# 海洋保护地研究团队

Research Team on Marine Protected Area



# **China Policies on MPA with Climate Change**

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# **OUTLINES**

- 1. MPAs in China
- 2. **NEAMPAN Sites**
- 3. Policies on MPA with CC
- 4. Status & Suggestion



## 1. MPAs in China



### **New MPA Authority**

- Reform MPA authority and management system in 2018;
- National Forest and Grassland Administration (NFGA)
  - > To develop the national strategy/plans of PA;
  - ➤ To supervise and manage various types of PA, such as national parks, nature reserve, and natural parks;
  - > To provide suggestions for the designation & adjustment of national level PAs;
  - > To organize and implement ecological restoration work in various PAs;

National Park

Maine Nature Reserve

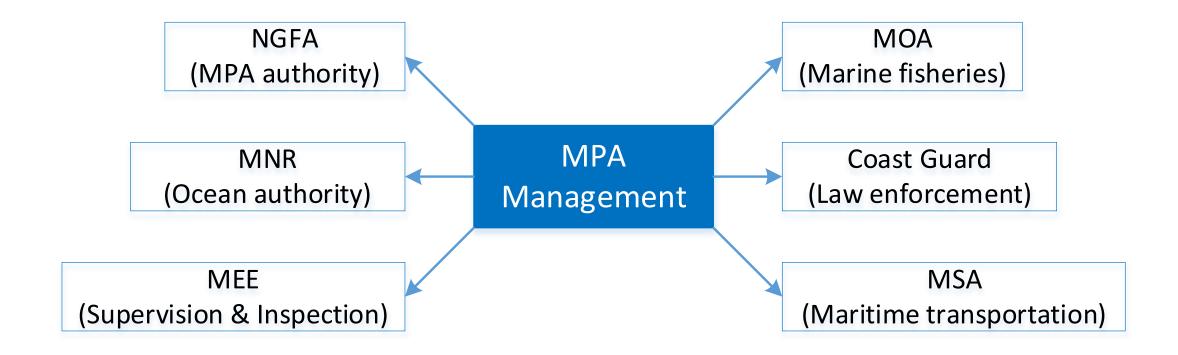
Marine Park

### **New MPA Classification**

- National Park: large ecosystem, large ecological process, and other national representatives;
- Marine Nature Reserve: marine endanger species, typical ecosystem, natural relics;
- Marine Park: coastal landscape, geographical location, important habitats, and marine resource;

## 1. MPAs in China

### **MPA Management related Agencies**



# 1. MPAs in China

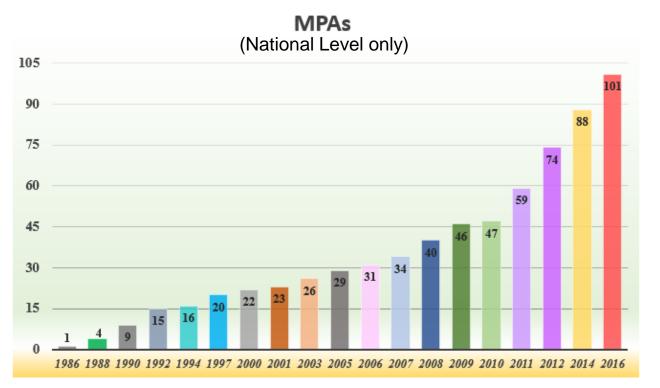
**Total MPAs:** 271 (MNR 160, MSPA 111);

Area: 124,000 Km<sup>2</sup>; National level: 101

**Top 3:** Guangdong, Fujian, and Shandong Province

Reorganizing: MPA number from 271 to 352, sea

area from 124K km<sup>2</sup> to 93.3K km<sup>2</sup>;





## 2. NEAMPAN Sites



Sanya Coral Reef National Nature Reserve



### Beilun Estuary National Marine Nature Reserve 广西北仑河口国家级自然保护区



Located in the north of Beilun River, a transboundary river between China and Viet Nam, the Reserve is represented by the largest contiguous stretch of *mangrove forest* in coastal China, with a relatively higher diversity of halobios and birds. Semi-closed bays, open estuary coasts, large intertidal zone and sandy beaches with mangrove vegetation act as an important stopover site for migratory birds, including Black-faced Spoonbill, Chinese Egret and Saunders's Gull. It is also an important habitat for relic marine animals such as tri-spine horseshoe crab and mangrove horseshoe crab.



http://www.china-mangrove.org/point/27

(below) http://ocean.china.com.cn/2020-06/08/content\_76138061.htm?f=pad&a=true



### Shankou Mangrove National Marine Nature Reserve <sup>-</sup>西山口国家级红树林生态自然保护区



Consisting of two areas on either side of the Shatian

Peninsula, the Reserve includes mangroves, salt

marshes and seagrass habitats. Such combination of

three coastal habitats in a single location is rare

along the coast of China. Mangroves and salt

marshes also form a protective green barrier to

protect farmlands and villages along the coast. Key

protected target is mangrove ecosystem. 16

mangrove species are reported, including five

dominant communities in the mangrove forests

such as Rhizophora stylosa and Bruquiera

aymnorrhiza. Many endangered marine animals.

such as Dugong, Chinese dolphin and Horseshoe





Located in the southern China, the Reserve shows distinctive geographical features, with typical islands in the eastern and western parts, and a peninsula with lots of capes and bays in the middle part. Key protected target is coral reef. Small waves, shallow water, rich organic matters and hard matrix are good for coral growth, and reef is made of various types of

三亚珊瑚礁国家级自然保护区





Good quality of seawater, water transparency, colorful coral reefs and various fishes create good conditions for ecotourism. While fishing and coral reef mining used to be main income sources, the Reserve created new job opportunities in ecotourism for residents to better protect marine

website: http://www.sycoral.com.cn/

https://m.ctrip.com/webapa/vou/aspoi/sight/ahatos/61/r2028676.html?Polid=31.6607.068.Name=%E7%8F%8A%E7%91%9A%E7%A4%81%E8%87%AA%E

(below) presentation by Dr. Zhana Zhaphui at NEAMPAN Workshop 2016



### Nanji Islands National Marine Nature Reserve 南麂列岛国家海洋自然保护区





### National Nature Reserve of Dazhou Island Marine Ecosystems 大洲岛海洋生态国家级自然保护区

crab, are also reported.

As one of the first five national marine nature reserve designated in China, Nanji Islands are known as "the kingdom of shellfish and alage" and "the museum and gene bank of marine organisms in the north and south China". About 15% of the total shellfish species and 25% of the total algae species identified in China are found here, and they altogether account for about 80% of the total number in Zhejiang province. Consisting of tens of bedrock hilly islands as well as bare/submerged rocks, this species-rich site is important for species conservation and scientific research. The main activities are fish production, trade and scientific research, while tourism has become more important.

Website: http://www.zjpy.gov.cn/col/col1463022/index.html



(right) http://vis.itchina.or.kr/area/area11.asp?Action=view&Title=%EC%A0%80%EC%9E%A5%EC%84%B1&idx=846

Dazhou Island is based on the continental shelf and belongs to the continental island away from the coast. Most of the seabed is reef and sandy floor which provides good conditions for coral and reef. The main protected target is swiftlets. Granite formations and many caves, washed by sea water for a long time, serve as a unique habitat; and abundant algae and fish are important nutrient for swiftlets. It has been categorized as an endangered species since its nest is regarded as Eastern curiosity and rare medicine. The Reserve thus plans to gradually expand its population by artificial breeding and release to the wild.



(below) http://www.ddax.cn/html/2015/0611/1658.html

### Changyi National Marine Ecology Special Protected Area 昌邑国家级海洋生态特别保护区

Composed of shallow sea, tideland, saltmarsh, wetland and five rivers flowing to the sea, the reserve has flat topography and accumulated coastal plain, with irregular and mixed semidiurnal tide. As a representative marine ecosystem in Laizhou Bay of the Bohai Sea, Changyi protected area is the only national MPA in China aiming to protect tamarisk (Tamarix chinensis; also called "saltcedar") as a protected target. The scale and density of tamarisk forests make the area extremely valuable in scientific research and tourism. The prior goal thus is to protect tamarisk, which accounts for 71% of the area. While widespread tamarisk attracts tourists and brings economic benefits, the management agency has conducted several special activities to reduce anthropogenic impacts for tamarisk protection.

website: http://www.changyi.gov.cn/zjcy/lygg/201510/t20151010\_1685202.html



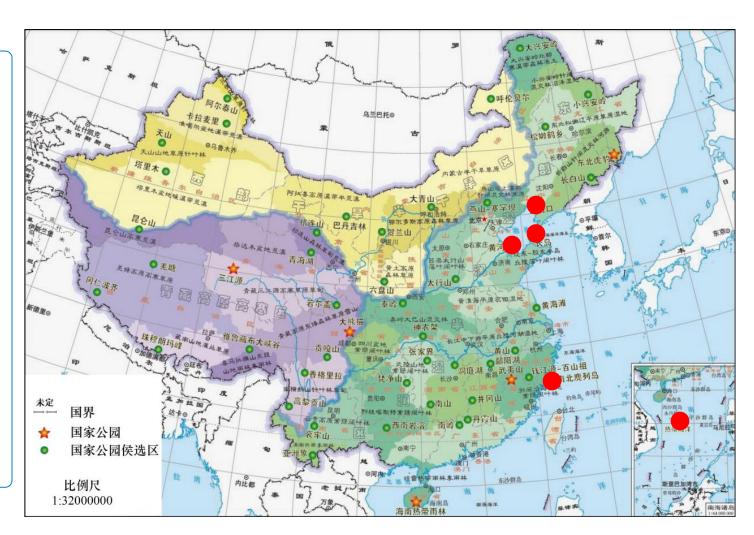
# 2. NEAMPAN Sites



No.	MPA's Name	Location	Area (km²)	Protected Targets	
1	Nanji Islands National Marine Nature	Pingyang,	201.06	Marine shellfish and algae as	
	Reserve	Zhejing		well as their habitats	
2	Shankou Mangrove National Marine	Hepu, Guangxi	80	Mangrove ecosystem	
	Nature Reserve	Tiepu, Guarigai	80		
3	Beilun Estuary National Marine	Fangchenggang,	300	Mangrove ecosystem	
	Nature Reserve	Guangxi	300		
4	National Nature Reserve of Dazhou	Wanning,	70	Swiftlet, its habitat and the	
	Island Marine Ecosystems	Hainan	70	marine ecological system	
5	Sanya Coral Reef National Nature	Canya Hainan	85	Coral reef and the marine	
	Reserve	Sanya, Hainan	63	ecological system	
6	Changui National Marina Foology	Changyi, Shandong	29.29	Tamarix chinensis, marine	
	Changyi National Marine Ecology Special Protected Area			organisms and coastal wetland	
	Special Flotected Area			ecosystems	

# 2. NEAMPAN Sites

- National Park Spatial Layout
  Plan, including 5 National Parks
  with Sea Areas:
- Yellow River Estuary National Park (sea area 61%)
- Liao River Estuary National Park (sea area 72%)
- Changshan Islands National Park (sea area 99%),
- Tropical Marine National Park (sea area 100%)
- Nanbeiji Islands National Park (sea area 95%)—NEAMPAN site



# 3. Policies on MPA

Wetland	Protection	Law	effective	from	lune	1st 2022
		Lavv,	CHCCHVC	II OIII .	Julic	134, 2022.

Article 24: Provincial and above governments and their relevant departments shall, in accordance with wetland protection plans and wetland protection needs, protect the important wetlands as national parks, nature reserves, or natural parks by law.

□ *Wildlife Protection Law,* effective from May 1st, 2023.

Article 12: Provincial and above governments shall, in accordance with the law, designate important habitats of wild animals as national parks, and nature reserves to protect, restore, and improve the living environment of wild animals.

□ *Marine Environmental Protection Law*, effective from January 1st, 2024.

Article 34: The State Council and the people's governments of coastal provinces, and relevant departments shall, in accordance with the needs of protecting the ocean, protect the important marine ecosystems, natural concentrated distribution areas of rare and endangered marine organisms, marine natural relics and natural seascapes, and other areas as the national parks, nature reserves, or natural parks by law.

- □ Law on National Park (Draft), in review stage of the National People's Congress in 2024.
- □ Act Ecological Protection Compensation, effective from June 1st, 2024.
- □ *Act on Nature Reserves*, revised draft in the solicit opinions from social publicity in 2022.

# 3. Policies on MPA with Climate Change

- □ 2020, President Xi announced that China would scale up its NDCs by adopting more vigorous policies and measures, strive to peak CO<sub>2</sub> emissions before 2030, and achieve carbon neutrality before 2060.
- □ 《National Climate Change Adaptation Strategy 2035》, 2022
- □ Chapter IV Improving the Climate Change Adaptation Ability of Natural Ecosystems: Section Three Marine and Coastal Zones
  - > Refine the marine disaster observation, warning, and assessment system.
  - Improve the ability of coastal belts and zones to prevent and defend against disasters.
  - > Strengthen protection and restoration of coastal ecosystems.
    - to improve the construction of marine nature reserves, and promote the integrated protection and restoration of typical coastal zone ecosystems;
  - > Continuously improve the quality of marine ecological environments.
  - Comprehensive gulf ecology management projects
  - ◆ Coastal zone ecosystem protection and restoration projects
    - maintain important <u>coastal ecological corridors to protect biodiversity;</u>
    - <u>protect marine animals and plants and their habitats</u>, strengthen aquatic ecological protection and restoration, and improve coastal ecosystem service functions and disaster prevention and mitigation abilities;

# 3. Policies on MPA with Climate Change

### China Biodiversity Conservation Strategy and Action Plan (2023-2030), 2024

- > 27 priorities actions were arranged;
- > Priority action 14: Synergistic management of biodiversity and climate change
- Coordinate the formulation of <u>a policy framework for biodiversity adaptation to climate change</u>, and strengthen the construction <u>of a support system</u> for biodiversity adaptation to climate change.
- Strengthen the <u>monitoring and assessment of the impact</u> of major meteorological disasters and climate change on China's *important ecological functional areas, important species and fragile ecosystems,* as well as the forecasting and early warning, and enhance the capacity for climate risk management and comprehensive disaster prevention and mitigation.
- By 2030, a support system for biodiversity adaptation to climate change, ecosystem carbon stabilization and sink enhancement; national key ecological functional zones will be fully integrated into the regular monitoring of the impact of climate change and the risk early warning system; the climate resilience of the ecosystems and the capacity of carbon sinks will continue to be upgraded. Synergies between climate change response and biodiversity conservation have been steadily promoted.

# 4. Status & Suggestion

### **STATUS**

- Weak policies on connecting MPA with climate change;
- Indescribable MPA roles and contributions to mitigate climate change;
- Climate change impacts on MPA and protected target is still in research stage;

### **SUGGESTION**

- Assessment the impacts of climate change on the MPAs and protected targets, providing more information and public attention on the issue;
- More regional cooperation for climate change impacts on MPA and migration species, such as spotted seal, and provide adaptation strategy on MPA;
- Expend NEAMPAN site members, such as wetland MPAs, and collective actions on carbon sink to mitigate climate change;
- Increase the coverage of marine conservation areas in North-East Asia by MPA
   & OECMs to provide more shelters for marine species and ecosystems;

# Thanks!

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**MPA** 

Is the last shelter for all marine organisms;
Is the last backyard for all humanity;

