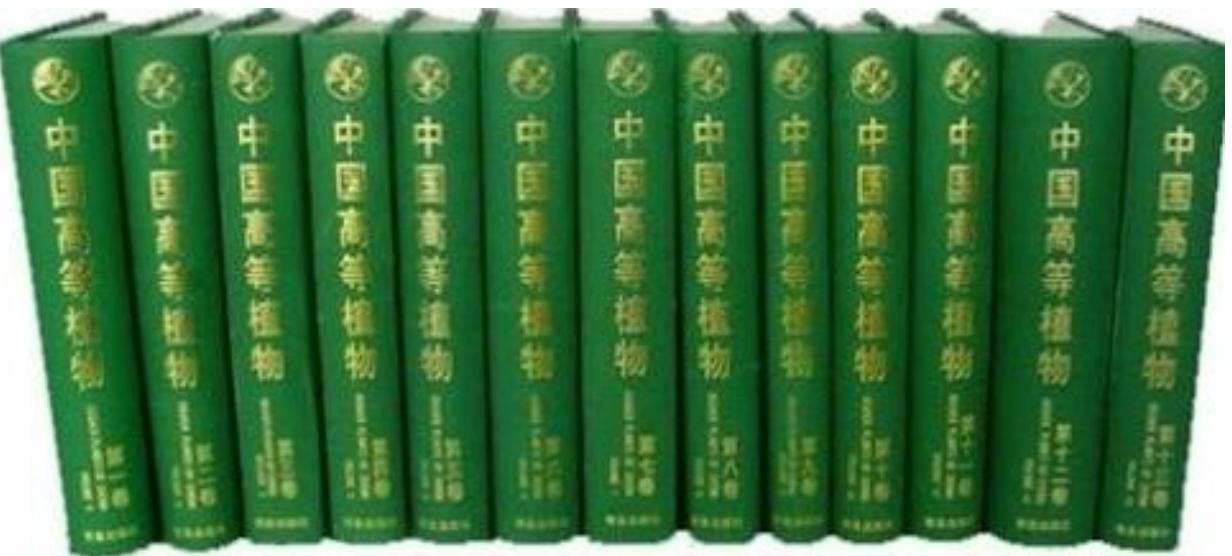
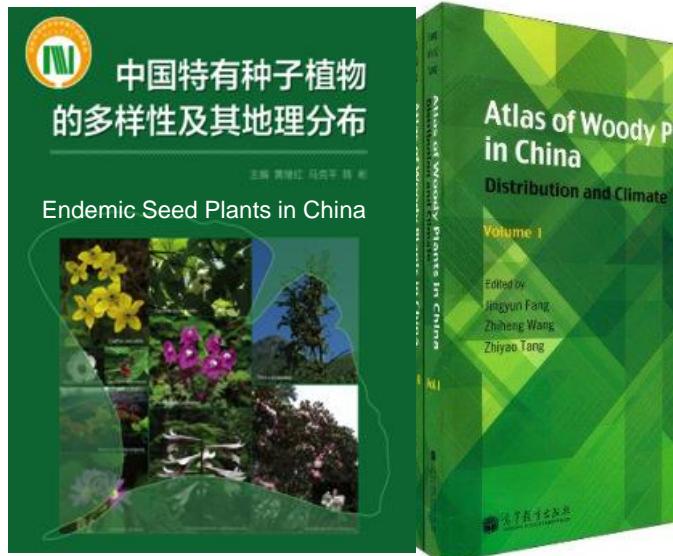
关于本志

## 中国植物志

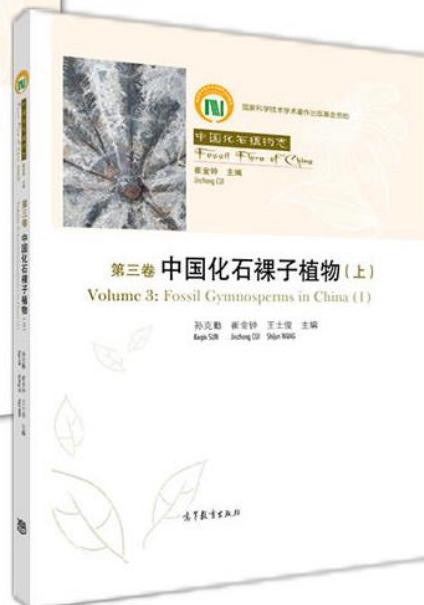
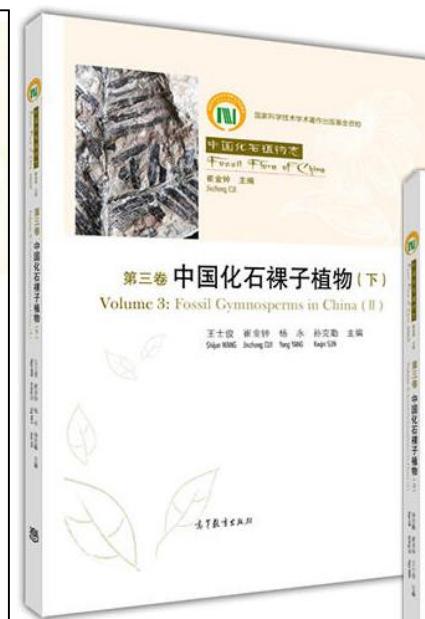
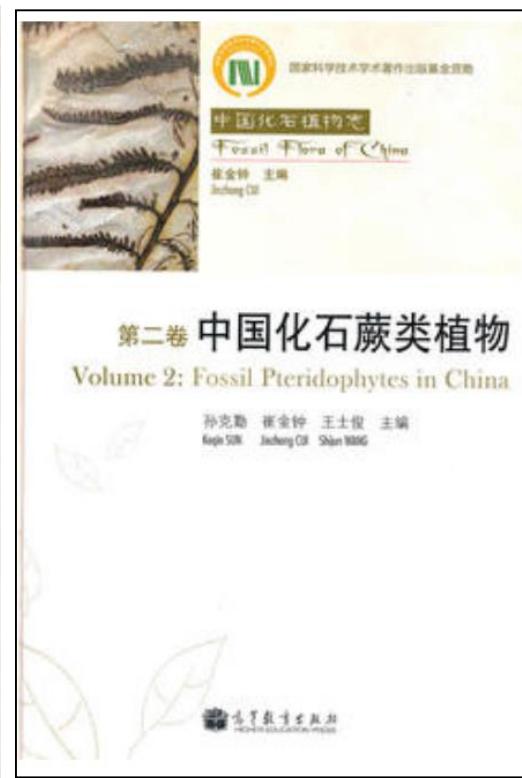
- + Acanthaceae 爵床科
- + Aceraceae 槭树科
- + Actinidiaceae 猕猴桃科
- + Adoxaceae 五福花科
- + Aizoaceae 番杏科
- + Alangiaceae 八角枫科
- + Alismataceae 泽泻科
- + Amaranthaceae 莨科
- + Amaryllidaceae 石蒜科
- + Anacardiaceae 漆树科
- + Ancistrocladaceae 钩枝藤科
- + Annonaceae 番荔枝科
- + Apocynaceae 夹竹桃科
- + Aponogetonaceae 水蕹科
- + Aquifoliaceae 冬青科
- + Araceae 天南星科
- + Araliaceae 五加科
- + Araucariaceae 南洋杉科
- + Aristolochiaceae 马兜铃科
- + Asclepiadaceae 萝藦科
- + Balanophoraceae 蛇菰科
- + Balsaminaceae 凤仙花科

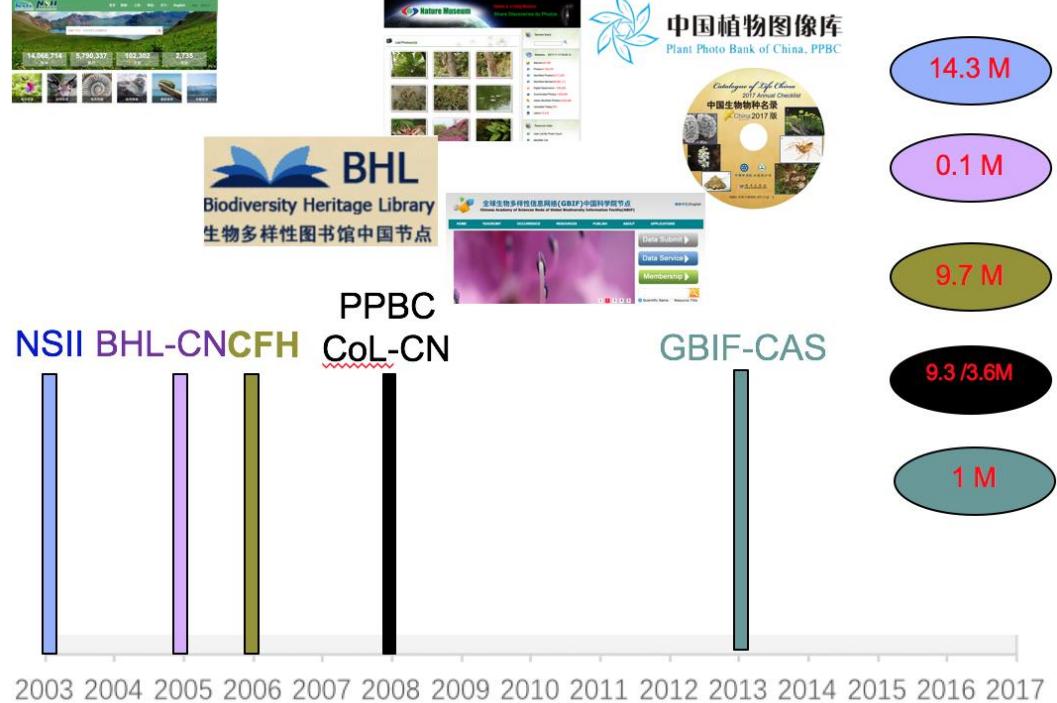


# Flora of China

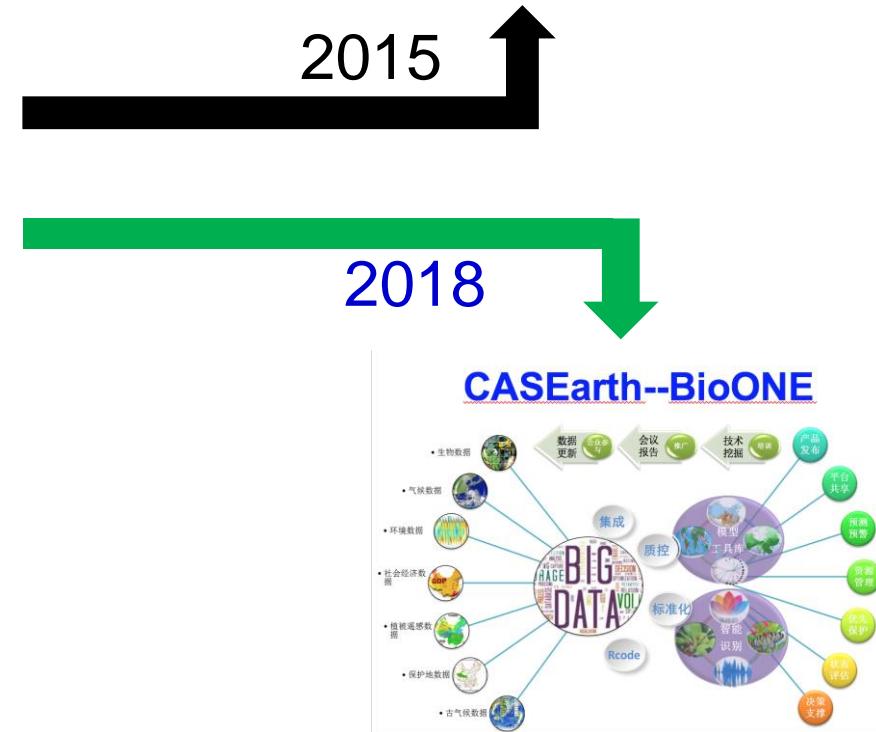
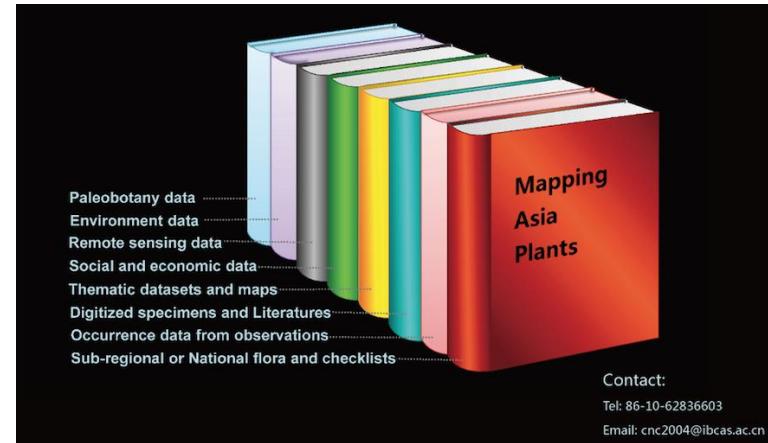


# Fossil Flora of China



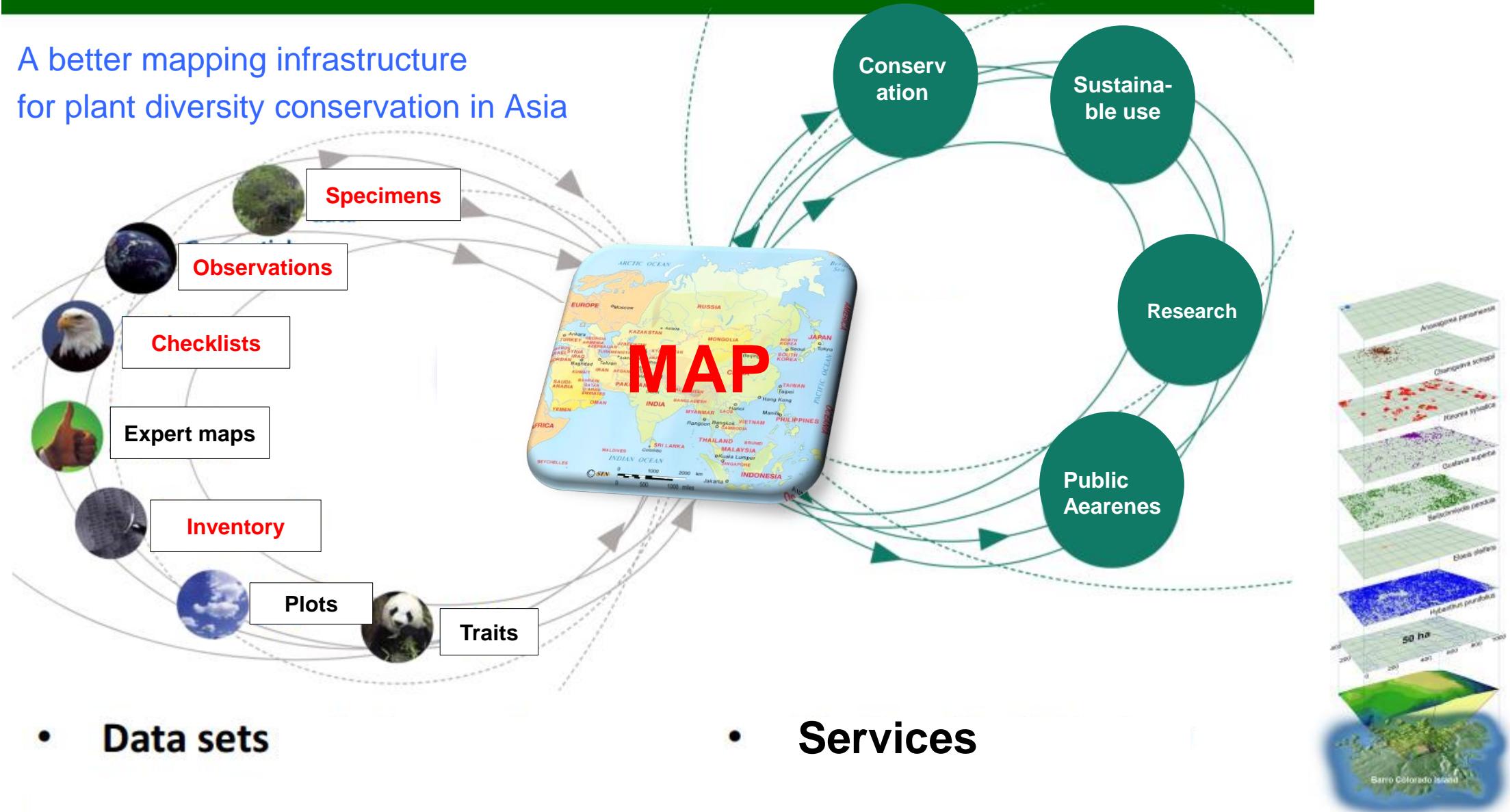


## Roadmap for next step

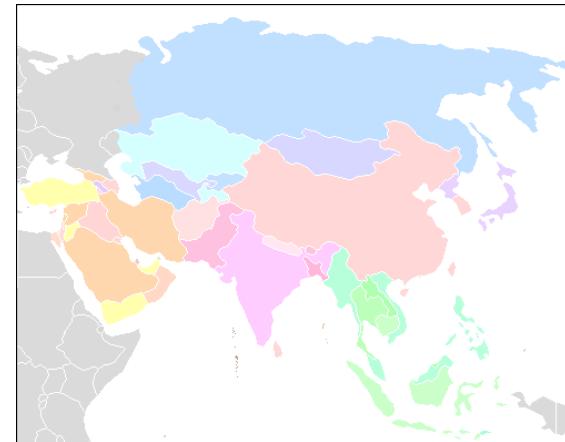


# Connecting:

A better mapping infrastructure  
for plant diversity conservation in Asia

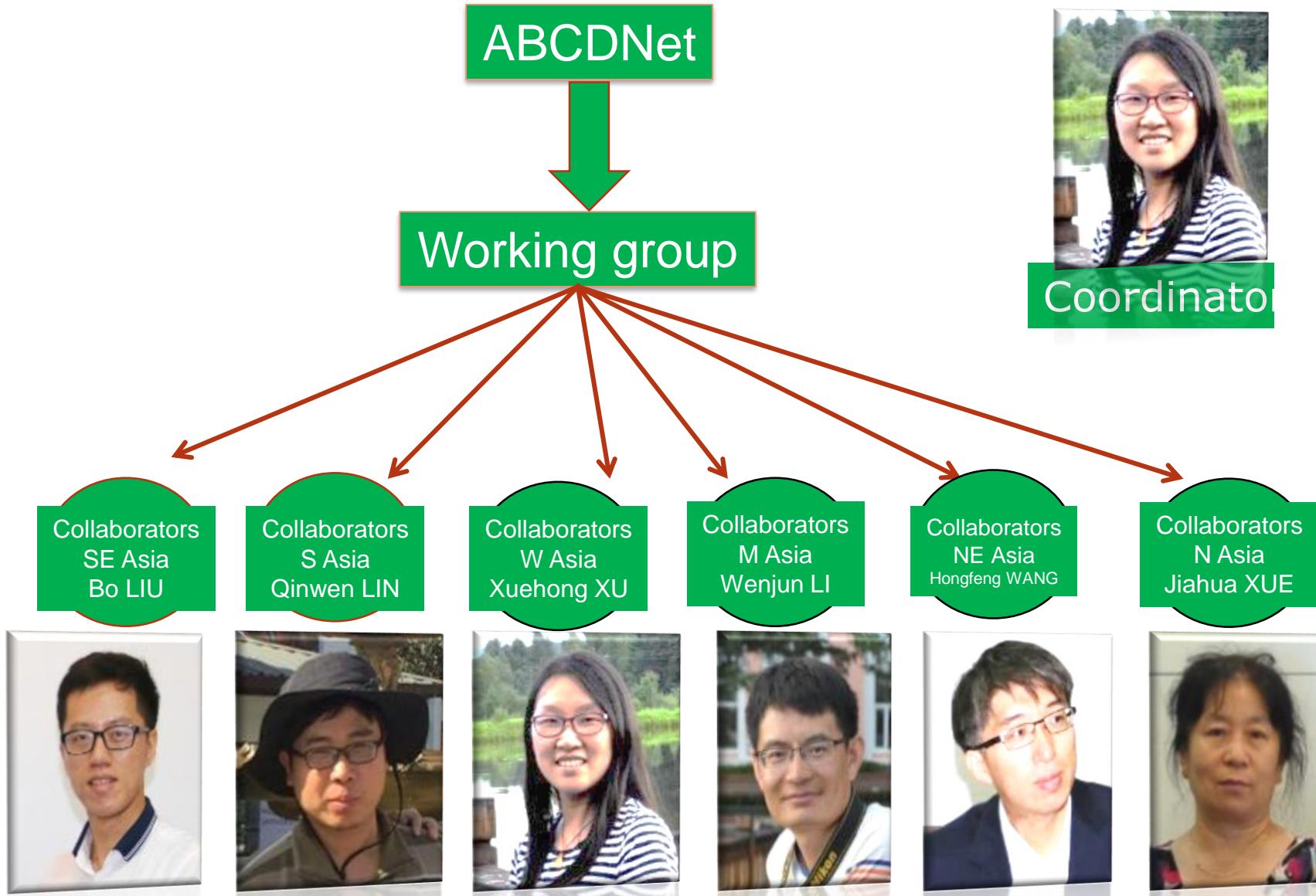


# Divisions of Asia

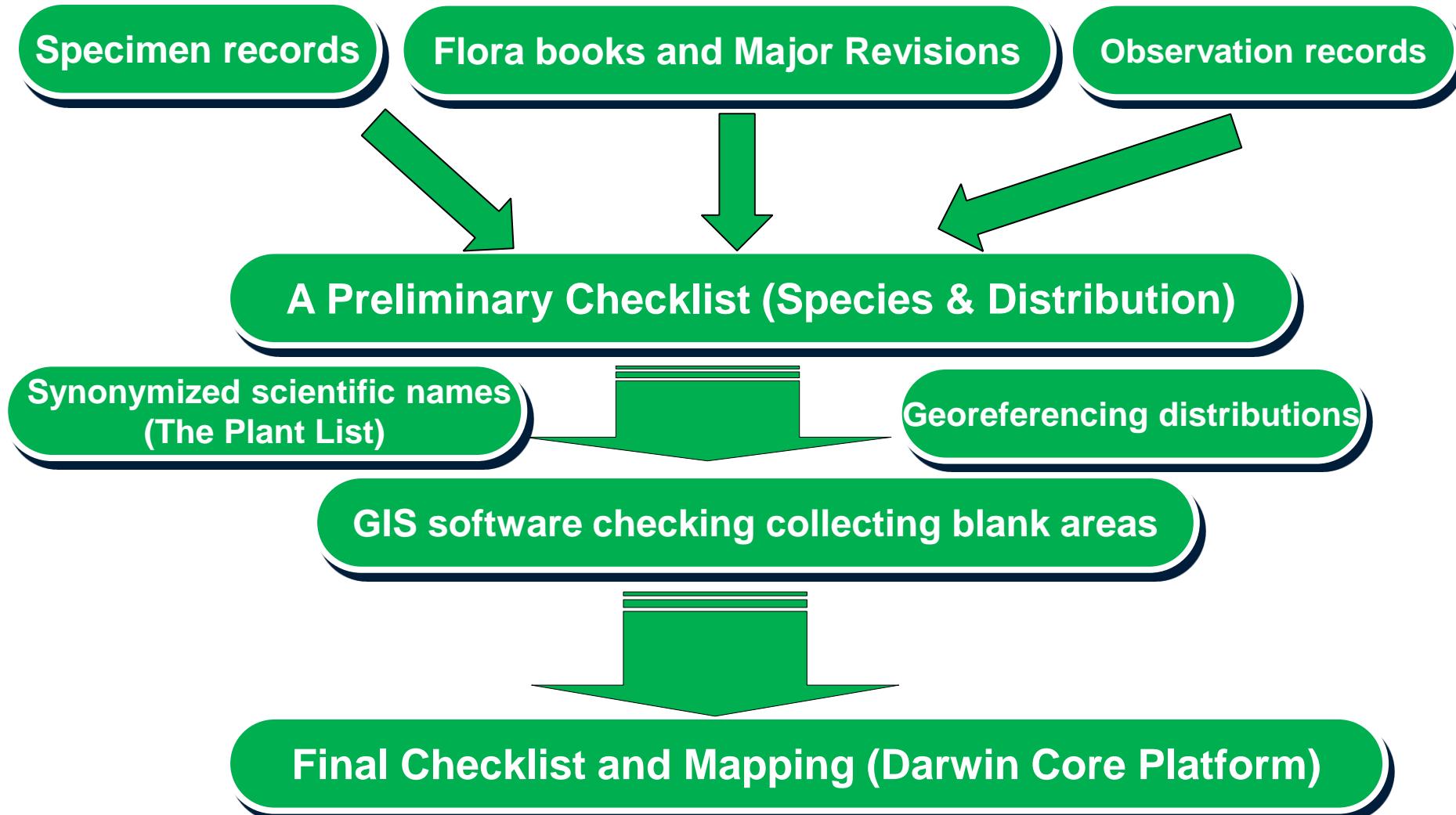


- **NE Asia:** China, DPRK, ROK, Mongolia, Japan
- **N Asia:** Asian region of Russia Siberia and Russian Far East
- **W Asia:** Iran, Iraq, Azerbaijan, Georgia, Armenia, Turkey, Syria, Jordan, Israel, Palestine , Saudi Arabia, Bahrain , Qatar , Yemen, Oman, The United Arab Emirates, Kuwait, Lebanon , Cyprus
- **M Asia:** Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Turkmenistan
- **S Asia:** Afghanistan, Bangladesh, Bhutan, India, Sri Lanka, Maldives, Nepal, Pakistan
- **SE Asia:** Brunei Darussalam, Cambodia, East Timor, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam

# Organization structure for MAP



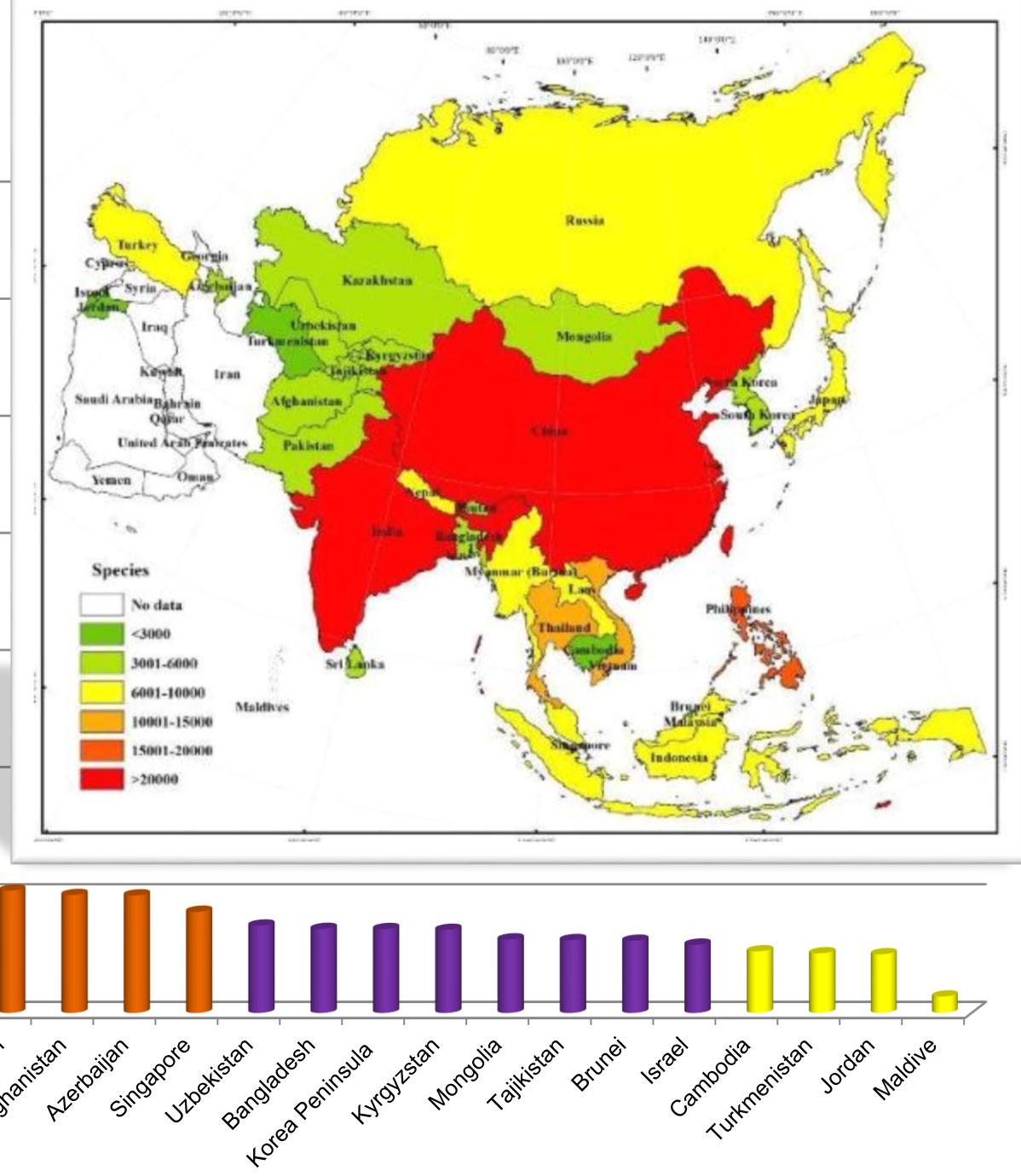
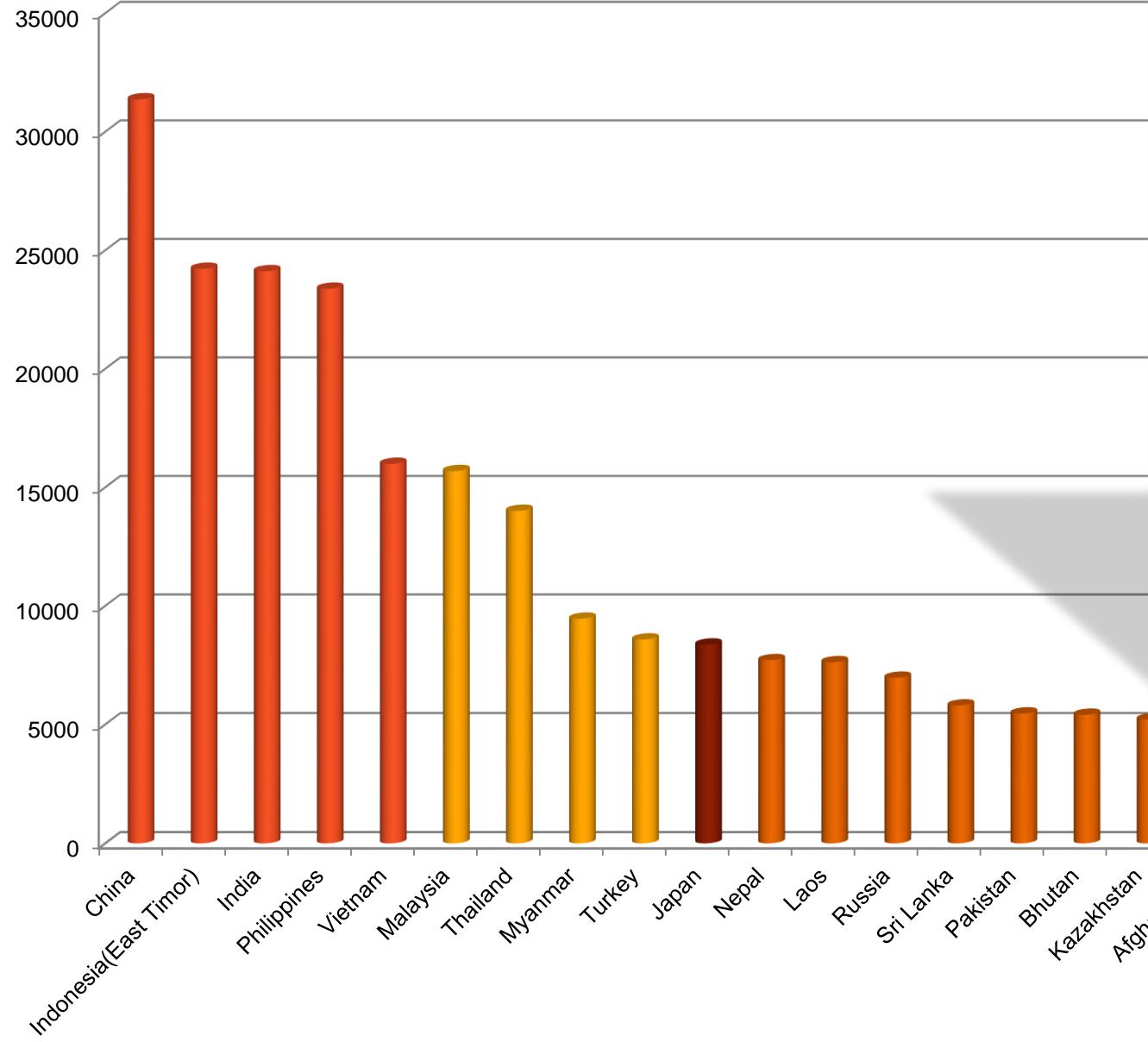
# Working flowchart



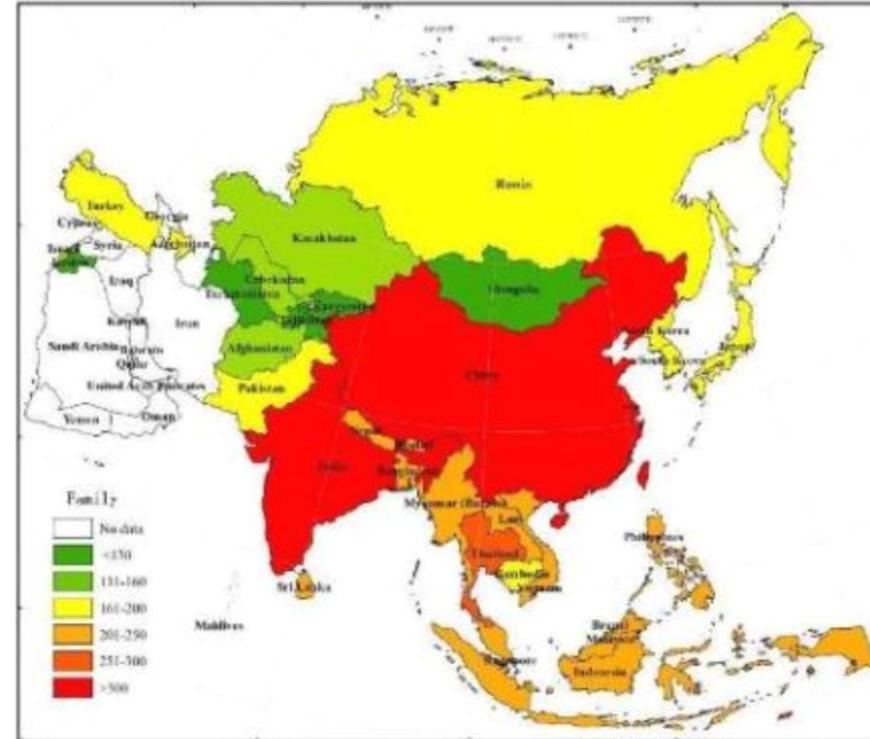
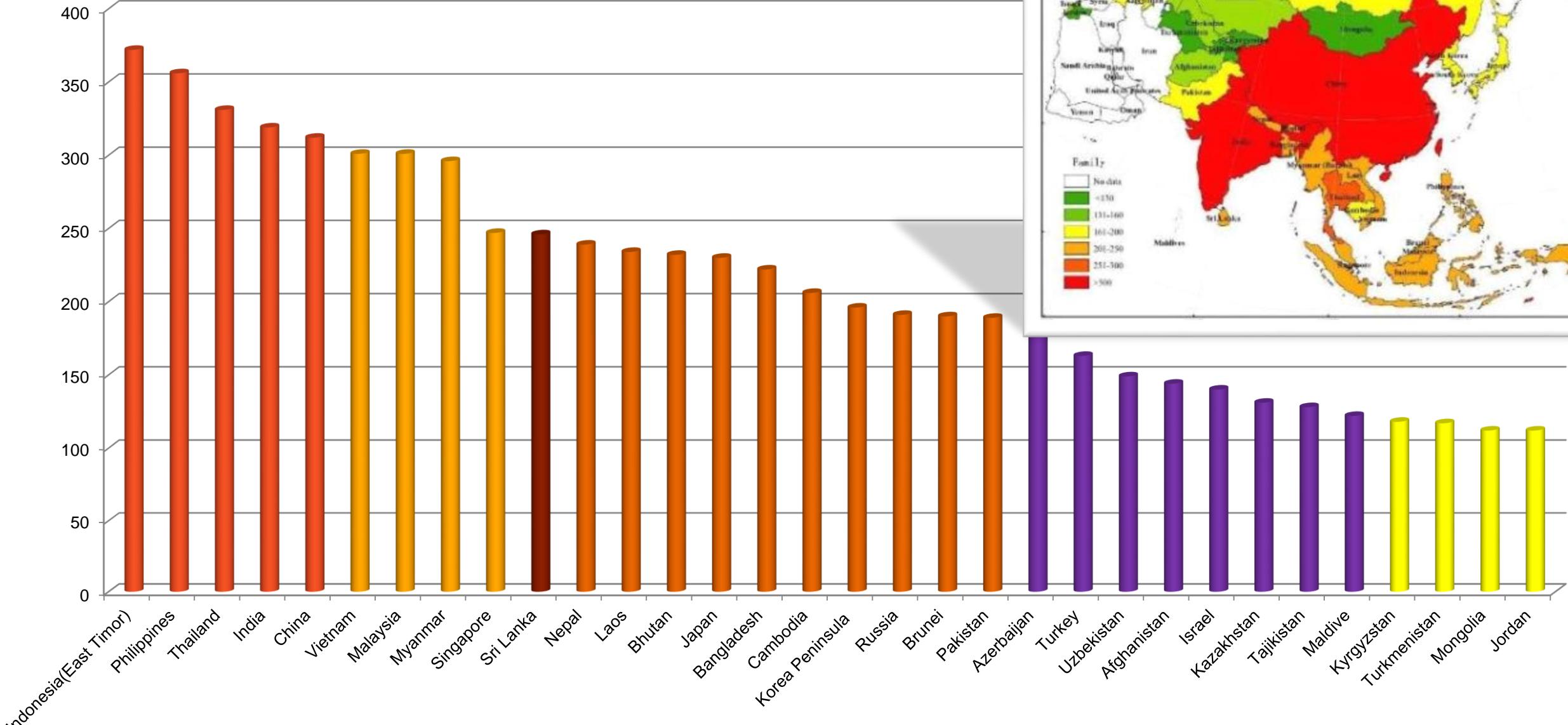
# MAP Major Progress

Asia divisions	Important flora literatures	Digitized species records	Species	Families	Genera	Estimated species	No. Specimens (million)	Percent complete
NE Asia	130	150,000	42,566	417	4345	45,000	16.79	95%
N Asia	30	50,000	7,700	191	1187	/	/	100%
W Asia	46	17,885	6,000	200	2543	/	/	75%
M Asia	29	21,197	9,047	169	1404	/	/	100%
S Asia	8	189,580	32,525	325	3817	40,000	1.24	90%
SE Asia	114	153,146	69,291	425	4873	60,000	2.02	70%
Asia	357	581,808						

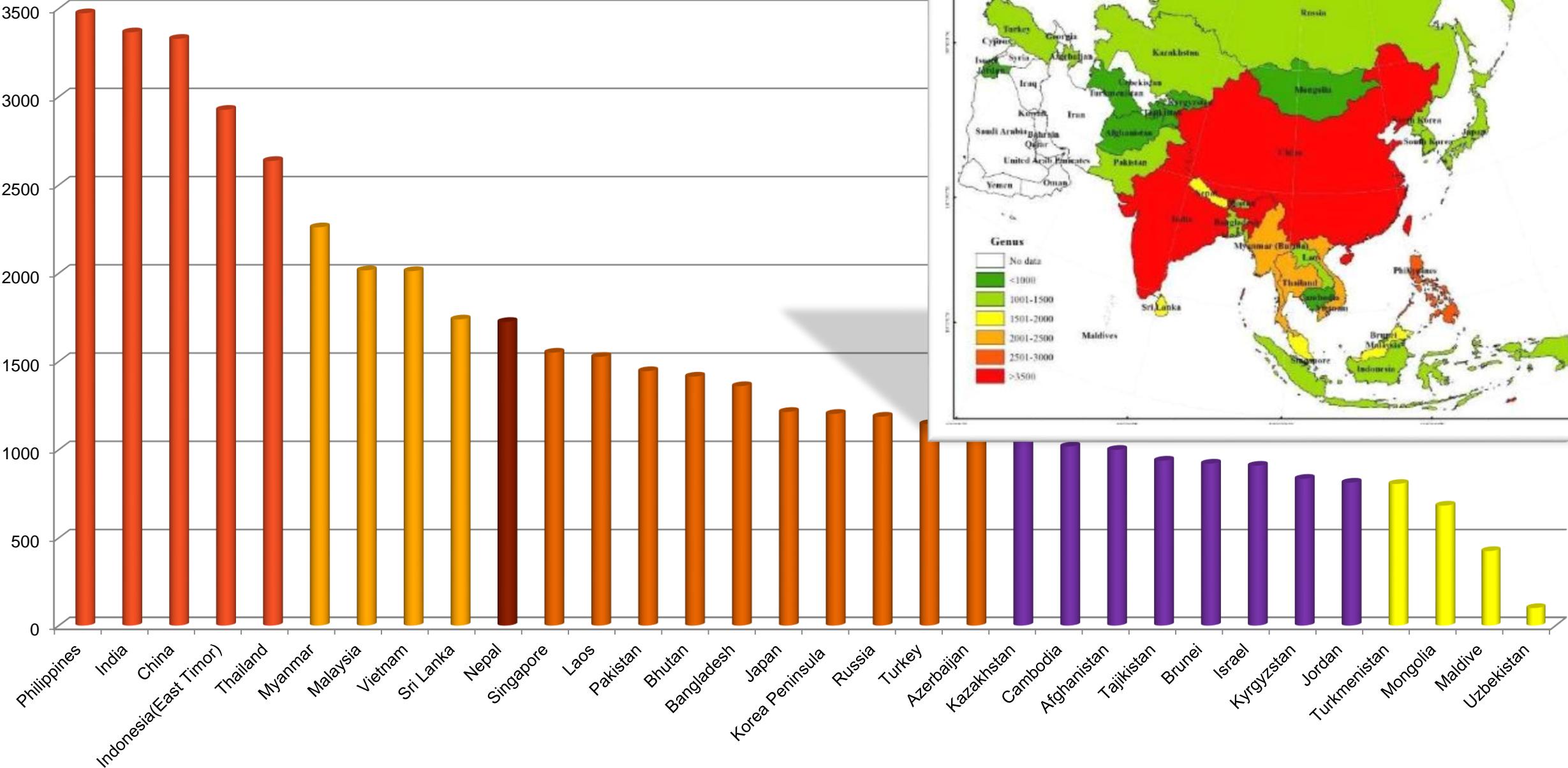
# No. species ranking by country



# No. families ranking by country



# No. genera ranking by country



# Subregional data — Southeast Asia

Country	Number of species from literatures	Number of species from specimens	Number of species from literatures and specimens	Number of species estimated by experts	Number of species from CBD national reports
Brunei	1847	2140	3071	Ca.5000	/
Cambodia	1612	1536	2622	Ca.3000	2308
Indonesia (East Timor)	6645 (5)	21115 (642)	24212	Ca.25000	Ca.30000-40000
Laos	7024	2089	7618	Ca.8000-11000	/
Malaysia	9310	8977	15680	Ca.8500 (Malay Peninsula) Ca.15000(Borneo)	5529 (Malay Peninsula) 4497(Borneo)
Myanmar	8507	2578	9451	Ca.12000	11800 (including 2500 cult. species)
Philippines	15624	9510	23372	Ca.15000	/
Singapore	3762	1354	4304	Ca.4000	3971
Thailand	10168	8773	14003	Ca.12000	12000
Vietnam	12160	6649	15986	Ca.12000	11373 spp.
<b>Total</b>	<b>44,289</b>	<b>65,362</b>	<b>69,291</b>	<b>Ca. 60,000</b>	/

# Key message for databasing

- 1. Country level species checklist.

Some countries like Thailand, Mongolia, Philippines don't have such a species checklist before.

- 2. Synonymized clean checklists by *The Plant List*.

Synonymize all scientific names by same standard, easy to compose a regional species checklist.

- 3. Checklist from flora literatures, specimens, living collections

Multiple data resources enable more reliable species checklist.

- 4. Distribution level

Provincial level for bigger countries such as Russia, China; country level for smaller countries, such as Brunei, Singapore.

中国科学院生物多样性委员会

Biodiversity Committee, Chinese Academy of Sciences



ABCDNet

Asia Biodiversity Conservation and Database Network

SEADiv

Southeast Asia Plant Biodiversity Information Infrastructure



谢谢

Thanks!

