



## Research Article

# Legal analysis on the protection and development of the spotted seal population from a multi-dimensional perspective

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## Abstract

Affected by human activities, the living environment of aquatic wildlife in Bohai Bay and Huanghai Bay of our country is deteriorating day by day. In accordance with the animal protection law and other relevant laws and regulations, our country has formulated an action plan and an action plan for the protection of leopard seals. The Action Plan is based on the multi-dimensional vision of the natural environment, the balance of nature, sustainable development and human care, in 2021, the Leopard Seal is listed as a first-class protected animal in the country. This paper expounds on the survival status of the spotted seal population by searching the judgments of criminal cases, administrative cases and on-the-spot investigation on the judgment network, this paper analyzes the main reasons for the endangered population of spotted seal and puts forward the corresponding protection countermeasures.

In 1983, the Save the Seals Foundation designated March 1 as International Seal Day. The spotted seals (*Phoca largha*) belong to Caniformia (Carnivora), Phocidae (Phocidae) and Phoca are one of the most important protected animals in China. They are found mainly in the northern and western parts of the North Pacific and along its coasts and islands, including the Yellow Sea, the Chukchi Sea Sea, the Bering Sea Sea, the Sea of Okhotsk Sea, the Sea of Japan and Korea. In our country, leopard seals are mainly distributed in the Bohai Sea and the Yellow Sea. They are occasionally found in the East China Sea and the South China Sea. They are the flagship species of the marine ecosystem in the Bohai Sea and the Yellow Sea. The leopard seal is found mainly in the Liaodong Bay River Delta region of the Bohai Sea. Its habitat is sea water, river water, ice floes, mud beaches, rocks and marshes. The leopard seal is the only fin-footed marine mammal that can breed in Chinese waters. There are eight leopard seal breeding grounds in the world, with the Liaodong Bay Ice Field in the Bohai Sea being the southernmost of them.

Compared with animals such as whales and dolphins, the leopard seal tops the list in terms of swimming speed and agility. It can swim at around 27 km per hour and travels thousands of miles between the Bering Strait and the Bohai Sea every year, does not know fatigue and its diving ability is very strong, can easily dive into 100 - 300 meters of water depth, each can last more than 20 minutes. This kind of defensive skill, in the escape from the pursuit and prevention of foreign injuries, with a better self-protection ability. Although the leopard seal is a marine mammal, there is a certain amphibious instinct, often climbing to the coast, beach, and reef activities. After leaving the ocean, it can only rely on the front limbs and upper body wriggling, zigzagging, irregularly crawling forward, walking hard, slowly, a clumsy, small range of activity, especially in winter, after the sea ice, the leopard seal needs to stay on the ice for a long time and needs to give birth on the ice, lactation, rest, molt. At this time, due to the combination of ice and land, or the instability of drift ice, as well as human factors, the leopard seal along with the ice carrier, often strayed inland, causing it to be completely exposed to the threat of Battle of Gaixia, extremely vulnerable.



Genetic and ecological studies have shown that leopard seals in Liaodong Bay’s breeding areas lack genetic communication with leopard seals in other breeding areas around the world and are in reproductive isolation, it belongs to a branch of the worldwide spotted seal independent evolution, has its unique genetic genes, in the protection of great significance. In addition, the leopard seal is of high economic, scientific, medical and cultural value, it is of great significance to the maintenance of Bohai Bay’s balance of nature, the development of scientific research related to the basin, the rational use of resources and the promotion of international exchanges.

**The living conditions of spotted seals in our country**

Since the 1970s, the number of spotted seals in China’s waters has been at a low level because of the destruction of the population resources, the minimum number is 1000. To strengthen the protection of the spotted seals, our country has established the Dalian spotted seals national nature reserve, the Miaodao Islands provincial spotted seals nature reserve and the Shuangtai Estuary National Nature Reserve in Liaoning province [1] (Table 1).

At present, the total area of our harbor seal reserve is 1.56 million hectares. Over the past few years, the competent fisheries authorities have organized the management agencies of the protected areas to rescue or cure more than 200 young spotted seals and organized a large-scale release of spotted seals six times, releasing more than 150 of them, which has had a good social impact [2].

**Table 1:** The number of spotted seals in China's waters.

Time	Protective or destructive measures	Quantity (only)
In 1930	No	7100
In 1940	No	8137
1940-1970	Overkill	A sharp decrease in the quantity
In 1979	Overkill	2269
In 1983	Spotted seals are listed as provincial-level protected animals by Liaoning Provincial Government, and hunting is strictly prohibited	
In 1988	Spotted seal is listed as the national second-level key protected animal	
In 1992	Dalian Municipal Government approved the establishment of a municipal spotted seal nature reserve. China acceded to the Convention on Wetlands in 1992	4500
In 1997	Approved by the State Council and promoted to the National Spotted Seal Nature Reserve	
January 2002	The nature reserve has been listed in the list of internationally important wetlands under the Convention on Wetlands	
1993-2003	Impact of human activities	1000
November 2016	Expand the scope of the Dalian spotted seal national nature reserve in Liaoning	
February 2021	After adjustment, the spotted seal in the List of National Key Protected Wild Animals was promoted from the second level to the first level of national protected wild animals	2000

**The endangered factors of the spotted seal population in our country**

**The persistent illegal trade has led to over-hunting:** Historically, fishermen along the Liaodong Bay coast have killed leopard seals. In the early 1980s, though, the provincial Government of the People’s Republic of China listed the Leopard Seal as a provincial priority and issued regulations banning its killing. Our country’s “Wild animal protection law” and “Aquatic Wild Animal Protection Implementation Regulations” explicitly prohibit the capture, killing and management of the state-key protection of aquatic wild animals, there are also international conventions, such as the CITES, that strictly regulate the international wildlife trade , but poaching and trafficking of leopard seals have not stopped, some restaurants are selling seafood as a way to attract customers and some consumers are consuming wildlife and its derivatives based on the” Eat it, earn it” mentality, the illegal trade in leopard seals is still going on.

In 2000, the China Wildlife Protection Association published a survey on the status of edible wild animals. The results showed that the number of wild animals increased, the species increased and the number of edible animals increased Illegal capture, management and have not been effectively stopped and the consumer group is not reduced but increased. As a result, the wildlife trade is driven by economic gain, making it difficult for poachers to withdraw from the wildlife market, which in turn encourages consumers to buy wildlife and its products [3]. Over-hunting has led to a sharp decline in the number of leopard seals, resulting in its population at a low level for a long time.

**Over-exploitation of coastal waters leads to deterioration of the living environment:** With the development of urban construction and the urbanization of Liaodong Bay’s coastal areas, the development of coastal aquaculture, the exploration and exploitation of oil fields, the development of shipping and the emergence of offshore sewage, as a result, the habitat range of the spotted seal was gradually reduced and the ecological environment quality of the spotted seal breeding deteriorated [4].

Sea ice is one of the most important conditions for leopard seals to breed and roost in the Liaodong Bay Ocean, which is frozen for nearly four months every winter. Spotted seals give birth and raise their young on the ice. If the sea ice is damaged, such as by sea ice breaking up or being contaminated, the breeding and growth and survival conditions of the pups will become worse, it has a great negative effect on the maintenance and growth of the population, even related to the existence of breeding sites. The ice-forming areas and ice-forming periods in Liaodong Bay are relatively consistent with the breeding areas and peak breeding periods of the spotted seals. ice-breaking in the sea lanes required for navigation will result in the fragmentation of local sea ice, as a result, the habitat of the leopard seal has been invaded and destroyed and with the increase in the number of ships, the disturbance and reproduction of the leopard seal has a great impact.



### The legal protection of rare and endangered wild animals is inadequate and the enforcement efforts are insufficient

**The probability of being held criminally liable is low and it is easy to evade legal responsibility:** In this study, only 4 criminal cases about spotted seals were found by searching the whole network of the judicial document network (not distinguishing the time, not distinguishing the level of the case). Two of the cases are the same criminal facts; one is a criminal case in the second instance and the other is a spare part of an administrative case (Table 2).

First, a search of “Liu’s first-instance criminal judgment on the crime of illegally hunting and killing rare and endangered wild animals” and “Ning’s first-instance criminal judgment on the crime of illegally hunting and transporting endangered wild animals” was conducted on the judicial document network. In January 2015, Ning and Liu committed a criminal act at the same crime site—capturing six spotted seals, when arrested by

the police, Liu in two cars were also found in five leopard seal pups and a leopard seal lower body, two leopard seal kidneys. Both Ning and Liu were sentenced to two years in prison, suspended for two years, and fined 80,000 yuan. From the perspective of sentencing, according to the Supreme People’s Court “Interpretation of certain questions concerning the application of law in the hearing of criminal cases concerning the destruction of wildlife resources”(interpretation no. 37), “The circumstances of crimes against precious or endangered wildlife shall be determined based on the number of wild animals that are the target of the crime; The cognizance of the crime of rare and endangered wild animal products is based on the value of wild animal products. In this case, the judge did not give much consideration to the crime of rare and endangered wildlife products and the punishment for the downstream crime was too light.

Second, the 2015–2019 spotted seal crime was detected by accident. In 2015, for example, Ning, Liu and Yan made no secret

**Table 2:** 4 Criminal cases about spotted seal were found by searching the whole network of the judicial document network.

Time of crime	Judgment time	Place of crime	Criminal	Criminal facts	Penalty results
2015.01	2015.09	Changxing Island, Dalian; Bohai Bay, Yingkou and Panjin sea areas	X X Ning	Illegal hunting of 6 rare and endangered wild animals, spotted seals	Two years imprisonment, two years probation, and a fine of 80000 yuan
			X1 Liu XX Yan	Illegal transportation of 6 rare and endangered wild animals, spotted seals	One year’s imprisonment, one year’s probation, and a fine of 20000 yuan
2015.01	2015.09		X2 Liu	Illegal hunting of 6 leopard seals, an inspection of five leopard seal cubs, one leopard seal lower body, and two leopard seal kidneys	Fixed-term imprisonment of two years, probation of two years, and a fine of 80000 yuan only
2016.03	2016.12	Huludao City, Linyi City	X Wang	Illegal delivery of two spotted seals to Linyi Animal and Botanical Garden	One year’s imprisonment, two years probation, and a fine of 30000 yuan
2016-2019	2021.04	Dalian Changxing Island Luoyang City, Henan Province, Kunming City, Yunnan Province, Ningbo City, Zhejiang Province, Taizhou City, Zhejiang Province, Qinhuangdao City, Hebei Province, Rizhao City, Shandong Province, Wuhu City, Anhui Province, Tianjin City	XX Zhai	In 2016 and 2019, 195 leopard seal pups were illegally purchased, transported, and sold, with an illegal profit of 620000 yuan	Fourteen years’ imprisonment, a fine of 5 million yuan, and the recovery of 1814000 yuan of illegal income
XX Zhai	Help the defendant Zhai Yuntao illegally purchase and raise 248 spotted seals for illegal transportation to other places		12 years imprisonment and a fine of 1 million yuan		
XX Liu			Fixed-term imprisonment of six years and six months and a fine of 650000 yuan. Recovery of illegal income of RMB 12000		
XX Wang	Help Zhai Yuntao raise 130 spotted seal pups illegally purchased and sold.		Fixed-term imprisonment of six years and six months, and a fine of 60 yuan. Recovery of illegal income of 14000 yuan		
XX Liu	Illegal acquisition and transportation of precious wild animals		Fixed-term imprisonment of five years and six months and a fine of 500000 yuan		
XX Liu			Fixed-term imprisonment of five years and three months, and a fine of 500000 yuan. Recovery of illegal income of 3500 yuan		
XX Qu	Illegal acquisition and precious wildlife		Fixed-term imprisonment of four years and six months and a fine of 300000 yuan		
XX Song			Fixed-term imprisonment of five years and a fine of 100000 yuan		
XX Xing	Illegal acquisition, transportation, and sale of precious wild animals		Fixed-term imprisonment of five years and a fine of 100000 yuan		
XX II	Illegal acquisition, transportation, and sale of precious wild animals		Fixed-term imprisonment of five years and a fine of 50000 yuan		
XX Zhai	Illegal acquisition of precious wild animals	Fixed-term imprisonment of two years and three months, and a fine of 300000 yuan			

of their crime of selling spotted seals on the dirt road north of Xingdao Seaview Garden in Dalian. Instead, they happened to be caught by the police of the Tân An police station, which was on patrol. Wang, for example, is well known for his crime of illegally transporting two spotted seals to the Linyi Zoological and botanical gardens in Shandong Province in March 2016.

Third, in 2021, as the Leopard Seal was listed on the national level of animal protection, the criminal authorities stepped up efforts to combat crime. Dalian two-level court in Liaoning province severely punished 11 people, such as Zhai Mou, for illegal acquisition, transport and sale of the first-class state-protected wild animals leopard seals behavior. The case involved 42 people, seven companies, and more than 200 spotted seals. The amount of money involved was about 6 million yuan. The criminals committed crimes in six provinces and cities including Shandong, Tianjin and Zhejiang, it is the largest case of poaching of finned-footed marine animals in the founding ceremony of the People's Republic of China history, saving nearly 100 leopard seal pups and effectively safeguarding the population of a branch of a unique marine species in China. But in reality, the amount of crime-fighting, the intensity of crime-fighting, and the actual amount of fishing by criminal organs, there is a serious mismatch between the decline in numbers, the extent of damage and the degree to which the species is at risk of extinction. Our country's aquatic wild animal protection-related legislation strike dynamics is insufficient, already cannot satisfy the current protection the spot seal population the need, should consummate and the improvement as soon as possible.

**The administrative legislation is divided and the jurisdiction is not clear:** First, our country has initially formed a legal system with the wildlife protection law and CITES law as the core, it plays a certain role in standardizing the protection of leopard seal species and cracking down on crimes, but there are still many deficiencies in relevant laws and regulations [5] (Table 3).

Second, the jurisdiction of the administrative department is not clear. The administrative departments with law enforcement authority for the protection of aquatic wildlife

include agriculture, forestry, fishery, industry and commerce, customs, border quarantine departments, and public security organs. There are many departments, with a large scope of jurisdiction, cross management and decentralized and inconsistent institutions, which lead to each other's prevarication in law enforcement.

**Weak public legal awareness:** Although China has formulated a series of regulations and regulatory measures to protect the spotted seal species, how to strengthen public education, change their consumption psychology and concepts, and how reduce the profits due to smuggling and poaching to change the source of interest is the key [6]. Some people with a low level of education do not fully understand the serious consequences of illegal fishing of spotted seals on the ecological environment and do not consider it an illegal and criminal act. In reality, both government agencies and the public have a far lower awareness of the protection of spotted seal species than other first-level terrestrial national protected animals.

### Countermeasures and prospects for the conservation of spotted seal species

**Improve relevant laws and regulations: Greater protection in criminal law.** The first is the rapid expansion of human practices that have put the population of Bohai Bay's iconic balance of nature species, the spotted seal, at risk of becoming endangered or even extinct, in administrative law, civil law can not effectively mitigate the damage of wildlife resources, increasing the protection of the important national resources of the criminal law has become a necessary means. The scope of "Wild animal products" should be clearly defined in the relevant judicial interpretation and the circumstances under which a sentence is imposed on the same item are more important in determining the circumstances of a wild animal than those of a wild animal product, it can lead to the perpetrator to obtain a lighter sentence of the leopard seal will be killed alive and then sold its dead body or its products, this behavior is bound to cause greater harm to the leopard seal [7].

Second, to protect rare and endangered wild animals more comprehensively and prevent criminals from killing rare and endangered wild animals in pursuit of the huge economic value

**Table 3:** Name of laws and regulations and international conventions.

Time	Issued by	Name of laws and regulations and international conventions
In 1980	The United Nations	Convention on International Trade in Endangered Species of Wild Fauna and Flora
November 1988	National People's Congress	Wildlife Protection Law of the People's Republic of China
September 1993	The State Council	Regulations of the People's Republic of China on the Implementation of the Protection of Aquatic Wildlife
August 2004	National People's Congress	The first revision of the Law of the People's Republic of China on the Protection of Wild Animals
2006-2020	The State Council	Action Outline for Conservation of Aquatic Biological Resources in China
August 2009	National People's Congress	The Second Revision of the Wild Animal Protection Law of the People's Republic of China
2011-2030	The State Council	China's Biodiversity Conservation Strategy and Action Plan
2017-2026	Ministry of Agriculture	Action Plan for the Protection of Spotted Seals
October 2018	National People's Congress	The Third Revision of the Wildlife Protection Law of the People's Republic of China
May 2020	Standing Committee of the National People's Congress	Decision on the Comprehensive Prohibition of Illegal Wildlife Trade, the Abolition of Abuse of Wildlife, and the Effective Protection of People's Health and Safety
December 2022	National People's Congress	The Fourth Revision of the Wildlife Protection Law of the People's Republic of China



of wild animal products, it is suggested that the criminal law should be increased to include the crime of illegal possession of rare and endangered wildlife products and the crime of illegal possession of rare and endangered wildlife products and a large number of acts, as the crime of endangering rare and Endangered Wildlife, a catch-all clause, will crack down on endangered wildlife downstream industry chain crime has a better deterrent effect [8].

**Improve the protection of administrative law:** Compared with the land, crimes on the water and the sea have higher spatial concealment, time uncertainty, and the flexibility and instability of the illegal acts, it is more difficult for the supervision of law enforcement on water and at sea to go to the scene and it is more difficult for the law enforcement personnel to arrive at the scene to collect evidence, we should also establish administrative laws and regulations with complete departments, unified institutions and strong coordination, accompanied by strict law enforcement supervision and protection.

**promote the conservation of spotted seal species into relevant planning:** A series of laws and regulations have been issued by the state and the competent departments of the industry. However, most of them are action plans, the provisions of laws and administrative regulations are relatively general, the provisions of incentives are mostly principles, punishment is low and the legal protection for the Spotted Seal, an endangered aquatic wild animal, is limited [9]. It is suggested that the conservation of spotted seals should be incorporated into the economic and social development plans and sectoral plans of the three provinces of Liaoning, Hebei, and Shandong, we will promote the formulation of conservation strategies and action plans or related planning, assessment and monitoring mechanisms in the three provinces, promote their effective implementation and improve coordination mechanisms for the conservation and management of biological resources of leopard seals.

### Strengthen communication and collaboration among departments

At present, the protection mode in our country is still only focused on short-term results, only focusing on the local, do not consider the overall problem. However, the biological, land and water resources in the same basin are all interrelated, the main body of management still carries on the protection according to the department, does not have the overall coordination, and the final result of resource treatment is relatively fragmented, this is often accompanied by other negative effects, such as sectoral conflicts of interest. Therefore, efforts should be made to protect and manage these factors as a whole, rather than to develop relevant policies and regulations in a fragmented manner, with a view to achieving a holistic and comprehensive

integrated watershed protection model, it can effectively maintain and restore the normal reproduction of the spotted seal population in the ecosystem.

**Enhance public awareness and enhance international cooperation and exchanges:** First, we must change the public eating and collection of endangered aquatic wildlife bad habits and severely combat the leopard seal trade. Second, we should strengthen market supervision and investigation of aquatic products trading activities, curb poaching, and trade illegal acts of leopard seals [10]. Third, carry out a variety of forms of leopard seal species protection publicity and education activities to guide the public to actively participate in leopard seal protection. Fourth, to establish and improve the mechanism of public supervision, reporting, and participation in the protection of leopard seal species and to clarify and strengthen the legal responsibility of illegal publicity, to prevent the recurrence of illegal acts. Fifth, to establish a partnership for the conservation of leopard seal species, to mobilize domestic and foreign stakeholders to participate in the conservation of Leopard Seal and to give full play to the role of non-governmental public welfare organizations and charities, we will work together to promote the conservation and sustainable use of leopard seals.

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