

Workshop on Nature Conservation and Transboundary Cooperation

## Conservation in Connected World

——Introduction on School Nature Conservation, BFU

Lei Guangchun

28 November, 2016 Beijing



# About School of Nature Conservation



## History, Discipline and People



# Rooted from 50 Years' Foundation of Relevant Disciplines in Beijing Forestry University

生态学 Ecology 园林设计与景观规划 Landscape Architecture Design 水土保持 Water and Soil Conservation 生物学 Biology 艺术学 Arts 社会学及环境法 Social Science and Environmental Law 管理学 Management



## History, Discipline and People





Nature Reserve Research Center of the State Forestry Administrations was established in 2001

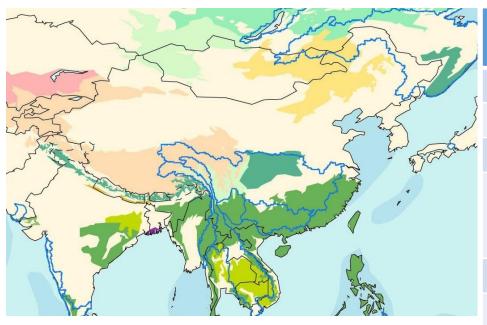
School of Nature Conservation Inaugurated in **2004** jointly by the State Forestry Administration and the Ministry of Education

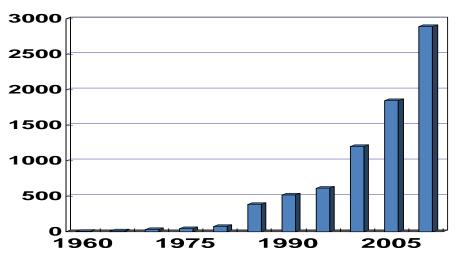
- Nature Reserve Studies
- Wetland Ecology
- Wildlife Conservation and Wise Use
- 37 faculty members, 6 intl. guest professors
- 417 student (Undergraduate and postgraduate)











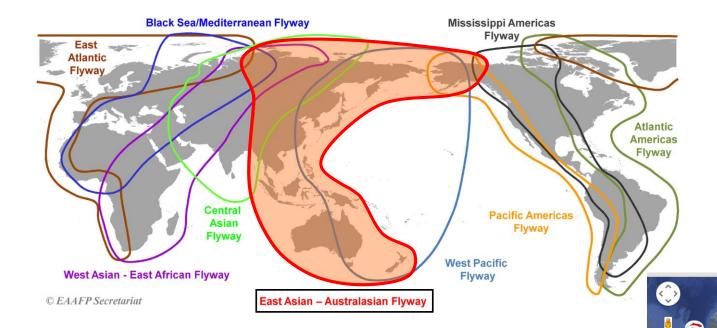
	目然保护区字院 School of Mature Conservation		P区字院 e Conservation	
PA Types	Number	Area (mil ha)	Start year	
Nature Reserve	2885 (428)	149	1956	
Forest Park	3100(660)	15.7	1982	
Scenic Areas	962 (225)	19.4	1982	
Water Conservancy Scenic Spot	1000 (658)	**	2001	
GeoPark	252	***	2004	
National Wetland Park	1000 (569)	1.4**	2005	
Agrobiodiversity Protection Spots	329(103*)	**	2001	
Marine PA	155	***		
Total	9683	185.5 ???		
* Fishery Genetic Resource PA				

**Effective Conservation in PAs** 





地图 卫星图像



# Effective Conservation in Connected World





#### **Teaching and Training**





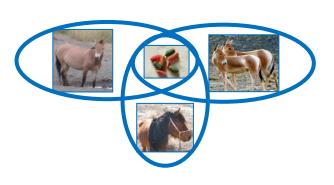


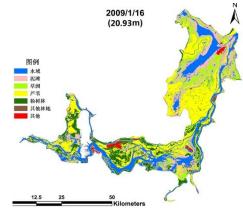
#### **Fundamental Research**



From Molecular to Landscape...







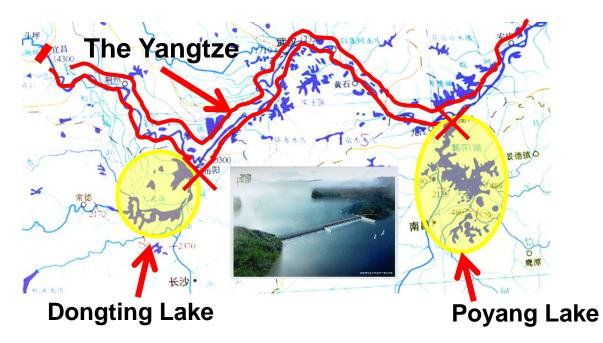




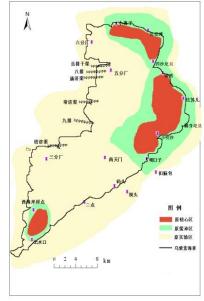
#### **Conservation Practice**

Master Planning
Management Plan
Monitoring Plan
Restoration Plan
Environment Impact Assessment

...



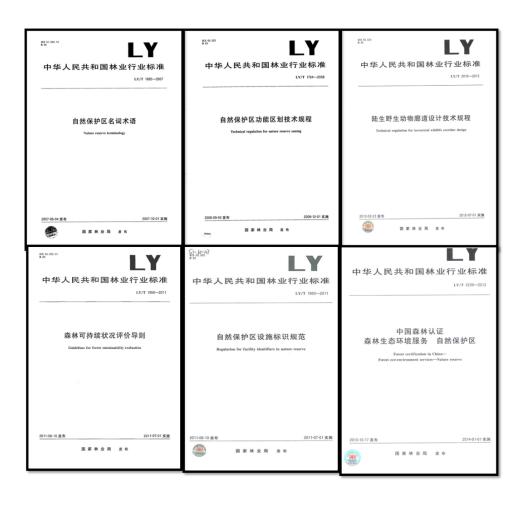








#### **Setting Standards**



制定自然保护区建设标准 Setting Nature Reserve Development Standard

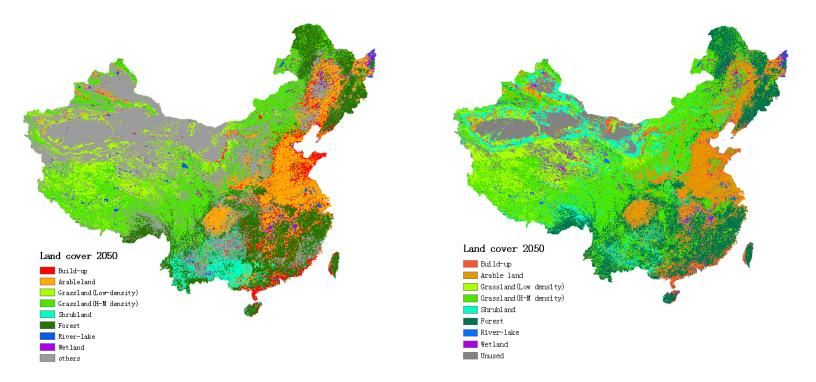
制定全国环境与自然保护高等教育人才培养标准
Developing National Higher
Education Standard for the
Environment and Nature
Conservation Disciplines





#### **Policy Making Support**

National Strategy on Ecosystem Management (2010-2012 CCICED)



## 运用生态系统方法、提升生态系统服务是唯一的选择

Application of Ecosystem Approaches and Enhance Ecosystem Services is the only Choice for China, in order to achieve its 2020 development goals





#### **Networking and Cooperation**



雪豹及猫科动物研究网络 Snow Leopard & Cats Research Network

EAAF Partnership Network



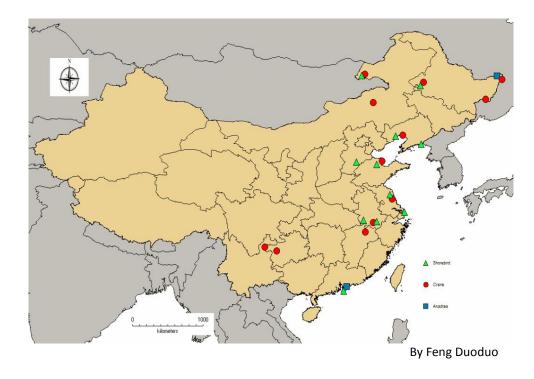


# Regional Cooperation on Habitat Conservation in Northeast Asia

## EAAF

- China National Partnership Secretariat
- Network sites
  - Information sheets
  - Training

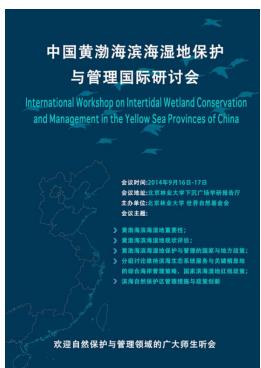




## Yellow Sea Ecoregion

- WWF
  - Yellow Sea Inititave
- SFA-Lao Niu Foundation-Paulson Institute
  - China Coastal Wetland Conservation Blueprint Project
- RSPB-WWF
  - Intertidal Wetland Conservation Workshop
- IUCN
  - Resolution 28, IUCN WCC 2012, Jeju
  - Resolution 24, IUCN WCC 2016, Hawaii





## **DPRK**

- Rason Migratory Bird Reserve 2014
- Mundok National Natural Monument 2016





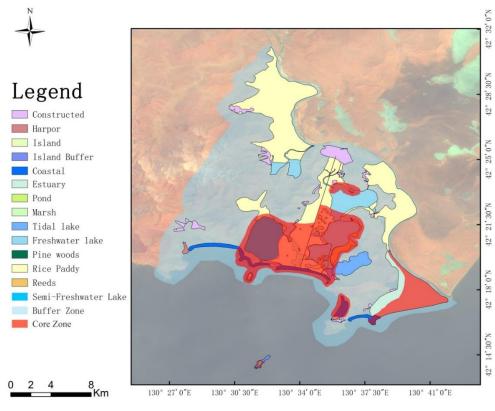


#### RASON MIGRATORY BIRD RESERVE : BIRDS AND HABITATS

DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA







Suggested Zonation at Rason Bird Reserve (BFU-UNESCAP, 2014)







Mudflat at Mundok Estuary (BFU-HSF, 2016)

## RoK

- ERF-UNESCAP
  - Cheonsu Bay
  - DMZ
- IUCN-Ramsar Regional Center East Asia (RRC-EA)
  - Suncheon Bay









# Regional Cooperation on Species Conservation in Northeast Asia

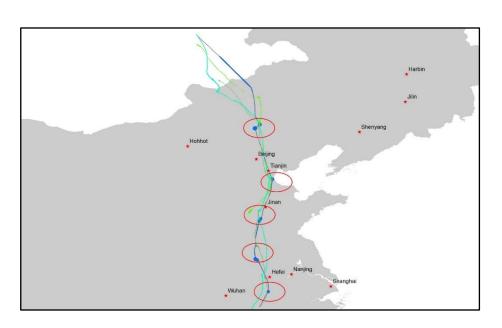
### Crane

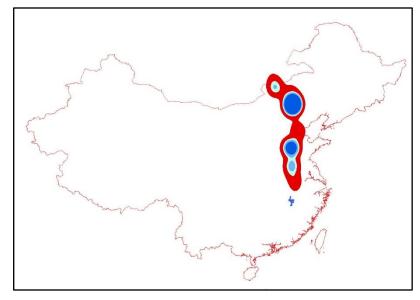
- Siberian Crane
- Hooded Crane
- White-naped Crane
  - Understanding White-naped Cranes' Migratory Connectivity between Wintering and Breeding Grounds through Satellite Tracking
  - With ICF, MAS, WSCC Mongolia, UNESCAP





#### Plenary Finding (unpublished data)





Important Stopover of WNC

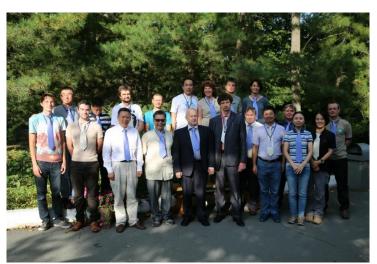
Degree of importance of different Stopover

- It's the main migration route of White-naped Crane western population from central Mongolia via Luanhe river basin (Duolun) to Bohai bay, then go south to Poyang Lake.
- Most of stopover sites of WNC are not under protected.
- More actions are needed to protect the White-naped Crane in China.

## Duck

- Scaly-sided Merganser (Mergus squamatus)
  - Geolocator & Artificial Boxes for Scaly-Sided Merganser
  - Estimation the Wintering Population Size of the Endangered Scaly-Sided Merganser in China
  - National Survey for Wintering Scaly-Sided Merganser
  - Wintering Habitat Use of Scaly-Sided Merganser



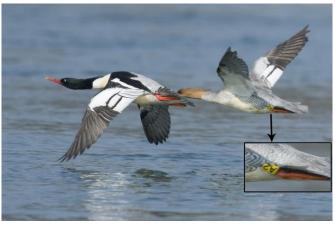


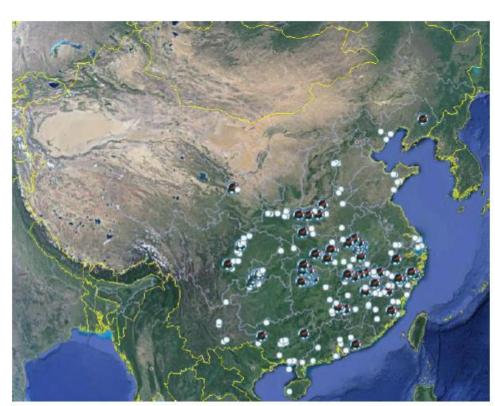
East Asian-Australasian Flyway Partnership Scaly-sided Merganser Task Force Chair: Lei Guangchun Member Zeng Qing

## Duck

#### Mergus squamatus







2015-2016 调查点与有中华秋沙鸭记录点的分布图

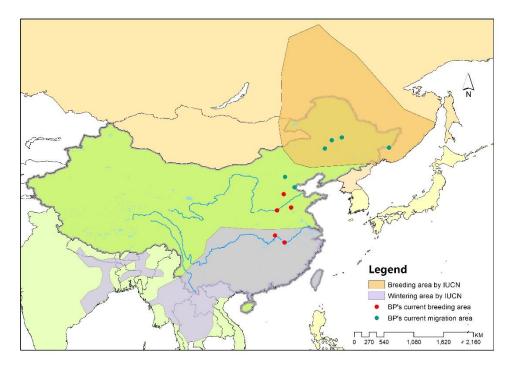
	2014/2015	2015/2016
Male	140	244
Female & Juvi	301	390
Total	441	634

## Duck

- Baer's Pochard (Mergus squamatus)
  - Breeding Ecology
  - Population, Distribution and Its Habitat loss







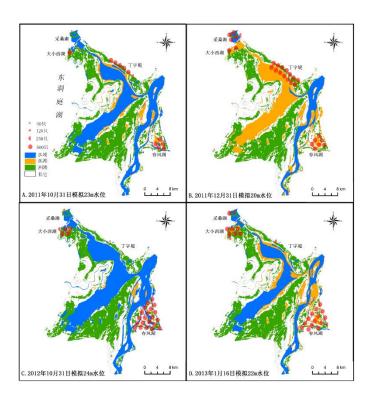
East Asian-Australasian Flyway Partnership
Baer's Pochard Task Force

Chair: Ding Changqing Member: Wu Lan, Jia Yifei

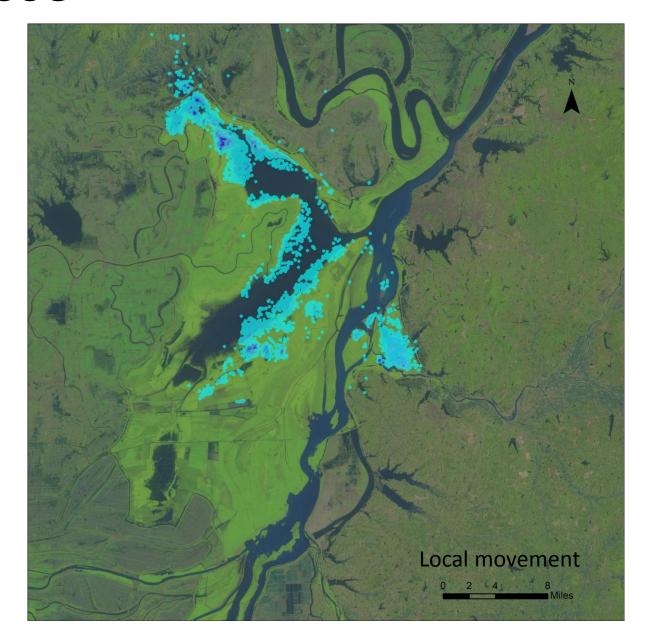
### Goose

- Lessor White-fronted Goose (Anser erythropus)
  - Food resource Carex and eco-hydrology
  - Species relationship between Bean geese and White-fronted geese
  - Local scale movement and habitat selection
  - Global scale migratory ecology





## Goose



## Goose

