

Survival and Protection for Spotted Seal (*Phoca largha*) in Yellow Sea Ecoregion

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A photograph of two seals resting on a dark, mossy rock ledge. The seal on the left is a light-colored, spotted seal, possibly a Mediterranean monk seal, with a large, rounded head. The seal on the right is a darker, spotted seal, possibly a Mediterranean monk seal, with a more slender head. The background shows a clear blue sky and a hazy horizon.

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The background image shows two seals resting on a rocky cliffside. One seal is in the foreground, looking towards the camera, with a light-colored, spotted coat. The other seal is slightly behind and to the right, with a darker, more mottled coat. The cliff is dark and textured, with some green moss or algae visible. The sky is a clear, pale blue.

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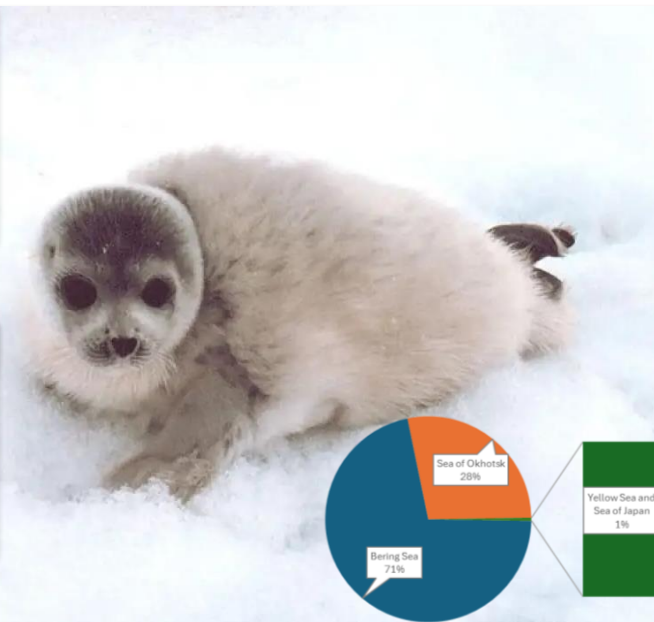
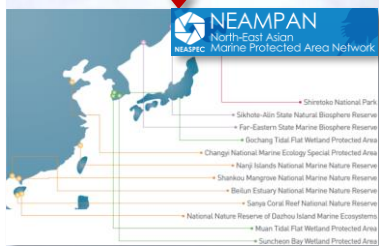
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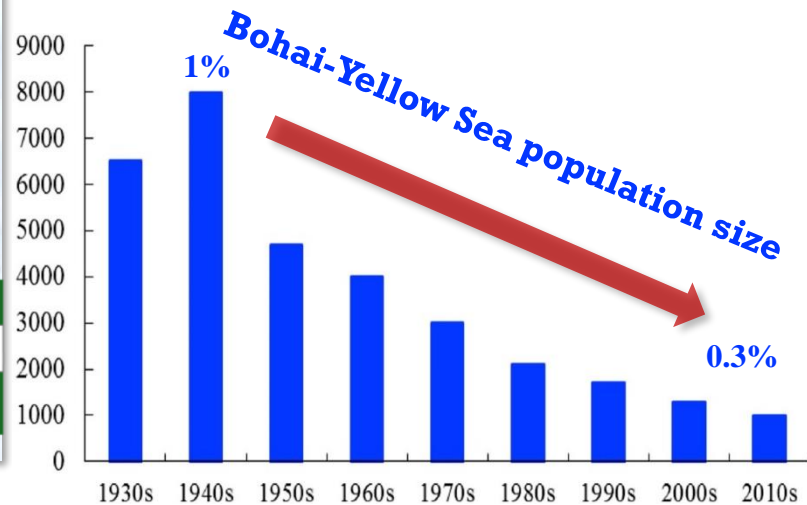
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SPOTTED SEAL

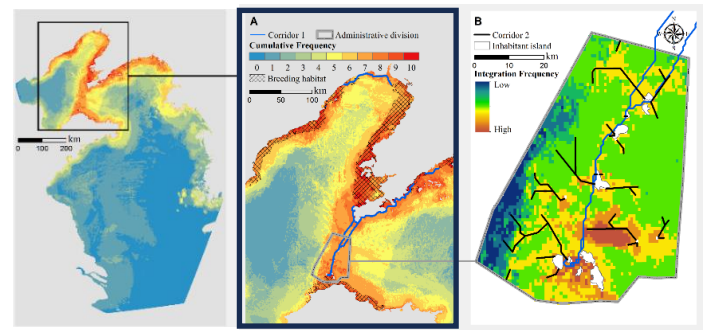
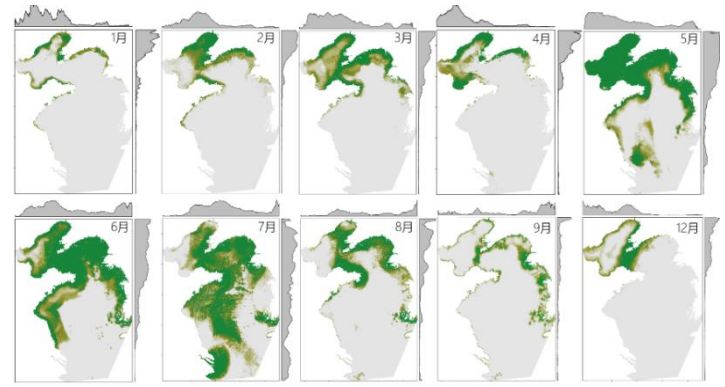
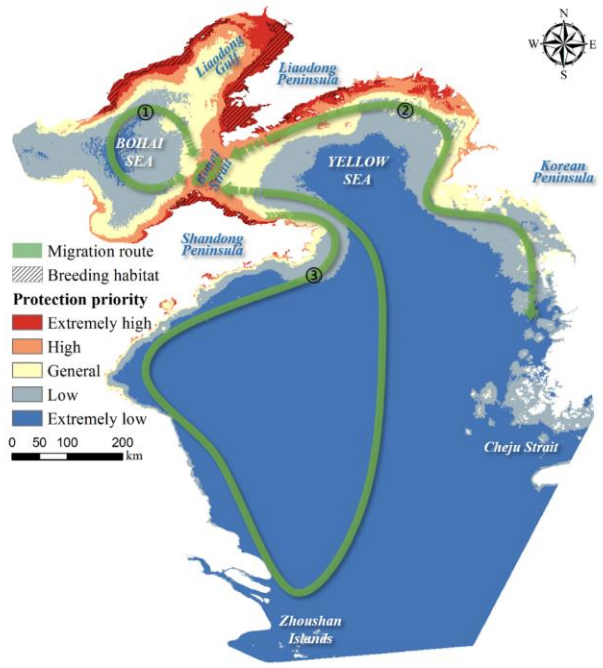
Phoca largha

- Activity space connects the NEAMPAN.
- Small geographically marginal population (YSP)



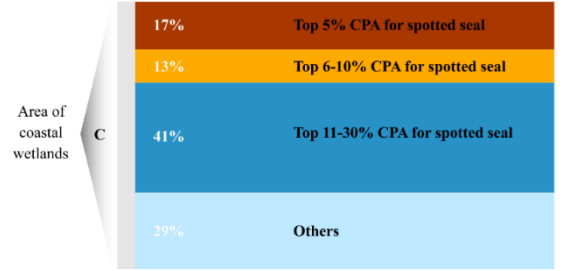
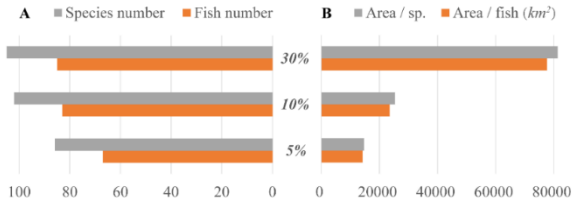
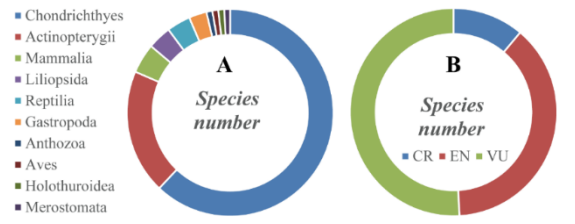
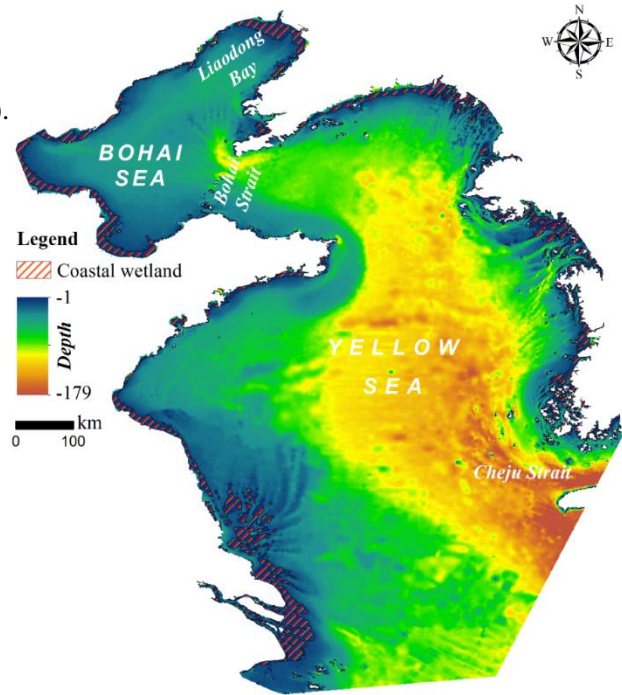
Bohai-Yellow Sea Population

- Seasonal habitats
- Breeding habitats
- Conservation priority areas
- Migratory routes
- Ecological corridors.



Umbrella effect of the spotted seal

- The Bohai-Yellow Seas are one of the 43 marine conservation priority areas (WWF).
- Coastal wetlands are listed in the IUCN Red List of Threatened Ecosystems.
- Including 108 IUCN threatened species.
- Under the 30×30 target scenario, the conservation priority area for the spotted seal covers 71% coastal wetlands and 97% IUCN threatened species.



A photograph of two seals resting on a rocky cliffside. The seal on the left is a light-colored, spotted seal, possibly a Mediterranean monk seal, resting on a ledge. The seal on the right is a darker, spotted seal, possibly a Mediterranean monk seal, looking towards the camera. The background shows a rocky coastline under a clear sky.

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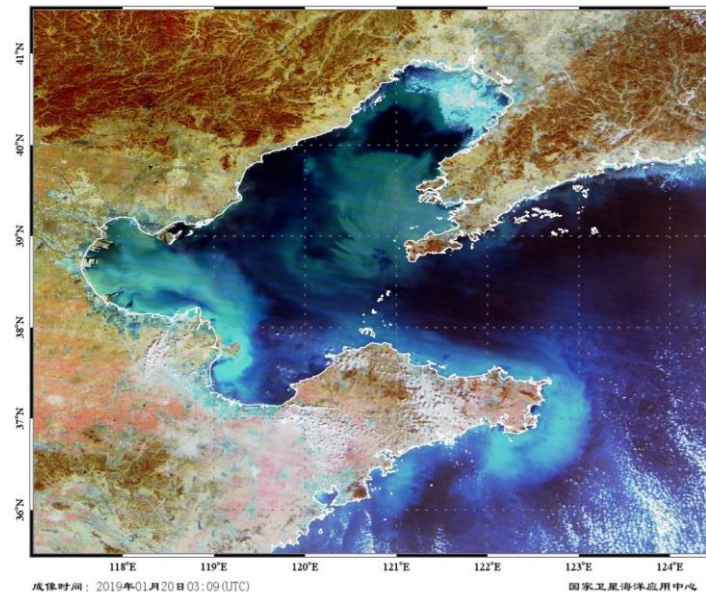
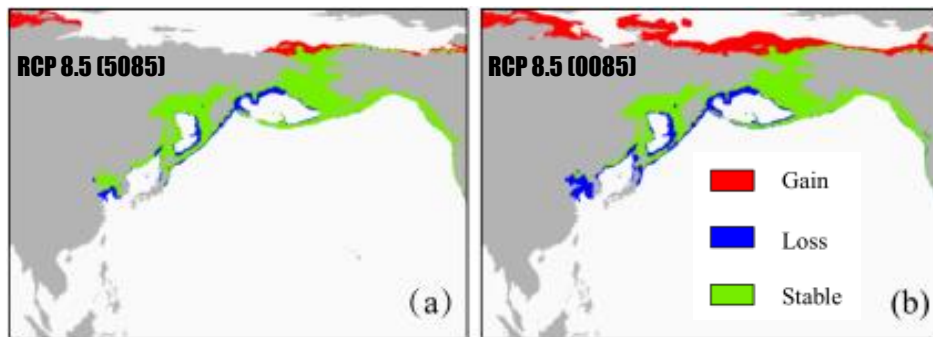
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❑ Global Climate Change

- The melting of sea ice directly results in the loss of breeding habitats.
- Habitat tended to migrate to higher latitudes under climate change.
- Bohai-Yellow Sea population faced the greatest risk of losing habitats due to climate change.



❑ **Anthropogenic activities**

- The human factors affecting the survival of spotted seals mainly include a series of marine development and utilization activities, such as **waterway icebreaking, overfishing, marine aquaculture, oil and gas exploitation, and offshore wind power.**



A photograph of two seals resting on a rocky cliffside. The seal in the foreground is a light-colored, spotted seal, possibly a Mediterranean monk seal, resting on a dark, mossy rock. The seal in the background is a darker, spotted seal, possibly a Mediterranean monk seal, looking towards the camera. The background shows a clear blue sky and a hazy horizon.

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□ Protection according to law

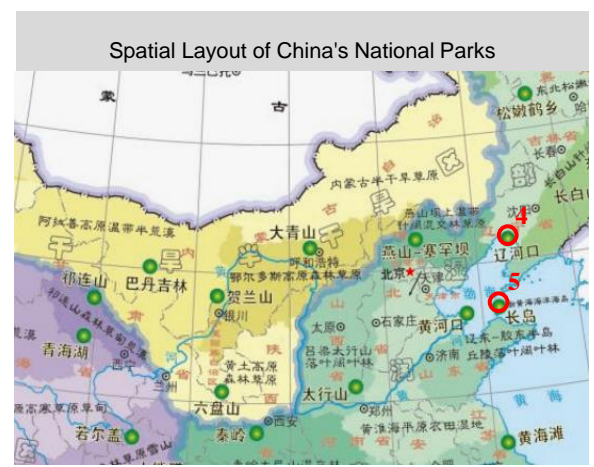
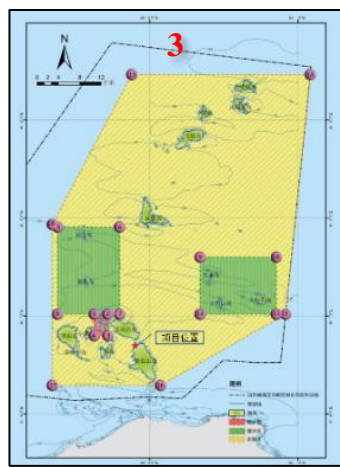
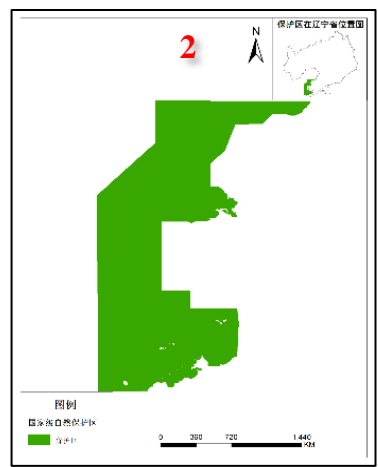
- 《中华人民共和国野生动物保护法》
 - *Wildlife Protection Law of the People's Republic of China*
- 《中华人民共和国海洋环境保护法》
 - *Marine Environmental Protection Law of the People's Republic of China*
- 《中华人民共和国渔业法》
 - *Fishery Law of the People's Republic of China*
- 《中华人民共和国自然保护区条例》
 - *Nature Reserves Regulations of the People's Republic of China*
- 《中华人民共和国水生野生动物保护实施条例》
 - *Implementation Regulations of the Protection of Water-living Wild Animals of the People's Republic of China*



- ◆ 《国家公园法》《自然保护地法》
- ◆ The *National Parks Law* and the *Protected Areas Law* are being promoted, will also be an important guarantee for the spotted seals protection in the future.

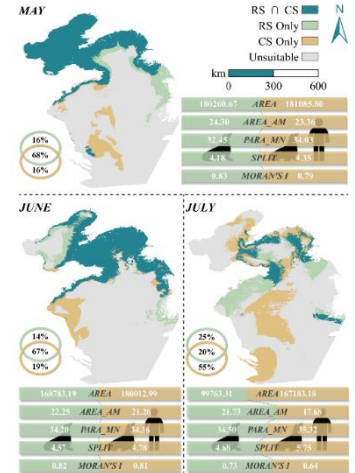
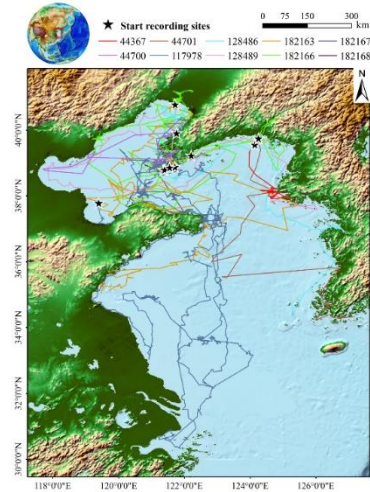
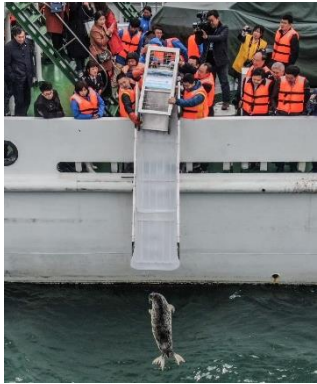
Establishment of marine protected areas

- The Chinese government has established **102 national MPAs** in the Bohai and Yellow Seas, covering an area of 51,843 km².
- 13 Nature Reserves, 43 Nature Parks, and 46 Aquatic Germplasm Resources Reserves.
- Notably, targeted measures have been implemented to ensure the in-situ conservation of spotted seals, establishing the *Dalian Spotted Seal National Nature Reserve*¹, the *Liaoning Liaohekou National Nature Reserve*², and the *Shandong Miaodaoqundao Spotted Seal Provincial Nature Reserve*³.
- Liaodong Bay, Bohai Strait and other key habitats for spotted seals will be established in the future **Liaohekou**⁴ and **Changdao National Parks**⁵.



□ Additional conservation actions in China

- Enhance the level of protection and implement targeted measures.
 - *National Level 1 Protected Wild Animals and Endangered Species; Plan for the Conservation of Spotted Seal (2017-2026).*
- Rescue, breeding and reintroduction into the wild.
- Conduct joint patrols and law enforcement to combat illegal activities.



A photograph of two seals resting on a dark, mossy rock ledge. The seal on the left is a light-colored, spotted seal, possibly a Mediterranean monk seal, resting its head on the rock. The seal on the right is a darker, spotted seal, possibly a Mediterranean monk seal, looking towards the camera. The background shows a hazy, rocky coastline under a clear sky.

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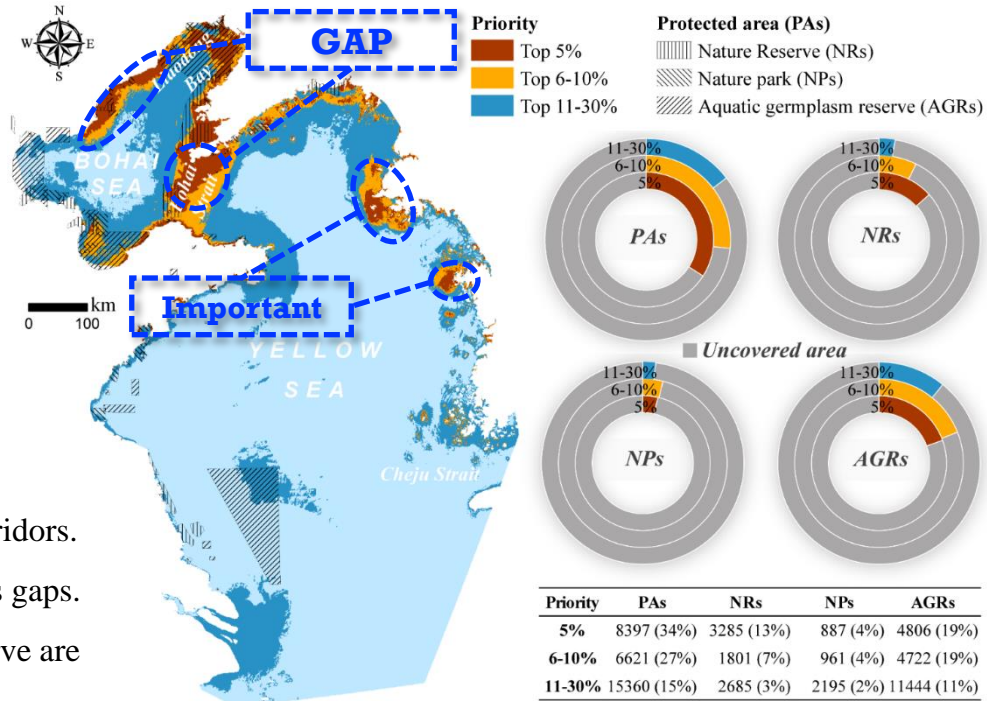
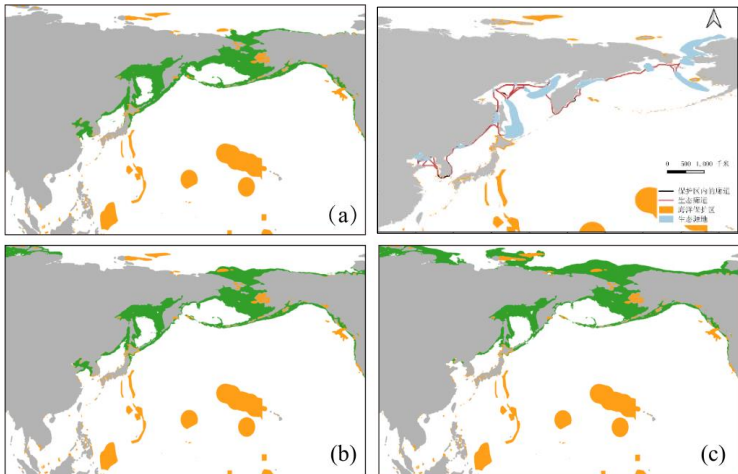
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Conservation gap

- Globally: there is a 90% or more gap for habitats and corridors.
- Bohai-Yellow Sea Scale: 70% of habitats are identified as gaps.
- Nature reserves and Aquatic Germplasm Resources Reserve are the most important.

● **To better protect the spotted seals and enhance their global connectivity, we suggest**

1. Conducting transnational conservation cooperation.
2. Improving the in-situ conservation network and the effectiveness of ex-situ conservation.
3. Establishing a public database platform, including gene database and image database.
4. Promoting the mainstreaming of spotted seal conservation.
5. Strengthening scientific research and personnel training.
6. Conducting public science education.





Thanks for your listening!

**Population Survival and Protection Report for Spotted Seal
(*Phoca largha*) in China**

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