



Liaoning Ocean and Fisheries Science Research Institute

# **SPOTTED SEAL CONSERVATION STATUS AND PLAN IN PR CHINA**

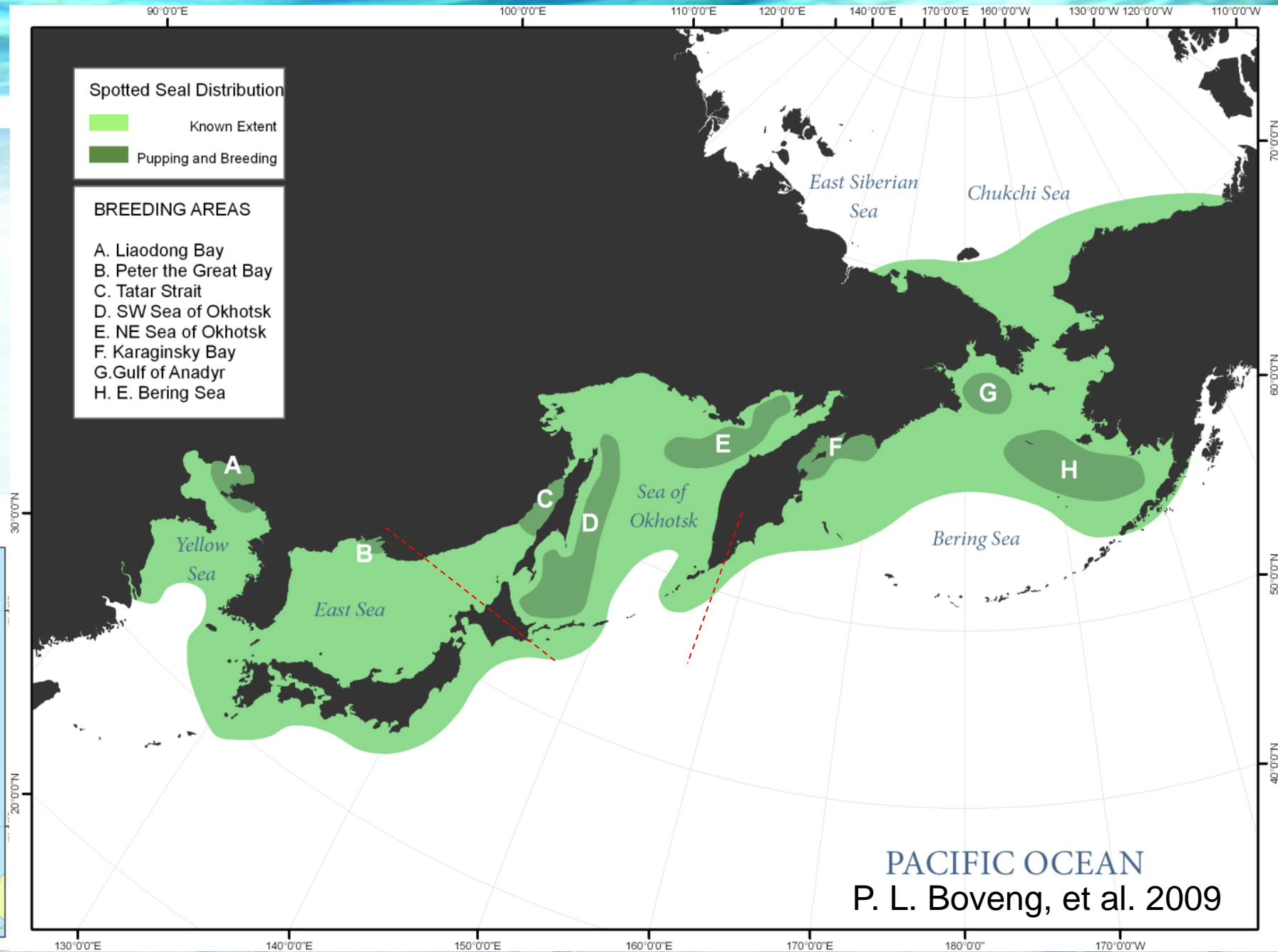
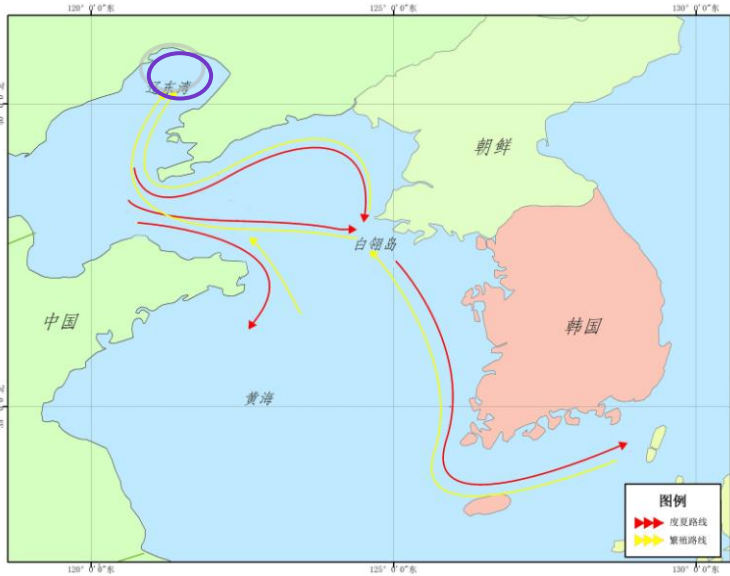
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# Distribution in China

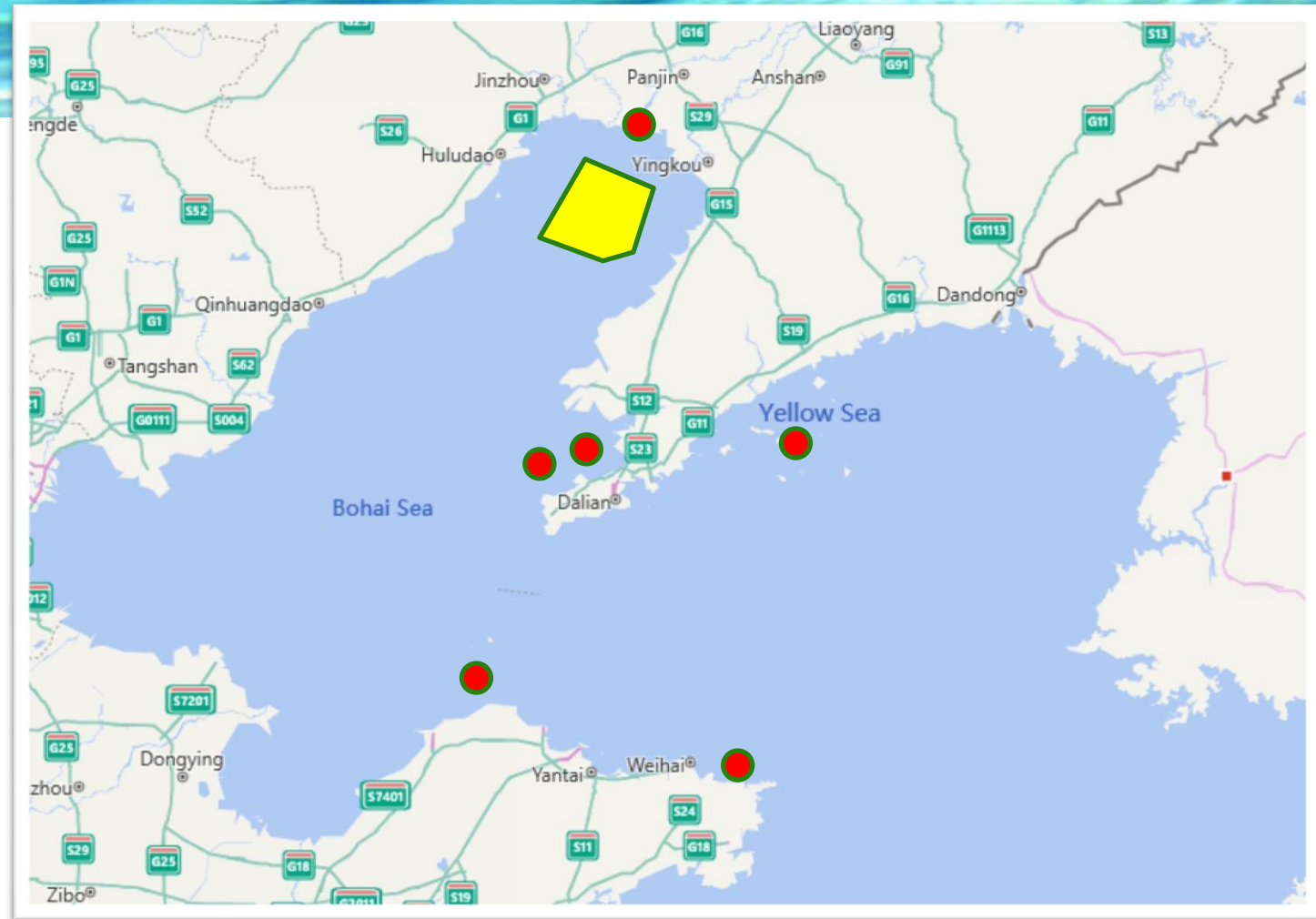
- ❖ The breeding area is located in Liaodong Bay, which is the southernmost of eight breeding areas around world.
- ❖ Less communication with other sea zone. Liaodong Bay breeding area and Peter the Great Gulf breeding area are relatively independent species.
- ❖ Only 3000 spotted seals have been estimated in this DPS (Distinct Population Segments), less than others.



PACIFIC OCEAN  
P. L. Boveng, et al. 2009

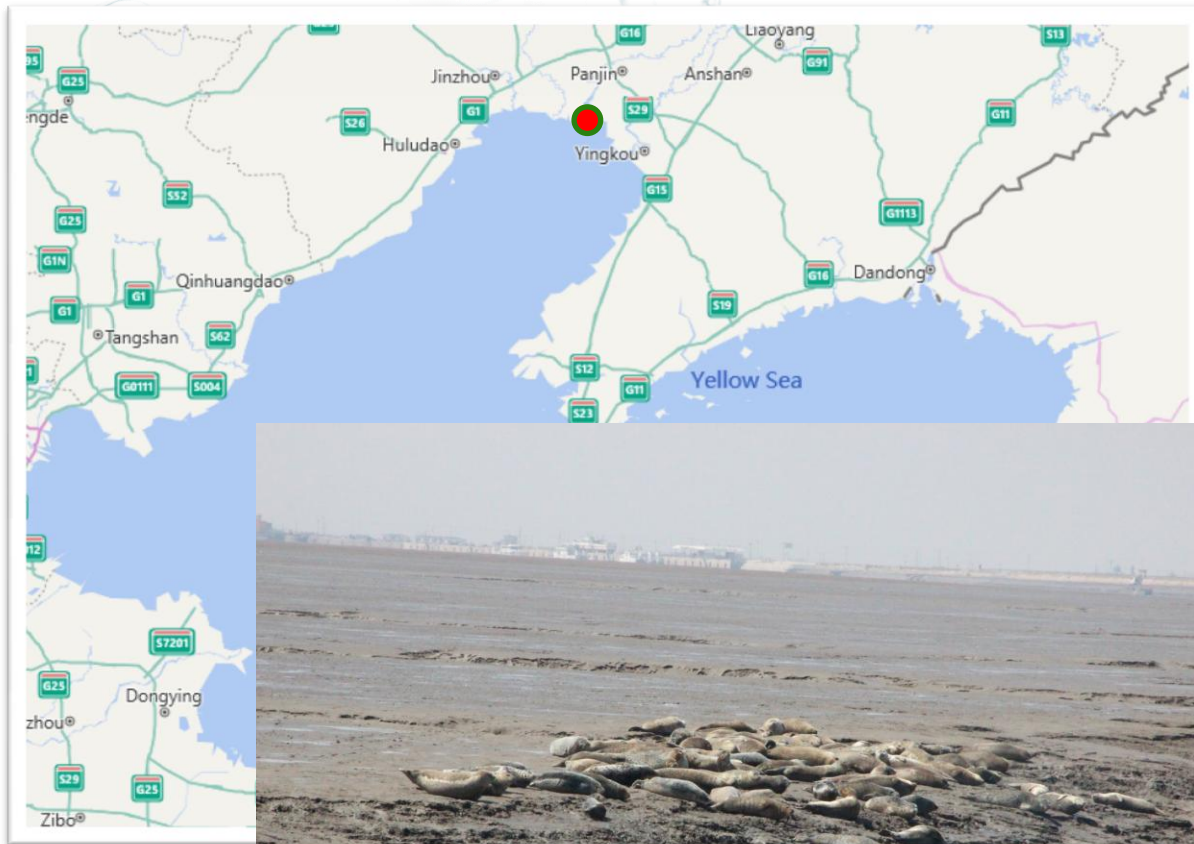
# Distribution in China

- ❖ Nov-Dec: appear in Chinese sea area, a dozen, go ashore or haul out only few times
- ❖ Jan-Feb: the breeding zone, changes accompanied with ice situation annually
- ❖ Mar-May: haul out, hundreds of spotted seals in Liao River Estuary, Mayi Island, Huping Island, tens of spotted seals in North Changshan Island, Hailv Island, and Changhai.
- ❖ Jun-Oct : only a dozen, stagnant zone, May appear in offshore Zhuanghe City, Miao Island.



● Breeding area      ● Haulouts

# Haul-out site in Liao River Estuary



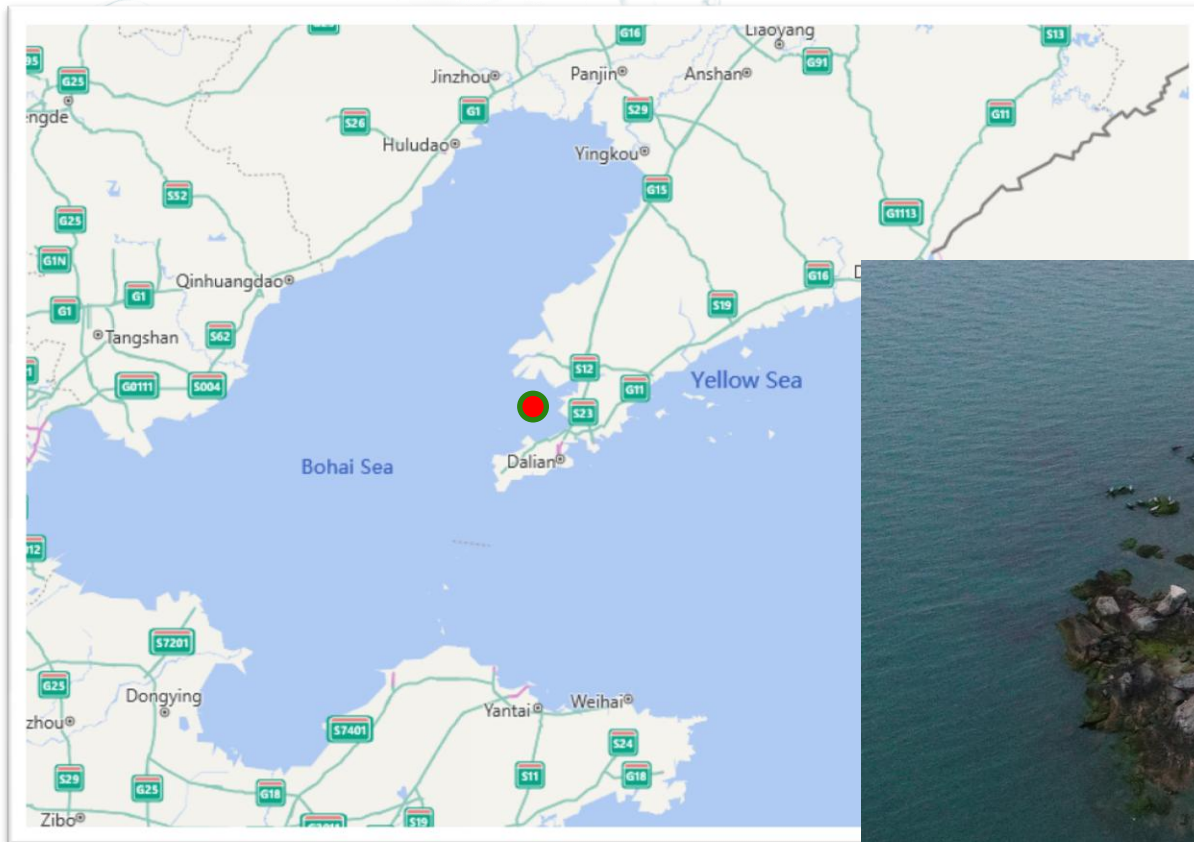
Years	2014	2015	2016	2017	2018
No.	156	170	170	170	150



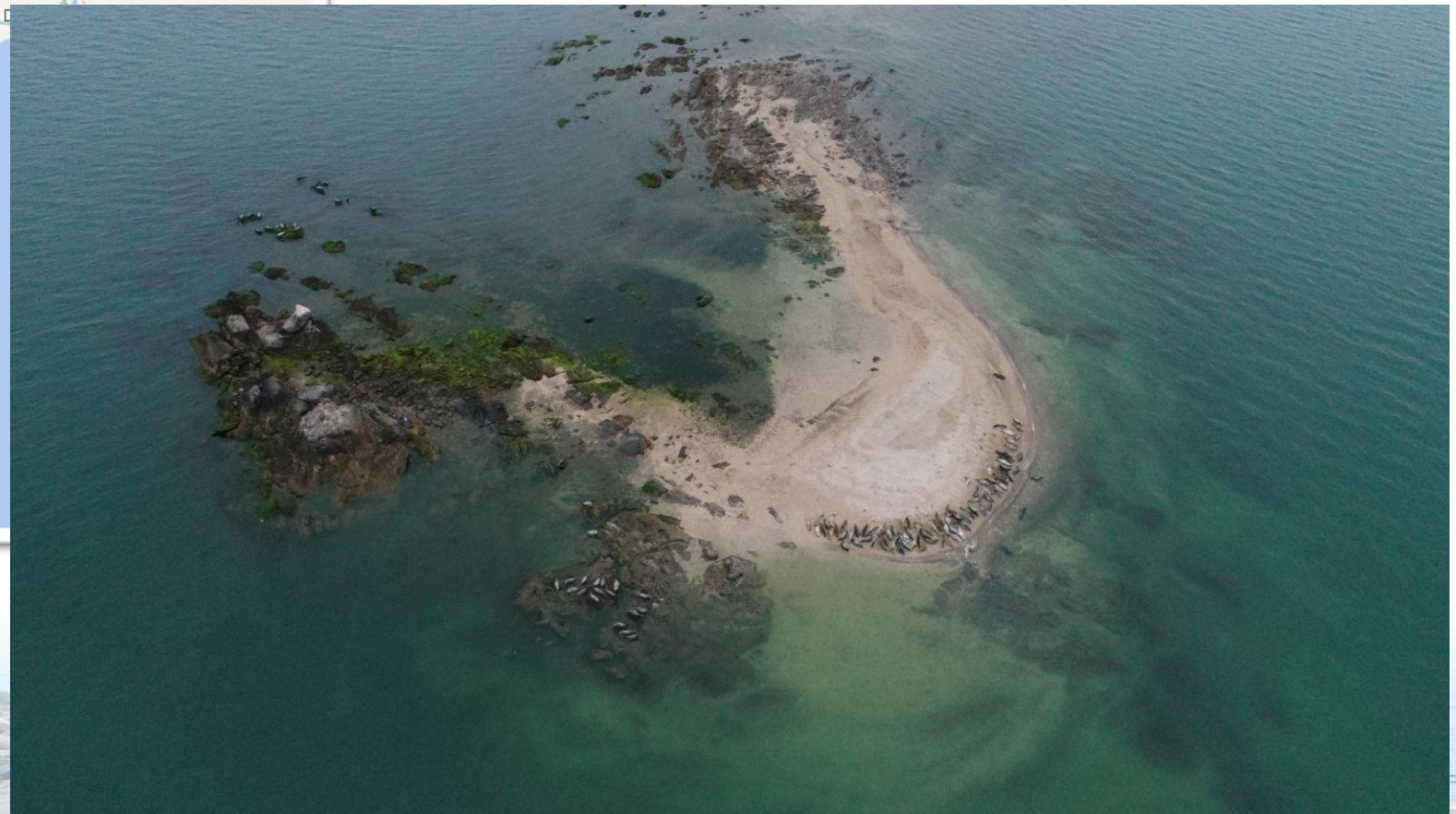
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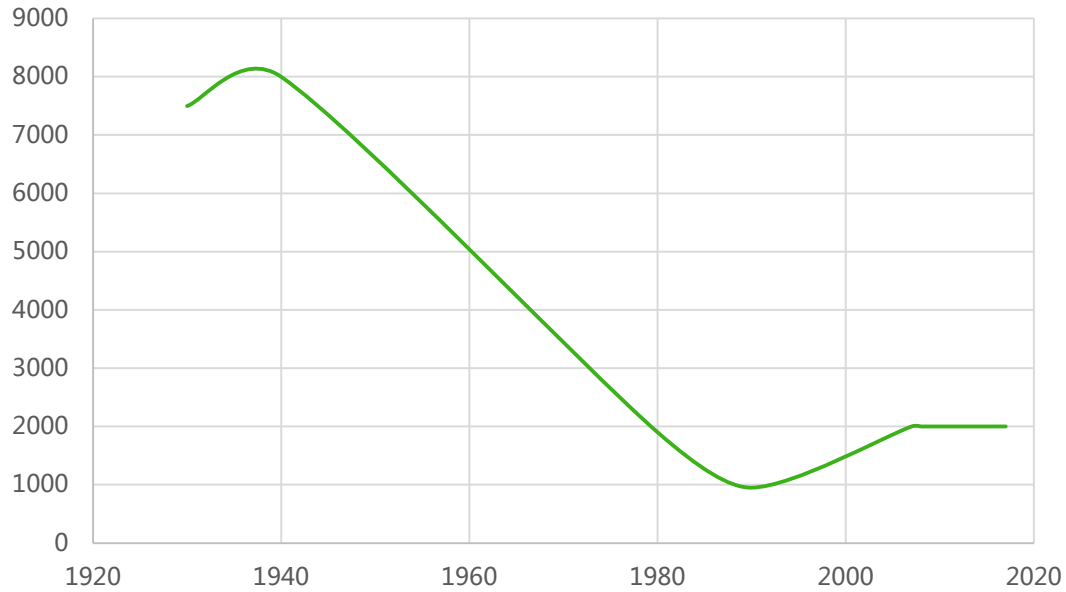
# Haul-out site around Mayi Island



Years	2013	2014	2015	2016	2017	2018
No.	134	256	251	223	223	115



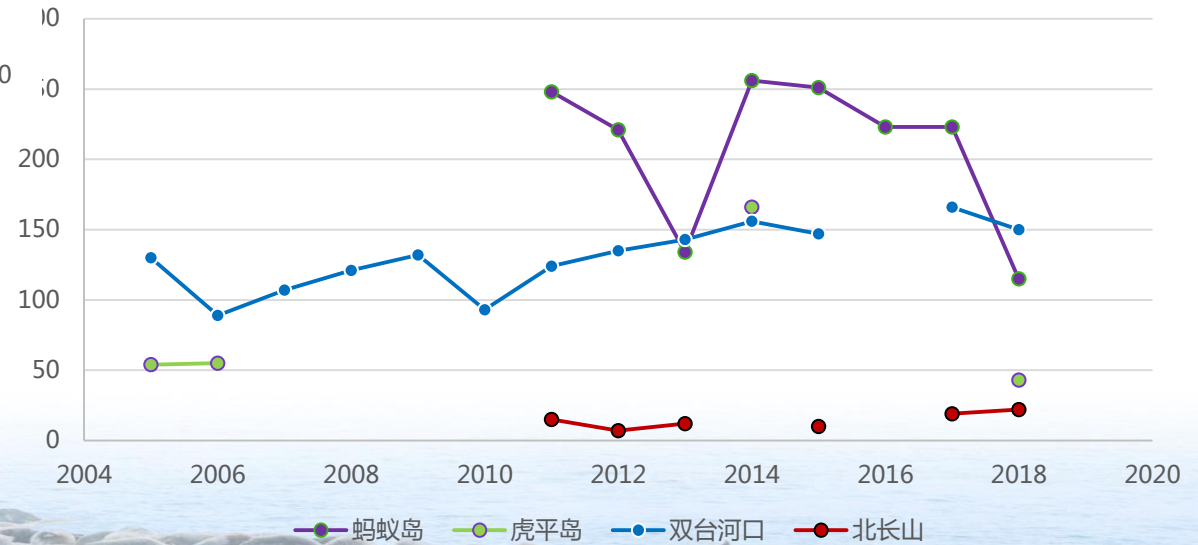
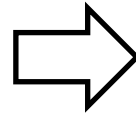
# Abundance in China



➤ Estimating 2000 in 2006-2007.



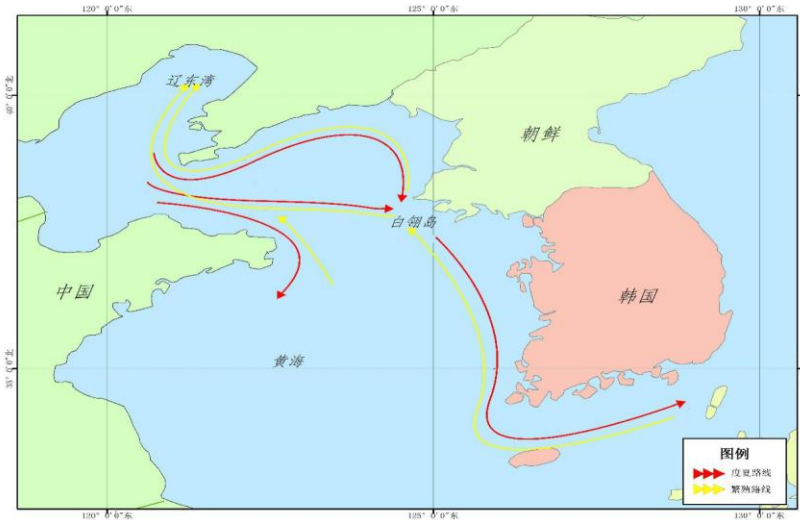
➤ Based on the haul-out sites to estimate the change trend of population resource.



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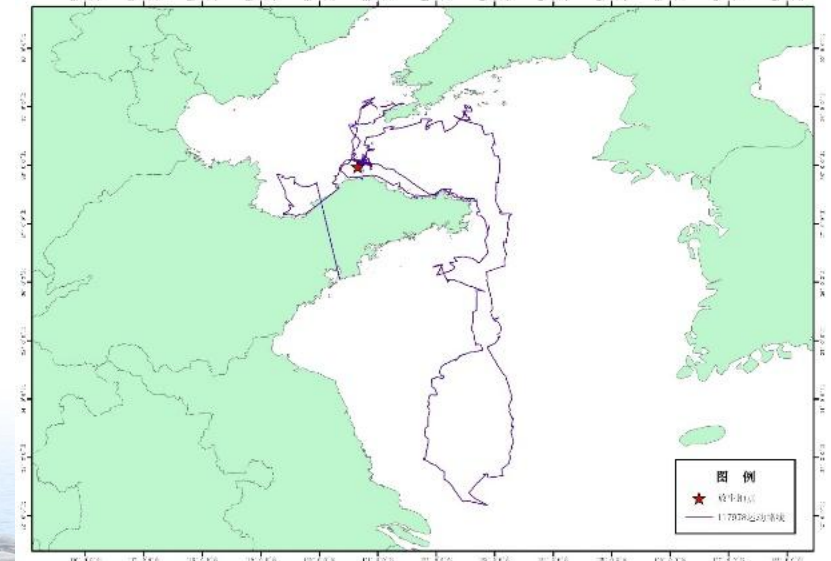
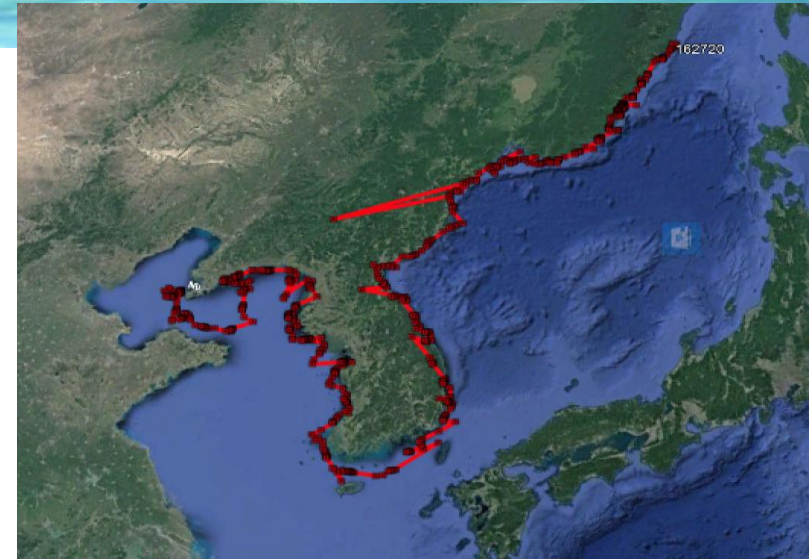
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# Migration research



Migration Route

- ❖ Totally tracked 16 spotted seals since 2010.
- ❖ The result shows that individuals migrate as far as the north of Sea of Japan, the migration route from north to south, south to Yangtze river. Some of them stay in Bohai Sea even in Sep.



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# Strategy of Protection

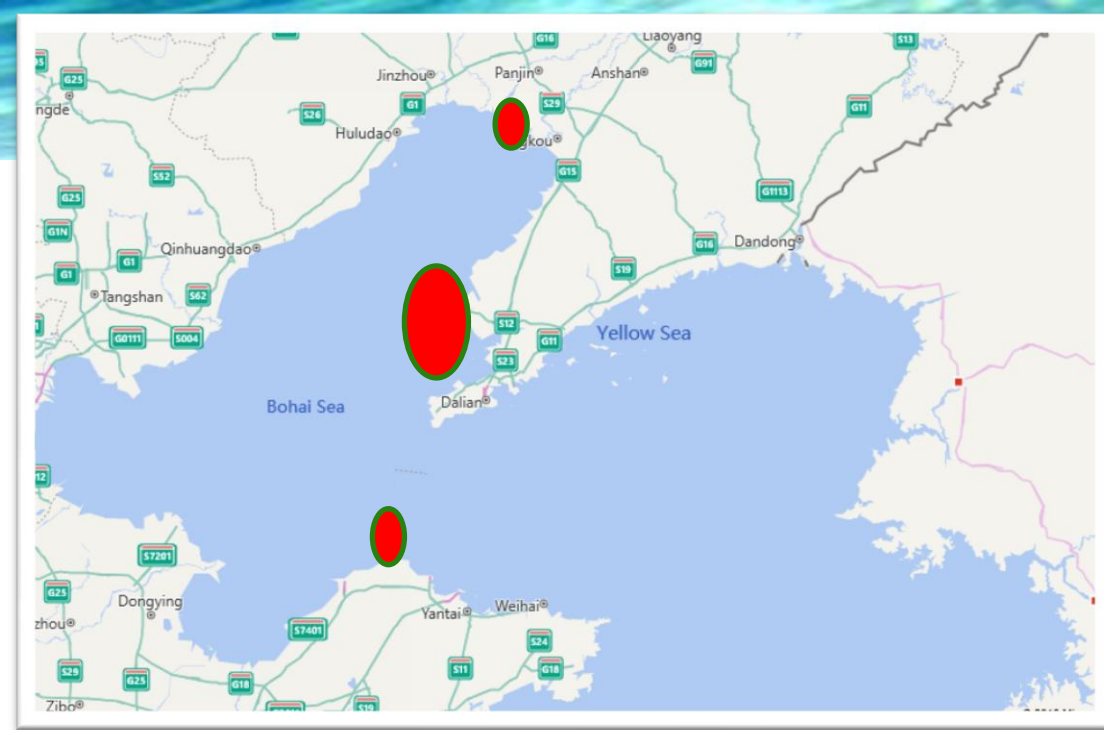
- ❖ Protected species of Liaoning Province ( 1983 )
- ❖ the Class II State Protected Species (1988)
- ❖ Establishing and improving the system of laws and regulations.

*The outline of China aquatic resources conservation act (2006-2020).*

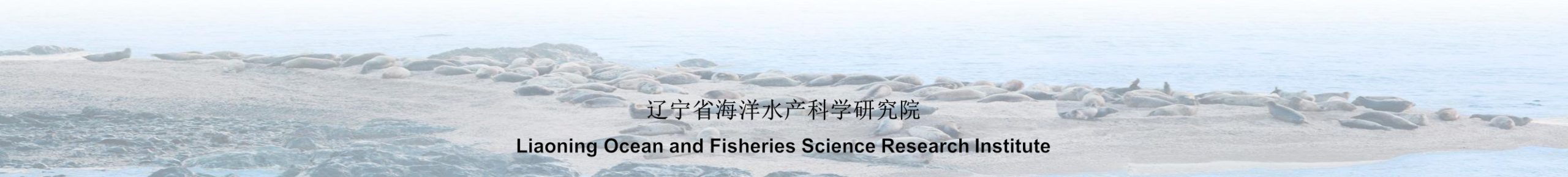
*China biodiversity conservation strategy and action plan (2011-2030).*



- ❖ Protection working:
  - Dalian Spotted seal national nature reserve
  - Shandong Miao island spotted seal provincial nature reserve
  - Liaoning Shuangtai estuary national nature reserve



- ❖ At present, over 1.56 million hectares water area have been involved in spotted seal reserve. The fishery department completes saving and curing more than 200 spotted seals, releasing 150 seals in six times.



# Plan of Protection

## ❖ Issue spotted seal conservation action plan

The plan is issued on Sep 4<sup>th</sup> 2017 with repeatedly special demonstration and broadest opinions.

It will achieve comprehensive planning for protection work.



## Plan content 1: Spotted seal resource and habitat protection

Action 1: Investigation of the resources status and distribution pattern of the spotted seals

Action 2 Status investigation and protection of the important habitat for spotted seals

Action 3: Promotion of the effective protection on the spotted seals habitats

Action 4: Scientific assessment of the effects of human activities on the spotted seals and its habitat



## Plan content 2: Improving ex-situ conservations

Action 5: Establishment of artificial breeding population of spotted seal and exploration of the wild population restoration

Action 6 Strengthen the management of the captive spotted seals

Action 7: Potential habitat selection for the spotted seals



## Plan content 3:Improvement of protective and management capability

Action 8: Improve the spotted seal protective level and optimize the protective mechanism

Action 9 Strengthen the management and control of the spotted seal protection

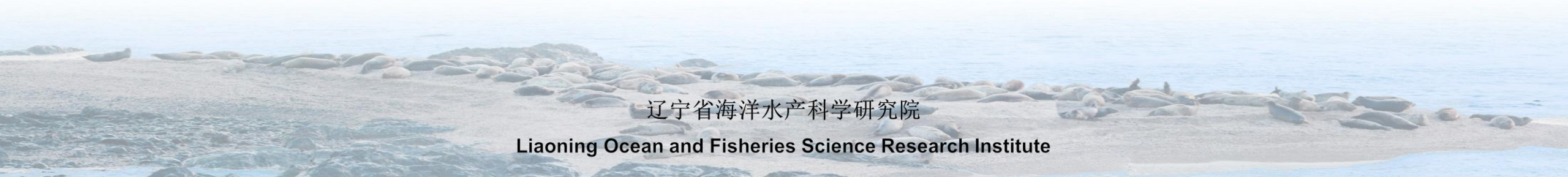
Action 10 Improve the rescue capability on the spotted seals



Plan content 4: Strengthen the scientific research and professional training

Action 11 Strengthen the scientific research

Action 12 Strengthen the professional training of the talents



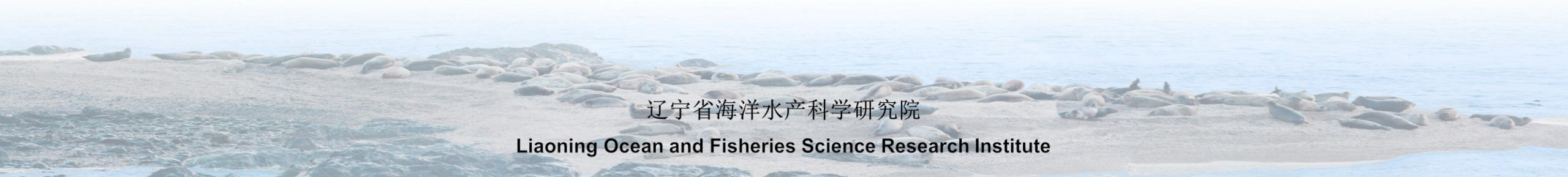
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Plan content 5: Strengthen the international cooperation on the spotted seal protection

Plan content 6: Establishment of the protective education and public participation mechanism for the spotted seals



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# Plan of Protection

## ❖ Establish Spotted Seal Conservation Alliance

The alliance is supported and guided by *Fishery Administration Bureau, Ministry of Agriculture and Rural Affairs*, organized by *National Aquatic Wildlife Conservation Association, Liaoning Ocean and Fisheries Science Research Institute, Dalian Spotted Seal National Nature Reserve Administration*, composed by spotted seal protection institutes, enterprises, individuals and social groups, provided a commonweal communication platform.

51 members including government, reserve administration institutes, scientific research institutes, NGO, enterprises.

Government leading, social participating, platform building, resources integrating, active acting.

It is an important platform to integrate all power for spotted seal protection.





*Thank you!*

