

YSLME MPA NETWORKING WORKSHOP

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Efforts to increase local communities' awareness of the importance of protecting the spotted seals that live on Baengnyeong Island

Park Jeong woon

YESSSS (YELLOW Sea Spotted Seal Savers),
GREENINCHEON



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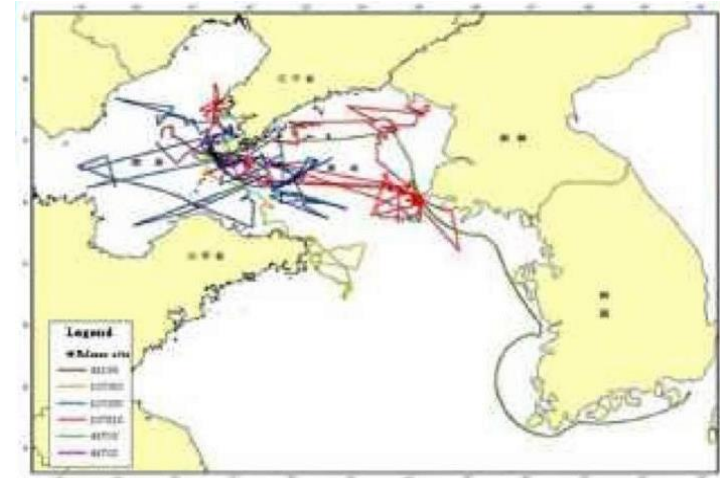
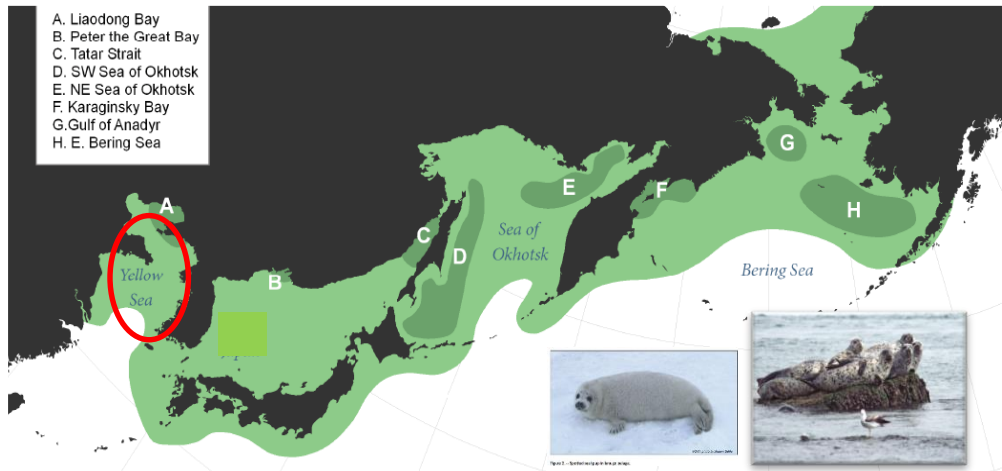
4. Necessity of China-Korea cooperation for the protection of the spotted seal



1. Yellow Sea Spotted Seal: Status and Risk Factors



1) Yellow Sea spotted seal: status

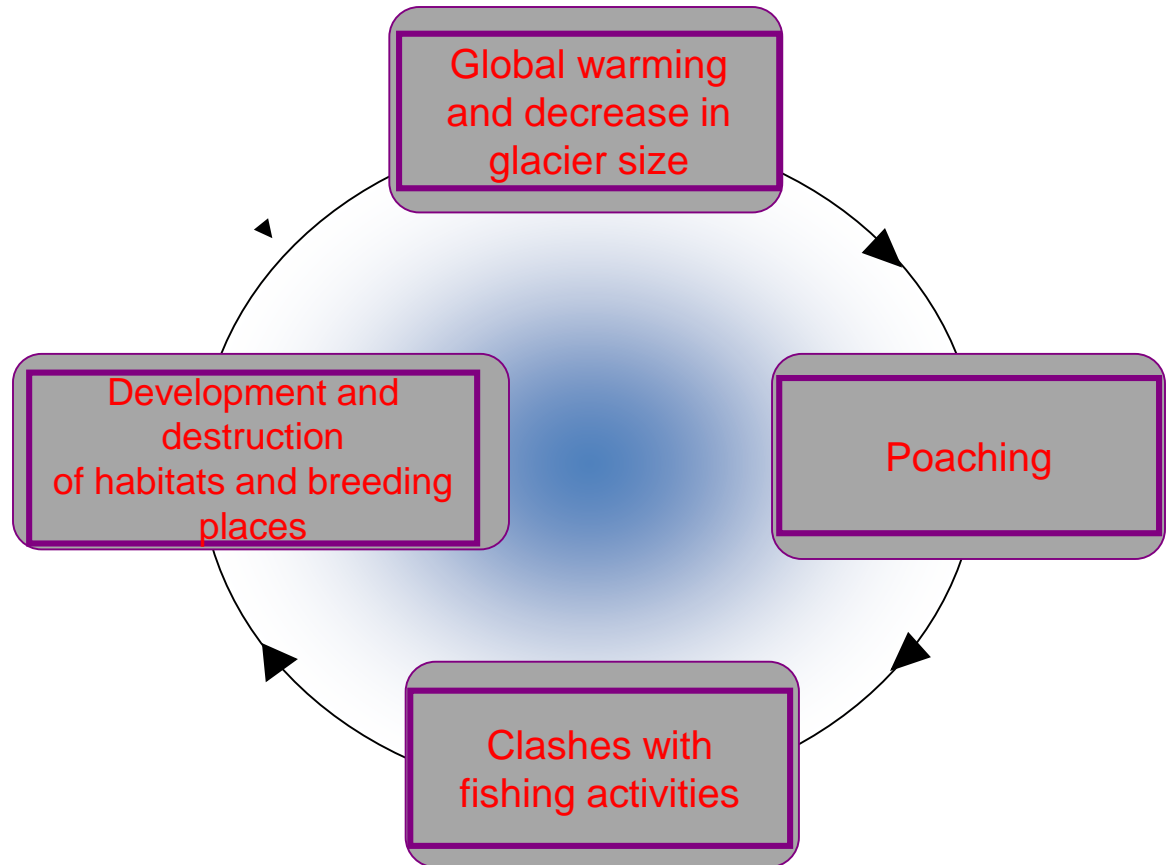


Individual positions are connected with straight lines, different colors indicate different spotted seals released in year 2011

- The spotted seals that live in the Yellow Sea region breed and grow to adulthood while moving back and forth between China's Bohai Gulf and Korea's western coast. In the 1940s, there were approximately 8,000 Yellow Sea spotted seals. This number dropped to 2,300 in the 1980s and fell further to around 1,000 in the early 1990s. After several protective measures were undertaken, a survey conducted by China in 2006 and 2007 revealed that the number had increased to approximately 2,000. In Korea, approximately 300 to 400 spotted seals are seen on Baengnyeong Island (an island located on Korea's western coast), with approximately 10 in Garorim Bay.
- The spotted seal is designated and managed as a species requiring protection in South Korea (Natural Monument, Wild and Endangered Animal, Marine Protected Animal), North Korea (Animal that is Rare or in Danger), and China (Nationally Protected Animal (Grade 1)). Cooperative efforts among the Koreans and China is essential for the accurate monitoring and protection of all spotted seals living in the Yellow Sea region.



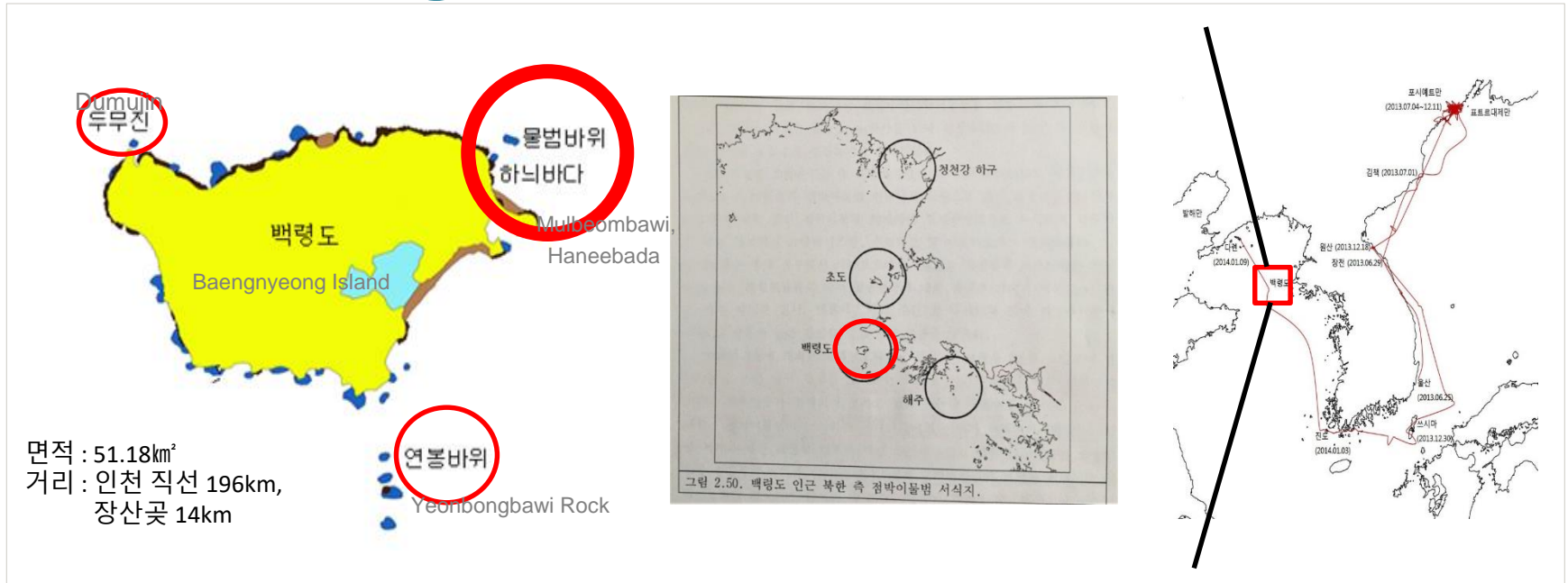
2) Factors that threaten the habitat of the spotted seal



2. Spotted seal habitats on the Korean Peninsula



1) Baengnyeong Island, a spotted seal habitat at the border region between North and South Korea

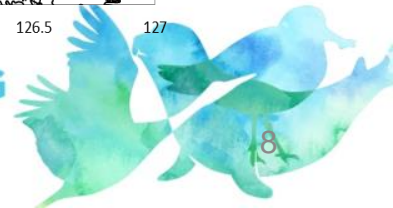
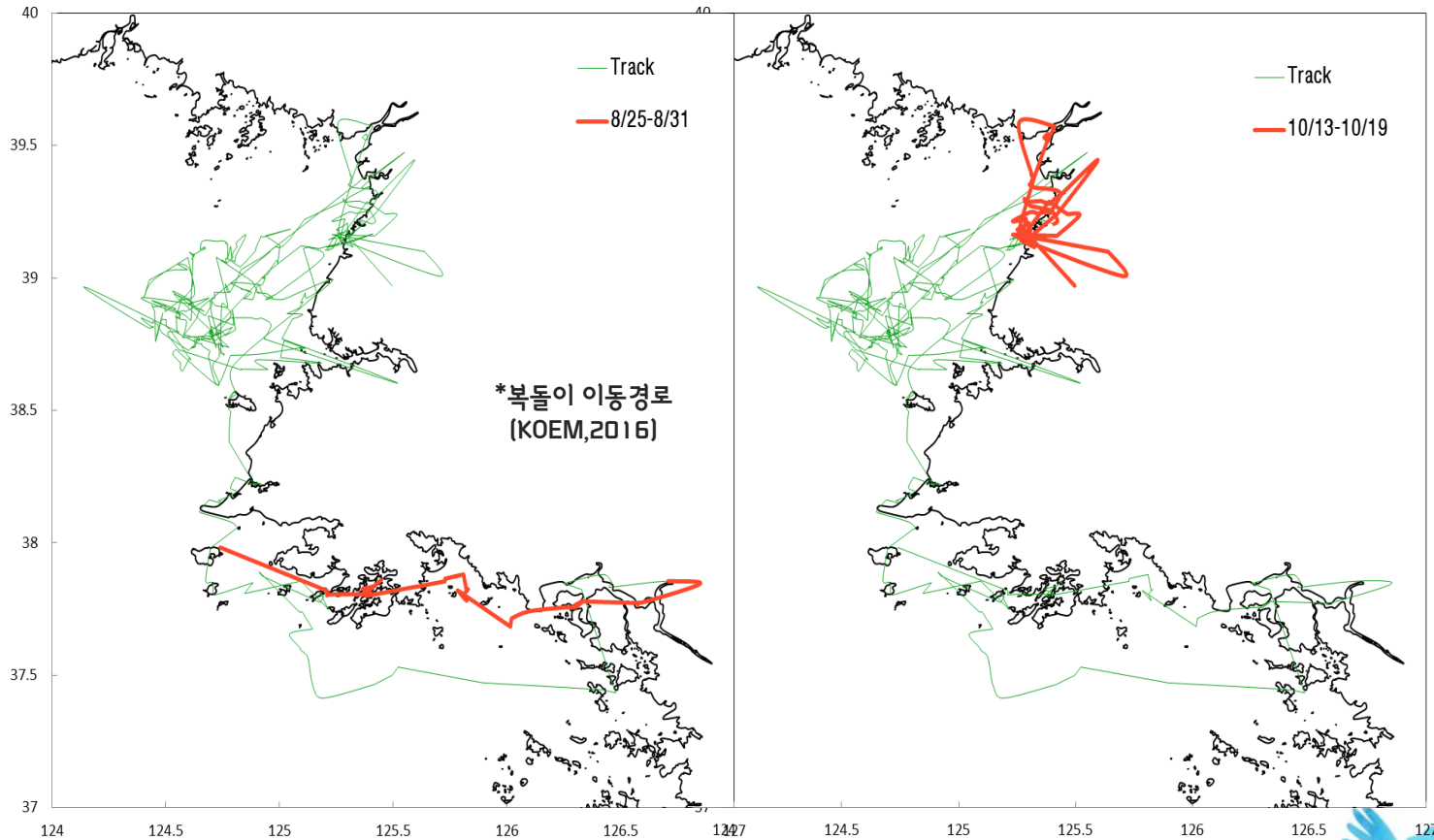


- Baengnyeong Island and Garorim Bay of South Korea (both located along the western coast) and North Korea's Haeju, Chodo, and Cheongcheongang estuary are known habitats of the spotted seal. Of these, Baengnyeong Island is the largest, with three areas where the seals rest (Mulbeombawi, Yeonbongbawi, and Dumujin Mulbeombawi).
- Baengnyeong Island, which is located along the NLL, is not only a home to the spotted seal but a fishing site for Korean fishers and a frequent destination of fishing boats from North Korea and China.

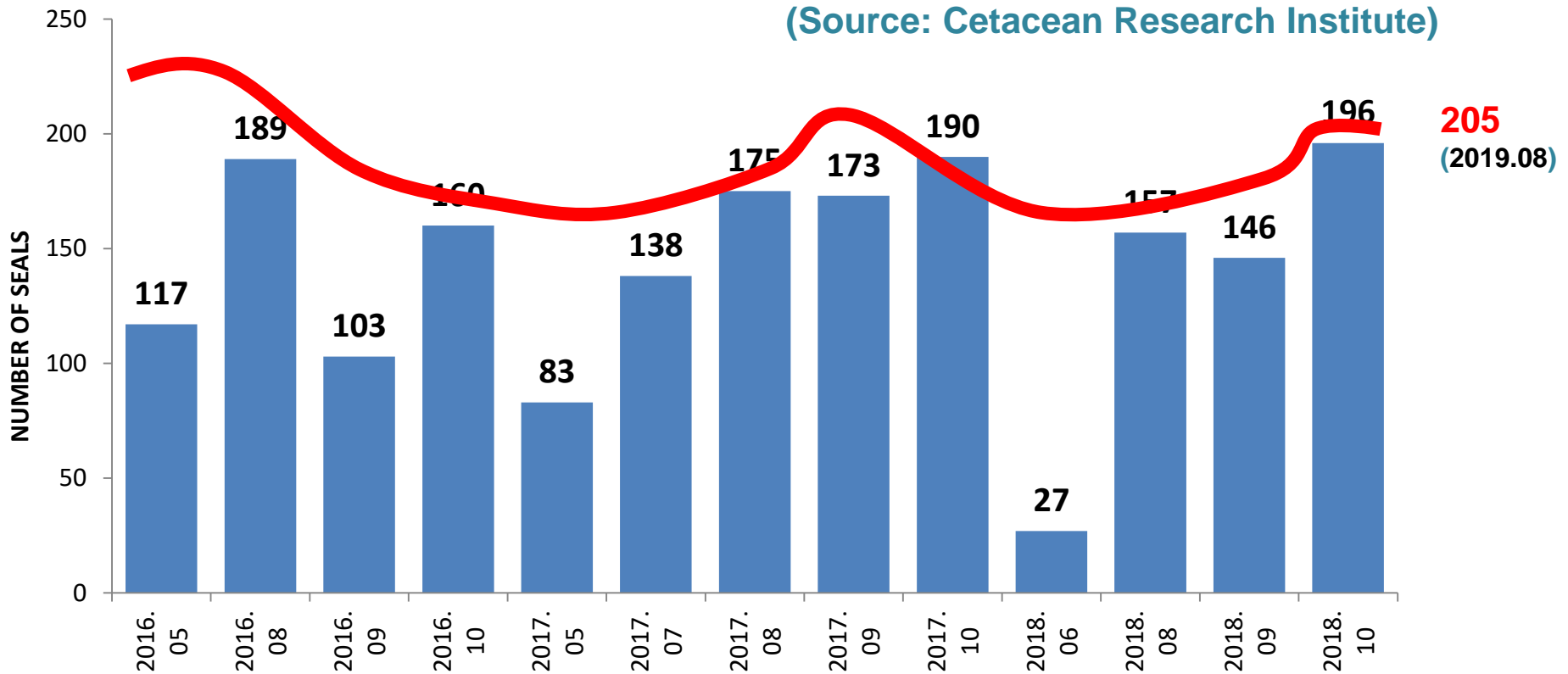




2016.8.25. 구조 치료 받아 온 점박이물범
 '복돌이'를 백령도 하늬바다 앞에 방류. 2011년
 제주 서귀포 앞 바다에서 구조한 탈진한 새끼
 물범. 위치추적장치 통해 복돌이의 북한 지역의
 이동경로 확인.



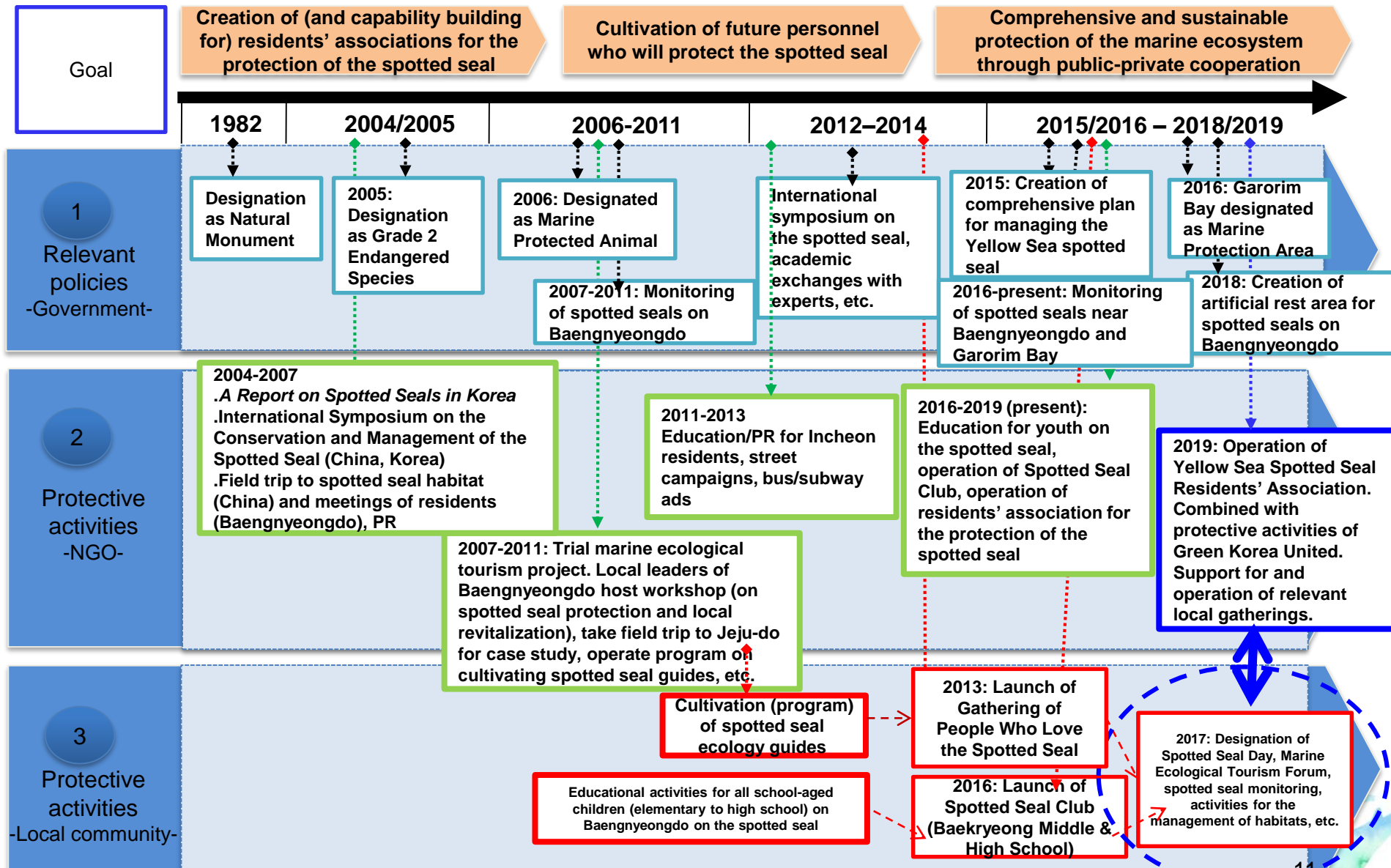
2) Results of population survey of spotted seals on Baengnyeong Island (2016-2018)



3. Activities conducted by Baengnyeongdo residents to raise awareness of the importance of protecting the spotted seal



1) Protection policies for the spotted seal and NGO activities implemented/conducted on Baengnyeongdo



2) Background and goals of awareness-raising activities on Baengnyeongdo, a key habitat of the spotted seal

- ① In the event that the subject of protection (a region or species) enters a space that residents have long used for pursuing a livelihood, protection methods and plans for space utilization become targets for a complicated conflict of interests. In a space like the ocean, which is widely viewed as a public resource and used in diverse ways, considerations must be given to not only biodiversity protection but also the sustainable production of marine resources and maintenance of a healthy fishing community.
- The fishers of Baengnyeongdo were long threatened by the depletion of their fishing area due to NLL demarcation, overfishing by Chinese fishing vessels, depletion of marine resources, and changes in the marine ecosystem. Because of this, the creation of a habitat for the spotted seal was regarded as yet another threat to their livelihood.
 - Fishing villages strongly resisted the creation of habitats because of the notion that doing so would further threaten the survival of fishing villages, which were already experiencing restrictions on fishing due to the government's designation of marine protection areas.
 - There is an urgent need for close public-private cooperation and communication in the designing of protection policies that take into consideration the characteristics of the local community.



2) Background and goals of awareness-raising activities on Baengnyeongdo, a key habitat of the spotted seal

② There is a need to establish a plan for the protection of spotted seals that is based on the lives and community of local residents. The ability of local communities to independently and voluntarily manage spotted seal habitats must be strengthened, and this must be directly linked to plans for the social and economic revitalization of the local community based on the marine ecosystem.

- Preparation of a plan for coexistence through improved relations/communication with fishers and fishing village associations (marine ecology tourism, etc.)
- Development of local agents who can seamlessly connect the protection of spotted seals with the development of the local community and provision of capability-building education for such agents
- Establishment of the necessary foundational facilities for the protection of spotted seals and local revitalization
- Establishment of foundations for research and investigative activities at spotted seal habitats
- Establishment of an image of peaceful coexistence among border regions (North and South Korea)



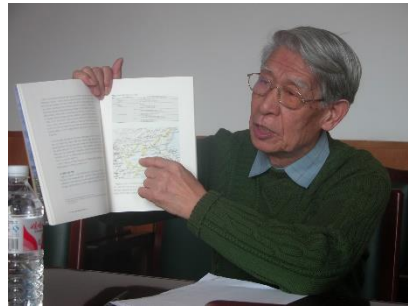
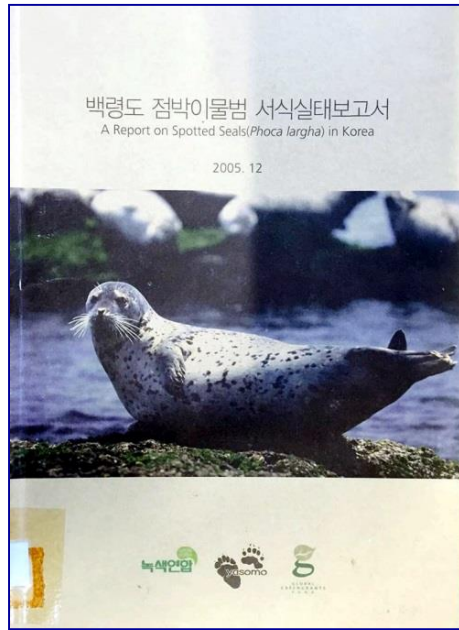
3) Objectives and outcomes of key activities

- ① Investigation of spotted seal habitats and proposal of plan for their protection
- ② Brainstorming of ways to link spotted seal protection with local society/economy
 - : Trial marine ecological tourism project (2007-2010)
 - : Marine Ecological Tourism Forum (2018~)
- ③ Discovery and capability building of local agents who can link spotted seal protection with local development plans
 - : Operation of Spotted Seal Club (Baekryeong Middle & High School, 2016-present)
 - : Founding and operation of residents' association (Gathering of People Who Love the Spotted Seal, 2013-present)
- ④ Start of voluntary managerial activities by local residents to maintain a healthy habitat for spotted seals and improve the local marine environment
- ⑤ Implementation of protection policies for the spotted seal through consistent public-private cooperation



4) Content of activities

① Report on spotted seals in Korea and China-Korea exchange



- 2004-2005: Publication of *A Report on Spotted Seals (Phoca largha) in Korea*

- Feb. 23-25, 2006: Field trip (inspection) at Dalian, China. Included sessions for ascertaining the status of research on China's spotted seals and meetings with relevant personnel

- Jun. 20-23, 2006: International Symposium on the Conservation and Management of the Spotted Seal and joint investigation of spotted seals on Baengnyeongdo. Attended by Dr. Wang Peilie, Dr. Han Jia Bo (Liaoning Ocean and Fisheries Science Research Institute), and Dir. Zhang Wei (Dalian National Spotted Seal Nature Reserve)



4) Content of activities

②

Trial marine ecological tourism project (2008-2010)



- Enhanced understanding of the spotted seal among Baengnyeongdo local leaders, fishing village society members, residents, and individuals in the tourism industry
- Efforts made to establish a form of marine ecological tourism that protects the spotted seal, strengthens Baengnyeongdo's local economy, and improves the livelihoods of the residents of the fishing community there



4) Content of activities ③ Designation of local agents and formation of resident associations by teens and locals



- Through youth activities and the operation of a program for cultivating spotted seal culture guides (Spotted Seal Club at Baekryeong Middle & High School (2016) and Gathering of People Who Love the Spotted Seal (2013, local resident organization)), the spotted seal issue was expanded into something that is relevant for the entire community rather than only those who are directly involved with spotted seal activities (fishing village residents, etc.). Also, a communication structure was created for key stakeholders (youth, culture guides, village leaders, and administrative personnel).



4) Content of activities ④ Capability building: Gathering of People Who Love the Spotted Seal



- Formation of popular interest and a common discourse through workshops discussions on how to create a sustainable local community, Marine Ecological Tourism Forum, and training of spotted seal ecology guides. Receives information through regular exchanges with outside experts.
- Development of a systematic structure of exchange/interaction through the operation of regular meetings. Creates awareness of (and influence regarding) the spotted seal issue in the local community.

4) Content of activities

④ Capability building: Spotted Seal Club (youth)



- Cultivation of agents who will protect the spotted seal in a way that is both sustainable and cyclical
- School curriculum connected with local community through issues surrounding the protection of local ecological resources
- Operation of the “Ecology School” (year-round) and exploratory activities that link the spotted seal with the local community, participation in presentation contests, etc.

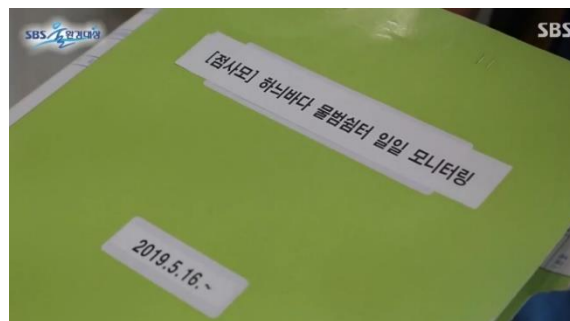


4) Content of activities

⑤ Voluntary management (protection) of spotted seal habitats by local residents

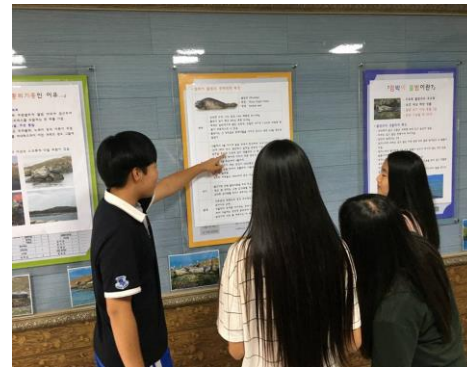
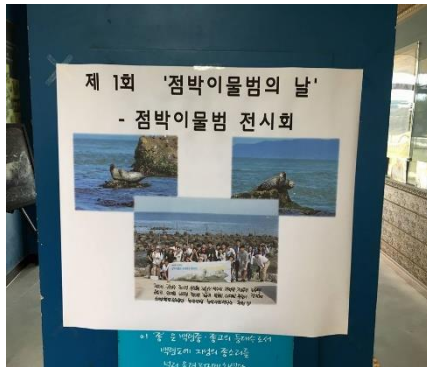
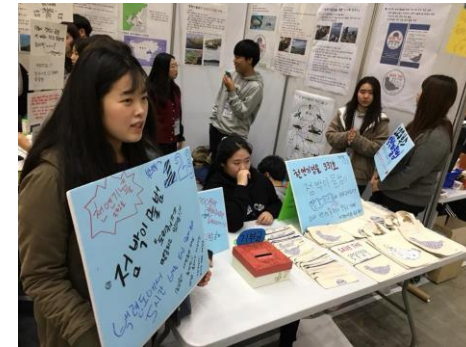


- Cleaned up marine litter in manmade spotted seal rest areas and beaches
- Conducted “one-day monitoring” of spotted seals



4) Content of activities

⑤ Voluntary management (protection) of spotted seal habitats by local residents

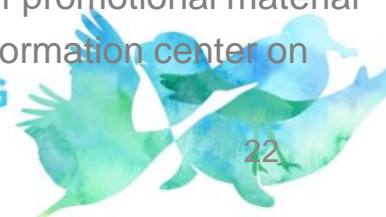


- Conducting of investigative activities (spotted seal monitoring, monitoring of marine litter, etc.) and an open presentation of the outcomes of such activities
- Designation of “Spotted Seal Day (August 25, 2017)” and conducting of week-long campaign
- Operation of spotted seal booth at various events

4) Content of activities ⑥ Implementation of spotted seal protection policies through consistent public-private cooperation



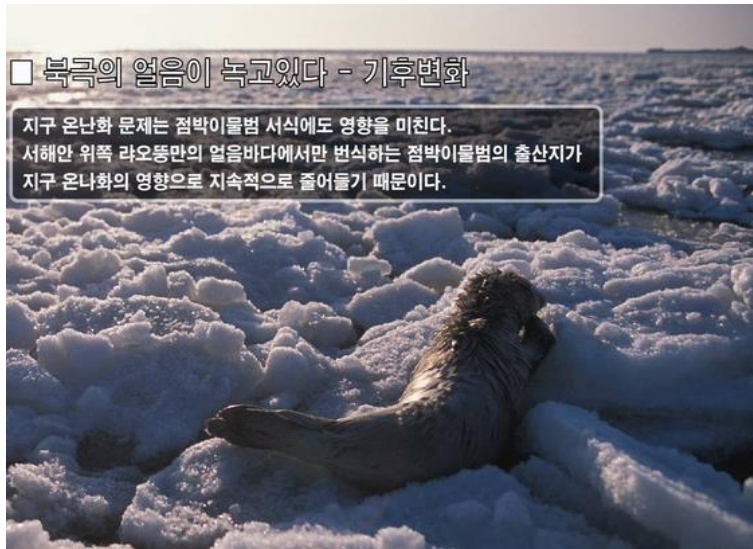
- Creation of artificial rest area for spotted seals (November 2018, Ministry of Oceans and Fisheries): Management of marine resources (creation of artificial reef, discharge of young fish, etc.) and creation of a much-needed rest area for the seals. Status of use was inspected in August and September of 2019 (Yellow Sea Spotted Seal Citizens' Association and Gathering of People Who Love the Spotted Seal)
- Provision of support for the self-directed management of spotted seal habitats by local residents, cultivation of ecology guides, conducting of classes on the spotted seal ecosystem, and production of promotional material on the protection of spotted seals. Need to create a spotted seal observatory and an information center on tourism programs/business endeavors related to the spotted seal.



4. Necessity of China-Korea cooperation for the protection of the spotted seal



1) Environmental changes in breeding sites and habitats caused by climate change



- The size and general conditions of the frozen areas of Liaodong Bay, a key breeding site for spotted seals, and changes in freezing and melting times all have a significant influence on the survival of the spotted seal (birth, rearing babies, etc.).



- Factors such as the increase in seawater temperature have resulted in white sharks appearing in spotted seal habitats (Baengnyeongdo). A white shark attacked some spotted seals on August 2019 (photo provided by the Cetacean Research Institute).



2) Poaching at breeding sites and fishing in habitats



- ◀ **[Breeding site] Feb. 11, 2019: Police in Dalian rescue wild spotted seals that had been caught illegally. Of the 100 baby spotted seals, 39 died (and the remaining 61 were given medical treatment and released back into the wild).**

→ Measure taken to strengthen the protection and management of spotted seals (Apr. 28, 2019: Opinions of General Office of the People's Government of Dalian on Further Strengthening the Protection and Management of Spotted Seals (Dalian Municipal Peoples' Government))



- **[Habitat] Fishing activities near the spotted seals of Baengnyeongdo (Haneebada). Fishing by Baengnyeongdo fishing vessels in addition to those of North Korea and China (near NLL).**

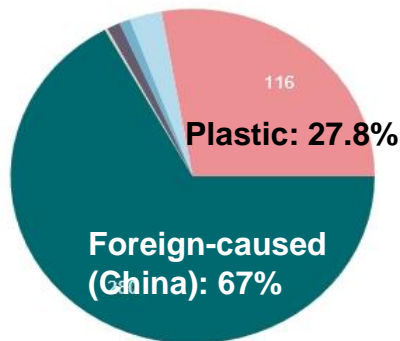
→ Need for improved relations with fishers of Baengnyeongdo. Need to explain the necessity of maintaining an appropriate distance between spotted seal rest areas and fishing areas, etc.



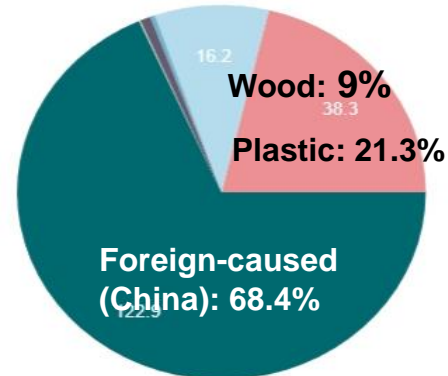
3) Marine litter



[유형별] 해안쓰레기 발생현황 (인천 백령도 사곶해안) Search duration: 2018-2019
 *Source: MALIC



유형별 해양쓰레기 비율 개수(EA)
 Proportion of marine litter (numerical quantity) by type



유형별 해양쓰레기 비율 무게(KG)
 Proportional weight (kg) of marine litter by type



4) Necessity of China-Korea cooperation for the protection of the spotted seal

- A spotted seal protective network must be created among key habitat areas (China: Liaodong Bay (Panjin, Dalian National Spotted Seal Nature Reserve), Shandong Province; Korea: (DPRK) Cheongcheongang estuary, Chodo, Haeju / (ROK) Baengnyeongdo, Garorim Bay).
- Through this network, efforts must be made to discuss and address the problems that threaten the spotted seal's survival (climate change, hunting, habitat/breeding site development and ensuing conflicts, marine pollution, marine litter, etc.) in a collaborative manner.
- The current situation must be accurately assessed through joint surveys and research, concrete protection measures implemented based on scientific data, and joint campaigns conducted to increase public awareness of the spotted seal. (예-한중 전문가 동시 조사, 한중 민간 해양쓰레기 수거 공동캠페인, 한중 청소년 교류/캠프 등)



Thank you for listening. 谢谢!



Photo by Kang Gyu-won

