

The Multiple Use Integrated Marine
Management Plan and Explanatory Material
for Shiretoko World Natural Heritage Site

December 2007

Ministry of the Environment, Government of Japan
&
Hokkaido Prefectural Government

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The Multiple Use Integrated Marine Management Plan for Shiretoko World Natural Heritage Site

1. Introduction

(1) Background

- In this management plan, “Shiretoko” refers to the Shiretoko World Natural Heritage Site (hereinafter referred to as the “heritage site”) and its surrounding sea areas. Shiretoko is situated at the lowest latitude among the world’s seasonal sea ice in the northern hemisphere, and is featured by the interaction between a terrestrial ecosystem and a contiguous marine ecosystem with unique seasonal sea ice characteristics, and anadromous salmonids running up the rivers.¹
- Shiretoko is an important area for a large number of marine and terrestrial species. There are a wide variety of marine life inhabiting, including sea eagles and many other rare species, a large number of salmonids running up the rivers, and marine mammals such as Steller sealions and cetaceans. In addition, the area is internationally important as a habitat of globally threatened seabirds and a stopover point for migratory birds.¹
- In this management plan, “the waters surrounding Shiretoko” refers to the marine area of the heritage site (hereinafter referred to as the “marine area of the heritage site”) and its surrounding sea area. The waters surrounding Shiretoko have a high productivity, and for many years, fisheries activities have been conducted in harmony with the marine life.
- Taking advantage of the opportunity of inscription on the World Heritage list as a natural heritage, it was decided to formulate an integrated marine management plan in order to keep ensuring both the conservation of marine ecosystem and the proper use of the area for human activities, such as fisheries and marine recreation, in the future.

(2) Objective of the Plan

- The objective of this plan is to satisfy both of conservation of the marine ecosystem and stable fisheries through the sustainable use of marine living resources in the marine area of the heritage site²

¹ IUCN technical evaluation report, Shiretoko (Japan) ID No:1193 2005.7

² Response to the letter from the World Conservation Union (IUCN) concerning Shiretoko (Japan). (2005.3.30 A letter from the Director General of the Nature Conservation Bureau of Ministry of the Environment to the Director of the UNESCO World Heritage Centre.)

(3) Management Area

- The target area of this plan is the marine area of the heritage site that extends up to 3km from the coastline (Figure1).



Figure 1. Shiretoko World Natural Heritage Site

2. Basic Concept of Management

(1) Basic Policies

- The premise of the Plan is legal restrictions relating to the conservation of the marine environment, marine ecosystems and fisheries, and autonomous management measures carried out by fishers based on fisheries-related laws, as well as voluntary restrictions on marine recreation.²
- The Plan defines measures to conserve the marine ecosystem, strategies to maintain major marine living resources, monitoring methods for those resources, and policies for marine recreation. Based on the Plan, proper management should be promoted.

(2) Overview of Marine Ecosystem and Concept of Management in Shiretoko

< Ecosystem of the heritage site >

- The marine area of the heritage site is the southernmost region of the seasonal sea ice that is found in the northern hemisphere, and is affected by the East Sakhalin cold current and the Soya warm current. This area has a complicated marine character created by these two currents together with the intermediate cold water derived from the Sea of Okhotsk, and forms the marine ecosystem where welter of organisms migrate and live.
- The heritage site is an outstanding example of the interaction of marine and terrestrial ecosystems.¹
- In early spring, when sea ice melts earlier than in other areas, blooms of ice algae and other phytoplankton occur in the Shiretoko. As shown in Figure 2, diverse marine life, including a wide variety of fish such as salmonids and walleye pollock, live in the waters surrounding Shiretoko based on a food web that starts from phytoplankton, seaweeds and sea grass, and detritus.¹
- A lot of anadromous salmonids return to rivers in Shiretoko for spawning. Wild salmonids (including hatchery-derived chum and pink salmon that reproduce naturally in the rivers³) running upstream serve as an important source of food for terrestrial mammals (e.g., brown bear) and birds of prey (e.g., Blakiston's fish-owl), and contribute the biodiversity and the transportation of material to the terrestrial ecosystem.¹ Salmonids are also important as marine living resources in the region, where the hatchery programs of chum and pink salmon are carried out.
- In the waters surrounding Shiretoko, fisheries activities have long been carried on without giving the negative impact on the marine life.

³ Shiretoko World Natural Heritage Site Scientific Council (First meeting in FY2006)

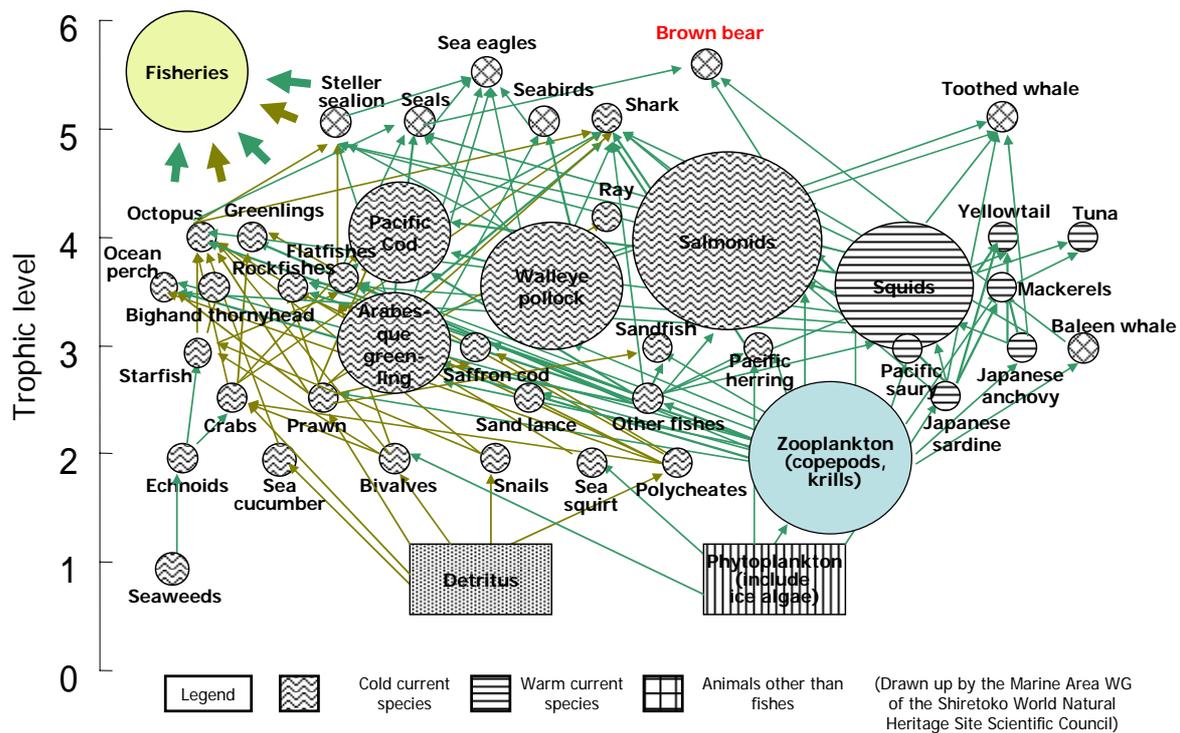


Figure 2. Food web in the Shiretoko

< **Adaptive management in Shiretoko marine ecosystem** >

- In general, an ecosystem is a disturbed, uncertain, and complex system, and has a structure and function reflecting the interaction between the abiotic environment and organisms.⁴
- The management of Shiretoko marine ecosystem, which has diverse organisms and unpredictable system, needs the adaptive management (see the note).
- Therefore, based on a wealth of scientific information, this plan defined some species that characterize the marine ecosystem in Shiretoko as indicator species. They are selected from the keystone species, predators of higher trophic levels that have a great impact on ecosystems, endangered species from a viewpoint of biodiversity conservation, and other characteristic species constituting the food web in the waters surrounding Shiretoko. By monitoring these indicator species, a marine environment should be conserved and the ecosystem should be continuously managed adaptively. .
- Since understanding the current situation of the ecosystem in the neighboring areas of Japan and the Russia Federation is also necessary for adaptive management, Japan-Russia cooperation such as information sharing, should be promoted in the field of conservation and sustainable use of the regional ecosystem.

(Note)

- Adaptive management is aiming the management and use of natural resources that allows maintaining the structure and function of the ecosystem. Changes in the ecosystem are predicted and monitored, and based on the results, the way of management and use are flexibly reviewed and adjusted. These predictions and monitoring should be accompanied by a feedback function. For the review and adjustment of management and use, it is necessary that all of the parties involved share information, try to verify hypotheses based on the results of the monitoring, and decide the direction they will take while building a consensus.⁴
- In the waters surrounding Shiretoko, adaptive management has already been introduced to maintain a stable fisheries through the sustainable use of marine living resources. For example, the resources trend has been monitored. For walleye pollock, restrictions on catch based on the TAC (*Total Allowable Catch*) system and an autonomous setting of closed fishing areas to protect spawning fish have been introduced. For chum and pink salmon, targets for escapements, eggs, and juveniles of river-specific hatchery for chum and pink salmon are forecasted, while autonomous catch restrictions result in adequate number of adults returning.⁵

⁴ Iwasa, Y. et al. ed. (2003) Encyclopedia of Ecology. Kyoritsu Shuppan Co. Ltd.

⁵ Working document of the second meeting of Marine Area WG in FY2005.

(3) Concept of Management of Each Component in the Marine Ecosystem

a. Marine environment and production in lower trophic levels

< Current situation of the component >

- The marine environment of the waters surrounding Shiretoko is influenced by the oceanic structure of the Sea of Okhotsk (East Sakhalin cold current, intermediate cold water of the Sea of Okhotsk, seasonal sea ice). It is also affected by the Soya warm current that flows in from the Soya Straits along the coast (shallow water along the coast) and partially by warm surface water that flows in from the Pacific Ocean.⁵⁻¹
- In winter, the East Sakhalin cold current shifts southward, and then the seasonal sea ice formed in the northern part of Sea of Okhotsk covers this sea area. The sea ice melts by spring, but ice algae proliferate under the ice.⁵⁻¹
- From spring to early summer, spring bloom of phytoplankton occurs. Then from summer to fall, the production mechanism in lower trophic levels, which starts from the production of phytoplankton and lead to the reproduction of zooplankton, develops due to the coastal upwelling caused by complicated ocean floor topography, tide, wind, and some other factors.
- The continuity of production in lower trophic levels as described above, except in winter, leads to an increase in the biomass of zooplankton such as copepods and krill, that feed on the lower production and proliferate. This generates a diversity of marine life including both sedentary and migratory species of fish, squids, seabirds, and marine mammals, as well as the abundant biological production.

< Management strategy >

- Under the conditions mentioned above, in order to ensure the balance between conservation of the marine ecosystem and sustainable fisheries based on adaptive management, it is necessary to conduct research and monitoring and understand accurately the trends and dynamics of marine environment, marine structure, and indicator species of the marine ecosystem, and others that provide basic data for the various analyses of the meteorological and oceanographic phenomena, the sea ice, and so on, in the waters surrounding Shiretoko.

⁵⁻¹ Mizushima and Torisawa ed. (2003) Fisheries and Aquatic Life in Hokkaido. The Hokkaido Shimbun Press.

b. Coastal Environment

i. Marine Pollution

< Current situation >

- Relevant laws strictly regulate the drainage of harmful substances into the waters from factories, businesses, ships, and so on.⁶ Thus, the marine environment in the waters surrounding Shiretoko is maintained in good quality.

< Challenges >

- There is a concern, however, that a great variety of marine contaminants from rivers flowing into the waters surrounding Shiretoko, ocean currents, and the atmosphere may threaten the life of marine life at higher trophic level as a result of biomagnification.
- A potential threat of unexpected oil spill incidence, caused by oil development in Sakhalin and the accident of ships passing through the waters surrounding Shiretoko, can have a serious impact on the coastal ecosystem.

< Management strategy >

- Efforts to prevent the outflow of contaminants from terrestrial area should be continued to conserve marine environment in the heritage site.
- Against the marine pollution caused by unexpected oil spills, measures should be taken quickly and accurately to protect the precious ecosystem.⁷
- For this purpose, all the institutions concerned, including the national government, Hokkaido government, and the towns, need to cooperate and consider concrete measures to confine the damage caused by oil spills to a minimum area.

⁶ Water Pollution Control Law; Law Relating to the Prevention of Marine Pollution and Maritime Disaster; Regulation of Sea Fisheries adjustment in Hokkaido

⁷ Oil Spill Accident Disaster Control Manual (Hokkaido); Plan for Cleaning of Spilled Oil (and HNS) to Hokkaido Coastal Sea Area (Japan Coast Guard); Japanese National Contingency Plan for Oil and HNS Pollution Preparedness and Response as amended in 2006 (Cabinet decision)

ii. Natural Landscapes

< Current situation >

- No vehicle road exists in most of the coastal area (land area bordering with the sea) within the heritage site and the natural coast remains intact.
- The coastal and the marine area of the heritage site are designated as the Shiretoko National Park under the Natural Parks Law, where certain activities are regulated in order to conserve natural scenic beauty and biodiversity.

< Management strategy >

- Efforts to conserve the excellent scenic beauty and biodiversity should be continued based on the Natural Parks Law.

iii. Drifting and Washed-up Debris

< Current situation >

- There are some drifting and washed-up debris observed in the marine area of the heritage area.⁸
- The problems caused by the drifting and washed-up debris, including those of foreign origin, are becoming serious in recent years. Examples of the problems are deterioration of the coastal function, of environment including the ecosystem, of scenic beauty, threats to the safe passage of ships, and damage to the fishing industry.⁹

< Management strategy >

- The relevant agencies should work together to transmit the information concerning the alleviation of the harmful effects on the marine ecosystem caused by drifting and washed-up debris and the conservation of the coastal environment.
- Cleaning garbage ashore on the coast in the marine area of heritage site should be conducted regularly with the help of volunteer activities.

⁸ List of the Results of the Shiretoko Cape Volunteer Cleaning Projects in FY2005

⁹ Government response policy: Decision of the Headquarters for Promotion of Special Zones for Structural Reform (February 15, 2006)

c. Fishes

< Current situation of the component >

- The number of fin-fish species observed in the waters surrounding Shiretoko has totally counted 223 species that belongs to 74 families in 26 orders, of which 150 species are identified in the marine area of the heritage site.
- A large number of fishes including salmonids, walleye pollock, arabesque greenlings, rockfish, cods, flatfish, and cephalopods, live in the marine area of the heritage site. The area serves as a part of a migration route for the salmonids and walleye pollock that widely migrate and mainly feed on copepods and krill in the sea.¹⁰
- In the waters surrounding Shiretoko, fisheries activities have long been actively conducted blessed by the rich biological production and a historical background based on the fishing industry has developed in the region.
- For the major marine living resources, there have been strenuous efforts made to maintain a balance between the state of the resources and catch, and to realize the sustainable use. For example, surveys on trends of resources have been conducted, and regulations concerning the management and use of resources have been established and resources have been propagated, through fishery-related legislations and autonomous measures implemented by fishers and their organizations based on fisheries related laws.
- Principal capture fisheries has been continuously monitored, organized as statistical information, and published since 1935.

< Selection of the indicator species >

- Keystone species include salmonids (e.g., chum, pink, and masu salmon), walleye pollock, arabesque greenling, and Pacific cod.
- Major species used by the fishing industry include salmonids, walleye pollock, Pacific cod, arabesque greenling and Japanese common squid. Among them, the catch of salmonids and walleye pollock, which is fished only in Rausu side, are predominant.
- Therefore salmonids and walleye pollock are defined as indicator species because they are highly abundant, keystone species, important fishery species, and characteristic species connecting between the marine and terrestrial ecosystems in this area.

< Management strategy >

- Proper resource management and the sustainable use of salmonids and walleye pollock should be promoted under the relevant laws, such as the Fisheries Law and the Fisheries Resource Protection Law, while reflecting the autonomous management efforts of the local fishers and their organizations, based on the information collected by the monitoring of the fishes and various surveys in the waters surrounding Shiretoko. (See Note)

¹⁰ Nomination document of Shiretoko, 3a.6.5 Fishes

(Note)

In Japan, the sustainable use of marine living resources is promoted through a combination of official and autonomous measures. Official restrictions include catch restriction under the Fisheries Law and the Fisheries Resource Protection Law, and management of the amount of extraction of marine living resources and fish catch efforts based on the Law Concerning Conservation and Management of Marine Life Resources which was established when the United Nations Convention on the Law of the Sea came into effect. Autonomous resource management is conducted by fishers and fishery organizations utilizing various surveys, aiming at the responsible use of resources and stable fishery management.

d. Marine Mammals

< Current situation of the components >

- In the waters surrounding Shiretoko, 2 orders, 9 families, 22 genera and 28 species of marine mammals have been identified, including whales, dolphins and porpoises, Steller sealion, and seals.¹¹
- Marine mammals such as cetaceans are one of the higher-level predators in the food web of the marine area of the heritage site. The waters surrounding Shiretoko is used by these marine mammals as a seasonal migration route and a foraging and breeding stites.¹¹
- Protected by sea ice from their predators and the impact of ocean waves, the waters surrounding Shiretoko is an important place for seals to forage, rest, and breed. The marine area is also important as a wintering and foraging ground for Steller sealions due to its high biological productivity.
- There is a challenge in the relationship of the seals and Steller sealions with the fisheries which is a key industry in Hokkaido. Proper management of the migrating populations should be achieved while trying to alleviate the damage to the fishing industry.¹²

Steller sealion

< Current situation >

- From winter to spring, some groups of Steller sealions migrate to the waters surrounding Shiretoko for wintering and foraging. They come from their breeding and haul out sites in Russian waters. These groups mainly consist of the pregnant females that are important for maintaining the populations.
- Considered to be declining in their population over the long-term and on a global scale (including Russian waters), Steller sealion is classified as Endangered (EN) in the IUCN Red List and as Vulnerable (VU) in the Red List of the Ministry of the Environment.
- The population of Asian groups of Steller sealion marked a sharp decline until the 1980s, but has been gradually increasing since the early 1990s. The entire population over Russia (calculated by adding the populations in the western part of the Bering Sea and Komandorskie Islands to the Asian groups) is estimated to be increasing at an annual rate of 1.2% since 1989.
- Along the coasts of Hokkaido, significant damage to the fishing industry by Steller sealions, including damage to fishing gear such as bottom gill nets and set nets and taking caught fish from nets, is a serious problem. Consequently, since 1994, the population of Steller sealions has been controlled within the quota for all of Hokkaido, in addition to various countermeasures against fishery damage. The quota is set up based on the Fisheries Law and other regulations.

¹¹ Nomination document of Shiretoko, 3a.6.2 Marine Mammals

¹² Fishery and Fishing Villages in Hokkaido 2006

- The national government and Hokkaido government are also conducting the surveys and research, to alleviate damage to the fishing industry.

< Selection of the indicator species >

- The Steller sealion is a higher-level predator in the food web of the marine area of the heritage site.
- Also, their population is considered to be declining internationally in the long-term.
- On the other hand, there is damage to the fishing industry by migrating Steller sealions in the waters surrounding Shiretoko.
- Based on the above, the Steller sealion is defined as an indicator species.

< Management strategy >

- The population of Steller sealion should be managed based on the results of surveys and research on their ecology, number of migrating individuals, and number of animals caught as bycatch, as well as based on the control quota under the Fisheries Law.

Seals

< Current situation >

- Seals that breed on ice (larga seal, ribbon seal, ringed seal, and bearded seal) migrate to the waters surrounding Shiretoko and breed on the sea ice. They feed on a wide variety of marine animals including fish of Gadidae, Pleuronectidae, and Cotidae, squids, and octopuses.¹³
- Seals were excluded from the protection under the Wildlife Protection and Appropriate Hunting Law and there was no restriction on their capture until 2002. Since 2003, they have been protected under the Wildlife Protection and Appropriate Hunting Law and their capture is restricted.

< Selection of the indicator species >

- Seals are higher-level predators in the food web of the marine area of the heritage site. The area serves as a breeding and foraging sites for seals.
- Feeding on krills, pups are strongly linked to the ecosystem of sea ice, i.e. its environment and its component which forms their prey.
- With increase in number of seals migrating to Hokkaido, damage to the fishing industry, such as scavenging hauls, is increasing, while seals are being caught as bycatch through fishnets.¹³
- Based on the above, all the species of seals that migrate to the waters surrounding Shiretoko are defined as indicator species.

< Conservation management strategy >

- Surveys on the state of seal's migration and damage to the fishing industry should be conducted, and they should be managed in accordance with the Wildlife Protection and Appropriate Hunting Law.

¹³ Shiretoko Marine Mammal Migration Survey in FY2005 (Hokkaido)

e. Seabirds and Sea Eagles

< Current situation of the component >

- The Shiretoko Peninsula and its surrounding marine area provide a diverse habitat for birds. Here, 264 species of birds belonging to 50 families in 18 orders are identified, and more than 30% of them use the marine area.¹⁴
- Among the birds identified in the Shiretoko Peninsula and its surrounding marine area, nine species are listed on both IUCN and Ministry of the Environment of Japan (MOEJ) red lists. They are: Japanese night heron [IUCN(EN), MOEJ(EN)], red-crowned crane [IUCN(EN), MOEJ(VU)], Blakiston's fish-owl [IUCN(EN), MOEJ Endangered(CR)IA], Baikal teal [IUCN(VU), MOEJ(VU)], Steller's sea eagle [IUCN(VU), MOEJ(VU)], Japanese yellow bunting [IUCN(VU), MOEJ (Near Threatened: NT)], white-tailed eagle [IUCN (Least Concern: LC), MOEJ(EN)], yellow-breasted bunting [IUCN(NT), MOEJ(CR)], long-billed murrelet [IUCN(NT), MOEJ (Data Deficient: DD)]. Among them, Steller's sea eagles and white-tailed eagles use the marine area as an important feeding ground. Blakiston's fish-owls also use the coast as a foraging ground.
- There are a large number of seabird colonies on the coast of the Shiretoko Peninsula.

Seabirds

< Current situation >

- There are many seabirds such as spectacled guillemot, Japanese cormorant, and slaty-backed gull living on rocky coast of the Shiretoko Peninsula. These seabirds are protected under the Wildlife Protection and Appropriate Hunting Law. They use the marine area of the heritage site as a major habitat including building nest on the cliffs along the coast in the heritage site. Thus, these birds can be considered as species that characterize Shiretoko's costal ecosystem.
- In recent years, human activities such as excessive approach to nesting areas and feeding by the tour boats in the waters surrounding Shiretoko, are affecting the behavior of seabirds, thus potentially threatening them.¹⁵
- The spectacled guillemot is listed as Vulnerable on the MOEJ Red List.

< Selection of the indicator species >

- Spectacled guillemot is defined as an indicator species because the species is particularly affected by such recreational use of the site by humans as mentioned above, and, though locally propagating on the coasts from Hokkaido to Tohoku, its population is declining and needs careful monitoring.
- Slaty-backed gull and Japanese cormorant are also defined as indicator species because

¹⁴ Nomination document of Shiretoko, 3a.6.3 Birds

¹⁵ The Shiretoko Nature Foundation "Changes and challenges in tourism use of Shiretoko before and after inscription on the World Heritage List." from the working document of the first meeting of Central Region of the Peninsula Zone Working Group, Committee on the Promotion of Proper Use of Shiretoko National Park in FY2005.

they are major seabirds breeding in large numbers in the coastal area of the heritage site.

< **Conservation management strategy** >

- Various surveys and collection of information should be continued, and these seabirds should be properly managed in accordance with the Wildlife Protection and Appropriate Hunting Law.

Sea Eagles

< Current situation >

- The Shiretoko Peninsula is one of the major breeding grounds of the white-tailed eagle in Japan. Furthermore, a large number of white-tailed eagles and Steller's sea eagles migrate to the area from Russia to winter. They are designated as Domestic Endangered Species by the Law for Conservation of Endangered Species of Wild Fauna and Flora (hereinafter referred to as "the Species Conservation Law").¹⁴
- Steller's sea eagle is classified as Vulnerable (VU) on both IUCN and MOEJ Red Lists, while white-tailed eagle is classified as Least Concern (LC) on IUCN Red List and as Endangered (EN) on MOEJ Red List.
- Steller's sea eagle breeds only in the far eastern part of Russia, mostly in northern Eurasia. Their population is estimated to be around 5,000 individuals (including from 1,830 to 1,900 breeding pairs). Shiretoko Peninsula is their major wintering ground where once more than 2,000 birds were observed.¹⁴
- More than 20 pairs of white-tailed eagles breed in the Shiretoko Peninsula every year, making the peninsula the most important breeding ground in Japan for this species. It is also an important wintering ground where up to 600 individuals, including migrating ones, are observed in winter.
- The coast of Shiretoko Peninsula provides an important wintering and living environment for Steller's sea eagle and white-tailed eagle because it has rich food resources, such as salmon, and there are good contiguous forests that serve as roosts for eagles on coastal slopes.
- There are incidents of eagles dying from lead-poisoning caused by lead bullets left in the carcass of sika deer.

< Selection of the indicator species >

- Steller's sea eagle and white-tailed eagle are higher-level predators in the food web of the marine area of the heritage site. They also require careful monitoring from the standpoint of protecting threatened species. Therefore, they have been defined as indicator species.

< Conservation management strategy >

- In line with the Programmes for Rehabilitation of Natural Habitats and Maintenance of Viable Populations under the Species Conservation Law, strict protection and management of Steller's sea eagle and white-tailed eagle should be implemented, including conducting field surveys of their state and surveys of migratory routes.

f. Others

< Current situation of the component >

- In recent years, new recreational activities such as sea kayaking, personal watercraft, and scuba diving are becoming more popular in the waters surrounding Shiretoko, in addition to the conventional sightseeing and leisure cruise, angling, and so on.
- These activities not only bring economic benefits to the local communities through tourism, but also are regarded important for cultural and educational purposes.

< Challenges >

- There is a concern that unregulated recreational use of the waters surrounding Shiretoko may have adverse effects on the fishery activities, biological resources and so on.
- Furthermore, the waters surrounding Shiretoko and the coastal area of the peninsula are the habitat and breeding ground of the seabirds and marine mammals. There is a concern that the human activities, such as navigation of these boats and personal watercraft, and unregulated feeding and watching at close range, may affect the survival of seabirds and marine mammals.

< Management strategy >

- In order to prevent the negative impact of recreational activities on seabirds and marine mammals, and to prevent interference with the local key fishery industry, marine tourism should be managed through the rules for utilization formulated by the authorities concerned including the national government, the Hokkaido government, and relevant towns.¹⁶ Monitoring the situation of recreational use should be continued and efforts should be made to raise awareness of the rules for utilization.

¹⁶ Basic Plan on the Proper Use of the Apical Region of the Peninsula Zone of Shiretoko National Park.

3. Management Measures

(1) Marine environment and production in lower trophic levels

- To understand the marine environment and production in lower trophic levels such as phytoplankton and zooplankton, that support marine ecosystem, marine surveys should be conducted on the physical, chemical, and biological environment, using satellites, survey boats, observation buoys placed in the ocean, and so on.¹⁷
- Because the production in lower trophic level is directly influenced by changes in the marine environment that in turn reflects global climate change, some features of marine environment including the movement of sea ice in the Sea of Okhotsk, seasonal and annual changes in the East Sakhalin Cold Current and the Soya Warm Current, and behavior of the intermediate cold water in the Sea of Okhotsk, should be monitored.
- Based on these surveys, changes in the productivity of zooplankton and phytoplankton in the marine ecosystem in the waters surrounding Shiretoko should be studied, and the study should shed light on their dynamic state as a food resource to support species at higher trophic level of the ecosystem such as fish, their impact on the ecosystem's biodiversity, and so on.
- These surveys are also important as monitoring of the environment in the waters surrounding Shiretoko and should be continued and further developed.
- In promoting the monitoring or research, the relevant administrative bodies, survey or research institutions, and local parties concerned, including fishery cooperatives, should cooperate and coordinate and should enhance exchange information on the observation system, the results of studies, and so on.
- Based on the results of these monitoring and research, changes in the environment of the marine area of the heritage site will be understood, and further, changes in the marine ecosystem will be predicted. All these results should be utilized for the realization of conservation of the marine ecosystem and a sustainable fishery industry.

¹⁷ “Understanding of the changes in marine environment with the use of fixed-point observation by setting buoys and satellite images.” as the working document No.3 of the second meeting of Marine Area Working Group in FY2006.

(2) Coastal Environment

a. Marine Pollution

- Prevention measures against marine pollution will be taken based on the relevant legislations.
- For the oil spill accidents caused by marine vessels, regional Council for Countermeasures against Oil Spill Disaster is established based on the Law Relating to the Prevention of Marine Pollution and Maritime Disaster. In this Council, together with the institutions responsible for the environmental conservation of the coastal waters along the heritage site, concrete oil removal measures should be discussed. In the event of an accident, the institutions concerned, including the national government, Hokkaido government, and the towns, should work together to collect and remove the oil quickly and adequately, and to conserve the marine ecosystem.
- Analysis of oil, cadmium, and other substances in the sea water and in seafloor sediment should be continued to understand the present state of marine pollution on the northeast coast of Hokkaido potentially caused by the Sakhalin oil development.¹⁸

b. Natural Landscapes

- Coastal area of the heritage site is designated as Special Protection Zone or Special Zones of the Shiretoko National Park under the Natural Parks Law. Within this area, certain activities are regulated in order to conserve scenic beauty.
- The marine area of the heritage site is designated as an Ordinary Zone under the Natural Parks Law. Within this area, certain activities, including land reclamation and new construction beyond a certain scale, are regulated in order to conserve scenic beauty and biodiversity.
- For the conservation of scenic beauty, regular patrol should be conducted to accurately monitor the state of natural environment and park utilization, as well as to instruct visitors and crackdown on violations.
- In accordance with the changes of social conditions and other factors, park area and park plan of the Shiretoko National Park should be reviewed approximately every 5 years based on the scientific knowledge.

c. Drifting and Washed-up Debris

- Information dissemination and awareness raising should be promoted regarding the current situation of, and efforts made against the drifting and washed-up debris in the marine area of the heritage site, making full use of websites and other media, as well as the facilities related to the heritage site, such as visitor centers.
- While collecting information on the situation of drifting and washed-up debris, regular

¹⁸ Marine pollution survey report (March 2006). Hydrographic and Oceanographic Department of Japan Coast Guard.

cleaning should be conducted in cooperation and collaboration with the administrative agencies concerned, with consideration given to the natural environment. They also should cooperate with other activities including volunteer clean-up activities by local governments, NPOs and so on.

(3) Indicator Species

- Monitoring of the following indicator species should be conducted and continuous management based on the concept of adaptive management will be implemented.

a. Salmonids

- In order to maintain healthy interactions between marine and terrestrial ecosystems in the heritage site, wild salmonids should be fully secured their escapement and natural spawning, and should be avoided from those obstacles including the river artificial constructions (e.g., dams) to the extent practicable.¹⁹
- Based on legislations including the Fisheries Law, set nets are designated as the standard marine fishing gear for salmonids, and fishing is prohibited in all rivers and near the mouths of certain rivers to improve success of natural spawning and hatchery programs. Hatchery chum and pink salmon programs, combined with continued fishery restrictions should ensure the protection and sustainable use of salmon resources.
- To maintain and protect populations of naturally spawning salmonids, regular biological monitoring and intensive surveys on migration pattern, escapement dynamics, and spawning of salmonids should be conducted.²⁰

b. Walleye pollock

- For walleye pollock, gill net fishing and longline fishing are conducted in the waters surrounding Shiretoko, mostly offshore of Rausu Town, with the permission of the governor of Hokkaido under the Regulation of Sea Fisheries Adjustment in Hokkaido that was established based on the Fisheries Law and the Fisheries Resources Protection Law.
- Under the Law Concerning Conservation and Management of Marine Life Resources established based on the United Nations Convention on the Law of the Sea, the national government and Hokkaido prefecture set the upper limit of catch [total allowable catch (TAC)] every year based on the studies including resource survey and resource assessment conducted by research institutions, and control fish catch.
- In addition to these restrictions based on these fishery laws, immature walleye pollock is protected by resource management agreements signed by the all fishery organizations throughout Hokkaido.
- Further, local fishers are implementing autonomous management measures for the protection of spawning fish, including restrictions on the period and area of fishing and on the mesh size of gill nets, with considerations given to their state of maturation and other factors.
- Proper management and sustainable use of walleye pollock resources that migrate into

¹⁹ Working document No.1 of the first meeting of the River Constructions WG in FY2005.

²⁰ Working document No.3 (chum salmon, pink salmon, salmonids) of the second meeting of Marine Area WG in FY2006

the marine area of the heritage site should be continued and promoted through measures based on these fishery laws and the autonomous efforts of fishery operators and organizations in the waters surrounding Shiretoko.

- Russian trawlers are catching walleye pollock from the single stock in the Nemuro Strait, which raises concerns about the impact on marine living resources and the ecosystem of the waters. To address this concern, effort should be continued through various conferences and networks of researchers, by gathering as much information as possible on Russian resource management and other relevant issues, by exchanging information on marine ecosystem conservation and other nature conservation issues, and by making the necessary appeals to the Russian side.

c. Steller sealion

- Based on the Fisheries Law, Steller sealion is managed by a guidance to restrict the total number of animals captured issued by the Hokkaido Fishing Zone Coordination Commission every year. The same system has been applied to manage Steller sealions inhabited in the waters surrounding the Shiretoko, based on the migration conditions and damages caused by the animals to the fishery industry.²¹
- The number of animals to be captured is determined by calculating the annual number of acceptable man-induced deaths (including all human-induced deaths such as bycatch) using the Potential Biological Removal (PBR) method based on the data of populations migrating to the coast of Hokkaido, and by considering the number of bycatch deaths.
- To understand the migration conditions and damages caused by the animals to the fishery industry, the national and Hokkaido governments conduct surveys and research on the ecology and population of Steller sealion that migrate to the coasts of Hokkaido as well as the damages to the fishery industry.
- In addition, a system to understand the number of bycatch at any given time should be established, in order to enable more flexible management.
- Through the enhancement of these efforts, an adaptive management based on scientific knowledge should be promoted and should result in the alleviation of damage to the fishery industry and maintenance of the Steller sealion population.

²¹ Working document No.3 (Steller sealion) of the second meeting of Marine Area WG in FY2006.

d. Seals

- Capturing seals requires the permission of the governor of Hokkaido based on the Wildlife Protection and Appropriate Hunting Law.²²
- Permission to capture wildlife is given based on the criteria for examination defined in line with the permission policy incorporated in the Hokkaido Wildlife Protection Project Plan that is reviewed approximately every 5 years. Permission to capture for the purpose of prevention of damage is given in light of the permission criteria such as minimal capture period, minimum number of people engaged in a capture, and minimum number of animals to be captured, from the perspective of wildlife protection.
- Long-term monitoring of the population trend of the seals in the marine area of the heritage site as well as surveys of damage to the fishery industry should be continued. Also, the proper operation of the capture permission system should be ensured and protection and management of the seals should be promoted.

e. Spectacled Guillemot, Slaty-backed Gull, and Japanese Cormorant

- Capturing these seabirds is prohibited in principle based on the Wildlife Protection and Appropriate Hunting Law. The adequate protection and management based on the law should be continued.
- Various surveys as well as the collection of information on their state of distribution and population should be implemented and then adequate protection and management should be promoted. For the spectacled guillemot in particular, any decrease in the breeding population should be avoided.
- For recreational fishing boats and sight-seeing boats, compliance with the routes that will not give impact on seabirds and marine mammals is requested. As for the use of the marine area by power boat or sea kayaks, instruction should be given thoroughly in cooperation with the institutions concerned, in order to alleviate any negative impact on the seabirds.²³

²² Wildlife capture permission examination standard (Hokkaido)

²³ Basic Plan on the Proper Use of the Apical Region of the Peninsula Zone of Shiretoko National Park

f. Steller's Sea Eagle and White-tailed Eagle

- Steller's sea eagle and white-tailed eagle are designated as National Endangered Species under the Species Conservation Law and Natural Monument under the Law for the Protection of Cultural Properties, and their hunting, killing or damaging, and transfer are prohibited. Strict protection and management based on these laws should be continued.
- In addition, Programmes for Rehabilitation of Natural Habitats and Maintenance of Viable Populations under Species Conservation Law are developed for both Steller's sea eagle and white-tailed eagle. In line with these programs, various projects including studies and monitoring on migration routes across Hokkaido and their behavior, and rescue and rehabilitation of injured or sick birds, should be implemented. Also the results of the surveys on nesting sites, the state of breeding, and so on, should be obtained in collaboration with the researchers or others who have already been studying on them continuously. Based on the examination of the results of those projects and surveys at the regular meeting of subcommittee on white-tailed eagle and Steller's sea eagle conservation and breeding under the Wildlife Protection Committee, adaptive protection and management measures that will contribute to increasing their population should be implemented.²⁴
- The forests on the coastal slopes in the heritage site that provide an important wintering ground for these birds should be conserved. Awareness raising activities should be conducted to warn users not to get up close to the nesting site during the white-tailed eagle's breeding season.
- The use of lead bullets is prohibited in hunting of large mammals to prevent the lead poisoning of Steller's sea eagles and white-tailed eagles.²⁵

²⁴ Programmes for Rehabilitation of Natural Habitats and Maintenance of Viable Populations for White-tailed eagle (Ministry of Education, Culture, Sports, Science and Technology; Ministry of Agriculture, Forestry and Fisheries; Ministry of Land, Infrastructure and Transport; Ministry of the Environment)

Programmes for Rehabilitation of Natural Habitats and Maintenance of Viable Populations for Steller's sea eagle (Ministry of Education, Culture, Sports, Science and Technology; Ministry of Agriculture, Forestry and Fisheries; Ministry of Land, Infrastructure and Transport; Ministry of the Environment)

²⁵ Hokkaido Prefecture Notification No.754

(4) Other Components

Marine Recreation

- For the proper utilization of the Shiretoko National Park, the surveys to understand the situation of recreational use were conducted. Based on the result, desirable way of conservation and utilization were discussed at the Committee on the Promotion of Proper Use of Shiretoko National Park, and the Basic Plan on the Proper Use of the Apical Region of the Peninsula Zone of Shiretoko National Park, targeting the apical region of the Shiretoko Peninsula including the surrounding waters, was formulated in December 2004.
- Based on this basic plan, the request for recreational fishing boats and sight-seeing boats to comply with the routes that will not give negative impact on seabirds and marine mammals, fishery activities and so on, should be continued. While conducting regular monitoring on recreational activities, the content of instruction will be reviewed. For the use of the marine area by power boat or sea kayaks, instruction should be given thoroughly in cooperation with the institutions concerned and other relevant organizations, in order to avert any negative impact on the seabirds, marine mammals and fishery activities.²³
- Landing on the Shiretoko Cape for sightseeing using power boats may have negative impacts on the natural environment. Therefore, since 1984, people have been instructed to refrain from landing, based on the “Agreement on the instructions for usage restrictions of the Shiretoko Cape area” by the administrative bodies involved. The instructions should be carried out strictly and further reinforced.²⁶
- For other recreational use of the coastal area, such as personal watercraft, diving, and other educational activities on sea ice in winter, continuous monitoring should be implemented and concrete policies should be discussed.

²⁶ Agreement on the instructions for usage restrictions of the Shiretoko Cape area

4 Administrative Structure and Operation

(1) Implementation of the Plan

- In order to accomplish the plan's objectives, administrative bodies including the Ministry of the Environment and Hokkaido Prefecture, that hold jurisdiction over various systems and measures related to Shiretoko, as well as relevant organizations such as fishery cooperatives and research institutions, should closely cooperate to promote their respective measures for the conservation of the marine ecosystem in the heritage site and for stable fisheries and so on. At the same time, human resources who are involved in these organizations should be developed.
- The progress of the plan, including the results of various measures, will be disclosed and shared through the reports submitted to the Shiretoko World Natural Heritage Site Scientific Council and the Shiretoko World Natural Heritage Site Regional Liaison Committee, the website of the Ministry of the Environment, the Shiretoko World Heritage Conservation Center, the Rausu Visitor Center, and so on.
- For the proper promotion of this plan, the Shiretoko World Natural Heritage Site Scientific Council will provide advice as needed.

(2) Time Frame of the Plan

- The period of this plan will cover until the fiscal year 2012. After 2012, the plan will be reviewed and amended as needed approximately every five years, based on the changes in Shiretoko's marine ecosystem, the results of the management measures, and other relevant information.

Explanatory Material for
the Multiple Use Integrated Marine Management
Plan for the Shiretoko World Natural Heritage Site

December 2007

Ministry of the Environment, Government of Japan
&
Hokkaido Prefectural Government

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1 Conservation of the coastal environment

(1) Prevention of marine pollution

The problem of marine pollution cannot be solved solely by the efforts of a single country, but requires measures based on international agreements. For this purpose, international treaties have been established to regulate the dumping into the ocean of waste generated on land and to mitigate any damage caused by large-scale oil-spill disasters. Against the background of discussions on international efforts such as these, Japan is trying to conserve the marine environment in a good condition by regulating the drainage or dumping of oil, harmful liquid substances, and wastes into the ocean based on laws such as the Law Relating to the Prevention of Marine and Air Pollution from Ships and Maritime Disasters, Waste Management and Public Cleansing Law, and the Water Pollution Control Law, while establishing measures to control and remove spilled oil.

In addition to these regulations through laws, regional plans and manuals including a Oil Spill Control and Removal Plan for the Hokkaido Coastal Sea Area and an Oil-Spill Accident Disaster Control Manual, have been developed and set down the prompt and appropriate actions to be taken in the event of major spills of oil or other hazardous substances due to accidents or other incidents, to prevent marine pollution in the waters around Hokkaido, including Shiretoko.

○ Spilled oil cleaning activities in Hokkaido



Applicable laws and regulations

Law Relating to the Prevention of Marine and Air Pollution from Ships and Maritime Disasters (Extract)

Law No. 136 of December 25, 1970

Last amended by Law No.62 of May 30, 2007

(Purpose)

Article 1 The purpose of this Law is to prevent marine and air pollution and maritime disaster by controlling the discharge into the ocean of oil, noxious liquid substances and others and wastes, disposal of oil, noxious liquid substances and others and wastes under the sea-bed from ships, offshore facilities and aircraft, emission of exhaust gas from ships, and the incineration of oil, noxious liquid substances and others and wastes on a ship and at off-shore facility, by securing appropriate disposal of waste oil and by taking measures for the removal of the discharged oil, noxious liquid substances and others, wastes and other substance, the prevention of occurrence and spread of fire at sea and the prevention of danger to shipping traffic incidental to such fire and the line at sea and by securing appropriate enforcement of international convention on the prevention of marine and air pollution and maritime disaster, thereby contributing to the preservation of the marine and air environment and the protection of people's lives and body as well as their property.

(Prevention of Marine and Air Pollution and Maritime Disaster)

Article 2 Every person shall exert himself not to pollute the ocean and the air by the discharge of oil, noxious liquid substances and others or wastes, by disposal of oil, noxious liquid substances and others or wastes under the sea-bed from ships, offshore facilities and aircraft, by emission of exhaust gas from ships, and by other acts.

2. The master or owner of the ship or the manager or owner of the off-shore facility or off-shore dangerous substance control facility or other persons concerned shall always take precautions against discharge of oil, noxious liquid substances, etc. or dangerous objects, or against a fire at sea so that he can take measures to control the discharged oil, noxious liquid substances, etc., or to fight the fire and prevent the spread of the fire, and shall endeavor to prevent marine pollution and maritime disaster by properly implementing the measures in case of such emergency.

WASTE MANAGEMENT AND PUBLIC CLEANSING LAW (Extract)

Law No. 137 of December 25, 1970

Last amended by Law No. 50 of June 2, 2006.

CHAPTER I GENERAL PROVISIONS

(Purpose)

Article 1 This law is enacted for the purpose of preserving the living environment and improving public health through the restriction of waste discharge, appropriate sorting, storage, collection, transport, recycling, disposal, or the like of waste and conservation of a clean living environment.

(Responsibilities of Businesses)

Article 3 The businesses shall appropriately manage of, the waste left as a result of their business activities.

2. The businesses must endeavor to reduce the amount of waste by recycling or re-use of waste. The businesses shall assess the handling or processing difficulty of the waste generated when the products, their containers or whatever they manufacture, process and seller the like are discarded. They shall develop such products, containers or the like which are unlikely to present handling or processing difficulty, provide information on appropriate management of the waste generated when the products, their containers or the like are discarded, or take some other actions to ensure appropriate management of the said products, containers or the like without difficulty.

3. In addition to the preceding duties in this Article, the businesses shall cooperate with the central government and local governments in their activities to reduce waste, ensure appropriate management and so on.

Water Pollution Control Law (Extract)

Law No. 138 of December 25, 1970

Last Amended by Law No. 68 of June 14, 2006

(Purpose)

Article 1 The purposes of this Law are to prevent the pollution of water (including form of deterioration of the condition of water other than the deterioration of water quality; the same hereinafter) in the Public Water Areas by regulating effluent discharged by factories or establishments into the Public Water Areas, thereby to protect human health and to preserve the living environment and to protect sufferers by setting forth stipulations regarding the responsibilities of the proprietors of factories or establishments to compensate the damage in cases where human health is damaged by polluted water or wastewater discharged from factories or establishments.

Regulation of Sea Fisheries Adjustment in Hokkaido (Excerpts)

Regulation No.132 of November 12, 1964

Last amended by Regulation No.158 of December 19, 2006

(Purpose)

Article 1 These Regulations intend to ensure the protection, nurturing and maintenance of fisheries resources in the sea as set forth in Article 84, Paragraph 1 of the Fisheries Law and to regulate fisheries and otherwise strive to make adjustments to fisheries, in order to establish order in fishery.

(Prohibition of Abandoning or Spilling Harmful Substances)

Article 33 No substances harmful to marine life shall be abandoned or spilled in the sea.

2. Should it be deemed for the protection and nurturing of fisheries resources, the Governor may order any person who has violated the provisions of the preceding paragraph to construct facilities to eliminate the relevant harm or to modify the existing facilities constructed to eliminate such harm.
3. The provisions of the preceding paragraph shall not apply to any person who shall be subject to the Water Pollution Control Law (Law No.138 of 1970).

Japanese National Contingency Plan For Oil and HNS Pollution Preparedness and Response (Excerpts)

Cabinet order of December 8, 2006

Chapter 1 Purpose of the plan

Japan, as country surrounded by the sea with rich natural environment, benefits from its rich fishing grounds. It is essential for Japan, therefore, to take actions immediately and effectively at early stage in order to protect marine environment, human life and property, in case of a pollution incident by oil, noxious liquid substances, hazardous substances, and other substances (hereinafter referred to as "Oil and HNS*") in the sea near Japan. Given the fact that Japan is one of the biggest energy importing country, it is also essential for Japan to have a system for Oil and HNS pollution preparedness and response. It is important that national government, local governments, oil manufactures, shipping industry, mining industry, chemical industry, fishing industry and other parties concerned co-operate with one another according to the system.

This Plan, prepared to comply with Paragraph (1) (b), Article 6 of the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990, and Paragraph (1) (b), Article 4 of the Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, 2000, provides the above mentioned Japanese system. The purpose of this Plan is to satisfy the international requirement and to response for the Oil and HNS pollution incidents immediately and effectively in order to protect marine environment, human life and property.

Plan for Cleaning of Spilled Oil (and HNS) to Hokkaido Coastal Sea Area (Excerpts)

Japan Coast Guard
August 15, 1996
Last amended on April 1, 2002

I. Purpose

This Plan is one prepared by the Commandant of the Japan Coast Guard pursuant to Article 43-2 of the Law Relating to the Prevention of Marine and Air Pollution from Ships and Maritime Disaster (Law No.136 of 1970; hereinafter referred to as the "Marine Prevention Law") and intends, based on the spirit of the National Contingency Plan for Preparedness and Response to Oil Spills (Cabinet Decision of December 19, 1997), to enact measures necessary for controlling and removing oil (meaning "oil" as defined in Article 3, Item 2 of the Marine Prevention Law, hereinafter the same) in the event of spillage in an extremely large quantity in any of the marine areas listed in the items of Article 37-6 of the Ordinance for Enforcement of the Law Relating to the Prevention of Marine and Air Pollution from Ships and Maritime Disaster (Ministry of Transport Ordinance No.38 of 1971) and for eliminating danger associated with such oil, in order to ensure the prompt and appropriate implementation of the measures for controlling and removing spilled oil, thereby contributing to the preservation of the marine environment and the protection of human life, body and property.

II. Target marine areas and their names

The marine areas and their names for which oil spill control and removal plans shall be prepared shall be as shown in Figure 1. (The rest omitted.)

III. Basic policy

1. Preparation of oil spill control and removal plans

The oil spill control and removal plans shall be prepared by taking into account the natural, social and economic conditions of each of the sixteen marine areas covered by the plans. Marine areas that are most likely to experience spill accidents involving extremely large quantities of oil, based upon their ocean vessel traffic; weather and hydrographic conditions; past maritime accidents and any other relevant factors therewith, shall be designated as the marine areas which are likely to suffer marine pollution. In certain oil spill accidents, oil pollution may spread over marine areas covered by more than one oil spill control; accordingly there may be overlap with respect to those areas' removal plans due to the scale of the spill or the characteristics of the spot of accident. In such case, measures shall be taken so that the respective oil spill control and removal plans for the marine areas shall be operated in mutual and organic cooperation with each other.

Hokkaido Region Disaster Prevention Plan (Excerpts)

Hokkaido
April 1964

Last amended on May 19, 2006

Chapter 8: Accident and Disaster Preparedness Plan

Section 1: Maritime Disaster Preparedness Plan

II. Oil Spill Preparedness Plan

1. Basic policy

In order to ensure early establishment of a framework to make initial response and to mitigate damage in the event of the occurrence or threatened occurrence of significant marine pollution, fire, explosion or any other accident due to the large-scale spillage of oil or other substances from an ocean vessel caused by a maritime accident such as collision, stranding, capsizing, fire, explosion, submersion or engine trouble, each of the various preventive and emergency measures to be taken by the agencies involved in disaster prevention shall be subject to the provisions of this Plan.

Disaster planning against the spillage of hazardous materials or similar events in a harbor area shall be subject to Chapter 8, Section 6 (Preparedness Plan Against Disaster Involving Hazardous Materials). Disaster planning for petroleum complexes and other special disaster prevention zones shall be subject to the Hokkaido Petroleum Complex Disaster Prevention Plan.

2. Disaster prevention

All agencies involved shall cooperate with each other through their organizations for both the prevention of oil spill at sea caused by maritime accidents and in the implementation of preventive measures necessary to mitigate damage.

3. Emergency measures against disaster

All measures to be taken in the event of large-scale spillage of oil and other substances shall be implemented in accordance with the Oil Disaster Control Manual, in addition to the provisions of this Plan.

Oil Disaster Control Manual (March 2000, Hokkaido) (Excerpts)

I. General Provisions

1. Purpose

Pursuant to the Hokkaido Region Disaster Prevention Plan (hereinafter referred to as the "Regional Disaster Prevention Plan"), Chapter 8 (Accident and Disaster Preparedness Plan), Section 1 (Maritime Disaster Preparedness Plan), subsection II (Oil Spill Preparedness Plan), this Manual intends to ensure the prompt and appropriate collection and removal of spilled oil in the event of large-scale oil disaster in any of the marine areas around the Hokkaido region, thereby contributing to the preservation of the environment and the protection of human life, body and property.

2. Disasters Covered

This manual shall cover all large-scale oil disasters, including without limitation marine or coastal pollution due to large-scale spillage of oil from an ocean vessel caused by a maritime accident such as collision, stranding, capsizing, submersion or engine trouble or from oil production facilities.

3. Scope of Application

This manual shall apply to all oil disasters affecting any part of the marine areas around Hokkaido covering from the coasts and coastal zones of Hokkaido through the Japanese territorial seas to the extent of the Exclusive Economic Zone. Disaster prevention planning for the special disaster prevention zones (the five districts including Kushiro, Tomakomai, Muroran, Kamiiso and Shiriuchi) under the Petroleum Complex Disaster Prevention Law (hereinafter referred to as the "Petroleum Disaster Law") shall be subject to the Hokkaido Petroleum Complex Disaster Prevention Plan.

(2) Conservation of natural landscape

Shiretoko National Park is the area designated by the Minister of the Environment based on the Natural Parks Law that mainly aims to protect natural scenic beauty. Boundaries of the park and the park plan that defines the park's regulation plan, etc., will be reviewed periodically based on scientific knowledge and in light of social changes. At the opportunity of reviewing the park plan, changes in the national park management plan that stipulates the handling of permit approvals, etc., will be considered by a review committee that will be held as needed and made up of academic experts and other relevant peoples.

○ Overview of Shiretoko National Park

Covering the northern half of the Shiretoko Peninsula that protrudes from the north-east edge of Hokkaido, the park has outstanding and highly-primitive natural landscapes. A range of volcanic ridge mountains, including Mt. Rausu (1661m) which is the tallest, Mt. Iou (1563m), and Mt. Shiretoko (1254m), stretches in a north-easterly direction, forms sea cliffs and water falls, and leads directly into the sea, resulting in inaccessible terrain.

Vegetation consists mainly of mixed forests with coniferous and broad leaf trees such as Sakhalin fir, Yezo spruce, and Japanese oak, and covers a wide area at the base of the mountains. Around the ridge line, Japanese stone pines range out together with communities of alpine plants, such as *Rhododendron aureum georgi*, and *Primula cuneifolia*. Characteristic of the vegetation here are the alpine plants that occur at a relatively low altitude and with a diverse vertical distribution in a small area, most of which remains in a pristine state unaffected by human intervention.

Brown bears and sika deer live in the park, and the virgin forests are sanctuaries for endangered wildlife species, including Blakiston's fish-owls and white-tailed eagles. In winter, Steller sealions, seals, and Steller's sea eagles, among others, come along with the sea ice.

The park is used mostly in excursions through which people visit Shiretoko-goko Lakes and other scenic spots, using the Shiretoko Crossroad. However, observation of the magnificent mountain range, sea cliffs, seabirds, and so on, from the sightseeing boats that cruise along the Shiretoko Cape and the Iwaobetsu Coast is also popular. The number of visitors remains the same level in recent years at about 2.42 million (2006) annually, mostly from May to October.

[Representative visitor bases and destinations]

- Rausu hot spring facility complex

This is the only facility complex area in the park, and has a visitor center, accommodation, camping area, etc.

- Horobetsu area

This is where several facilities, including the Shiretoko Nature Center, are located, and they provide information on the nature in Shiretoko, as well as nature interpretation activities.

- Shiretoko-goko Lakes

In this area, subsoil water from the Shiretoko mountain range forms pristine landscape of lakes and marshes in Iwaobetsu's lava plateau. The area also allows a scenic view of the Shiretoko mountain range.

[Major events]

- June 1, 1964: Designation of Shiretoko National Park
- February 4, 1980: Mt. Onnebetsu was excluded (It was designated as the Wilderness Area)
- June 15, 1984: Overall review of the park area and of the park plan (reexamination))
- December 1, 1990: Designation of vehicle restricted zones
- February 21, 1995: Amendments to the park plan (1st review)
- August 20, 2003: Amendments to the hiking trail plan
- December 22, 2005: Changes of the park area(extension of the marine area)

[Area by zone classification]

- Park area (terrestrial area): 38,633ha
 - Special Zone: 38,633ha
 - Special Protection Zone: 23,526ha (60.9%)
 - Class I : 3,822ha (9.9%)
 - Class II : 3,249ha (8.4%)
 - Class III : 8,036ha (20.8%)
 - Ordinary Zone: 0ha

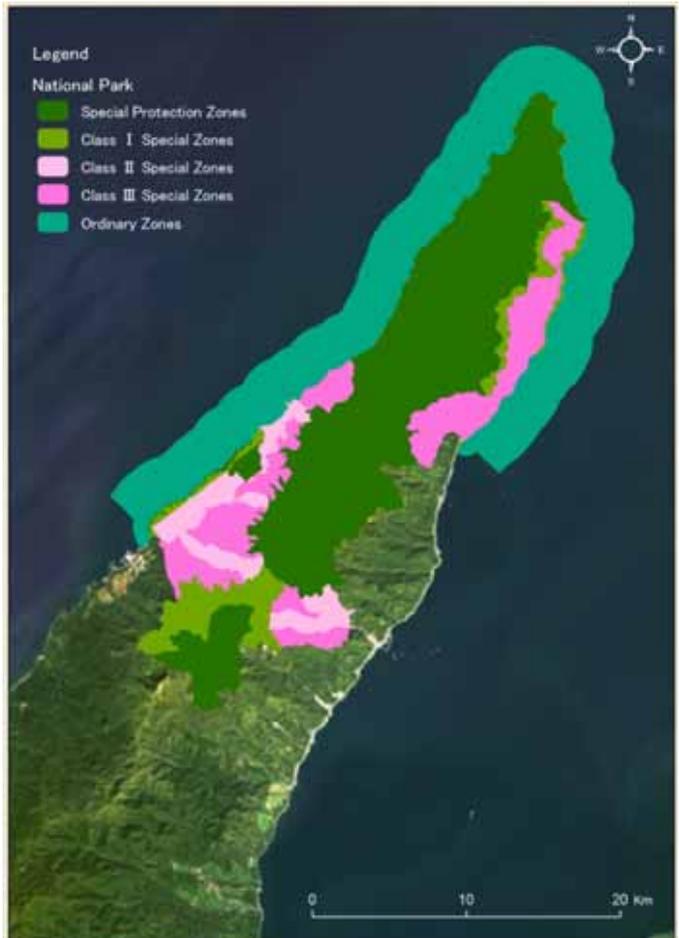
- Park area (marine area): 22,353ha
 - Ordinary Zone: 22,353ha

(Area by ownership (terrestrial area only))

- Park area: 38,633ha
 - State-owned land: 36,215ha (93.7%)
 - Publicly-owned land: 758ha (2.0%)
 - Privately-owned land: 1,660ha (4.3%)

(Administrative district- terrestrial area only)

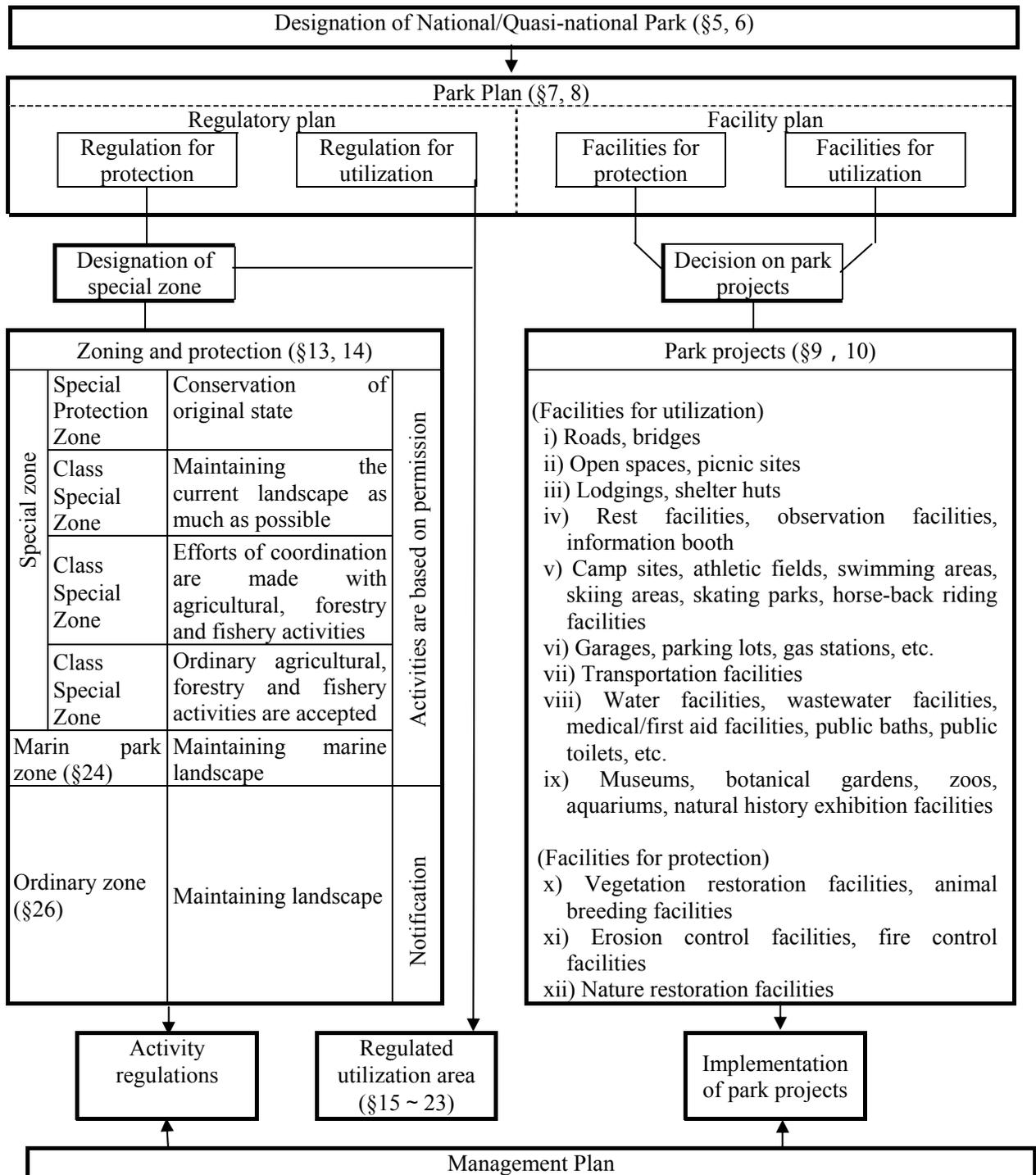
- Shari town, Shari-gun, Hokkaido: 23,011ha (59.6%)
- Rausu town, Menashi-gun, Hokkaido: 15,622ha (40.4%)



○ **Structure of the natural park system**

The Natural Parks Law was promulgated on June 1, 1957 and put into effect on October 1 of the same year in order to protect the places of natural scenic beauty while promoting their use for people’s health, recreation, and culture. (§1).

Natural parks include National Parks, Quasi-national Parks, and Prefectural Natural Parks*. Their structure is as follows.



* Prefectural natural park shall be defined by prefectural ordinances. (§59 ~ 68)

- **Park Plan of the National Park**

- 1 . Objective of the park plan

- A park plan aims to serve as a basic guideline for the appropriate management of the park by setting policies to maintain the scenic beauty of the National Parks, as well as setting policies to develop the facilities necessary for their use as park.

- 2 . Composition of a park plan

- A park plan consists of regulatory plans [a plan concerning regulations for protection (regulatory plan for protection) and a plan concerning regulations for use (regulatory plan for utilization)] and facility plans [a plan concerning facilities for protection (facility plan for protection) and a plan concerning facilities for use (facility plan for utilization)].

- 3 . Points of concern when developing a park plan

- When developing a park plan, attention is paid to consistency in the protection of the park and appropriate use, and full consideration is given to the latest information available, such as the National Survey on the Natural Environment and various scientific surveys, as well as a variety of other information, such as the cultural and social background of the region and the actual state of park utilization.

- 4 . Review of a park plan

- A park plan is reviewed approximately every 5 years.

- Points of concern when reviewing a plan are as follows (excerpt):

- Regulatory plan: Revisions shall be made to maintain its suitability regarding the quality of the natural landscape through the reassessment of landscape quality in each section in the area based on materials such as scientific survey reports and recent changes in social conditions.

- Facility plan : In order to ensure opportunities for appropriate park use that correspond to the quality of the natural landscape while working to conserve the natural environment and from the viewpoint of promoting high-quality and sustainable use, the facility plan shall be reviewed based on changes in social situations and with consideration for the actual state of park utilization, impact on the scenic beauty, etc. This review shall also include the examination of the need for, and feasibility of, the projects based on the existing facility plan.

- When amending a park plan, the Ministry of the Environment shall create a preliminary draft, which shall be developed into a draft by the Ministry of the Environment through obtaining public comments after coordination with the pertinent organizations, such as relevant local governments. The final decision shall be made upon consultation with the relevant ministries, agencies, etc.

- **Review of the “park area”**

- Review work shall be conducted approximately every 5 years.

- Points of concern when reviewing area are as follows (excerpt):

- Changes shall be considered in cases such as when an area has been being considered for inclusion in the park area, or when a scientific survey report or some other relevant documents found that a certain area needs to be incorporated into the park area.

- **National Park Management Plan**

- 1 . Objectives of the National Park Management Plan

- The National Park Management Plan (hereinafter referred to as the “management plan”) is drawn up with the aim of ensuring that the reinforcement of the national park management operations are tailored to the actual conditions of the region and to promote the proper protection and use of

National Parks.

2 . Content of a management plan

- (1) Overview of the National Park or management zone
- (2) Basic management policy
- (3) Matters concerning the conservation of scenic beauty and the natural environment
- (4) Matters concerning the promotion of the appropriate utilization of the park
- (5) Matters concerning park projects and the handling of permission for activities, etc.
- (6) Other matters necessary to accomplish the objectives of the management plan

3 . The establishment of a management plan review committee and the holding of a management plan liaison meeting

For the development of a management plan, a National Park management plan review committee shall be formed as needed and will consist of academic experts in the field of natural environment conservation, etc. In addition, a National Park management plan liaison meeting is held as needed in order to promote and coordinate the management plans.

4 . Operation of a management plan

A National Park's administrative work, such as permission for activities is conducted based on the management plan.

5 . Amendments to a management plan

Basically, a management plan is amended at the same time as the park plan is reviewed, but partial changes are made as needed.

Applicable laws and regulations

NATURAL PARKS LAW (Extract)

Law No. 161 of June 1, 1957

Last amended by Law No. 50 of June 2, 2006.

(Purpose)

Article 1 This Law shall aim at the protection of the places of natural scenic beauty and also, through the promoted utilization thereof, at the contribution to the health, recreation and culture of the people.

(Responsibility of the State etc.)

Article 3 In accordance with the basic intent of environmental conservation prescribed in Articles 3 to 5 of the Basic Environmental Law (Law No. 91 of 1993), the State, local public bodies, park workers and visitors of the natural parks shall make effort respectively to protect the natural scenic beauty and promote appropriate utilization.

2. In light of the fact that the protection of fauna and flora in the natural parks is significant for conserving the scenic beauty of the natural parks, the State and local public bodies shall take measures for conserving the scenic beauty of the natural parks with the aim to ensure the diversity in the ecosystem and creature in the natural parks.

(Special Zone)

Article 13 The Minister of the Environment, in regard to the National Park and the governor of the prefecture concerned, in regard to the Quasi-national Park, may, for the purpose of preserving scenic beauty of the Park concerned, designate the Special Zone within its boundary (excluding sea areas) in accordance with the Park Plan.

3. Within the Special Zone (with the exception of the Special Protection Zone; hereinafter the same in this article), the activities coming under any of the following items shall not be carried out without the permission of the Minister of the Environment in case of the National Park and that of the governor of the prefecture in case of the Quasi-national Park; provided that the activity, that has already been under way at the time of the designation of the Special Zone concerned or the expansion of its boundary, (except the work mentioned in item 5 below), or the activity mentioned in item 5, that has already been under way at the time of the designation of the lakes, marshes or swamps prescribed in the same item, or the activity mentioned in item 7, that has already been under way at the time of the designation of the materials prescribed in the same item, or the activity carried out as the emergency measure in case of disaster shall be excepted from this provision.

- (1) Constructing, reconstructing or extending structures.
- (2) Felling trees and bamboos.
- (3) Mining minerals or extracting soil and stones.
- (4) Causing increase or decrease of the water-level or quantity of water of rivers, lakes, marshes, swamps and wetlands etc.
- (5) Discharging polluted or waste water through the sewage disposal facilities into the lakes, marshes or swamps and wetlands designated by the Minister of the Environment or within a distance of one kilometer from there discharging the same through the sewage disposal facilities into the water running into the designated lakes marshes or swamps and wetlands etc.
- (6) Putting up or setting up advertisements or those similar to them, or showing of advertisements or those similar to them on the structures and the like.
- (7) Accumulating or storing soil and stones or other materials designated by the Minister of the Environment in the open air.
- (8) Reclaiming the surface of water or reclaiming by drainage.
- (9) Clearing land or changing the feature of land.
- (10) Collecting or damaging alpine plants or other plants designated by the Minister of the Environment.
- (11) Capturing or killing or wounding animals in mountains, or animals designated by the Minister of the Environment (hereinafter, the "Designated Animals" in this item), or collecting or damaging eggs of the Designated Animals.
- (12) Altering the colors of roofs, surface of walls, fences and walls, bridges, steel towers, water-pipes or those similar to them.
- (13) Entering into wetlands or similar areas designated by the Minister of the Environment during the period designated according to such areas.
- (14) Using horses, vehicles or power-driven vessels, or landing of airplanes in areas designated by the Minister of the Environment other than roads, plazas, paddies, fields, pastures or housing lots.
- (15) Any activity other than those mentioned in the preceding items which may affect the scenic beauty of the Special Zone and is prescribed by the Cabinet Order.

4. Neither the Minister of the Environment nor the governor of the prefecture concerned shall grant the permission prescribed in the preceding paragraph if any activity mentioned in the items of the preceding paragraph fails to comply with the standards prescribed by the environmental ministerial ordinance.

8. One, who intends to plant trees and bamboos or pasture livestock within the Special Zone, shall previously notify the Minister of the Environment in the case of the National Park or the governor of the prefecture concerned in the case of the Quasi-national Park to that effect.

(Special Protection Zone)

Article 14 1. The Minister of the Environment, in regard to the National Park and the governor of the prefecture concerned, in regard to the Quasi-national Park, when specially necessary for the preservation of the landscapes of the Park, may designate the Special Protection Zone within the Special Zone in accordance with the Park Plan.

3. Within the Special Protection Zone the following activities shall not be carried out without the permission of the Minister of the Environment in the case of the National Park and without that of the governor of the prefecture concerned in the case of

the Quasi-national Park; provided that the activity, that has already been under way at the time of the designation of the Special Protection Zone concerned or the expansion of its boundary, (except the activity mentioned in item 5 or paragraph 3 of the preceding article), or the activity mentioned in item 5, that has already been under way at the time of the designation of the lakes, marshes or swamps and wetlands prescribed in the same item, or the activity carried out as the emergency measure in case of disaster shall be excepted from this provision.

- (1) Any Activity mentioned in the items 1 to 6, 8, 9, 12 and 13 of paragraph 3 of the preceding article.
- (2) Damaging trees and bamboos.
- (3) Planting trees and bamboos.
- (4) Pasturing livestock.
- (5) Accumulating or storing things in the open air.
- (6) Setting fire or making fire.
- (7) Collecting or damaging plants other than trees and bamboos, or collecting fallen leaves or fallen branches.
- (8) Capturing, killing or wounding animals, or collecting or damaging their eggs.
- (9) Using horses, vehicles or power-driven vessels, or landing airplanes in areas other than roads or plazas.
- (10) Any activity other than those mentioned in the preceding items which may affect the landscapes of the Special Protection Zone and is prescribed by the Cabinet Order.

4. Neither the Minister of the Environment nor the governor of the prefecture concerned shall grant the permission prescribed in the preceding paragraph if any activity mentioned in the items of the preceding paragraph fails to comply with the standards prescribed by the environmental ministerial ordinance.

(Ordinary Zone)

Article 26 One, who intends to undertake the activities coming under any of the following items within National or Quasi-national Parks other than Special Zones or Marine Park Areas (hereinafter referred to as "Ordinary Zone") shall notify the Minister of the Environment in the case of National Parks or the governor of the prefecture concerned in the case of Quasi-national Parks of the matters prescribed by the environmental ministerial ordinance such as activity type, place, implementation method and scheduled date of commencement; provided that the activities mentioned in items 1, 3, 5 and 7 which are necessary for fishery operations such as setting up fishing gear shall be excepted from this provision.

- (1) Constructing, reconstructing or extending structures, whose scales are beyond the standards prescribed by the environmental ministerial ordinance (including reconstructing or extending in the case that the scale thereof is to be beyond the standards prescribed by the environmental ministerial ordinance after the completion of the reconstruction or extension concerned).
- (2) Causing increase or decrease of the water-levels or quantities of the rivers, lakes, marshes, swamps and wetlands within the Special Zone.
- (3) Putting up or setting up advertisements or those similar to them, or showing advertisements or those similar to them on the structures and the like.
- (4) Reclaiming the surface of the sea or reclaiming by drainage.
- (5) Mining minerals or extracting soil and stones within one kilometer of the Marine Park Area.
- (6) Changing the feature of the land.
- (7) Changing the feature of the seabed within one kilometer of the Marine Park Area.

2. The Minister of the Environment, in regard to the National Park and the governor of the prefecture, in regard to the Quasi-national Parks, may, for the purpose of preserving landscape of the Park concerned give orders, to the one who intends to undertake or has undertaken the activity mentioned in any of the items of the preceding paragraph in the Ordinary Zone, to prohibit or restrict such activity or to take necessary measure, within the limits necessary for the protection of the landscapes thereof.

(3) Drifting and Washed-up Debris

There is a growing concern regarding the deterioration of the coastal function, environment, and scenic beauty including the ecosystem, as well as threats to the safe navigation of ocean vessels and damage to the fishing industry due to drifting/washed up debris, including those from foreign sources. In order to address this issue, the Ministry of the Environment has taken the lead in setting up an “Liaison Meeting of Ministries and Agencies Concerned on Drifting and Washed-up Debris” in 2000 for the purpose of information exchange.

However, effective countermeasures have not been taken due to the difficulty of source measures that involve relations with other countries, a large number of departments and agencies concerned, etc.

Therefore, beyond information exchange, the “Council of Ministries and Agencies Concerned on Drifting and Washed-up Debris Countermeasures (hereinafter referred to as the “Countermeasures Council”) was newly established with the aim of exploring effective countermeasures. The council discussed source measures, including international correspondence, and summarized immediate measures against drifting/washed up debris in March 2007.

○ On the Council of Ministries and Agencies Concerned on Drifting and Washed-up Debris Countermeasures (March 2007)

1 . Development

The Countermeasures Council was held four times by the end of 2006 and conducted activities such as compiling a 2007 budget on drifting/washed up debris, carrying out a questionnaire survey on the efforts of local governments, and holding meetings for the exchange of information on efforts being made by the national and local governments.

Among measures compiled by the Countermeasures Council to be implemented by individual ministries in 2007 and beyond, those for understanding the situation, source measures including international correspondence, and measures for the areas with serious damage were chosen for new budget allocation, expansion of the existing measures, etc. Further advancement is expected from the effective implementation of these measures. However, there are still issues to be solved.

2 . Current situation of drifting/washed up debris

- Estimated volume of the debris washed up on the domestic coasts: about 150 thousand tons/year (Estimated by the Northwest Pacific Region Environmental Cooperation Center based on the survey results on drifting/washed up debris from 2000 to 2005)
- Debris believed to be from foreign countries (2005 survey by the Northwest Pacific Region Environmental Cooperation Center)
National average: 6% by weight and 2% by quantity

3 . Promotion of national efforts to address drifting/washed up debris

(1) Basic government policy for handling drifting/washed up debris and the responsibilities of the parties involved

The national government needs to advance measures against drifting/washed up debris including: “understanding the situation”, “source measures including international correspondence” and “measures for areas with serious damage”. For the efficient implementation of these measures, it is essential for the

relevant ministries and agencies to work in close coordination.

The most effective immediate measure to take against issues such as the disposal of drifting/washed up debris is to promote the building of a framework to allow mutual cooperation among the parties involved to move toward a solution that is truly required in the field. Under this framework, it is necessary to further deepen the exploration of a smooth implementation of treatment of drifting/washed up debris while avoiding the confusion for the local governments that actually handle treatment in the field.

In addition, consideration for the expansion of necessary measures is required, while taking into consideration the actual situation, the effects of various measures, etc.

(2) Immediate measures in 2007 and beyond

[Understanding the situation]

Visual observation of drifting marine debris around Japan, washed up debris classification surveys by citizens, development of prediction models, etc. will be implemented.

[Source measures including international correspondence]

Measures shall be taken, including surveillance by river management authorities, to prevent waste that was dumped into rivers, etc., from flowing out into marine areas. The relevant ministries and agencies shall conduct the collection of wastes and oil drifting on the surface of seawater, the research and development of predictive technology, the development/promotion of fishery material recycling technology, the removal of sediments on fishing grounds, the promotion of controls on the littering of container and packaging waste, etc. Policy dialog among the nations involved, active participation in related international projects, etc., will also be promoted.

[Measures for areas with serious damage]

The national government will subsidize coast management authorities who conduct emergency treatment on large amounts of drifted waste that cause a functional inhibition to a coast conservation facility, and also subsidize municipalities who handle waste that has drifted ashore in large amounts outside of a coastal conservation zone, etc. The government also supports beach beautification activities by providing, through private groups, the materials, necessary for the cleanup conducted by fishery operators, citizens' group, etc. Furthermore, under “the program to support local governments that are working hard”, it will support local governments that work on environmental conservation activities related to drifting/washed up debris.

In order to explore reduction measures adequate for individual beaches and their waste situation, model beaches shall be selected to study source measures, efficient and effective treatment/cleanup methods, etc., of washed up waste, promotion of cooperation among the parties involved including NGOs, and effective measures such as beach cleanup and public awareness. In addition, policies on dangerous objects, such as medical wastes and signal flares, that are washed ashore shall be formulated for adequate management to always ensure the safe use of the coasts. When a large volume of waste that is likely to have come from a single source is identified, investigation shall be conducted in cooperation with the relevant local governments to identify the source and cause, including the situation of coming ashore, looking into the possibility of it being either incidental or accidental.

Technology to treat washed up wastes will be developed, including technology to incinerate saline waste.

4 . Future tasks

- It is necessary to steadily implement measures against drifting/washed up debris, as well as follow up on the state and results of the implementation.
- It is necessary to reinforce cooperation among the parties involved, such as the national/local governments, private groups, and researchers.
- Establishment of a system for the complete treatment, etc., of drifting/washed up debris, such as the development of a support system, including responsibility for the source, under role sharing between the national and local governments is required after studying various indications on drifting/washed up debris.
- As a source measure, it is necessary to conduct surveys in cooperation with the related government ministries and agencies. Information provision is also required to provide and disseminate information for public awareness in order to prevent individual citizens from becoming a source of drifting/washed up debris.

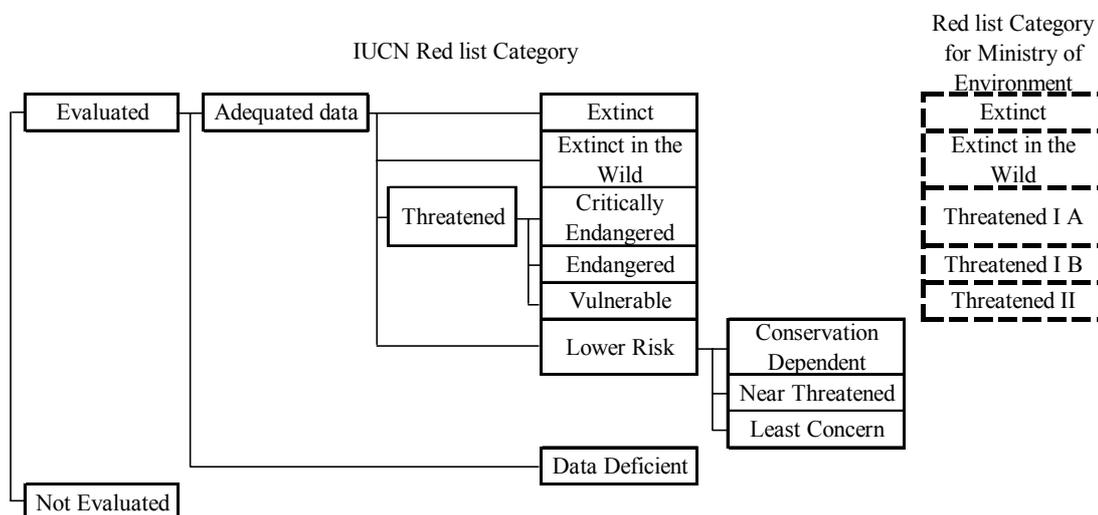
< Members of the Council of Ministries and Agencies Concerned with Drifting and Washed-up Debris Countermeasures: as of February 2007 >

Tadashi Harada:	Director-General for Policy Planning (Okinawa Affairs), Cabinet Office
Nobuyasu Kubo:	Director-General for Policy Coordination, Minister's Secretariat, Ministry of Internal Affairs and Communications
Koji Tsuruoka:	Director-General for Global Issues, International Cooperation Bureau, Ministry of Foreign Affairs
Akira Nakamae:	Deputy Director-General, Fisheries Agency
Yasutoshi Kojima:	Director-General of the Industrial Science and Technology Policy and Environment Bureau, Ministry of Economy, Trade and Industry
Takeshi Kadomatsu:	Director-General of the River Bureau, Ministry of Land, Infrastructure and Transport
Narikuni Nakao:	Director-General of the Ports and Harbours Bureau, Ministry of Land, Infrastructure and Transport
Mikio Kageyama:	Deputy Director-General of the Meteorological Agency
Mikio Ishibashi:	Director-General of the Guard & Rescue Department, Japan Coast Guard
Hideto Yoshida:	Director-General, Waste Management and Recycling Department, Minister's Secretariat, Ministry of the Environment
Hideki Minamikawa:	Director-General, Global Environment Bureau, Ministry of the Environment
Tadashi Ohmae:	Director-General, Office for the Promotion of Special Zones for Structural Reform, Cabinet Secretariat

2 Indicator species

Red List Category

· IUCN Red List Category



Extinct	A taxon considered to have become extinct.
Extinct in the Wild	A taxon known only to survive in captivity or cultivation.
Threatened I (CR + EN)	A taxon facing risk of extinction. A taxon facing difficulty surviving in the wild if the factors that have brought about its current situation continue.
Threatened I A Critically Endangered (CR)	A taxon facing an extremely high risk of extinction in the wild in the immediate future.
Threatened I B Endangered (EN)	A taxon facing a high risk of extinction in the wild in the near future but not critically endangered.
Threatened II Vulnerable (VU)	A taxon with an increasing risk of extinction. A taxon that will be transferred to the Threatened I category in the near future if the factors that have brought about its current situation continue.
Near Threatened (NT)	A taxon facing difficulty in maintaining a viable population. A taxon with a low risk of extinction but likely to be classified as Threatened and transferred to a higher rank if a change in its habitat conditions takes place.
Data Deficient (DD)	A taxon with inadequate information to make an assessment of its risk of extinction.

*The latest category was adopted by IUCN Council in 1994. The new system came into use in 1996.

(Extracted from website of Japan Committee for IUCN)

· MOE Red List Category

Category definition

Category and basic concept	Qualitative criteria	Quantitative criteria
<p>Extinct (EX)</p> <p>A taxon considered to have become extinct in Japan (Note1).</p>	<p>A taxon known to inhabit Japan in the past now considered to have become extinct in Japan including in captivity or cultivation.</p>	
<p>Extinct in the Wild (EW)</p> <p>A taxon known only to survive in captivity or cultivation.</p>	<p>A taxon known to inhabit Japan in the past now known only to survive in captivity or cultivation and considered to have become extinct in the wild in Japan.</p> <p>(Reliable information)</p> <ol style="list-style-type: none"> 1. Extinction in the wild has been confirmed by reliable surveys and records. 2. Inhabitation could not be confirmed by a number of reliable surveys. <p>(Insufficient information)</p> <ol style="list-style-type: none"> 3. A shortage of reliable information on inhabitation over the past fifty years. 	
<p>Threatened I (CR + EN)</p> <p>A taxon facing risk of extinction.</p> <p>A taxon facing difficulty surviving in the wild if the factors that have brought about its current situation continue.</p> <p>T H R E A T E N D</p>	<p>A taxon that meets any of the following criteria.</p> <p>(Reliable information)</p> <ol style="list-style-type: none"> 1. The entire known population of a taxon has decreased to critical levels. 2. The habitat conditions of all known habitats of a taxon have significantly deteriorated. 3. The entire known population of a taxon is exposed to capture or removal pressures that outweigh its reproduction capabilities. 4. The intrusion of a different species in almost all areas of occupancy that bears the risk of hybridization with the taxon. <p>(Insufficient information)</p> <ol style="list-style-type: none"> 5. Due to no reliable information following inhabitation records from the not so distant past (30-50 years) and no reliable surveys being conducted since then, whether or not the taxon is extinct or not is a difficult assessment. 	<p>Threatened I A Critically Endangered (CR)</p> <p>A taxon facing an extremely high risk of extinction in the wild in the immediate future.</p> <p>Threatened I A (CR)</p> <p>A. Reduction in population size based on any of the following:</p> <ol style="list-style-type: none"> 1. An observed, estimated, inferred or suspected population size reduction of $\geq 90\%$ over the last 10 years or three generations, whichever is the longer, where the causes of the reduction are clearly reversible and understood and ceased. 2. An observed, estimated, inferred or suspected population size reduction of $\geq 80\%$ over the last 10 years or three generations, whichever is the longer, where the reduction or its causes may not have ceased or may not be understood or may not be reversible. 3. A population size reduction of $\geq 80\%$, projected to be met within the next 10 years or three generations, whichever is the longer. 4. An estimated population size reduction of $\geq 80\%$ over any 10 year or three generation period, whichever is the longer, where the time period must include both the past and the future, and where the causes may not have ceased or may not be understood or may not be reversible. <p>B. Extent of occurrence estimated to be less than 100 km² or area of occupancy estimated to be less than 10 km², and estimates indicating at least two of the following:</p> <ol style="list-style-type: none"> 1. Severely fragmented or known to exist at only a single location. 2. Continuing decline projected to be met in the extent of occurrence, area of occupancy, number of mature individuals, etc. 3. Extreme decline in the extent of occurrence, area of occupancy, number of mature individuals, etc.

(Note1) Taxon: For animals, either a species or subspecies. For plants, either a species, subspecies or variant species.

(Note2) The last ten years or three generations: The last ten years is to be used when the length of three generations is under ten years. The length of three generations is to be used when it is more than ten years in total.

Category and basic concept	Qualitative criteria		Quantitative criteria
			<p>C. Population size estimated to number fewer than 250 mature individuals and either:</p> <ol style="list-style-type: none"> 1. An estimated continuing decline of $\geq 25\%$ over within three years or one generation, whichever is longer. 2. A continuing decline, observed, or projected, inferred, in numbers of mature individuals and at least one of the following: <ol style="list-style-type: none"> (a) Population structure in the form of one of the following: <ol style="list-style-type: none"> i) no subpopulation estimated to contain more than 50 mature individuals. ii) at least 90% of mature individuals in one subpopulation. (b) Extreme decline in number of mature individuals. <p>D. Population size estimated to number fewer than 50 mature individuals.</p> <p>E. Quantitative analysis showing the probability of extinction in the wild is at least 50% within 10 years or three generations, whichever is the longer.</p>
		<p>Threatened I B Endangered (EN)</p> <p>A taxon facing a high risk of extinction in the wild in the near future but not critically endangered.</p>	<p>Threatened I B Endangered (EN)</p> <p>A. Reduction in population size based on any of the following:</p> <ol style="list-style-type: none"> 1. An estimated population size reduction of $\geq 70\%$ over the last 10 years or three generations, whichever is the longer, where the causes of the reduction are ceased and understood and clearly reversible. 2. An estimated population size reduction of $\geq 50\%$ over the last 10 years or three generations, whichever is the longer, where its causes may not have ceased or may not be understood or may not be reversible. 3. A population size reduction of $\geq 50\%$, projected to be met within the next 10 years or three generations, whichever is the longer. 4. An estimated population size reduction of $\geq 50\%$ over any 10 year or three generation period, whichever is longer, where the time period must include both the past and the future, and where its causes may not have ceased or may not be understood or may not be reversible. <p>B. Extent of occurrence estimated to be less than 5,000 km² or area of occupancy estimated to be less than 500 km², and estimates indicating at least two of the following:</p> <ol style="list-style-type: none"> 1. Severely fragmented or known to exist at no more than five locations. 2. Continuing decline projected to be met in the extent of occurrence, area of occupancy, number of mature individuals, etc. 3. Extreme decline in the extent of occurrence, area of occupancy, number of mature individuals, etc. <p>C. Population size estimated to number fewer than 2,500 mature individuals and either:</p> <ol style="list-style-type: none"> 1. An estimated continuing decline of $\geq 20\%$ over within five years or two generations, whichever is longer. 2. A continuing decline, observed, or projected,

Category and basic concept	Qualitative criteria		Quantitative criteria
			<p>inferred, in numbers of mature individuals and at least one of the following:</p> <p>(a) Population structure in the form of one of the following:</p> <p>i) no subpopulation estimated to contain more than 250 mature individuals.</p> <p>ii) at least 95% of mature individuals in one subpopulation.</p> <p>(b) Extreme decline in number of mature individuals.</p> <p>D. Population size estimated to number fewer than 250 mature individuals.</p> <p>E. Quantitative analysis showing the probability of extinction in the wild is at least 20% within 20 years or five generations, whichever is the longer.</p>
<p>Threatened II Vulnerable (VU)</p> <p>A taxon with an increasing risk of extinction.</p> <p>A taxon that will be transferred to the Threatened I category in the near future if the factors that have brought about its current situation continue.</p>	<p>A taxon that meets any of the following criteria. (Reliable information)</p> <ol style="list-style-type: none"> 1. A large part of the population of a taxon has significantly decreased. 2. The habitat conditions of a large part of the habitat of a taxon have significantly deteriorated. 3. A large part of the population of a taxon is exposed to capture or removal pressures that outweigh its reproduction capabilities. 4. The intrusion of a different species in a considerable area of occupancy that is capable of hybridization with a taxon. 		<p>Threatened II (VU)</p> <p>A. Reduction in population size based on any of the following:</p> <ol style="list-style-type: none"> 1. An estimated population size reduction of $\geq 50\%$ over the last 10 years or three generations, whichever is the longer, where the causes of the reduction are ceased and understood and clearly reversible. 2. An estimated population size reduction of $\geq 30\%$ over the last 10 years or three generations, whichever is the longer, where its causes may not have ceased or may not be understood or may not be reversible. 3. A population size reduction of $\geq 30\%$, projected to be met within the next 10 years or three generations, whichever is the longer. 4. An estimated population size reduction of $\geq 30\%$ over any 10 year or three generation period, whichever is longer, where the time period must include both the past and the future, and where its causes may not have ceased or may not be understood or may not be reversible. <p>B. Extent of occurrence estimated to be less than 20,000 km² or area of occupancy estimated to be less than 2,000 km², and estimates indicating at least two of the following:</p> <ol style="list-style-type: none"> 1. Severely fragmented or known to exist at no more than 10 locations. 2. Continuing decline projected to be met in the extent of occurrence, area of occupancy, number of mature individuals, etc. 3. Extreme decline in the extent of occurrence, area of occupancy, number of mature individuals, etc. <p>C. Population size estimated to number fewer than 10,000 mature individuals and either:</p> <ol style="list-style-type: none"> 1. An estimated continuing decline of $\geq 10\%$ over within 10 years or three generations, whichever is longer. 2. A continuing decline, observed, or projected, inferred, in numbers of mature individuals and at least one of the following: <p>(a) Population structure in the form of one of the following:</p> <p>i) no subpopulation estimated to contain more than 1,000 mature individuals.</p>

Category and basic concept	Qualitative criteria	Quantitative criteria
		ii) all mature individuals are in one subpopulation (b) Extreme decline in number of mature individuals. D. Population very small and population size estimated to number fewer than 1,000 mature individuals or population with a very restricted area of occupancy or number of locations E. Quantitative analysis showing the probability of extinction in the wild is at least 10% within 100 years.
Near Threatened (NT) A taxon facing difficulty in maintaining a viable population. A taxon with a low risk of extinction but likely to be classified as Threatened and transferred to a higher rank if a change in its habitat conditions takes place.	A taxon that meets any of the following criteria. Where it has been estimated that pressures on the survival of a taxon continue to increase considering the changes in its habitat. More specifically, when either of the following has significantly occurred, or will continue to occur in an area of occupancy of the taxon. a) decreasing population b) deteriorating habitat conditions c) exposed to excessive capturing and removal pressures d) invasion of different species capable of hybridization	
Data Deficient (DD) A taxon with inadequate information to make an assessment of its risk of extinction.	A taxon that meets any of the following criteria. A taxon with the following specific attributes, making it likely to be transferred to the Threatened category if a change in its environment takes place, however, an assessment of its rank cannot be made due to inadequate information. a) population density is low and scarce in any habitat b) habitat is localized c) bio-geographically isolated distribution characteristics (endemic species with a very limited area of occupancy, etc) d) partial or whole life history requires special environmental conditions	

● **Appendix**

Category and basic concept	Qualitative criteria	Quantitative criteria
Threatened Local Population (LP) A taxon facing a high risk of extinction in a locally isolated population.	A local population of a taxon that meets any of the following criteria. 1. A local population of a taxon deemed necessary for assessment from its habitat and academic value and in accordance with species listed in the Red Data Book, while its population in an isolated habitat has been assessed to be facing an increased risk of extinction from a regional perspective. 2. A local population of a taxon with regional type attributes deemed to be significant from a bio-geographical point of view and assessed to be facing an increased risk of extinction.	

(1) Salmonids

Salmonids are managed and used as marine living resources based on the fishery related laws, including the Fisheries Law.

Within the heritage site, salmonid angling in sea and inland water is restricted mainly for the purposes of protecting fisheries resources. The impacts of constructions installed in rivers on salmonids have been assessed within the site, and the structures of the constructions have been improved when necessary.

Set net fishing of salmonids is one of the major fisheries in the region. Hatchery programs of chum and pink salmon are being conducted in some rivers.

○ Outline of salmonids resource protection measures in the heritage site

Salmonids are protected as a resource under the Fisheries Law and the Fisheries Resources Protection Law, as well as the Regulation of Sea Fisheries Adjustment in Hokkaido and the Regulation of Inland Fisheries Adjustment in Hokkaido that was established based on those laws. Inland, the fishing of salmonids, excluding juvenile masu salmon, is prohibited year round, while the angling of masu salmon is prohibited at their seaward migration. In the sea, the fishing of juvenile salmonids is prohibited.

In the heritage site, the resources are protected under these fishery-related laws, and salmonids can continue to run upstream.

Among the 44 rivers that flow through the heritage site, 14 rivers have 123 river artificial constructions in total. The structures of these constructions are being improved according to need, based on the result of impact assessment on salmonids.

[Major salmonid resource protection measures in the heritage site]

	Salmonids	Description	Governing laws and regulations
Inland	Pacific salmon (excluding juvenile masu salmon)	Year-round prohibition on angling and other protective measures	<ul style="list-style-type: none">• Article 25 of Fisheries Resources Protection Law (Salmon)• Article 22 of Regulation of Inland Fisheries Adjustment in Hokkaido (Salmon)
	Juvenile Masu salmon	Prohibition on fishing for the period of May1 - June 30	<ul style="list-style-type: none">• Article 22 of the Regulation of Inland Fisheries Adjustment in Hokkaido
Sea	Pacific salmon	Fishing prohibition on fish smaller than 20 cm in total length	<ul style="list-style-type: none">• Article 35 of the Regulation of Sea Fisheries Adjustment in Hokkaido

[Progress of assessment and improvement of river constructions in the heritage site]

- Number of river artificial constructions: 123 in 14 rivers
- Assessment of impacts on salmonids in FY2005: 56 constructions in 6 rivers

10 constructions in 3 rivers were assessed as needing consideration for improvement. Three of them were improved in FY2006.

- Assessment of impacts on salmonids in FY2006: 42 constructions in 7 rivers

It was found that the consideration for improvements were reasonable for 3 constructions in 2 rivers.

○ **Outline of the fisheries of salmonids**

Basic use of salmonids resources is through set net fishing in the sea based on the Fisheries Law, etc.

Fisheries of salmonids in the heritage site include the “salmon set net fishery” and the “salmon set net fishery” that are operated with a license of set net fishery rights issued by the Governor of Hokkaido and the “small-scale salmon set net fishery” operated with the approval of a fishery cooperative that has a license of common fishery rights. They constitute the major fisheries in the region.

Catch data of salmonids are utilized for understanding the amount of fish came back, ensuring sufficient adults to carry out the hatchery program, and so on.

[Fisheries of salmonids in the heritage site]

Type of fishery	Operation period	Remarks
Salmon set net fishery	September to December	Set net fishery right • Operation of a set net fishery requires a license of fishery right issued by the Governor of Hokkaido
Salmon set net fishery	September	
Small-scale salmon set net fishery	July and August	Common fishery right • Operation of a small-scale salmon set net fishery requires the approval of a fishery cooperative based on a common fishery right licensed by the Governor of Hokkaido.

[Prohibition on fisheries of salmonids]

Description	Governing laws and regulations
Year-round prohibition on the purse seine fishing, the fixed gill net fishing of salmonids, and so on.	• Article 36 of Regulation of Sea Fisheries Adjustment in Hokkaido

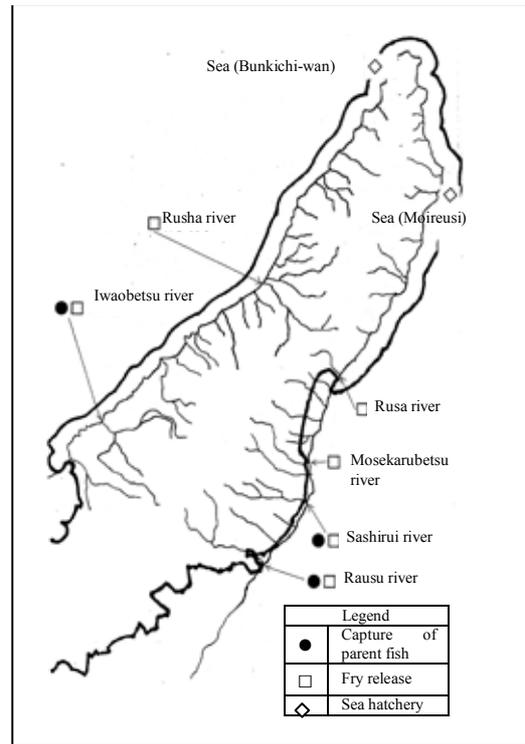
○ **Outline of salmon hatchery programs in the heritage site**

Public-interest corporation use some of the rivers and the sea in the heritage site for hatchery programs of chum and pink salmon. Adult salmon for artificial reproduction are captured in 3 of the 44 rivers in the region, while their fry are released into 6 rivers.

Hatchery programs are carried out based on the salmon breeding and release plan drawn up by Hokkaido Prefecture. Every year, the return of chum and pink salmon is monitored. These monitoring data are used for the development of a breeding and release plan. When the number of adult fish for reproduction is expected to be low from these data, fishers autonomously restrict their fishing operations in order to secure parent fish.

[Rivers used for hatchery programs in the heritage site]

Item	Number of rivers	Remarks
Rivers in the heritage site	44 rivers	
Rivers used for hatchery programs	6 rivers	
<ul style="list-style-type: none"> ● Capture of adult 	3 rivers	<ul style="list-style-type: none"> • Chum salmon : 2 rivers • Pink salmon : 3 rivers
<ul style="list-style-type: none"> □ Release of fry 	6 rivers	<ul style="list-style-type: none"> • Chum salmon : 5 rivers • Pink salmon : 5 rivers



Other than the above, hatchery programs are conducted in the sea at 2 locations.

[Prohibition on capture and fishing near estuaries]

Description	Governing laws and regulations
<p>○ Prohibition on capture and fishing near estuaries</p> <p>* Prohibited fishery : Small-scale set net fishery, Bottom gill net fishery, Fixed gill net fishery, etc.</p>	<ul style="list-style-type: none"> • Article 42 and Article 42.2 of the Regulation of Sea Fisheries Adjustment in Hokkaido

Applicable laws and regulations

Fisheries Basic Act (Extract)

Act No.89 of June 29, 2001.

Last Amended by Law No. 89 of July 29, 2005.

Article 2 (Maintenance of Stable Supply of Marine Products)

2. Propagation and aquaculture of aquatic plants and animals shall, in view of living aquatic resources being a component of ecosystem and limited, be promoted to secure its sustainable utilization by adequate preservation and management of living aquatic resources and harmony with the environment aiming at the correct implementation of United Nations Convention on the Act of the Sea.

Article 16 (promotion of propagation and Aquaculture of Aquatic Plants and Animals) The State shall take measures such as promotion of production and release of seedlings of aquatic animals, improvement of aquafarms and others necessary to promote the propagation and aquaculture of aquatic plants and animals in harmony with environment.

Article 17 (Conservation and Improvement of Growing Environment for Aquatic Plants and Animals) The State shall take measures such as conservation of water quality, protection and development of breeding grounds of aquatic plants and animals, conservation and developments of forests and others necessary to improve the conserve the growing environment for aquatic plants and animals.

Basic Act on Ocean Policy (Extract)

Act No. 33 of April 27, 2007

(Purpose)

Article 1 The purpose of this Act is, with regard to the oceans, to stipulate the basic principles, to clarify the responsibilities of the State, the local governments, business operators and the citizens as well as to formulate the basic plan with regard to the oceans and other basic matters with regard to the measures on the oceans, by establishing the Headquarters for Ocean Policy in order to promote measures with regard to the oceans comprehensively and systematically, through contributing to the sound development of the economy and society of our State and to improve the stability of the lives of citizenry as well as to contribute to the coexistence of the oceans and mankind, in consideration of the fact that the oceans, occupying broad portion of the globe, are indispensable factors for maintaining the lives of the living beings including mankind, and the fact that it is important to realize a new oceanic State in harmonization of the peaceful and positive development and use of the oceans with the conservation of the marine environment, under the international cooperation, as our State surrounded by the oceans, based on the United Nations Convention on the Law of the Sea and other international agreements as well as on the international efforts on the realization of the sustainable development and use of the oceans.

(Harmonization of the Development and Use of the Oceans with the Conservation of Marine Environment)

Article 2 With regard to the oceans, in consideration of the fact that the development and use of the oceans are the basis of existence for the economy and society of our State, and that securing the marine biological diversity and conserving other better marine environment are the basis of the existence of mankind and also indispensable for prosperous and affluent lives of the citizenry, the positive development and use of the oceans shall be executed, aiming at allowing for the sustainable development and use of the oceans with conservation of marine environment in order to enjoy the benefit of the oceans in the future.

Fisheries Resources Protection Law (Extract)

Law No.313 of December 17, 1951

Last amended by Law No.26 of March 31, 2006

(Protection of Passages for Anadromous Fishes)

Article 22 Each owner or occupant of a structure installed in any water providing passage for anadromous fishes shall manage such structure in a manner that would not prevent anadromous fishes from swimming upstream.

2. Should any owner or occupant of such structure as set forth in the preceding paragraph be found by the Minister of Agriculture, Forestry and Fisheries or the prefectural governor to have failed to manage the structure in such manner as set forth in the preceding paragraph, such Minister or governor may order such owner or occupant to manage the same in accordance with the provisions of the said paragraph.
3. Should a prefectural governor give an order pursuant to the preceding paragraph, he/she shall notify the Minister of Agriculture, Forestry and Fisheries thereof without delay.

Article 23 The Minister of Agriculture, Forestry and Fisheries may restrict or prohibit the construction of any structure in a defined area in water if he/she considers that such structure is likely to hinder the passage of anadromous fishes.

2. Should the Minister of Agriculture, Forestry and Fisheries intend to impose such restrictions as described within the preceding paragraph, such restrictions may be replaced by an order to the person wishing to construct the structure to construct a passage for anadromous fishes or an alternative facility; or, should the construction of such passage or alternative facility be considered extremely difficult, to construct such facilities or take such measures as necessary for the reproduction of anadromous fishes or other fishes in the water.
3. The person who received an order pursuant to the preceding paragraph shall, in accordance with the Ordinance of the Ministry of Agriculture, Forestry and Fisheries, prepare a plan for the measures to be taken pursuant to such order and shall obtain the approval of the Minister of Agriculture, Forestry and Fisheries for the plan.

Article 24 Should a structure be considered to hinder the passage of anadromous fishes, the Minister of Agriculture, Forestry and Fisheries may order the owner or occupant of such structure to conduct corrective engineering work to eliminate the hindrance.

2. Any order to conduct corrective work pursuant to the preceding paragraph shall be given so that the total compensation for such corrective work payable under the following paragraph would not exceed the amount of budget approved by the National Diet.
3. Should an order to conduct corrective work be given under Paragraph 1 above, the Minister of Agriculture, Forestry and Fisheries shall provide reasonable compensation to the right holder of the structure; provided, however, that no compensation shall be provided to any person who is ordered to conduct corrective work under Paragraph 1 above due to violation of an order given to such person under Article 22, Paragraph 2.
4. Should an order to conduct corrective work be given under Paragraph 1 above as a result of a petition filed by one or more interested parties, the person(s) who filed such petition shall, in accordance with the provisions set forth by the Minister of Agriculture, Forestry and Fisheries, provide such compensation as set forth in the main text of the preceding paragraph.
5. Any person who objects to the amount of compensation mentioned in the preceding two paragraphs may request, by instituting a legal action, increase or decrease of such amount at any time during the first six months following the date on which notice of such amount of compensation was received.
6. The national government shall serve as the defendant in the legal action mentioned in the preceding paragraph; provided, however, that in the case of Paragraph 4 above, the person who filed the relevant petition or the right holder of the relevant structure shall serve as such defendant.
7. Should an order be given to conduct corrective work with respect to a structure pursuant to Paragraph 1 above and if such structure is subject to any lien, pledge or mortgage, the Minister of Agriculture, Forestry and Fisheries or the person who filed the relevant petition as mentioned in Paragraph 4 above shall deposit funds for such compensation as set forth in Paragraph 3 or 4 above unless the holder of such lien, pledge or mortgage notifies waiver of such deposit.
8. Any such holder of lien, pledge or mortgage as mentioned in the preceding paragraph may exercise the holder's rights with respect to the funds for compensation deposited in accordance with the said paragraph.

(Prohibition of Inland Fishing of Salmon)

Article 25 Of the anadromous fishes, chum salmon shall not be fished in any inland waters as defined in Article 8, Paragraph 3 of the Fisheries Law; provided, however, that this shall not apply to any inland fishing of salmon by any person who has received a fishing license or has obtained permission of the Minister of Agriculture, Forestry and Fisheries or of the relevant governor pursuant to the provisions of the Ordinance of the Ministry of Agriculture, Forestry and Fisheries or the regulations enacted under Article 65, Paragraph 1 of the Fisheries Law and Article 4 of this Law based on such license or permission.

Regulation of Inland Fisheries Adjustment in Hokkaido (Extract)

(Period of Prohibition)

Article 22 The aquatic animals listed in the left column of the table below shall not be caught during the respective periods shown in the corresponding parts of the right column of the said table.

Aquatic animal	Period of Prohibition
Salmon	All year round
Trout (meaning masu salmon (excluding landlocked masu salmon set forth in the following paragraph), humpback salmon, red salmon, silver salmon and king salmon)	
Landlocked masu salmon (meaning masu salmon during the part of their life in which they remain in freshwater following hatching)	Rivers within the jurisdictions of the Nemuro and Abashiri Subprefectural Offices: From May 1 to June 30

2. No eggs spawned by salmon or trout shall be collected.
3. No aquatic animals (including eggs or roes thereof), or product thereof, caught or collected in violation of the provisions of the preceding two paragraphs shall be possessed or sold.

Regulation of Sea Fisheries Adjustment in Hokkaido (Extract)

(Restriction or Prohibition by Body Length)

Article 35 Of the aquatic animals listed in the left column of the table below, no individual fishes whose length is that shown in the corresponding part of the right column shall be caught; provided, however, that this shall not apply if such individual fishes are caught as juveniles for aquaculture based on a fishery right covering Type 1 Common Fishery or Type 3 Demarcated Fishery or based on a common of piscary in connection with either of these types of fishery.

Name	Size
Salmon	Less than 20 cm in total length
Trout	Less than 20 cm in total length

5. No aquatic animals, nor eggs or roes thereof, nor any product of any of these, caught or collected in violation of the provisions of any of the preceding paragraphs of this Article, shall be possessed or sold.

(Period of Prohibition of Fishing)

Article 36 The fisheries listed in the left column of the table below shall not be conducted during the respective periods shown in the corresponding parts of the right column; provided, however, that this shall not apply if any such fishery is conducted based on a fishery right or a common of piscary or is conducted by a person with fishing license based on such license within the area specified in Table 2-2.

Name of Fishery	Period of Prohibition
(1) Purse seine fishery of salmon and trout	All year round
(2) Drift-net fishery of salmon and trout (except any such fishery that involves the use of a powered fishing vessel)	
(3) Drift-net fishery of small salmon and trout (only if such fishery involves the use of a powered vessel less than 30 tons in gross tonnage)	From September 1 to January 31 of the following year
(4) Fixed gill net fishery of salmon and trout	All year around
(7) Small-scale set net fishery	
(8) Bottom gill net fishery	

2. No salmon or trout, nor eggs or roes thereof, nor any product of any of these, caught in violation of the provisions of the preceding paragraph (but only those relating to the fisheries listed in item 1 through 4) during the period from September 1 of any year to January 31 of the following year shall be possessed or sold.

Fisheries Law (Excerpt)

Law No.267 of December 15, 1949
Last amended by Law No.93 of June 23, 2006

(Definition of Fishery Rights)

Article 6 For the purpose of this Law, “Fishery Rights” means the Set-Net Fishery Right, the Demarcated Fishery Right and the Common Fishery Right.

2. “Set-Net Fishery Right”, “Demarcated Fishery Right” and “Common Fishery Right” mean the right to engage in set-net fishery, the right to engage in demarcated fishery, and the right to engage in common fishery, respectively.
3. “Set-Net Fishery” means fishing which involves fixing of the fishing gear and:
 - (1) in which the deepest part of the seabed area covered by the main net is at least 27 meters below the surface of the sea at the highest tide; and
 - (2) which is conducted in Hokkaido mainly to catch salmon.
5. “Common Fishery” means any of the following modes of fishery conducted by sharing a certain area of water:
 - (2) Type 2 Common Fishery: Fishing which involves laying of net fishing gear (including weirs) in such manner that renders it immovable and which is not Set-Net Fishery or the mode of fishing specified in Item 5 below.

(Prohibition of Set-Net Fishery, etc. without Fishery Rights)

Article 9 No Set-Net Fishery or Demarcated Fishery shall be conducted without the corresponding fishery right or common of piscary.

(Fishing License)

Article 10 Each person who wishes to obtain fishing license shall apply for the same to the relevant prefectural governor and receive from the same.

(2) Walleye pollock

Walleye pollock is managed and used as a marine living resource based on the fishery related laws, including the Fisheries Law. Since 1997, an upper limit of catch (Total Allowable Catch: TAC) has been set to control the volume of catch based on resource surveys, stock assessments, etc., conducted by the national government through research institutions every year under the Act Concerning Conservation and Management of Marine Life Resources that was established based on the United Nations Convention on the Law of the Sea.

In the waters surrounding Shiretoko, gill net and long line fishing of walleye pollock are conducted offshore of Rausu town under the Governor of Hokkaido's permission based on the Regulation of Sea Fisheries Adjustment in Hokkaido that was established based on the Fisheries Law and the Fisheries Resources Protection Law. They constitute the major fisheries in the region.

Regarding these fisheries, for the sustainable use of marine living resources, catch volume is controlled based on the TAC set for each marine area, in addition to the restriction on the number of ships and type of fishing gear used and so on.

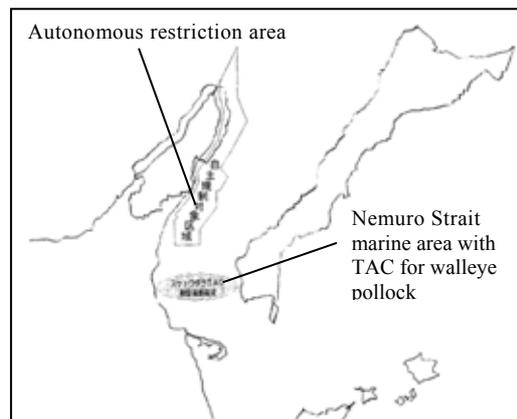
Furthermore, immature walleye pollock are protected under an resource management agreement on management of marine living resources signed by all fishery organizations in Hokkaido based on the Marine Fishery Resources Development Promotion Law. In the marine area offshore of Rausu town, to protect spawning fish, local fishery operators autonomously implemented restrictions on period and area of fishing, and on the mesh size of gill nets, in consideration for their maturation state.

The management of walleye pollock resources that migrate into the marine area of the heritage site is supported by measures based on the fishery-related laws and the autonomous efforts by fishery operators and organizations in the waters surrounding Shiretoko.

Information on catch of walleye pollock in the waters surrounding Shiretoko is utilized for stock assessment and other studies.

Large Russian trawlers are identified operating in marine area offshore of Rausu town every year.

[Major measures for management of marine living resources in the waters surrounding Shiretoko]



[Major measures concerning the management and use of walleye pollock in the heritage site]

Major management measures based on the fishery-related laws	Major management measures taken by fishery organizations or fishers
[The Law Concerning Conservation and Management of Marine Life Resources] ○Setting of Total Allowance Catch (TAC) and management in the marine area of the Nemuro Strait	
[Regulation of Sea Fisheries Adjustment in Hokkaido] ○Permission system for the fixed gill net fishing and the long line fishing of walleye pollock in the marine area of the Nemuro Straits and offshore of the Abashiri district · Restriction on the number and tonnage of ships, the operation period permitted, restriction on the mesh size of gill nets, etc.	○Autonomous management measures in the marine area offshore of Rausu town · Control of catch pressure through joint operation system, restriction of mesh size, use of small-sized gill nets, setting of prohibited fishing area or season, etc.
[Marine Resources Development Promotion Law] ○Promotion of conclusion of agreement on management of s by fishery operators, etc.,	○Resource Management Agreement of walleye pollock in Hokkaido area · Content of agreement: Restraint on catch of immature fish (less than 30cm in body length or less than 34cm in total length)

○ **Outline of the Total Allowable Catch (TAC) system**

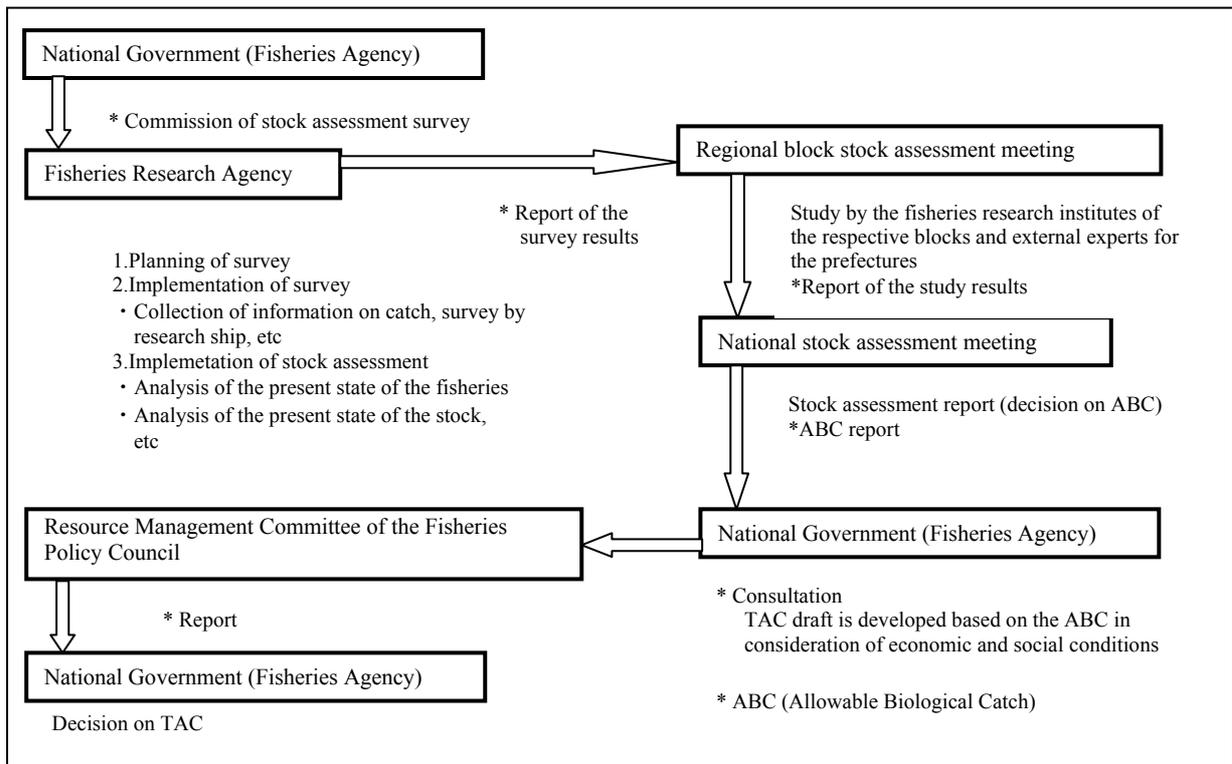
After the United Nations Convention on the Law of the Sea came into effect in 1996, Japan has been controlling catch volume of major fish species by setting the upper limit of catch (Total Allowable Catch: TAC) every year since 1997, for the conservation and management of marine living resources in Japan's exclusive economic zone, based on the Law Concerning Conservation and Management of Marine Life Resources.

Currently, TAC is set for Pacific saury, walleye pollock, jack mackerel, sardine, Japanese common squid, snow crab, and chub mackerel and spotted mackerel based on the results of resource surveys and stock assessments conducted by research institutions, in the light of economic and social conditions (i.e. fishery management and other related factors).

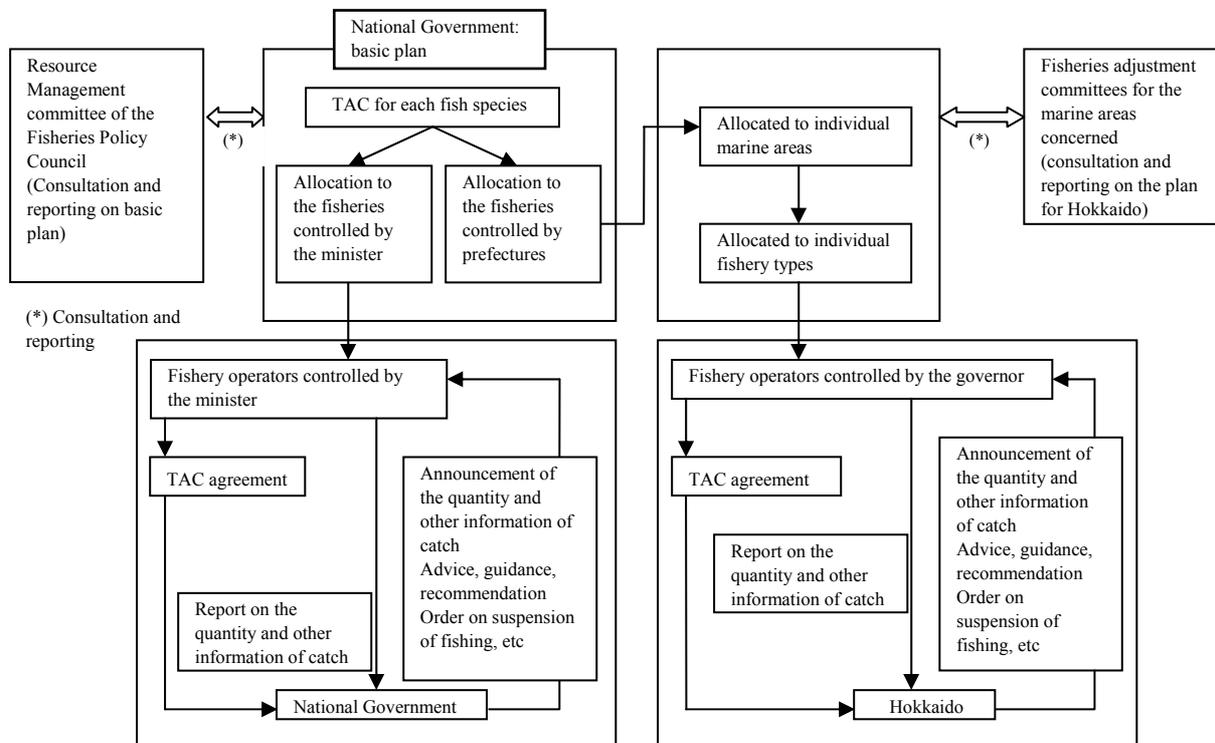
TAC is divided among those fisheries controlled by the minister (the national government) and those controlled by the governor (the prefecture), and the latter is further allocated to the various fisheries controlled by the relevant governor.

Fishery operators are required to report to the national government or prefecture the catch of the fish subject to TAC, while the national government and prefecture are responsible for announcing the catch quantity and other relevant information, and instructions to suspend fishing as needed.

[Flow of stock assessment]



[TAC system flow chart]



[Change in TAC of walleye pollock in the marine area of the Nemuro Strait]

(tons)

Year	2003	2004	2005	2006	2007	Remarks
Marine area of the Nemuro Strait	19,000	19,000	15,000	14,000	12,000	

○ **Autonomous efforts of fishery operators and organizations for management of marine living resources**

The rational use of marine living resources is promoted in Japan through official regulations based on fishery-related laws including the Fisheries Law and the autonomous efforts made by fishery operators and organizations.

In Hokkaido, fishery operators and organizations conclude Resource Management Agreement on fish species including walleye pollock that migrate around in a wide area, by utilizing the Resource Management Agreement system that is based on the Marine Fishery Resources Development Promotion Law. The agreement on walleye pollock was concluded in 1994 and renewed every five years since.

In the marine area offshore of Rausu town, local fishery operators have been making continuous efforts in the sustainable use of the walleye pollock stock, including the self-reduction of vessels, suspension of fishing, setting of prohibited fishing areas and periods according to the state of gonad maturation of the fish, and the enlargement of mesh size of the gill net.

[Resource Management Agreement on walleye pollock]

Content of the Resource Management Agreement of walleye pollock in Hokkaido area	
1. Target marine area:	Offshore area around Hokkaido (limited to the territorial waters and Japan's exclusive economic zone)
2. Target marine living resource:	walleye pollock
3. Target fishery type:	Offshore trawl fishery Walleye pollock gill net fishery Walleye pollock long line fishery Bottom gill net fishery that includes "walleye pollock" in its name Set net fishery that includes "walleye pollock" in its name
4. Method of management of marine living resources	<p>(1) The fishing of walleye pollock that is less than 30cm in body length, or 34cm in total length, should not exceed two tenths of the total weight of the walleye pollock catch in one operational voyage.</p> <p>(2) In operating gill net, or long line fisheries, when the weight of walleye pollock that is less than 30cm in body length, or 34cm in total length, exceeds two tenths of the total weight of one net or one line catch, adequate measures should be taken, such as moving to other fishing locations to avoid catching the walleye pollock that are less than 30cm in body length, or 34cm in entire length.</p> <p>(3) In operating bottom gill net or set net fisheries, when the weight of walleye pollock that is less than 30cm in body length, or 34cm in total length, exceed two tenths of the total weight of one net catch, a part of the catch should be returned to the sea.</p>

[Development of autonomous efforts for walleye pollock in the marine area offshore Rausu by fishery operators and organizations]

Year	Major efforts	Description
1990s	Restrictions on fishing gear	Enlargement of mesh size of the gill net (from 90mm and over to 97mm and over)
After 1996	Reduction on the number of operating vessels	Self-reduction on the number of vessels and suspension of operation (operating vessels numbered 324 in 1990 to 181 in 2003)
1997	Setting no-fishing areas	Decided with consideration for the condition of gonad maturation and gathering state of parent fish 10 areas on the coast of Rausu in 2007
2001	Setting no-fishing periods	Decided with consideration for the condition of gonad maturation and gathering state of parent fish From 3/26 to 4/5 in 2007
	Restrictions on fishing gear	Converted to a smaller gill net of 15.5 m in height (from 17.6 m in previous years)
2002	Reduction of fishing pressure through joint operation system	Fishing pressure was reduced by 20% through the joint operation of 5 vessels in one group, with one of the vessels suspending their fishing operations in turn.

Applicable laws and regulations

Fisheries Basic Act (Extract)

Act No.89 of June 29, 2001.
Last Amended by Law No. 89 of 2005.

(Maintenance of Stable Supply of Marine Products)

Article 2

2. Propagation and aquaculture of aquatic plants and animals shall, in view of living aquatic resources being a component of ecosystem and limited, be promoted to secure its sustainable utilization by adequate preservation and management of living aquatic resources and harmony with the environment aiming at the correct implementation of United Nations Convention on the Act of the Sea.

Fisheries Law (Extract)

Law No.267 of December 15, 1949
Last amended by Law No.93 of June 23, 2006

(Orders Relating to Fisheries Adjustment)

Article 65 In order to regulate fisheries or otherwise adjust fishing activities, the Minister of Agriculture, Forestry and Fisheries or a prefectural governor may lay down necessary ordinances of the Ministry of Agriculture, Forestry and Fisheries or regulations, as applicable, concerning any of the following matters:

- (1) Restriction or prohibition of fishing, collection or processing of aquatic plants or animals;
- (2) Restriction or prohibition of sale or possession of aquatic plants or animals, or products of any of these;
- (3) Restriction or prohibition relating to fishing gear or fishing vessels; or
- (4) Restriction of the number or qualifications of fishers.

Fisheries Resources Protection Law (Extract)

Law No.313 of December 17, 1951
Last amended by Law No.26 of March 31, 2006

(Orders Relating to Restriction of Fishing or Collection of Aquatic Plants and Animals)

Article 4 Should it be deemed necessary to protect and nurture fisheries resources, the Minister of Agriculture, Forestry and Fisheries or a prefectural governor may enact ordinances of the Ministry of Agriculture, Forestry and Fisheries or regulations, as applicable, concerning any of the following matters:

- (1) Restriction or prohibition of fishing or collection of aquatic plants or animals;
- (2) Restriction or prohibition of sale or possession of aquatic plants or animals;
- (3) Restriction or prohibition relating to fishing gear or fishing vessels;
- (4) Restriction or prohibition of abandonment or spilling of substances harmful to aquatic plants or animals or any other water contamination harmful to aquatic plants or animals
- (5) Restriction or prohibition of collection or removal of materials or substances necessary for the protection and nurturing of aquatic plants and animals; or
- (6) Restriction or prohibition of transplantation of aquatic plants or animals.

Regulation of Sea Fisheries Adjustment in Hokkaido (Extract)

Regulation No.132 of November 12, 1964
Last amended by Regulation No.158 of December 19, 2006

(Fishing Permit)

Article 5 In addition to the modes of fishery specified in Article 66, Paragraph 1 of the Fisheries Law, each person who wishes to engage in any of the following modes of fishery shall obtain a permit from the governor for the relevant mode of fishery and the relevant vessel if the proposed mode of fishery is any of those listed in Items 1 through 25 or for the relevant mode of fishery if the proposed mode of fishery is that listed in Item 26:

- (5) Fixed gill net fishery of walleye pollock (only if such fishery involves the use of a powered vessel);
- (11) Long line fishery of walleye pollock;

The Law Concerning the Conservation and Management of Marine Life Resources (Extract)

Law No.77 of June 14, 1996

Last amended by Law No.91 of June 29, 2001

(Definitions, etc.)

Article 2

2. For the purpose of this Law, “Total Allowable Catch” or “TAC” means, for each species of marine life resources, the annual upper limit of volume that is allowed to be collected or caught in the Exclusive Economic Zone.
5. For the purpose of this Law, “Designated Marine Life Resources” means Type 1 Designated Marine Life Resources and Type 2 Designated Marine Life Resources.
6. For the purpose of this Law, “Type 1 Designated Marine Life Resources” means such portion of the marine life resources that should appropriately be conserved and managed in the Exclusive Economic Zone by determining the TACs or by similar measures and that shall be designated by Cabinet Order.

(Basic Plan)

Article 3 In order to conserve and manage the marine life resources in the Exclusive Economic Zone, the Minister of Agriculture, Forestry and Fisheries shall establish a basic plan for the conservation and management of marine life resources (hereinafter referred to as the “Basic Plan”).

2. The Basic Plan shall include the following:
 - (1) Basic policy on the conservation and management of marine life resources;
 - (2) Matters concerning the trends of each species constituting the Designated Marine Life Resources;
 - (3) Matters concerning the respective TACs for the species constituting Type 1 Designated Marine Life Resources;
 - (4) With respect to the TACs mentioned in the preceding item, matters concerning the respective volumes designated for the types of Designated Fisheries defined in Article 52, Paragraph 1 of the Fisheries Law, the types of fisheries subject to permission of the Minister of Agriculture, Forestry and Fisheries or any other disposition in accordance with the provisions of the ordinance of the Ministry of Agriculture, Forestry and Fisheries under Article 65, Paragraph 1 of the Fisheries Law or Article 4, Paragraph 1 of the Fisheries Resources Protection Law, and the types of all other fisheries designated by the ordinance of the Ministry of Agriculture, Forestry and Fisheries (hereinafter referred to as the “Designated Fisheries, Etc.”);
 - (5) If the volumes mentioned in the preceding item involve designation of the volumes for different operating areas or different operating periods, matters concerning such volumes;
 - (6) With respect to the TACs mentioned in Item 3 above (except the volumes mentioned in Item 4 and those for the collection or fishing of Type 1 Designated Marine Life Resources conducted by any of the persons designated by the Cabinet Order), matters concerning the respective volumes designated for the prefectures whose jurisdiction includes any sea areas (hereinafter simply referred to as “Prefectures”);
 - (7) Matters concerning measures to be implemented with respect to the volumes mentioned in Item 4 above (or those designated under Item 5 above, if any; hereinafter referred to as the “Minister-Regulated Volumes”);
3. The matters mentioned in Items 3 and 8 of the preceding paragraph shall be determined based on their relations with the matters mentioned in Item 2 of the said paragraph and with other marine life resources and by taking into account the fishery operation affecting, and other circumstances surrounding, the relevant Designated Marine Life Resources so that they would be maintained at or restored to the level which would allow achievement of the maximum sustainable yield.

(Prefectural Plan)

Article 4 Each relevant prefectural governor shall, in accordance with the Basic Plan, establish a prefectural plan concerning the measures to be implemented with respect to the volumes mentioned in Item 6 of Paragraph 2 of the preceding article or the amounts mentioned in Item 10 of the said paragraph (hereinafter referred to as “Prefectural Plan”).

2. Each Prefectural Plan shall include the following:
 - (1) Policy on the conservation and management of marine life resources;
 - (2) Matters concerning the volumes mentioned in Item 6 of Paragraph 2 of the preceding article;
 - (3) If the volumes mentioned in the preceding item involve designation of the volumes for different modes of collection or fishing of Type 1 Designated Marine Life Resources, different marine areas or different periods, matters concerning such volumes;

Cabinet Order for the Law Concerning Conservation and Management of Marine Life Resources (Extract)

Cabinet Order No.213 of July 5, 1996

Last amended by Cabinet Order No.349 of November 24,
2005

(Type 1 Designated Marine Life Resources)

Article 1 The Marine Life Resources to be designated by the Cabinet Order as set forth in Article 2, Paragraph 6 of the Law Concerning Conservation and Management of Marine Life Resources (hereinafter referred to as the "Law") shall be as follows:

- (ii) Walleye pollock

The Marine Fishery Resources Development Promotion Law (Extract)

Law No.60 of May 17, 1971

Last amended by Law No.131 of December 4, 2002

(Conclusion of Resource Management Agreement)

Article 13 Fishery organizations may, in order to rationalize the utilization of certain marine resources in a certain marine area, conclude an agreement on autonomous management of such marine resources in such marine area (hereinafter referred to as "Resource Management Agreement") and may obtain the relevant government agency's certification of the appropriateness of such Resource Management Agreement.

2. Each Resource Management Agreement shall specify the following:

- (1) Marine area, type of marine resources and mode of fishery subject to the Resource Management Agreement;
- (2) Method of management of the marine resources;
- (3) Term of the Resource Management Agreement;
- (4) Measures to be taken against violations of the Resource Management Agreement; and
- (5) Other matters specified by the ordinance of the Ministry of Agriculture, Forestry and Fisheries.

(Mediation of Participation in Certified Resource Management Agreement)

Article 15 Should the fishery organizations that are parties to a Resource Management Agreement certified under Article 13, Paragraph 1 (hereinafter referred to as "Certified Resource Management Agreement") be present, and request participation in, their Certified Resource Management Agreement to the persons or entities, if any, who or which engage in fishery utilizing such type of marine resources in such marine area as is subject to the Certified Resource Management Agreement (only if the mode of such fishery is subject to the Certified Resource Management Agreement; hereinafter referred to as "Specified Fishery Operator"), or the organization(s), if any, of such persons or entities, and who or which have not participated in the Certified Resource Management Agreement, and if any of such persons or entities so requested fails to consent to such participation, the first-mentioned fishery organizations may, in accordance with the relevant provisions of the relevant ordinance of Ministry of Agriculture, Forestry and Fisheries, request the relevant government agency to provide mediation necessary to obtain consent of such person or entity or organization.

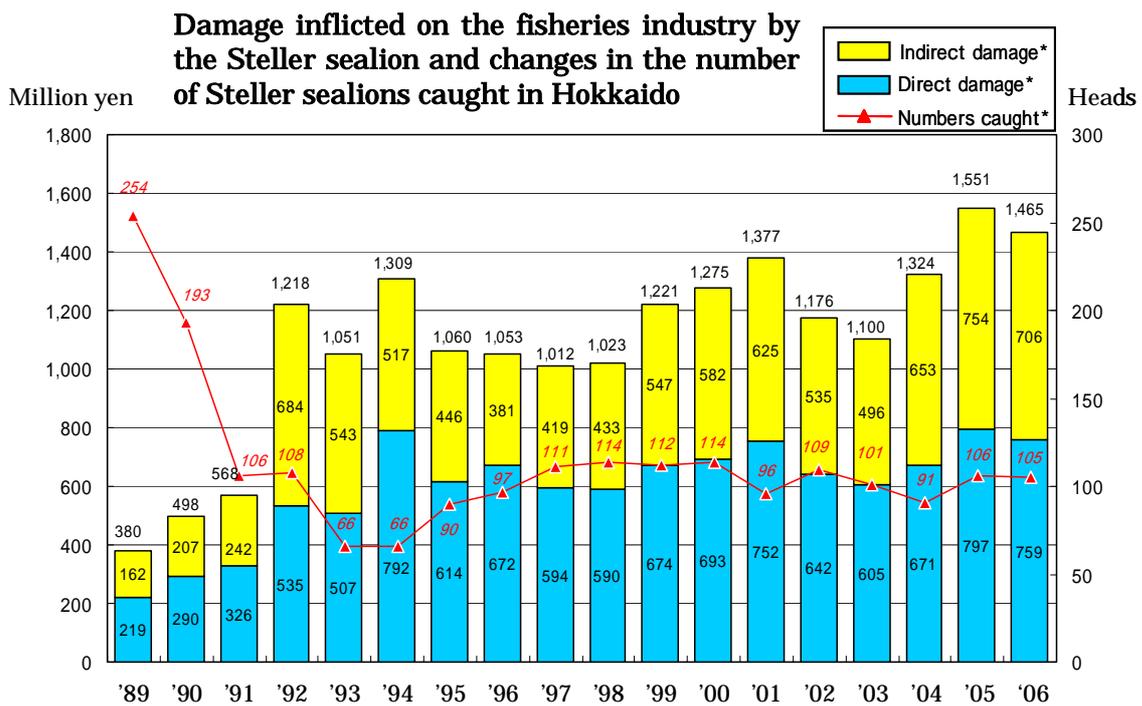
2. Upon receipt of a request pursuant to the provisions of the preceding paragraph, the relevant government agency shall provide mediation if it is deemed appropriate, in light of the provisions of Paragraph 1 of the preceding article, for the person or entity which is not a party to the Certified Resource Management Agreement to participate in such Certified Resource Management Agreement and if it is deemed particularly necessary to seek such person's or entity's participation in such Certified Resource Management Agreement in light of the contents thereof.

(3) Steller sealion

From a long-term and regional perspective that includes Russian waters, the Steller sealion population is estimated to be declining, while at the same time, the damage that Steller sealions inflict on the fisheries industry is a growing concern. Consequently, from 1994, under the guidance of the Hokkaido Fishing Zone Coordination Commission in accordance with the Fisheries Law, Steller sealions have been managed by annually restricting the number that can be caught in Hokkaido with the aim of curbing the damage inflicted on the fisheries industry while at the same time ensuring that the Steller sealion population is maintained.

Damage inflicted on the fisheries industry by the Steller sealion

Between autumn and spring, Steller sealions arriving from Russian waters cause havoc on the fisheries industry throughout the coastal waters of Hokkaido, mainly on the Japan Sea side, by damaging fishing gear such as nets and spoiling fish catches. The situation is growing serious with the damage inflicted on the entire prefecture of Hokkaido amounting to more than 1.5 billion yen in 2005 and 1.46 billion yen in 2006.



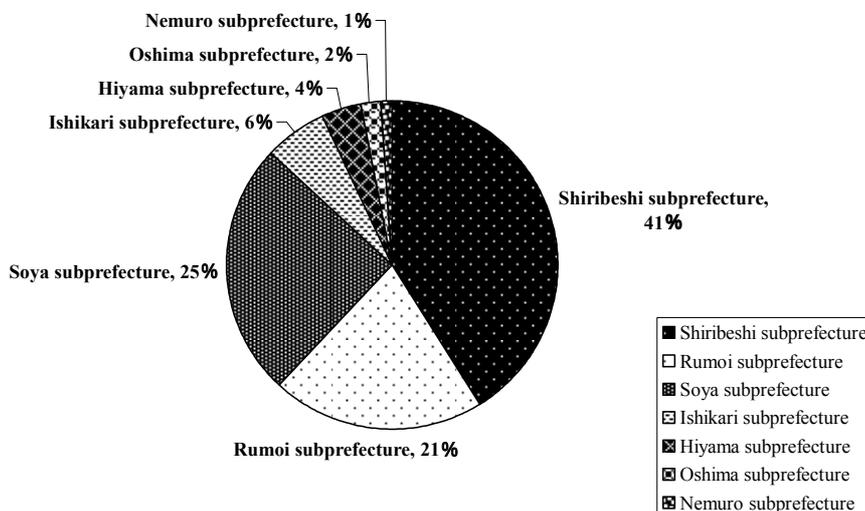
Notes: Amount of damage: aggregated annually (April to March)

Numbers caught: for 1989-1993: aggregated by fiscal year;

1994 onwards: aggregated by approved catch period (numbers caught between 1994 and 2005 include cases where Steller sealions were dropped overboard)

Indirect damage: spoiling fish catches; Direct damage: damaging fishing gear

Subprefectural proportion of the roughly 1.5 billion yen of damage inflicted on the fisheries industry in Hokkaido by the Steller sealion in 2006



Measures to prevent damage inflicted on the fisheries industry by the Steller sealion

With the aim of curbing the damage inflicted on the fisheries industry by the Steller sealion while at the same time ensuring that their population is maintained, the following damage prevention measures are being implemented by the national government and Hokkaido.

(1) Gaining an understanding of the ecology such as attributes of Steller sealions that visit Japan

Since 2004, the Japanese Government has commissioned the Fisheries Research Agency, an incorporated administrative agency, to conduct research into and compile fundamental data on the Steller sealion's ecology and the numbers that visit Japanese waters.

(2) Measures to prevent damage inflicted on the fisheries industry

(a) Promoting the use of reinforced small nets

Since 1998, Hokkaido government continues to subsidize projects for the joint use of reinforced nets as a measure to prevent damage inflicted on small set nets and some others by the Steller sealion.

(b) Development test of reinforced gill nets

The gill net fisheries industry is subject to the majority of damage inflicted by the Steller sealion. As a preventive measure, since 2001 the Japanese Government has commissioned the Fisheries Research Agency to conduct development test of reinforced gill nets that can prevent Steller sealion damage.

Furthermore, in order to achieve the practical application of reinforced gill nets as soon as possible, since 2003 Hokkaido government has cooperated with development test conducted by the Japanese Government. By adapting to actual fishery conditions of various regions, Hokkaido government has

implemented verification tests to look into work efficiency and catch efficiency of reinforced gill nets, and since 2006, the study has been conducted on a fully operational scale.

(c) Verification test of the repellent effects of fireworks

Hokkaido government subsidizes intensive fireworks repellent operations that have been implemented by the Hokkaido Federation of Fisheries Cooperative Associations, while at the same time verifying the efficiency of such operations and investigating more efficient repellent methods.

Management of the Steller sealion

Every year since 1994, the control of Steller sealions has been carried out in order to reduce the damage inflicted on the fisheries industry, while setting a limit on the total number of Steller sealions to be culled in Hokkaido under the guidance of the Hokkaido Fishing Zone Coordination Commission in accordance with the Fisheries Law.

In August 2007, the Fisheries Agency submitted a report to the Hokkaido Fishing Zone Coordination Commission entitled ‘Fundamental Policy for Management of the Steller Sealion and Allowable Number of Human Induced Mortalities’. The report compiled examination and research results of the Steller sealion’s ecology and the numbers visiting Japanese waters, and based on scientific examination (PBR method), the report stated that the annual allowable number of human induced mortalities for Steller sealions in the coastal waters of Hokkaido was 227 (including all mortalities due to human induced factors such as bycatches).

The Hokkaido Fishing Zone Coordination Commission has designated that the limit on the number of Steller sealions that can be caught in 2007 in Hokkaido is 120 (however, if any rise or fall in the estimated number (107) of bycatches (by set net fisheries, etc) is anticipated, this limit can be adjusted accordingly by the Committee).

Fundamental Policy for Management of the Steller Sealion and Allowable Number of Human Induced Mortalities

August 2007

Fisheries Agency, Resources and Environment Research Division

I. Stock conditions

1. Stock trends

- The Steller sealions found in Hokkaido belong to the Asian stock originating from a number of rookeries located in the Kuril Islands and coastal regions of the Sea of Okhotsk (northern regions of the Sea of Okhotsk and Sakhalin). The whole population in Hokkaido can be considered as a single management unit.
- Asian stock declined rapidly until the 1980’s, but it has been gradually increasing since the early 1990’s. The entire population of the Steller sealion in Russia (which consists of Asian population and the populations in the western part of the Bering Sea and the Komandorskie Islands) has been increasing at an annual rate of 1.2% since 1989.
- The number of Steller sealions counted by direct observation at rookeries and haul-outs in Russia was 15,676 in 2004, of which 14,650 were of Asian stock.

- Since the 1990's, rookeries have been established in the southern part of Sakhalin and the population of the Steller sealion there has increased significantly.

2. Trends in appearances

- Since the 1990's, the number of haul-out rocks on the coastline of the Sea of Japan and the number of times Steller sealions have come ashore have increased in comparison to the 1980's.
- Although Steller sealions often appeared on the Pacific Ocean coastline of Hokkaido up until the late 1980's, sightings have been rare in recent years.

3. Number of Steller sealions observed

- Based on aerial surveys carried out in 2004 and 2005, the number (including offshore sightings) of Steller sealions appearing in Hokkaido during winter is estimated to be 6,767.

II. Allowable number of human induced mortalities

- The annual allowable number (including all mortalities due to human induced factors such as bycatches) of human induced mortalities for Steller sealions in the coastal waters of Hokkaido is determined in accordance with the Potential Biological Removal method (PBR)*.
- The allowable number of human induced mortalities for Hokkaido is determined in accordance with the PBR level, which is calculated with a recovery factor applying adaptively to a population estimate of Steller sealions in Hokkaido based on aerial surveys.
- In addition, the allowable number of human induced mortalities for Steller sealions in Hokkaido shall not exceed the level calculated from PBR for the number of Asian stock which Steller sealions sighted in Japan belong to.

* With the uncertain data available, a method to estimate the number of animals that may be harvested from a wild stock while allowing that stock to avoid extinction through human induced mortalities.

III. Applying PBR to 2007 and 2008 appearances

- The PBR level has been calculated to be 227, and all human induced mortalities should be within this limit.
- The number of bycatch in Japan from recent years is not clear, however, interview surveys with set net fisheries operators estimate the number to be between 55 and 107. When applying this estimate of bycatch, the allowable number of catches in Hokkaido excluding bycatches will be a minimum of 120 and a maximum of 172, including cases where Steller sealions were dropped overboard.
- This number could be managed more flexibly with the establishment of a system that is able to continually ascertain the number of bycatch.
- However, until such a system is set in place, it is recommended that the safest possible level for the number of bycatch is used.
- The above is a provisional assessment based on current data and shall be reviewed accordingly with the accumulation of future data.

IV. Points to note regarding management

- Bearing in mind that the extinction of the Steller sealion must be prevented, by way of adaptive management that takes into account a number of uncertainties, the management of the Steller sealion should aim to alleviate the damage inflicted on the fisheries industry and promote the sustainable utilization of Stellar sealion stocks.
- In addition to effectively managing catch quotas in accordance with the scale of damage inflicted on the fisheries industry, intensive catches of Steller sealions that are inclined to feed on fishing nets should be promoted, and examining ways to alleviate damage as alternative methods to shooting Steller sealions should also be carried out.
- The consumptive use of both direct catches and bycatches of Steller sealions should be promoted.
- It is recommended that any changes to the allowable number of catches should be carried out gradually with the continual monitoring of trends in Steller sealion stocks.
- Reasons other than the decrease in fisheries stocks and increases in Steller sealions that are inclined to feed on fishing nets should be fully considered as factors for increases in damage inflicted on the fisheries industry by the Steller sealion.

PBR (Wade 1998, Barlow et al. 1995)

Excerpt from attachment to 'Results of Fisheries Agency Survey on Steller Sealion Appearances' (Fisheries Agency, August 10, 2007)

*PBR (Potential Biological Removal) is defined as the maximum number of animals, not including natural mortalities, that may be removed from a stock while allowing that stock to reach or maintain its optimum sustainable population (OSP).

*The US Marine Mammal Protection Act (MMPA) stipulates that stock assessments must include the calculation of PBRs.

*PBRs are to be calculated using the following formula.

$$PBR = N_{MIN} \times 0.5R_{MAX} \times FR$$

Nmin: Minimum population estimate. In the case of Pinnipeds, the number of direct observations of haul-outs or the lower limit of a 60% confidence interval of population estimate (N) when assuming it has a log-normal distribution.

Rmax: Maximum net productivity rate.

Fr: Recovery factor applied to different ranks stipulated by the Endangered Species Act.

Barlow, J., Swartz, S.L., Eagle, T.C. and Wade, P.R. 1995. U.S. Marine Mammal Stock Assessments: Guidelines for Preparation, Background, and a Summary of the 1995 Assessments. NOAA Tech. Memo. NMFS-OPR-95-6, 76pp.

Wade, P.R. 1998. Calculating limits to the allowable human-caused mortality of cetaceans and pinnipeds. Marine Mammal Science, 14(1):1-37.

Applicable laws and regulations

Fisheries Law (Extract)

Law No.267 of December 15, 1949
Last amended by Law No.93 of June 23, 2006

(Instructions of District Fishing Zone Coordination Commission or Hokkaido Fishing Zone Coordination Commission)

Article 67 If deemed necessary to ensure the reproduction and protection of aquatic plants and animals, to ensure the appropriate exercise of fishery rights or commons of piscary, to seek prevention or resolution of disputes over the use of the fishing grounds, or otherwise to adjust fishing activities, District Fishing Zone Coordination Commission and Hokkaido Fishing Zone Coordination Commission may restrict or prohibit the collection or catching of aquatic plants and animals, limit the number of fishery operators, restrict the use of the fishing grounds or give any other necessary directions to persons involved.

(Fishing Coordination Commissions)

Article 82 The fishing coordination commissions shall consist of District Fishing Zone Coordination Commission, Hokkaido Fishing Zone Coordination Commissions and wide area fisheries coordination commissions.

2. District Fishing Zone Coordination Commission, Hokkaido Fishing Zone Coordination Commission and wide area fisheries coordination commission shall be under the supervision of: the relevant prefectural governor; the prefectural governor having jurisdiction over the fishing zone for which such district fishing zone coordination commission was established; and the Minister of Agriculture, Forestry and Fisheries, respectively.

(Composition)

Article 85 District Fishing Zone Coordination Commission shall consist of Commission Members.

3. The Commission Members shall include the following:

- (1) Nine members elected by the persons who are entitled to vote under the provisions of the following Article out of those who are eligible to be elected under the provisions of the said Article; and
- (2) Four members appointed by the prefectural governor out of academic experts and two members appointed by the prefectural governor out of those who are deemed to represent the public interest of the relevant fishing zone.

(Establishment)

Article 105 If deemed necessary, a prefectural governor may establish, for specific purposes, a Hokkaido Fishing Zone Coordination Commission for a fishing zone created by combining two or more existing fishing zones.

(Composition)

Article 106 Hokkaido Fishing Zone Coordination Commission shall consist of members.

2. The members shall include the same number of members from each District Fishing Zone Coordination Commission established for a fishing zone within the larger fishing zone under the jurisdiction of the District Fishing Zone Coordination Commission, with the said members being elected in accordance with the procedures designated by the District Fishing Zone Coordination Commission.

4. A prefectural governor who established a Hokkaido Fishing Zone Coordination Commission in accordance with the provisions of Paragraph 1 of the preceding Article or who supervises any of the fishing zone coordination commissions which established a Hokkaido Fishing Zone Coordination Commission in accordance with the provisions of Paragraph 4 of the said Article may, if deems necessary, appoint, in addition to the members elected pursuant to the provisions of Paragraph 2 above, members from academic experts in a number no more than two thirds of the number of the members so elected pursuant to the provisions of Paragraph 2 above.

Hokkaido Fishing Zone Coordination Commission Directive No.1 [August 10, 2007] (Extract)

2. Hunting license: Each person who wishes to hunt Steller's sealions in the marine area offshore of Hokkaido shall obtain license from the Hokkaido Fishing Zone Coordination Commission.
7. Hunting period: The hunting period shall be from October 1, 2007 to June 30, 2008.
8. Limit of the number of animals allowed to be hunted:
The Commission shall separately designate the upper limit of the number of Steller's sealions allowed to be hunted.

Steller's Sealion Hunting Licensing Rules (Extract)

Steller's Sealion Hunting Licensing Rules Issued under Hokkaido Fishing Zone Coordination Commission Directive No.1 Dated August 10, 2007

6. Limit of the number of animals allowed to be hunted:

The upper limit of the number of Steller's sealions allowed to be hunted as mentioned in Paragraph 8 of the Commission Directive shall be One Hundred and Twenty (120).

However, if the number of animals caught as by-catch in set-net fisheries, etc. is expected to increase or decrease from the current estimate of One Hundred and Seven (107), the upper limit of the number of animals allowed to be hunted may be adjusted within the range of such increase or decrease.

Wildlife Protection and Appropriate Hunting Law (Excerpts)

Law No. 88 of July 12, 2002

Last Amended by Law No. 67 of June 14, 2006

(Exclusion of application)

Article 80 The provisions of this Law shall not apply to the wildlife species that are likely to cause serious interference on the maintenance of environmental hygiene, or that are under appropriate protection and management for hunting, etc. by other laws and regulations, and are designated by the Ministerial Ordinance of the Ministry of the Environment.

2. The provisions of Article 3, Paragraph 3, shall apply mutatis mutandis to the Ministerial Ordinance of the Ministry of the Environment provided in the preceding paragraph.

Enforcement Regulations for the Wildlife Protection and Appropriate Hunting Law (Excerpts)

Ministerial Ordinance of the Ministry of the Environment No. 28 of December 26, 2002

Last amended by Ministerial Ordinance of the Ministry of the Environment No. 3 of January 29, 2007

(Wildlife species excluded from application of the Law)

Article 78

2. Of the wildlife species designated by the Ministerial Ordinance of the Ministry of the Environment as provided for in Article 80, Paragraph 1 of the Law, the wildlife species that are under appropriate protection and management for hunting, etc. by other laws and regulations shall be marine mammals other than the wildlife species listed in the following table.

Family Species

Animal kingdom

Mammalia

(1) Carnivora

Otariidae Japanese Sealion (*Zalophus californianus japonica*)

Phocidae Harbour seal (*Phoca vitulina*)

Larga seal (*Phoca largha*)

Ringed seal (*Phoca hispida*)

Ribbon seal (*Histiophoca fasciata*)

Bearded seal (*Erignathus barbatus*)

(2) Sirenia

Dugongidae Dugong (*Dugong dugon*)

Remarks: The species' scientific names are described parenthetically following their specific names.

(4) Seals

The capture, killing or wounding of seals are controlled under the Wildlife Protection and Appropriate Hunting Law. The capture of harbor seal (*phoca vitulina*), which are an endangered species, requires the permission of the Minister of the Environment, while the capture of other seal species requires permission of the Governor of Hokkaido.

The Wildlife Protection and Appropriate Hunting Law stipulates that the Minister of the Environment establish basic policies to implement the wildlife protection projects and that prefectural governors establish plans for the implementation of wildlife protection projects based on those policies.

In 2002, when revision of the law added “securing of biodiversity” to its purpose, seals were newly included in the target species of the law as a result of the definition: “securing of biodiversity” to its purpose and included a new definition of animals and birds to be protected under the law as “species that belongs to birds or mammals”. With seals covered under the law, surveys of their inhabitation were conducted by the national government from 2002 to 2005, and it was reported that the population of harbor seals was on the increase over the long term, and so was the population of spotted seals (*Phoca largha*) in Hokkaido.

○ **Population status in Hokkaido**

Ministry of the Environment compiled the numbers of observation points and observed population in a simultaneous survey of the seal population conducted from 2002 to 2005. More spotted seals were observed along the Sea of Japan and the Sea of Okhotsk, while almost only harbor seals were found on the Pacific coast.

Harbor seals are rarely seen in the marine area along the coasts of the Shiretoko Peninsula.

Observation points and observed population by year in a simultaneous census of the seal population (Seals conservation and management report, March 2006, in Hokkaido)

	Survey area	Number of points	March 2003	March 2004	March 2005	February 2006
Along the Sea of Japan	Rebun	2-4	69	217	274	426
	Rishiri	12-13	18	5	23	14
	Soya	4-7	11	47	11	16
	Bakkai	1	90	94	196	182
	Teshio River to Shosanbetsu	8	0	0	1	0
	Haboro to Obira	13	0	0	0	0
	Teuri	3-4	37	23	118	137
	Yagishiri	2	93	91	245	200
	Ishikari to Hamamasu	4	-	-	-	-
	Ishikari River	1	0	0	0	0
	Otaru	4	0	0	0	1
	Shakotan to Furubira	1-5	1	2	7	0
	Subtotal			319	479	875
Along the Sea of Okhotsk	Sarufutsu	2	-	0	0	0
	Esashi	2	0	1	-	
	Monbetsu	1	0	0	0	0
	Abashiri	5	0	0	0	1
	Shari to Utoro	3	0	0	1 (1RS)	1
	Rausu to Shibetsu	5	0	12	5	23
	Hashirikotan	1	1	0	3	0
	Notsuke	1	0	0	0	0
	Subtotal			1	13	9 (1RS)
Along the Pacific Ocean	Nemuro	2-4	4 (4)	3	-	2 (2)
	Hamanaka	1-4	78 (78)	-	-	2 (2)
	Akkeshi	4-5	105 (105)	-	-	59 (58)
	Tokachi River to Otsu	1-2	0	0	0	2 (1)
	Erimo Cape	1	192 (192)	-	66 (59)	137 (130)
	Subtotal			379 (379)	3	66 (59)

All figures show the total number of seals, with the number of harbor seals in () and that of ringed seals (*Phoca hispida*) in (RS)

Applicable laws and regulations

Basic Policies for the Implementation of Wildlife Protection Projects (Extract)

Ministry of the Environment Notification No.3 of January 29, 2007

. Basic Matters Concerning the Implementation of Wildlife Protection Projects

1. Basic Philosophy on Wildlife Protection and Proper Hunting

(1) Basic Philosophy

The wildlife is one of the essential factors constituting the natural environment on which human existence is based. While the wildlife enriches the natural environment, it also plays an essential role in the maintenance and improvement of Japanese people's living environment. Despite its highly developed economy, Japan has a wide variety of wildlife. Under the circumstances, Japan can be proud before the world of its continued efforts to build appropriate relationships between people and wildlife and to maintain the biodiversity of the country.

However, today some species face continued reduction or loss of their habitat nationally or locally, while certain wildlife cause serious damage to people's living environment, the agriculture, forestry and fisheries industry, and ecosystems. This has made it necessary to comprehensively protect and manage the wildlife by implementing measures for controlling the size of wildlife populations, managing wildlife habitats and preventing wildlife damage.

Hunting is not just for catching animals for fun or to utilize them as resources; it also serves to contribute to the prevention of wildlife damage as a means to control the size of wildlife populations. However, with the reduction in the number and the aging of hunters, it has become necessary to strive to train and secure hunters and to ensure proper hunting by using measures including the prevention of danger posed by the use of hunting gear.

Under these circumstances, wildlife protection projects shall be implemented based on the philosophy for wildlife protection and management that we should ensure the long-term, stable existence of local wildlife populations and the prevention of wildlife damage to the human living environment, the agriculture, forestry and fisheries industry and ecosystems, while seeking to form a consensus among parties concerned from each of the international, national and local points of view.

In addition, considering the fact that wildlife protection and management involves dealing with the natural world where causal relations are not always known, we should use flexible management approaches and ensure the participation of and cooperation among various parties in order to compensate for the uncertainty, through which the management of wildlife protection areas and the implementation of the specified wildlife conservation and management plans (hereinafter referred to as the "Specified Plans") shall be further improved in detail. At the same time, we shall promote proper hunting in order to contribute to the conservation of the biodiversity, the conservation of the living environment and the sound development of the agriculture, forestry and fisheries industry and shall, through these activities, aim to secure the life of the people and the sound development of communities in which people can enjoy the blessings of the natural environment.

Hokkaido Wildlife Protection Plan (The 9th) (Excerpts)

Revised: March 27, 2007

(Introduction)

Blessed with diverse natural environments, including forests and wetlands, Hokkaido has a variety of wildlife unique to the region in the country, including brown bears and Yezo sika deer as examples of mammals and Japanese cranes and hazel grouses as examples of birds. These animals and birds form a unique, rich fauna that is distinct from those found in Honshu and southward. Hokkaido also plays an important role, not only in Japan but also internationally, as a breeding place and a destination for migrating birds.

While this diverse wildlife symbolizes the blessings of nature in Hokkaido, some of the species have been reduced in population size and are threatened with extinction because of changes in their habitats caused by the developmental progress of the of

Hokkaido. On the other hand, other species have caused damage to the agriculture and forestry industries due to their increase in population size, causing friction with human activities. These circumstances have prompted requests for promotion of the appropriate protection and management of wildlife.

Hokkaido from being damaged in the future. In response to this necessity, this Plan shall strive to reveal the actual conditions of wildlife habitation and shall, based on scientific information thereon, promote comprehensive, systematic approaches, including the designation of wildlife protection areas, the management of proper hunting, the protection of endangered species and the removal of immigrant species.

For these reasons, in the formulation of the wildlife protection plans as set forth in Article 4, Paragraph 1 of the Wildlife Protection and Appropriate Hunting Law (Law No.88 of 2002) (hereinafter referred to as the "Law"), it is necessary to ensure the appropriate protection and management of wildlife and their habitats as a whole, in order to prevent the biodiversity of Hokkaido from being damaged in the future. In response to this necessity, this Plan shall strive to reveal the actual conditions of wildlife habitation and shall, based on scientific information thereon, promote comprehensive, systematic approaches, including the designation of wildlife protection areas, the management of proper hunting, the protection of endangered species and the removal of immigrant species.

* This Plan will be revised roughly once every five years by seeking advice from the Hokkaido Environment Council.
The 9th Hokkaido Wildlife Protection Plan (from April 1, 2002 to March 31, 2008)

Wildlife Protection and Appropriate Hunting Law (Excerpts)

Law No. 88 of July 12, 2002

Last Amended by Law No. 67 of June 14, 2006

(Objective)

Article 1 This Law aims to ensure the life of the people, whereby the blessings of the natural environment can be enjoyed by the citizens; and serves to contribute to the healthy development of communities through such efforts as ensuring biodiversity, protecting the living environment, and contributing to the healthy development of agriculture, forestry, and fishery; with the protection of wildlife and proper hunting; by preventing the wildlife from damaging the living environment, agriculture, forestry, and fishery, or the ecological system; by preventing risks associated with the use of hunting gears; and by implementing programs for wildlife protection.

(Basic Guidelines)

Article 3 The Minister of the Environment shall establish basic guidelines (hereinafter referred to as the "Basic Guidelines") to implement projects to ensure the protection of wildlife (hereinafter referred to as the "Wildlife Protection Projects") (snip).

(Wildlife Protection Project Plans)

Article 4 The prefectural governors shall formulate plans for the implementing the Wildlife Protection Projects to be implemented by the prefectural governors in accordance with the Basic Guidelines (hereinafter referred to as the "Wildlife Protection Project Plans") (snip).

(Permission for Capture, killing or wounding of the Wildlife and Collection or damaging of Bird Eggs)

Article 9 Those who intend to capture, kill or wound wildlife or collect or damage bird eggs for the purpose of pursuing an academic study; for the purpose of preventing the wildlife from damaging the living environment, agriculture, forestry, and fishery, or the ecological system; for the purpose of regulating the population of the specific wildlife as provided for in Article 7, Paragraph 2, Item 5; or for the purposes as provided for in the Ministerial Ordinance of the Ministry of the Environment shall obtain the permission of the Minister of the Environment in the following cases and obtain the permission of the prefectural governor in other cases.

- (1) The capture, killing or wounding of wildlife or the collection or damaging of bird eggs within the Wildlife Protection Area designated by the Minister of the Environment as provided for in Article 28, Paragraph 1.
 - (2) The capture, killing or wounding of endangered wildlife species or the collection or damaging of eggs of birds designated as endangered wildlife species.
 - (3) The capture, killing or wounding of wildlife by use of the nets or traps designated by the Ministerial Ordinance of the Ministry of the Environment as significantly harmful to wildlife protection in consideration of the structure, material, and the usage thereof.
2. Those who intend to obtain the permission as provided for in the preceding paragraph shall apply for the permission of the Minister of the Environment or the prefectural governors in accordance with the provisions of the Ministerial Ordinance of the Ministry of the Environment.

Wildlife Capture Permission Examination Standards (Extract)

April 1, 2000

Last amended: April 16, 2007

I. General Provisions

These Standards set forth provisions necessary to contribute to the appropriate and smooth examination in granting license to Hunt wildlife or Collect wild bird eggs pursuant to the Wildlife Hunting Licensing Rules (hereinafter referred to as the "Rules"). The terms used herein have the same meanings as in the related laws and regulations and the Rules.

II. Examination Standards for Granting License for Damage Prevention Purposes

The examination standards for granting license for Damage prevention purposes shall be as follows, in addition to the "Standards for Granting License to Hunt Wildlife or Collect Wild Bird Eggs for Damage Prevention Purposes" shown in the attached Table.

1. Eligible licensees

(1) Eligible licensees shall include the following:

- a. Persons who suffered the damage;
- b. Corporations (i.e. the national government, local governments and the corporations designated by the Minister of the Environment under the provisions of Article 9, Paragraph 8 of the Law); and
- c. Persons who are requested by any of the persons who suffered the damage or the Corporations to engage in the Hunting or Collection on their behalf.

(2) Each person who engages in the Hunting or Collection under license shall meet the following requirements:

- a. The person shall have his/her address in the administrative district of the municipality which experienced the Damage (hereinafter referred to as "Municipality"); provided, however, that if no one in such Municipality is available for the Hunting or Collection, the person may have his/her address in a neighboring municipality and shall be able to engage in the Hunting or Collection promptly.
- b. If the person uses any hunting gear in the Hunting or Collection, he/she shall be registered as a hunter with the governor of Hokkaido for the relevant hunting gear under the provisions of Article 55, Paragraph 1 of the Law within one year immediately preceding the date of application for license or shall have a hunting license and shall be able to compensate for any damage that may occur due to the proposed Hunting or Collection; provided, however, that the foregoing shall not apply to any of the following persons:
 - (a) Persons who have a net hunting license or a trapping license; provided that this shall apply only if the proposed Hunting will take place within a housing plot enclosed by fences, railings or other similar structures or if they intend to trap brown bears;
 - (b) Persons who have no net hunting license or trapping license and who plan to engage in the Hunting; if a Corporation intends to Hunt wildlife (except brown bears and wild boars) by any means other than those involving the use of firearms and to cause one or more persons with a net hunting license or a trapping license to engage in the Hunting and if it is expected that under the supervision of the said persons the hunters' hunting skill and safety will be assured.

(3) The number of persons who may engage in the Hunting or Collection shall be limited to the minimum necessary based on the consideration of the actual condition of the Damage, size of the damaged area and other relevant factors.

Table: Standards for Granting License to Hunt Wildlife or Collect Wild Bird Eggs for Damage Prevention Purposes (Excerpts)

Species of wildlife	Hunting period (season)	Hunters	Allowable catch per hunter	Note
Other species of wildlife (including seals)	2 months or less (all seasons)	10 or less	10 or less individuals per species	

(5) Spectacled guillemot, slaty-backed gull, and Japanese cormorant

Cliffs higher than 100m along the coastline from Utoro to the Shiretoko Cape in the western part of the Shiretoko Peninsula, providing breeding sites for seabirds such as the spectacled guillemot (*Cepphus carbo*), slaty-backed gull (*Larus schistisagus*), and Japanese cormorant (*Phalacrocorax capillatus*). The area is one of the world's largest breeding sites for Japanese cormorants in particular. Capture, killing or wounding of wildlife is regulated under the provisions of the Wildlife Protection and Appropriate Hunting Law for the conservation of the ecosystem and for other purposes. Capture of endangered wildlife needs the permission of the Minister of the Environment, while the capture of other species requires permission of the Governor of Hokkaido. Because spectacled guillemots are designated as endangered wildlife, as defined in the Wildlife Protection and Appropriate Hunting Law, their capture, killing and wounding needs the permission of the Minister of the Environment. Capture, killing or wounding of wildlife in a National Wildlife Protection Area also requires permission from the Minister of the Environment.

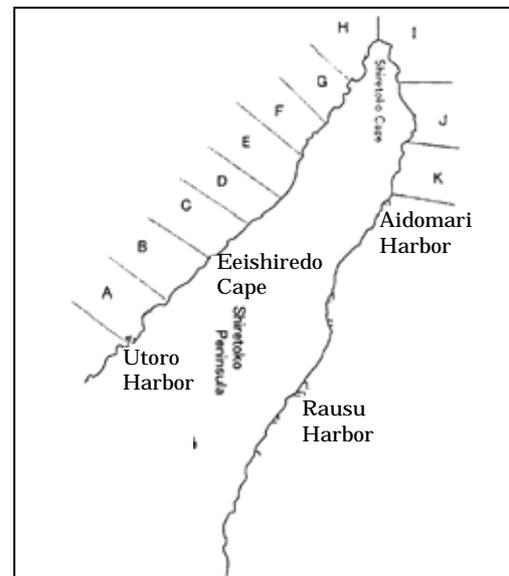
- State of inhabitation for the spectacled guillemot, slaty-backed gull, and Japanese cormorant in the Shiretoko Peninsula (2005 Bulletin of the Shiretoko Museum)

1) Spectacled guillemot

Result of the 2004 census on the spectacled guillemot

June		July		August	
Date	Number of birds	Date	Number of birds	Date	Number of birds
2	66	8	68	1	74
4	46	9	148	2	62
8	61	17	64	7	69
10	90	29	117	8	74
19	92	30	107		
26	97	31	108		

Survey area : Marine area within 1km of the coast from Utoro Harbor to the Eeishiredo Cape



Survey Area in the Shiretoko Peninsula

2) Change in the number of breeding (nesting) slaty-backed gulls by zone (1997 to 2004)

Zone	1997	1998	1999	2000	2001	2002	2003	2004
A	599	637	785	569	806	642	806	784
B	139	238	223	354	421	31	109	95
C	0	0	0	0	0	0	0	0
D	0	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0	12
F	73	271	355	191	21	20	63	16
G	29	68	62	36	0	0	28	20
H	80	257	284	297	69	119	165	153
I	-	-	-	-	-	-	105	149
J	-	-	-	-	-	-	189	303
K	-	-	-	-	-	-	23	77
Total	920	1,471	1,709	1,447	1,317	812	1,488	1,609

Survey area: Coast from Utoro Harbor to Aidomari (see the figure to the right for zones)

3) Change in the number of breeding (nesting) Japanese cormorants (1997 to 2004)

Zone	1997	1998	1999	2000	2001	2002	2003	2004
A	270	194	200	214	157	63	231	97
B	140	159	162	209	0	114	229	137
C	0	0	0	0	0	80	0	0
D	0	0	0	0	0	0	0	0
E	0	0	0	0	0	0	0	0
F	44	66	49	67	96	0	14	15
G	2	20	1	23	46	0	0	63
H	106	163	106	107	79	48	64	64
I	-	-	-	-	-	-	0	54
J	-	-	-	-	-	-	42	37
K	-	-	-	-	-	-	0	0
Total	562	602	518	620	378	305	580	467

Survey area: Coast from Utoro Harbor to Aidomari (see the figure to the right for zones)

○ Shiretoko National Wildlife Protection Area (outline)

Because the natural ecosystem in the Shiretoko Peninsula, including the surrounding marine area, maintains pristine conditions, a large number of wildlife inhabit the area. Among them are endangered birds, such as Blakiston’s fish-owls and white-tailed eagles in particular. There are also many seabirds, such as the spectacled guillemot (which is one of the endangered bird species), slaty-backed gull, and Japanese cormorant, on the rocky stretches along the coast.

A stretch of area in the Shiretoko Peninsula is designated as a Wildlife Protection Area to serve as a place for their conservation and breeding, as well as a habitat for other wildlife. In the area, zones where the ecosystem is conserved especially well, and those that are important as habitat and breeding sites for wildlife, are designated as Special Protection Areas. Because the Rusha area is especially important for further conservation, management, and breeding, the area is designated as a Designated Special Protection Area.

【Area】

Wildlife Protection Area	44,053ha
Special Protection Area	23,630ha
Designated Special Protection Area	1,156ha

【Date of the original designation】

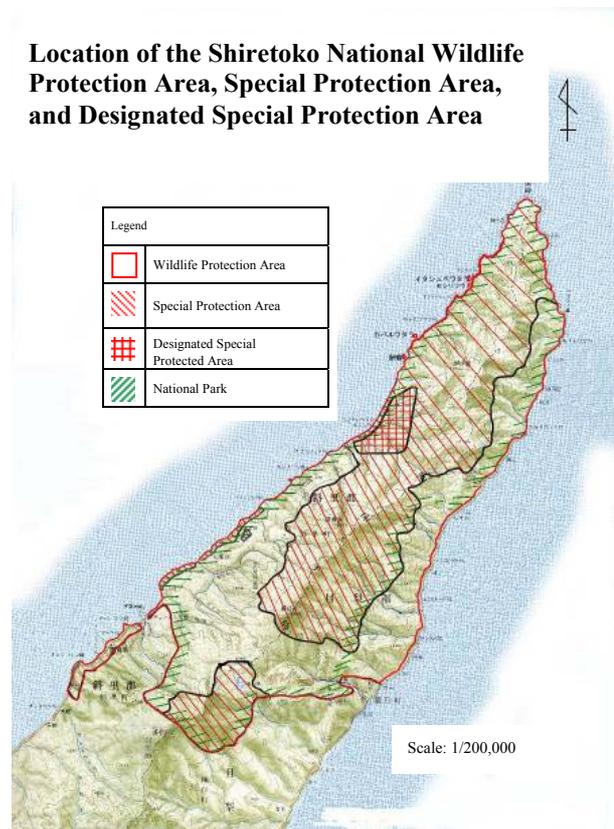
March 31, 1982

【Period of continuation】

From November 1, 2001 to October 31, 2021

The Shiretoko National Wildlife Protection Area and Special Protection Area were first designated on March 31, 1982. The areas were expanded and designated again on November 1, 2001. At that time, it was recognized that the designation was necessary, especially for the conservation of wildlife, not only because the area’s purpose was the conservation and breeding of wildlife, but also because the rock reefs found there were used by seabirds as nesting sites, the area was used by Blakiston’s fish-owls and white-tailed eagles as nesting sites, and the forests were used by Steller’s sea eagles and white-tailed eagles as resting/roosting sites for wintering period. On November 1, 2001, a Designated Special Protection Area was also newly designated.

The period of continuation of the Wildlife Protection Area is to be set as long as possible, within 20 years, in order to conserve stable habitats and the living environment of the wildlife. The period for the Shiretoko National Wildlife Protection Area is 20 years.



Master plan of National Wildlife Protection Area

A master plan is drawn up for a National Wildlife Protection Area to define conservation management policy. The plan describes matters such as the current situation of the Wildlife Protection Area, the purpose of setting the Wildlife Protection Area, the conservation management of the Wildlife Protection Area, the matters concerning permit approval, the matters concerning the improvement and management of facilities, and other matters necessary for conservation management.

[Protection and Management of the Shiretoko National Wildlife Protection Area (Extract)] (The Master Plan)

1. Basic Policy

The Shiretoko Peninsula is a pristine wilderness area with a wide variety of wildlife. Its fauna includes large land mammals, such as brown bears and Yezo sika deer, as well as endangered species, including Blakiston's fish-owls and white-tailed eagles which are large, endangered birds of prey.

For these reasons, the Shiretoko National Wildlife Protection Area shall ensure the protection of the habitats of endangered wildlife species and shall, based on the maintenance and preservation of the natural succession and circulation in ecosystems, consider necessary measures for wildlife species whose population have increased or decreased considerably due to anthropogenic impact, after obtaining a scientific understanding of their living conditions.

In addition, in order to promote the coexistence of people and wildlife, the Area shall provide the proper guidance about people's utilization of the Area, shall promote the dissemination of information and education on the ecology of wildlife, and shall conduct the protection and management activities as follows.

2. Specific protection and management activities

(1) Investigation of living conditions of wildlife

In the scientific, systematic protection and management of the wildlife protection area, investigation and research shall be conducted on the living conditions, population trends, habitats, ecology and other conditions of wildlife and, wherever necessary, a protection and management plan shall be considered for each target wildlife species. In the operation of such plan, monitoring of the current status shall be conducted and revision shall be made as necessary based on the feedback from such monitoring.

In order to promote these activities, the Area shall strive to collect data and other materials on Shiretoko accumulated thus far and shall ensure active use of them, while conducting monitoring studies on the living conditions of wildlife to ensure the appropriate protection and management of wildlife.

In particular, while this Wildlife Protection Area has been established as a place to ensure the protection of the habitats of endangered bird and animal species, it has faced problems including the friction between brown bears and people, the effect of the grazing pressure of Yezo sika deer on the natural vegetation, damage to agriculture and forestry industries and wildlife traffic accidents, as well as the concern over the effect of raccoons and other immigrant species on native species. The Area shall strive to understand the living conditions of these species as well as considering necessary measures to be taken based on the present condition, including the development of protection and management plans.

These investigations of living conditions shall be conducted in cooperation with other relevant organizations, including Rausu town, Shari town which has conducted research activities on brown bears, Yezo sika deer and other species by using the Shiretoko National Park Nature Center as its base, and the Naturetopia Shiretoko Foundation.

(2) Patrols

Patrols and other inspections shall be conducted by rangers and national wildlife protection area wardens and the Specified Project for the Promotion of Private Sector Participation in Natural Environment Conservation Activities for National Parks (Green Worker Project). In particular, efforts shall be made to tighten patrols in the Designated Special Protection Areas and to reinforce the patrolling system for the said areas with the cooperation of the relevant organizations.

Efforts shall also be made to cooperate and to share information with Blakiston's fish-owl wardens assigned by the Hokkaido Regional Forest Office, rangers assigned by Hokkaido and local towns and other parties concerned.

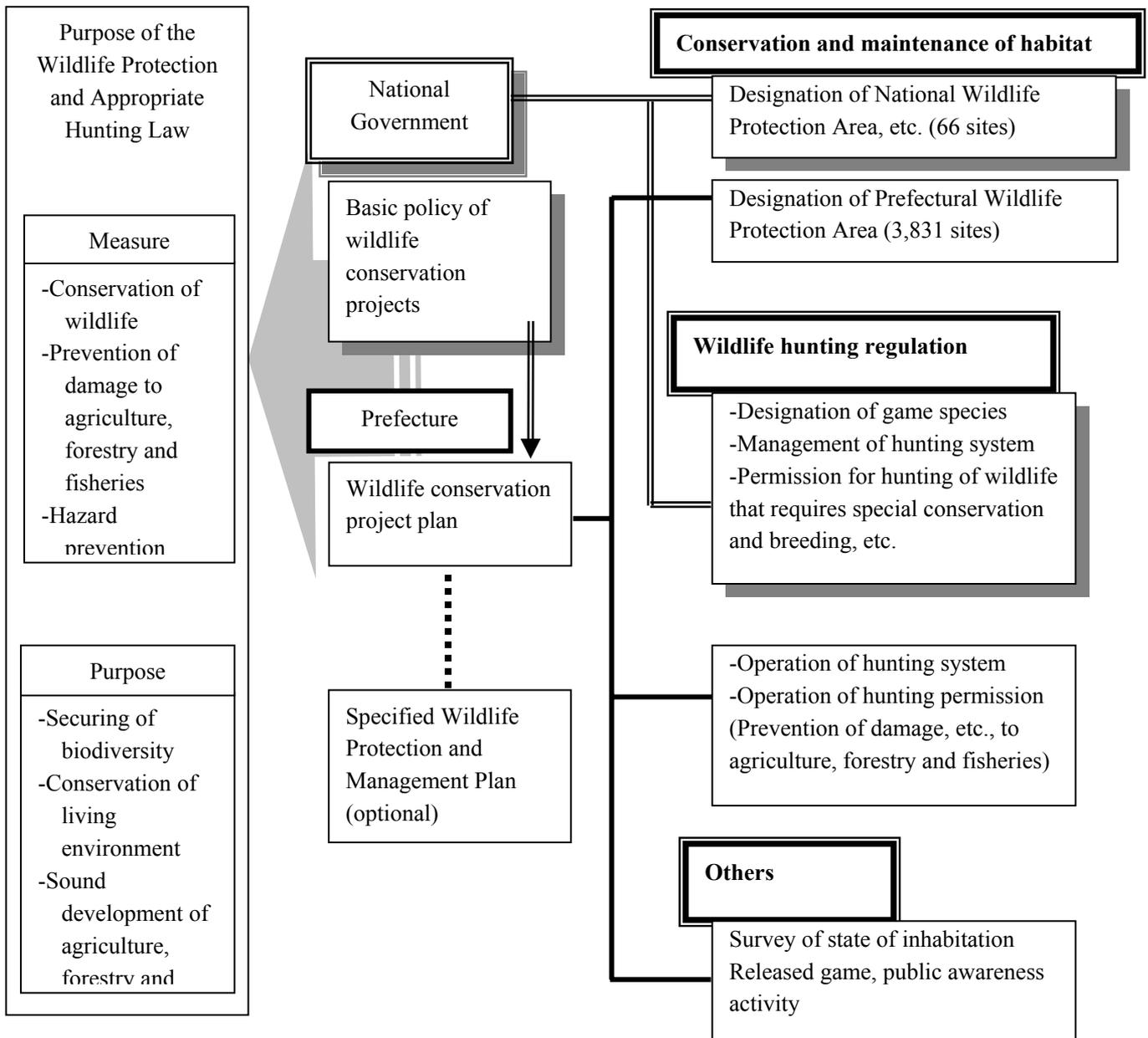
(3) Proper guidance about people's utilization

Most of the districts in this Wildlife Protection Area have been designated as part of the National Park. As such, the Area has been experiencing a number of intruders and has attracted a great deal of attention to their wildlife, including endangered bird species and brown bears.

In particular, some people have attempted to feed red foxes or to approach the nesting grounds of birds of prey, including Blakiston's fish-owls. Others have left litter in the Area, which may attract brown bears. Consideration must be given to prevent these acts from affecting the habitats of these bird and animal species.

For this purpose, the Area will ensure the adequate consistency with the protection and utilization of the National Park, will make efforts, through the visitor center and other facilities, to diffuse knowledge on and promote public awareness of the protection and management of this Wildlife Protection Area, and will provide guidance to users through patrolling activities by utilizing rangers, national wildlife protection area wardens and the Green Worker Project and by other available means. In providing guidance, particular emphasis shall be placed on the prevention of hindrance to the protection, management or breeding of endangered bird and animal species that may be caused by entry of users into the Designated Special Protection Areas.

○ Outline of the wildlife protection measures



The number of Wildlife Protection Areas is the data as of April 1, 2007

Applicable laws and regulations

Wildlife Protection and Appropriate Hunting Law (Excerpts)

Law No. 88 of July 12, 2002

Last Amended by Law No. 67 of June 14, 2006

(Objective)

Article 1 This Law aims to ensure the life of the people, whereby the blessings of the natural environment can be enjoyed by the citizens; and serves to contribute to the healthy development of communities through such efforts as ensuring biodiversity, protecting the living environment, and contributing to the healthy development of agriculture, forestry, and fishery; with the protection of wildlife and proper hunting; by preventing the wildlife from damaging the living environment, agriculture, forestry, and fishery, or the ecological system; by preventing risks associated with the use of hunting gears; and by implementing programs for wildlife protection.

(Basic Guidelines)

Article 2 The Minister of the Environment shall establish basic guidelines (hereinafter referred to as the "Basic Guidelines") to implement projects to ensure the wildlife protection (hereinafter referred to as the "Wildlife Protection Projects") (snip).

(Wildlife Protection Project Plans)

Article 4 The prefectural governors shall formulate plans for the implementing the Wildlife Protection Projects to be implemented by the prefectural governors in accordance with the Basic Guidelines (hereinafter referred to as the "Wildlife Protection Project Plans") (snip).

Article 8 The wildlife or bird eggs may not be captured, collected, or the like (collection or damage; the same shall apply hereinafter) except for the following cases.

- (1) The capture, killing or wounding or the collection or damaging of wildlife or bird eggs with the permission as provided for in Paragraph 1 of the following article.
- (2) The capture or the like of wildlife in accordance with the provisions in Article 11, Paragraph 1.
- (3) The capture, killing or wounding or the collection or damaging of the wildlife or bird eggs as provided for in Article 13, Paragraph 1, in accordance with the provisions of the said Paragraph.

(Permission for Capture, killing or wounding of the Wildlife and Collection or damaging of Bird Eggs)

Article 9 Those who intend to capture, kill or wound wildlife or collect or damage bird eggs for the purpose of pursuing an academic study; for the purpose of preventing the wildlife from damaging the living environment, agriculture, forestry, and fishery, or the ecological system; for the purpose of regulating the population of the specific wildlife as provided for in Article 7, Paragraph 2, Item 5; or for the purposes as provided for in the Ministerial Ordinance of the Ministry of the Environment shall obtain the permission of the Minister of the Environment in the following cases and obtain the permission of the prefectural governor in other cases.

- (1) The capture, killing and wounding of wildlife or the collection or damaging of bird eggs within the Wildlife Protection Area designated by the Minister of the Environment as provided for in Article 28, Paragraph 1.
 - (2) The capture, killing and wounding of endangered wildlife species or the collection or damaging of eggs of birds designated as endangered wildlife species.
 - (3) The capture, killing and wounding of wildlife by use of the nets or traps designated by the Ministerial Ordinance of the Ministry of the Environment as significantly harmful to wildlife protection in consideration of the structure, material, and the usage thereof.
2. Those who intend to obtain the permission as provided for in the preceding paragraph shall apply for the permission of the Minister of the Environment or the prefectural governors in accordance with the provisions of the Ministerial Ordinance of the Ministry of the Environment.

(Wildlife Protection Area)

Article 28 Should the Minister of the Environment or the prefectural governor so recognize as especially necessary to ensure the wildlife protection, he or she may designate the following areas as a Wildlife Protection Area in consideration of the wildlife species and inhabiting conditions of the wildlife.

- (1) Areas recognized by the Minister of the Environment as important for wildlife protection from the perspectives of the international or national wildlife protection.
 - (2) Areas within the prefecture concerned other than the area as provided for in the preceding item that are recognized by the prefectural governor as important for wildlife protection from the perspective of the regional wildlife protection.
2. The designation or change of the Wildlife Protection Area as provided for in the preceding paragraph shall be made with the name, the area, and the period of continuation of the Wildlife Protection Area designated and the guidelines for the protection established for the Wildlife Protection Area concerned.

11. Those who have the ownership or other rights for the land or trees/bamboo within a Wildlife Protection Area may not refuse, without reasonable reasons, to provide facilities for nidification, water supply, feeding, and so on, which are necessary for inhabitation and breeding of the wildlife, in such land or on trees/bamboo within the area by the Minister of the Environment or the prefectural governor.

(Special Protection Area)

Article 29 The Minister of the Environment or the prefectural governor may designate an area recognized as being especially necessary to ensure wildlife protection or protection of habitats for wildlife within a Wildlife Protection Area as a Special Protection Area.

7. In a Special Protection Area, the following behaviors are prohibited without obtaining a permission of the Minister of the Environment within a special protection area designated by the Minister of the Environment as provided for in

Paragraph 1 (hereinafter referred to as a “National Special Protection Area”), or without obtaining a permission of the prefectural governor within a special protection area designated by a prefectural governor as provided for in the same Paragraph (hereinafter referred to as a “Prefectural Special Protection Area”); except for behaviors stipulated as harmless to the wildlife protection by the Minister of the Environment in a National Special Protection Area or by the prefectural governor in a Prefectural Special Protection Area:

- (1) New construction, reconstruction, or enlargement of a building or other man-made structures;
 - (2) Water area reclamation;
 - (3) Felling of trees or bamboo.
 - (4) In addition to the behaviors listed in the previous three items, any behaviors stipulated by government ordinances as behaviors likely to affect the wildlife protection by the Minister of the Environment in a National Special Protection Area or by prefectural governors in a Prefectural Special Protection Area respectively.
8. Those who intend to obtain the permission as provided for in the preceding paragraph shall apply for the permission of the Minister of the Environment in a National Special Protection Area or the permission of the prefectural governor in a Prefectural Special Protection Area in accordance with the provisions of the Ministerial Ordinance of the Ministry of the Environment.
9. Should the permission be applied for as provided for in the preceding paragraph, the Minister of the Environment or the prefectural governor shall grant permission for the provisions in Paragraph 7; except for the case that the behavior associated with such application falls under any of the following items:
- (1) A case that such a behavior may be significantly harmful to the wildlife protection;
 - (2) A case that such a behavior may be significantly harmful to the protection of habitats of the wildlife
10. The Minister of the Environment or the prefectural governor may impose conditions to the permission as provided for in Paragraph 7 if it is recognized as necessary for the wildlife protection or the protection of habitats of the wildlife.

Enforcement Regulations for the Wildlife Protection and Appropriate Hunting Law (Excerpts)

Government Ordinance No. 391 dated December 20, 2002

Last Amended by Government Ordinance No. 327 dated October 12, 2006

(Behaviors requiring permission within a special protection area (Designated Special Protection Area))

Article 2 The behaviors stipulated by the government ordinance as provided for Article 29, Paragraph 7, Item 4 of the Law shall be the behaviors described below that are done within an area designated by the Minister of the Environment (or by the prefectural governor in the special protection area designated by the prefectural governor) during the period designated by areas (except for behaviors done on roads, open spaces, or other public spaces).

- (1) Collection or damaging of plants other than trees or bamboo; collection of fallen leaves or fallen branches; capturing, killing or wounding of animals; collection or damaging of eggs of animals (except for behaviors to be done to run agriculture, forestry, or fishery).
- (2) Making of a bonfire or a fire of any kind.
- (3) Use of horses or vehicles.
- (4) Use of a motor-driven vessel (except for use of a vessel to run fishery or ship-operating business).
- (5) Introduction of an animal that may be harmful to dogs or other wildlife.
- (6) Photographing, video recording, sound recording, or observation of fauna and flora by a method designated by the Minister of the Environment as being harmful to nidification of the wildlife.
- (7) Playing of outdoor sports or outdoor recreation by use of balls or other objects.

(6) Steller's sea eagle and white-tailed eagle

Steller's sea eagles and white-tailed eagles have been protected by their designation as a Natural Monument in 1970, and as a "National Endangered Species of Wild Fauna and Flora" under the Law for the Conservation of Endangered Species of Wild Fauna and Flora that was enforced in 1993, and their hunting, etc have been controlled.

Recently, however, their stable existence in their natural habitat is being threatened due to the shrinking of their habitats and breeding sites caused by development, etc., lead poisoning by lead bullets, electrocution through contact with electric cables, etc., collisions with man-made constructions and moving vehicles, etc. In addition, they show a strong tendency to depend on food derived from human activities.

Therefore, a plan for Protection and Breeding Program was developed in 2005 and its measures have been advanced at aiming to create conditions for Steller's sea eagles and white-tailed eagles to stably subsist in their natural habitat.

○ **Programmes for Rehabilitation of Natural Habitats and Maintenance of Viable Populations**

The Programmes for Rehabilitation of Natural Habitats and Maintenance of Viable Populations for the Steller's sea eagle and white-tailed eagle was developed in December 2005 based on the Law for the Conservation of Endangered Species of Wild Fauna and Flora. Under this program, measures have been advanced to establish their stable existence in their natural state by understanding their inhabitation and breeding state, as well as the mitigation, removal, etc., of factors that put pressure on their inhabitation and breeding.

• **The subcommittee on the protection and breeding of white-tailed eagles and Steller's sea eagles, Committee for Wildlife Protection Policy**

The subcommittee on the protection and breeding of white-tailed eagles and Steller's sea eagles, Committee for Wildlife Protection Policy was set up in February 2006 to investigate protection measures based on scientific knowledge focusing on the correct evaluation of the current state of their inhabitation and habitat, protection of that habitat, methods of protection and breeding, etc., for the adequate advancement of protection measures for Steller's sea eagles and white-tailed eagles. The subcommittee consists of representative researchers in respective taxonomic groups of wildlife, representative experts in the protection and breeding of wildlife, etc., who are commissioned by the Director-General of the Nature Conservation Bureau, The Ministry of the Environment.

< Members of the subcommittee on the protection and breeding of white-tailed eagles and Steller's sea eagles, Committee for Wildlife Protection Policy >

Yoichi Kawaguchi (Assistant Professor, Urban & Environmental Engineering laboratory, Graduate School of Engineering, Kyushu University)

Nobumichi Kurosawa (Representative, Network for the protection of eagles from lead poisoning)

Masao Kosuge (Director, Asahiyama Zoo)

Keisuke Saito (Representative, Hokkaido Raptor Research)

Saiko Shiraki (Assistant Professor, Tokyo University of Agriculture)

Fusahei Sekiyama (Director, Raptor Ecology Institute)

Hajime Nakagawa (Director, Shiretoko Museum)

Yuzo Fujimaki (Professor Emeritus, Obihiro University of Agriculture and Veterinary Medicine)

• **List of protection and breeding projects for white-tailed eagle and Steller's sea eagle in 2006**

- Understanding of their state of inhabitation
 - Literary research
 - Monitoring and surveying to understand their inhabitation during wintering
 - Understanding of their food resource environment in natural rivers
 - Understanding the impact of human-induced food resources
 - Preservation and management of specimen
- Rescue of sick and wounded birds
 - Operation of the system to rescue sick and wounded birds
 - Development of hazard maps
- Ensuring cooperation for effective promotion of projects
 - Establishment of a liaison meeting of protection and breeding operators
- Other
 - Consideration of mid- and long-term targets for the future protection of the two species

○ **Lead poisoning prevention measures**

Since around 1997, there have been cases of the lead poisoning deaths of Steller's sea eagles and white-tailed eagles, mainly from eating sika deer flesh with remaining lead bullet fragments. Measures were taken, including a call to hunters to switch from lead rifle bullets to less poisonous rifle bullets, however this measure did not achieve the total elimination of lead poisoning deaths.

Hokkaido is working to root out the lead poisoning deaths of eagles by banning the use of lead rifle bullets and lead shot for large-sized animals, not only in sika deer hunting, but in the hunting of any animal, beginning in the hunting season of 2004.

Hokkaido announcement No.754

Based on the stipulation of article 15.1 of the Wildlife Protection and Appropriate Hunting Law (Law No.88 of 2002), a Designated Hunting Prohibited Area was designated where the capture (including killing and wounding) of wildlife through the specified hunting methods described below was prohibited. The designation is announced here based on the stipulation of article 15.2 of the same law.

Hokkaido announcement No.537 of 2001 [restriction of hunting methods for game (deer)] shall be repealed on September 30, 2004.

August 20, 2004

Governor of Hokkaido, Harumi Takahashi

- 1 Title: Hokkaido Designated Hunting Prohibited Area
- 2 Zone: Throughout the Hokkaido area
- 3 Period of continuation: Beginning October 1, 2004
(Beginning October 1, 2005 in the areas under the control of the Oshima and Shiribeshi subprefectural offices)
- 4 Specified hunting methods
 - (1) Hunting methods that use rifle bullets made from lead-containing substances (excluding rifle bullets where the weight ratio of lead is not more than 50%, and more than half of the lead-containing parts are covered with steel from the top to prevent lead from scattering when the bullet hits the target)
 - (2) Hunting methods that use shot made of lead-containing substances and where the diameter is more than 7mm

Applicable laws and regulations

LAW FOR THE PROTECTION OF CULTURAL PROPERTIES (extract)

Law No.214. Promulgated on May 30,1950
Last Amended by Law No. 73 of 2006.

(Purpose of this Law)

Article 1. The purpose of this Law is to preserve and utilize cultural properties, so that the culture of the Japanese people may be furthered and a contribution be made to the evolution of world culture.

(Definition of Cultural Properties)

Article 2. "Cultural properties" in this Law shall be the following:

- (4) Shell mounds, ancient tombs, sites of palaces, sites of forts or castles, monumental dwelling houses, and other sites, which possess a high historical and/or scientific value in and for this country; gardens, bridges, gorges, sea-shores, mountains, and other places of scenic beauty, which possess a high value from the point of view of art or visual appreciation in and for this country; and animals (including their habitats, breeding places and summer and winter resorts), plants (including their habitats), and geological features and minerals (including the grounds where peculiar natural phenomena are seen), which possess a high scientific value in and for this country (hereinafter referred to as "monuments");

(Designation)

Article 109. The Minister of Education, Culture, Sports, Science and Technology may designate important items of monuments as historic sites, places of scenic beauty, or natural monuments (hereinafter collectively referred to as "historic sites, places of scenic beauty and/or natural monument").

(Restriction on Alteration, etc. of Existing State and Order for Recovery to Original State)

Article 125. In case any person intends to do an act altering the existing state of a historic site, place of scenic beauty and/or natural monument or an act affecting the preservation thereof, he/she must obtain the permission of the Commissioner the Agency for Cultural Affairs; however, this shall not apply to the case where such act as altering the existing state is merely a measure for maintaining the existing state of the property or an emergency measure necessary for the prevention of extraordinary disasters or where the influence of the act which may affect its preservation is only negligible.

7. In case any person has done an act altering the existing state or affecting the preservation of a historic site, place of scenic beauty and/or natural monument without obtaining the permission under the provision of paragraph 1 or without complying with the conditions of the permission given under Article 43 paragraph 3 applying mutatis mutandis under paragraph 3, the Commissioner of the Agency for Cultural Affairs may order him/her to recover is original state. In this case the Commissioner of the Agency for Cultural Affairs may give necessary instructions regarding such recovery.

(Integrity of Surroundings)

Article 128. The Commissioner of the Agency for Cultural Affairs may, if he/she deems it necessary for ensuring the preservation of the historic site, place of scenic beauty and/or natural monument, restrict or prohibit certain kinds of act within a prescribed area or may order the provision of necessary facilities in such area.

Date of designation as a natural monument: January 23, 1970 (Notification No. 3 Issued by the Ministry of Education)

Designation Criteria for Designated Special Historic Sites, Scenic Sites, and Natural Monuments, and Designated Historic Sites, Scenic Sites, and Natural Monuments (excerpt)

Notification No. 2 dated May 10, 1951 Issued by the Committee for the Protection of Cultural Assets
Last amended by Notification No. 24 dated March 6, 1995 Issued by the Ministry of Education

Natural monuments

The fauna, flora, geologic features, and minerals listed below that are academically precious and are commemorative of the nature of Japan.

(1) Fauna

(i) Distinguished animals specific to Japan and their habitats

(ii) Animals not specific to Japan but having the need to be preserved as distinguished animals in Japan and their habitats

(iii) Animals or animal communities inhabiting in the natural environment that are specific to Japan

(iv) Livestock animals specific to Japan

(v) Distinguished animals, other than livestock that were imported from abroad to Japan and are in a wild condition at present, and their habitats

(vi) Samples of especially precious animals

The Law for Conservation of Endangered Species of Wild Fauna and Flora (Extract)

Law No. 75 of 1992
Last Amended by Law No. 87 of 2005.

(Purposes)

Article 1 This Law is, in view of the fact that wild fauna and flora are an indispensable element of the wholesome life of human beings not only as an important constituent of the ecosystems but also as that of the natural environment as a whole, aimed at conserving the wholesome natural environment by protecting endangered species of wild fauna and flora and at contributing towards the maintenance of wholesome and cultured living of the people at present and in future.

(Prohibition of the Taking Etc.)

Article 9 The taking, collection, killing or injuring (hereinafter referred to as "the taking etc.") of living individuals of the national endangered species of wild fauna and flora and the temporarily designated endangered species (hereinafter referred to as "the national endangered species of wild fauna and flora, etc." in this Section and Article 54 Paragraph 2) shall not be committed. However, the same shall not apply in the cases mentioned in the following:

- (1) The cases where the taking etc. are conducted in regard to permission under the permission granted under Paragraph 1 or Paragraph 2 of the following Article.
- (2) The cases prescribed by a Prime Minister's Office Ordinance as necessary to maintain living and not being feared as detrimental to the conservation of the species.
- (3) The cases where there are unavoidable reasons, such as the protection of human life or body, as stipulated by a Prime Minister's Office Ordinance.

(Programmes for Rehabilitation of Natural Habitats and Maintenance of Viable Populations)

Article 45 The Director-General of the Environment Agency and the heads of the administrative organizations of the National Government to execute programmes for the rehabilitation of natural habitats and the maintenance of viable populations (referred to as "the Director-General of the Environment Agency and other National Government officials" in Paragraph 3) shall hear opinions of the Nature Conservation Council to formulate programmes for the rehabilitation of the natural habitats and the maintenance of viable populations in order to contribute towards proper and effective implementation of the programmes for the rehabilitation of natural habitats and the maintenance of viable populations.

2. The programmes for the rehabilitation of natural habitats and the maintenance of viable populations shall be formulated on the species-by-species basis for the national endangered species of wild fauna and flora to be the objects of the programmes, covering the targets of the programmes for the rehabilitation of natural habitats and the maintenance of viable populations, the areas where the programmes for the rehabilitation of natural habitats and the maintenance of viable populations are to be executed, the substance of the programmes for the rehabilitation of natural habitats and the maintenance of viable populations and other matters necessary for proper and effective implementation of the programmes for the rehabilitation of natural habitats and the maintenance of viable population.
3. The Director-General of the Environment Agency shall, when a programme for the rehabilitation of natural habitats and the maintenance of viable populations has been formulated under Paragraph 1, announce its outline in the Official Gazette and make available for the public perusal the programme for the rehabilitation of natural habitats and the maintenance of viable populations.
4. The provisions of Paragraph 1 and the preceding Paragraph shall be applied mutatis mutandis to changes to the programmes for the rehabilitation of natural habitats and the maintenance of viable populations under Paragraph 1.

Programmes for Rehabilitation of Natural Habitats and Maintenance of Viable Populations for Steller's sea eagle

December 1, 2005

I. Objectives of the Project

Steller's sea eagles are large birds of prey that migrate to Japan in winter to spend the season. In spring, they migrate to Russia and breed around the Sea of Okhotsk. Though their main wintering place is Hokkaido, these birds are found in all parts of Japan.

In recent years, the stable survival of this species in the wild has been threatened due to causes including: the reduction of roosts and other habitats resulting from development and other human activities; the increased deaths and injuries of these birds due to such causes as lead poisoning caused by lead bullets, accidental electrocution caused by accidental contact with electric lines or equipment, collision with buildings, and accidental contact with running vehicles; and the increased tendency to depend on food resources arising from human activities.

This project aims to ensure the stable survival of this species in the wild by understanding the living conditions and habitats of these birds and reducing, eliminating or otherwise controlling the factors exerting pressure on their survival.

II. Areas Covered by the Project

The whole country.

III. Contents of the Project

1. Understanding the living conditions, etc.

In order to implement this project in an appropriate and effective manner, the following investigations shall be

conducted and efforts shall be made to collect information on this species and the circumstances surrounding it and to understand the actual conditions facing the birds.

As the activities of these birds cover a large area, efforts shall be made to establish a system to collect information in an efficient manner.

(1) Investigation and monitoring of the living conditions

In order to understand the living conditions of these birds, including their migration, distribution, geographical area of activities and feeding behavior, investigations shall be conducted including periodic monitoring, bird-banding studies, and genetic diversity studies.

In addition, in order to understand factors contributing their mortality, any discovery of a dead bird in the fields shall be followed by investigations, including the collection of information on the circumstances surrounding the collection of the carcass and an inspection of the carcass.

(2) Investigation of the living environment

Investigations shall be conducted on such items as: the roosts of these birds; the environments used as feeding grounds; and the feeding environment including types and amounts of food consumed and the degree of dependence on food resources arising from human activities.

(3) Understanding the environment suited for survival

Based on results of the investigations set forth in (1) and (2) above, the environment suited for the survival of this bird species shall be found out.

2. Conservation and improvement of the living environment in the habitats

The stable survival of this species in the wild requires such measures as: conservation of the living environment, including roosts; and construction of the environment where the birds can survive without depending on food resources arising from human activities. Accordingly, the following approaches shall be used based on findings and information obtained from the activities listed in Section 1 above.

If any land use project or development project that is likely to affect the survival of these birds is proposed to take place around any of their habitats, efforts shall be made, by improving the framework for communication with relevant organizations or otherwise, to cause the entity conducting the project to give consideration to secure the environmental conditions required for the survival of these birds.

(1) Conservation and improvement of the living environment

Efforts shall be made to mitigate or eliminate any adverse effects on the living environment, including fish and bird species consumed by Steller's sea eagles, in and around rivers and other inland waters and coasts and to secure the natural living conditions of these birds by conserving and improving riverside forests and other environmental elements.

(2) Prevention of lead poisoning

In response to the lead poisoning cases caused by lead bullets, the actual conditions of the lead poisoning facing this species shall be investigated and, based on results of such investigation, efforts shall be made to prevent lead poisoning by taking appropriate measures, enhancing the cooperation with relevant organizations and using other available means.

(3) Countermeasures against accidents

In order to prevent death, injury and other damage to these birds caused by such accidents as electrocution resulting from contact with electric lines or other electric equipment, collision with buildings, and contact with running vehicles, investigations shall be conducted as necessary and efforts shall be made to take available measures, while cooperating with relevant organizations and obtaining understanding and cooperation from parties concerned.

(4) Patrols of habitats

Efforts shall be made to collect information on careless human entry into areas surrounding the roosts or other assembly places of these birds and to prevent poaching and other activities that are likely to have a harmful effect on the survival of this bird species, by conducting patrols as necessary.

3. Relief and protection of sick and injured birds

Sick or injured birds shall be taken to and protected at appropriate facilities. All birds recovered enough to survive in the wild shall be returned to the wild in principle. In doing so, efforts shall be made to establish such methods to return recovered birds to the wild and such testing system as will ensure the prevention of any infectious disease from being transmitted from the released birds to other birds of prey or other birds and/or animals and shall also be made to find out about the living conditions of Steller's sea eagles, by attaching transmitters to released birds if necessary.

4. Promotion of the dissemination of information and education

To obtain satisfactory results from the conservation and breeding project for this species, it is essential to obtain understanding and cooperation from businesses conducting various business activities, the national government and relevant local governments, and the general public including residents of the areas involved. Accordingly, the dissemination of information and education on the living conditions and environment of this species, the necessity of its conservation, the progress of this project and related matters shall be promoted, and efforts shall be made to ensure the development of appropriate local conservation activities.

5. Securing cooperation for the effective promotion of the project

In implementing this project, efforts shall be made to ensure its effective promotion by ensuring cooperation among parties involved, including the national government, relevant local governments, persons with technical knowledge

on the ecology and other matters of this species, conservation groups participating in the planning of conservation activities for this species, and residents in and around the habitats of this species.
In addition, adequate attention shall be paid to cooperation with conservation efforts being made in the framework for international cooperation.

Programmes for Rehabilitations of Natural Habitats and Maintenance of Viable Populations for White-tailed eagle

December 1, 2005

I. Objectives of the Project

White-tailed eagles are large birds of prey that migrate to Japan in winter to spend the season. In spring, a major portion of the population migrates to Russia to breed there, while part of the population remains in Japan and breeds along the coasts or around inland waters in Hokkaido. Their main wintering places are Hokkaido and the northern part of Honshu, though these birds are found in all parts of Japan.

In recent years, the stable survival of this species in the wild has been threatened due to factors including: the reduction of habitats and breeding places resulting from development and other human activities; the increased deaths and injuries of these birds due to such causes as lead poisoning caused by lead bullets, accidental electrocution caused by accidental contact with electric lines or equipment, collision with buildings, and accidental contact with running vehicles; and the increased tendency to depend on food resources arising from human activities.

This project aims to ensure the stable survival of this species in the wild by understanding the living conditions, habitats, breeding conditions, breeding environment and other conditions of these birds and reducing, eliminating or otherwise controlling the factors exerting pressure on their survival and breeding.

II. Areas Covered by the Project

The whole country.

III. Contents of the Project

1. Understanding the living and breeding conditions, etc.

In order to implement this project in an appropriate and effective manner, the following investigations shall be conducted and efforts shall be made to collect information on this species and the circumstances surrounding it and to understand the actual conditions facing the birds.

As the activities of these birds cover a large area, efforts shall be made to establish a system to collect information in an efficient manner.

(1) Investigation and monitoring of the living and breeding conditions

In order to understand the living and breeding conditions of these birds, including their migration, distribution, geographical area of activities, feeding behavior and breeding places, investigations shall be conducted including periodic monitoring, bird-banding studies, and genetic diversity studies.

In addition, in order to understand factors contributing their mortality, any discovery of a dead bird in the fields shall be followed by investigations, including the collection of information on the circumstances surrounding the collection of the carcass and an inspection of the carcass.

(2) Investigation of the living and breeding environment

Investigations shall be conducted on such items as: the roosts of these birds; the environments used as feeding or breeding grounds; and the feeding environment including types and amounts of food consumed and the degree of dependence on food resources arising from human activities.

(3) Understanding the environment suited for survival and breeding

Based on results of the investigations set forth in (1) and (2) above, the environment suited for the survival and breeding of this bird species shall be found out.

2. Conservation and improvement of the living environment in the habitats and of the breeding environment in the breeding grounds

The stable survival of this species in the wild requires such measures as: conservation of the living and breeding environments, including roosts and breeding places; and construction of the environment where the birds can survive without depending on food resources arising from human activities. Accordingly, the following approaches shall be used based on findings and information obtained from the activities listed in Section 1 above.

If any land use project or development project that is likely to affect the survival or breeding of these birds is proposed to take place around any of their habitats or breeding places, efforts shall be made, by improving the framework for communication with relevant organizations or otherwise, to cause the entity conducting the project to give consideration to secure the environmental conditions required for the survival and breeding of these birds.

(1) Conservation and improvement of the living and breeding environments

Efforts shall be made to mitigate or eliminate any adverse effects on the living environment, including fish and bird species consumed by white-tailed eagles, in and around rivers and other inland waters and coasts and to secure the natural living and breeding conditions of these birds by conserving and improving riverside forests and other environmental elements.

(2) Prevention of lead poisoning

In response to the lead poisoning cases caused by lead bullets, the actual conditions of the lead poisoning facing this species shall be investigated and, based on results of such investigation, efforts shall be made to prevent

lead poisoning by taking appropriate measures, enhancing the cooperation with relevant organizations and using other available means.

(3) Countermeasures against accidents

In order to prevent death, injury and other damage to these birds caused by such accidents as electrocution resulting from contact with electric lines or other electric equipment, collision with buildings, and contact with running vehicles, investigations shall be conducted as necessary and efforts shall be made to take available measures, while cooperating with relevant organizations and obtaining understanding and cooperation from parties concerned.

(4) Patrols of habitats and breeding grounds

Efforts shall be made to collect information on careless human entry into areas surrounding the roosts or other assembly or breeding places of these birds and to prevent poaching and other activities that are likely to have a harmful effect on the survival, nest building or breeding of this bird species, by conducting patrols as necessary.

3. Relief and protection of sick and injured birds

Sick or injured birds shall be taken to and protected at appropriate facilities. All birds recovered enough to survive in the wild shall be returned to the wild in principle. In doing so, efforts shall be made to establish such methods to return recovered birds to the wild and such testing system as will ensure the prevention of any infectious disease from being transmitted from the released birds to other birds of prey or other birds and/or animals and shall also be made to find out about the living conditions of Steller's sea eagles, by attaching transmitters to released birds if necessary.

4. Breeding in captivity

In principle, breeding of this species shall be supported by ensuring the conservation and improvement of the wild population in the habitats and breeding places. Meanwhile, in case the wild population experiences a rapid decline, the possibility of introducing captive-bred birds to the wild shall be considered.

5. Promotion of the dissemination of information and education

To obtain satisfactory results from the conservation and breeding project for this species, it is essential to obtain understanding and cooperation from businesses conducting various business activities, the national government and relevant local governments, and the general public including residents of the areas involved. Accordingly, the dissemination of information and education on the living and breeding conditions and environments of this species, the necessity of conservation, the progress of this project and related matters shall be promoted, and efforts shall be made to ensure the development of appropriate local conservation activities.

6. Securing cooperation for the effective promotion of the project

In implementing this project, efforts shall be made to ensure the effective promotion of the project by ensuring cooperation among parties involved, including the national government, relevant local governments, persons with technical knowledge on the ecology and other matters of this species, conservation groups participating in the planning of conservation activities for this species, and residents in and around the habitats and breeding places of this species.

In addition, adequate attention shall be paid to cooperation with conservation efforts being made in the framework for international cooperation.

3 Other components (use of marine area)

Since the 50's of *showa-era* (from 1975 to 1984), tourists landing around the Shiretoko Cape from fishing pleasure boats, etc., have become conspicuous. In order to protect nature and prevent the area from becoming a tourist site, visits by general tourists for recreational purposes have been restricted through instructions based on the "Agreement on the instructions for use restrictions of the Shiretoko Cape area" that was concluded in 1984 by the administrative bodies involved. Under the agreement, the landing of general tourists, etc., from fishing pleasure boats for recreational purposes is prohibited. Entering via land route, mostly by mountain climbers, are not banned for the time being, but instructions shall be given to refrain from such visits, explaining the danger of the route and the prohibition of taking rides on fishing boats, etc. Those who still desire to enter the zone shall be advised to go through a procedure for entering a national forest. The organizations concerned have been implementing measures, such as joint patrols and the development of signs for instructing restrictions, in order to control use based on "the agreement".

In spite of various measures implemented by the institutions concerned after "the agreement", the landing by general tourists from power-driven vessels, such as fishing pleasure boats, showed no sign of significant decline. Their impact on the pristine natural environment includes receding vegetation due to bonfires and trampling. There was also a concern about the impact on the breeding sites of birds, etc., and the invasion/expansion of alien plant species. In the marine area, new marine recreational activities, such as sea kayaking, personal watercraft, and scuba diving are becoming popular in addition to fishing. Because the marine area is a habitat and breeding ground for seabirds and marine mammals, as well as an area for fishery activities, including the salmon and trout fishery, the establishment of rules for use was required to ensure compatibility with them.

In response, review into the proper use of Shiretoko National Park began in 2001 and the Basic Plan on the Proper Use of the Apical Region of the Peninsula Zone of Shiretoko National Park was formulated in December 2004. Based on this basic plan, instructions have been provided, according to the state of use, to use the park for marine recreation only under the given rules in order to avoid impacting seabirds and marine mammals, as well as the fisheries that are the key local industry.

○ Survey on the state of use of Shiretoko National Park

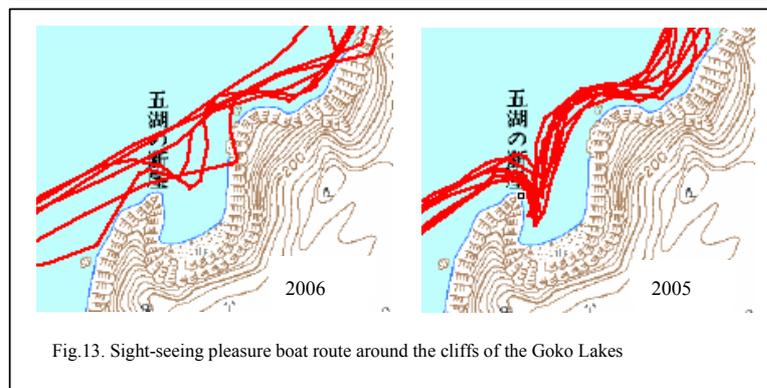
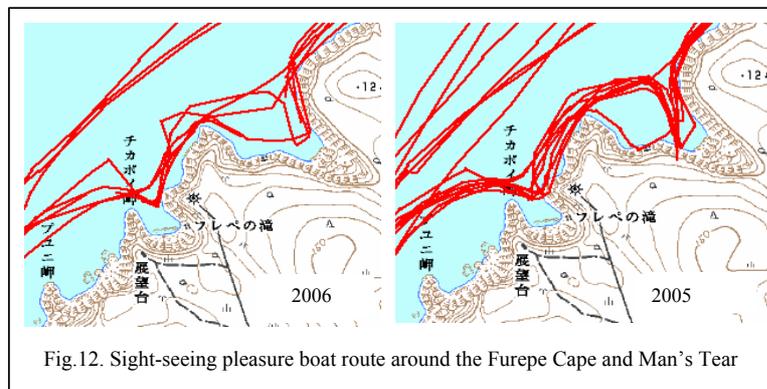
Surveys, on entering the Shiretoko Cape, number of visitors, and operation of sight-seeing pleasure boats, etc. have been conducted on an ongoing basis to understand the current state of use of Shiretoko National Park. This survey results have been examined by the Committee on the Promotion of Proper Use of Shiretoko National Park that consists of academic experts, organizations concerned, and administrative bodies concerned in order to promote the appropriate conservation and use of the park.

Example 1: Number of visitors to Shiretoko Cape area – year-by-year comparison (2006)

Year of survey	Survey period	Days of survey	No. of visitors		Average visitors /day	Power-driven vessels		Sea kayak		On foot	
			Bunkichi Bay to Akaiwa	Bunkichi Bay to Aidomari	Bunkichi Bay to Akaiwa	No. of groups	No. of visitors	No. of groups	No. of visitors	No. of groups	No. of visitors
1996	8/12-18	7	141		20	19	78	6	13	6	50
1997	8/11-16	6	353		59	42	299	4	24	6	30
1998	8/12-21	9	200		22	24	123	5	25	6	52
2001	8/10-13 17-20	6	83		14	12	44	1	2	6	37
2002	8/18-19	12	203		17	34	124	5	21	13	58
2003	8/12-17	6	80	84	13	15	60	1	1	7	19
2004	8/6-16	11	114	149	10	14	69	5	28	9	23
2005	8/12-19	8	66	100	8	8	39	5	15	5	26
2006	8/11-17	7	89		13	10	40	4	34	5	15
Compared to a year ago			135%	-	163%	125%	103%	80%	227%	100%	58%
Compared to two years ago			78%	-	130%	71%	58%	80%	121%	56%	65%

Example 2: Understanding the routes taken by sight-seeing pleasure boats

From spring to summer, the Shari-side coastline of the Shiretoko Peninsula is an important nesting site for seabirds, represented by the spectacled guillemot. There was a concern regarding the disturbance of their activities by the sight-seeing pleasure boats that often navigate along the coast during this season. To address this issue, pleasure boat operators are given instructions, etc., on how to navigate while keeping a distance of more than 100m from the habitats and breeding sites of the seabirds.



○ **Committee on the Promotion of Proper Use of Shiretoko National Park**

1 . Purpose of the establishment

The Committee on the Promotion of Proper Use of Shiretoko National Park that consists of academic experts, organizations concerned, and the administrative bodies concerned was set up in order to promote the appropriate conservation and use of Shiretoko National Park based on the Basic Concept on the Proper Use of Shiretoko National Park, formulated in 2001, in order to explore the desirable conservation and use of Shiretoko National Park.

2 . Items to be studied

- (1) Items concerning the basic plan for proper use
- (2) Items concerning implementation of the basic plan for proper use
- (3) Items concerning rules for use
- (4) Other items necessary to accomplish the objectives

3 . Constitution

The committee consists of experts, local organizations concerned, and the administrative bodies concerned.

(Experts)

Iwao Ogawa:	Representative of EcoNetwork
Akihiro Kobayashi:	Professor, Hokkaido College, Senshu University
Hisashi Shinsho:	Senior Technical Manager, Environmental Policy Division, Kushiro City
Tatsuichi Tsujii:	President of the Hokkaido Environment Foundation *Chair
Hajime Nakagawa:	Director of Shiretoko Museum
Kohichi Nakayasu:	President of the Hokkaido Forestry Association

4 . Discussion process

March 2002:	Establishment of the “Basic Concept on the Proper Use of Shiretoko National Park”
December 2004:	Establishment of the “Basic Plan on the Proper Use of the Apical Region of the Peninsula Zone of Shiretoko National Park”
September 2005:	Establishment of the “Basic Plan on the Proper Use of the Central Region of the Peninsula Zone of Shiretoko National Park”
April 2006:	“Request to refrain from entering the apical region of the Shiretoko Peninsula”
March 2007:	Establishment of "FY2007 Implementation Plan for the Proper Use of the Central Region of the Shiretoko Peninsula in Shiretoko National Park”

Basic Plan on the Proper Use of the Apical Region of the Peninsula Zone of Shiretoko National Park (Extract)

December 2004

1. Purpose of This Basic Plan

In order to properly conserve the pristine natural landscapes and diverse ecosystems in the “Apical Region of the Shiretoko Peninsula”, this Basic Plan aims to prevent visitors from causing hindrance to the sustainable conservation of the landscapes and ecosystems, by specifying the way the appropriate use should be (the “Basic Policies” and the “Policies on Various Forms of Use”), the rules to be complied with (the “Regulation of Use” and the “Use Rules”), and matters concerning management and operation.

2. Background

(1) Past approaches

Since the 50’s of the *Showa-era* (from 1975 to 1984), tourists landing around the Shiretoko Cape from fishing pleasure boats, etc., have become conspicuous. In order to protect nature and prevent the area from becoming a tourist site, visits by general tourists for recreational purposes have been controlled through instructions based on the “Agreement on the instructions for usage restrictions of the Shiretoko Cape area” that was concluded in 1984 by the administrative bodies involved. Under the Agreement, the landing of general tourists, etc., from fishing pleasure boats for recreational purposes is prohibited. Visits via land route, mostly by mountain climbers, are not banned for the time being, but instructions shall be given to refrain from such visits, explaining the danger of the route and the prohibition of taking rides on fishing boats, etc. Interested climbers shall be advised to go through a procedure for entering a national forest. The institutions concerned have been implementing measures, such as joint patrols and the development of signs for instructions, in order to control use based on “the Agreement”.

(2) Present issues

In spite of various measures implemented by the institutions concerned after “the Agreement”, the landing by general tourists from power-driven vessels, such as fishing pleasure boats, showed no sign of significant decline. Their impact on the primeval natural environment includes receding vegetation due to bonfires and trampling. There was also a concern about the impact on the breeding sites of birds, etc., and the invasion/expansion of alien plant species.

In the marine area, new marine recreational activities, such as sea kayaking, personal watercraft, and scuba diving are becoming popular in addition to fishing. Because the marine area is a habitat and breeding ground for sea-birds and marine mammals, as well as an area for fishery activities, including the salmon and trout fishery, the establishment of rules for use has been required to ensure compatibility with them.

(3) Position in the Management Plan for the Shiretoko World Natural Heritage Nominated Site

(The rest omitted.)

3. Target Area (The rest omitted.)

4. Basic Policies

Taking into account the philosophy of the Basic Concept on the Proper Use of Shiretoko National Park issued in 2001 and the contents of the Management Plan for the Shiretoko World Natural Heritage Nominated Site issued in January 2004 as well as the characteristics of the region, the use of the Apical Region shall be regulated based on the following basic policies:

- (1) The existing complete prohibition of landing in the region from power-driven vessels shall be applied thoroughly and more rigorously, since this is not an appropriate use of this region and causes hindrance to its nature conservation.
- (2) Entry to the land area on foot or by sea kayak or other human powered conveyance shall not be allowed without restriction. Since parts of the land area covered by this Basic Plan contain places requiring protection and conservation, such as the habitats and breeding places of endangered animal species, sea-bird nesting colonies, fragile plant communities and lands containing archaeological and cultural resources, specific “Utilization Rules” that suit the characteristics and uses of these places shall be established to impose certain restrictions in order to avoid any trouble in ensuring the conservation of the natural environment and the quality of natural experiences.
- (3) With respect to the use of the marine area, the region contains habitats and breeding grounds for both sea-birds and marine mammals and there is a concern that the navigation of ships and personal watercraft for sightseeing/recreational purposes, and disorderly feeding and watching, may affect the life of these sea-birds and marine mammals. Accordingly, in order to prevent the detrimental impact of the recreational use of the marine area on sea-birds and marine mammals, and to ensure the smooth achievement of the coexistence of the recreational use and salmon fishing and other local fishing activities, that is a major local industry, “Utilization Rules” shall be established and efforts shall be made to disseminate and promote public awareness of these Rules.
- (4) With respect to safety in use, efforts shall be made to improve the safety in use and to spread and promote awareness of the sense of “self-responsibility” among Users by establishing a system to provide information in advance or a preparatory lecture.
- (5) In order to ensure the conservation of the pristine wilderness, it is desirable that Users behave and act in a nature-friendly manner that would allow them to have nature experiences while reducing the negative impact on nature. For this purpose, efforts shall be made to improve the guidance systems including patrols, to disseminate information and promote public awareness, and to improve the preparatory lecture, etc.
- (6) It is important that local residents and businesses concerned who or which have daily contact with Users play a role in providing guidance on or disseminating the “Utilization Rules”. By enhancing the cooperation with local residents as well as with businesses concerned in or outside the local area, mechanisms (such as construction of networks) shall be

created by which the aforementioned function of local residents and businesses concerned will be performed effectively.

The aforementioned "Utilization Rules" refers to "7. Regulation of Use" and "8. Use Rules" of this Basic Plan. The "Regulation of Use" intends to control the respective uses of the various districts by taking their specific uses into account. The "Use Rules" specify, based on the contents of the "Regulation of Use", matters that require attention from Users and activities prohibited to Users while they are in the region from the viewpoints of nature conservation, security, etc.

5. Definition of "User"

For the purpose of this Basic Plan, the term "Users" refers to any and all persons who enter the "Apical Region" under the above-described "Basic Policies" and whose use of the region falls under any of the uses listed in section 6 below, including any and all persons who enter the region in order to conduct, lead, guide or transport these "Users" (guides, ferry operators and other service providers) or who enter the region for data collection, photo-taking or similar purposes.

"Users" do not include owners of fishing huts or any other persons who enter the region to conduct activities involved in fishing or to manage land or facilities.

6. Policies on Various Forms of Use

Basic policies applicable to different forms of use shall be as follows:

- (1) Use for seashore trekking (The rest omitted.)

- (2) Use for seashore kayaking

Use for sea kayaking is relatively uncommon in the existing circumstances and would have only minor impact on the natural environment. However, sea kayaking in the coastal marine area requires adequate understanding and knowledge of weather conditions in the area and high-level skills and also gives the Users unrestricted access to the coastal area with pristine wilderness. For these reasons, there is concern that sea kayaking may affect the natural environment, fishing activities, etc. In order to prevent any negative impact on these, use for sea kayaking shall be controlled under the "Utilization Rules".

- (3) Use for mountain hiking (The rest omitted.)

- (4) Use for salmon fishing near the river mouth

Salmon fishing conducted by Users who land near the mouth of the river by ferry is relatively limited in terms of the period and area of entry. However, there is concern that disorderly entry and littering may affect the natural environment, etc. For this reason, this form of use shall be controlled under the "Utilization Rules" in order to prevent any negative impact on the conservation of the natural environment, based on the principle that this use shall be limited to a level at or below the present level.

With respect to other forms of fishing, including surf fishing and mountain stream fishing, specific policies on them shall be discussed in the future by taking their conditions into account.

- (5) Use of the marine area by power-driven vessels

With respect to use of the coastal marine area by power-driven vessels (including tourist boats, fishing pleasure boats and pleasure boats), since there is concern that this form of use may affect sea-birds, marine mammals, fishing activities, etc., it shall be controlled under the "Use Rules" to prevent any negative impact on these animals and activities.

- (6) Landing from power-driven vessels

Landing in the Shiretoko Cape area of general tourists from power-driven vessels for recreational purposes has been prohibited by the "Agreement" among the government agencies concerned. Landing in the Shiretoko Cape area or any other parts of the "Apical Region" could involve transportation of a large volume of passengers and goods at one time and may have a significant negative impact on the natural environment and the proper use of the environment. Accordingly, landing of general tourists from power-driven vessels for recreational purposes shall remain prohibited regardless of the type of vessel, whether tourist boats, fishing pleasure boats or pleasure boats, and the "Agreement" shall be applied thoroughly and more rigorously.

However, treatment of return trips in "(1) Use for seashore trekking" and "(3) Use for mountain climbing" and of pleasure fishing boats involved in "(4) Use for estuary salmon fishing" described above shall be considered separately in the "Regulation of (respective) uses".

- (7) Other uses

For other recreational use of the coast, such as personal watercraft, diving, and experiential activities on sea ice in winter, "Utilization Rules" specifying concrete policies shall be discussed while continuously monitoring usage.

In addition, requests shall be made to parties concerned for restriction of low-level flight of aircraft, as such flight is likely to have a negative impact on the comfortable use and wildlife.

Furthermore, with respect to the districts (including Rusha) with an increased need for measures to prevent friction between Users and brown bears caused by their accidental proximity or contact, consideration shall be given to the management system to tighten the restriction on entry.

7. Regulation of Uses

With respect to matters and methods relating to the regulation of uses in each form of use, discussion shall be made in the following directions while ensuring adequate coordination with bodies and organizations concerned.

In addition, at the Ranger Offices for Nature Conservation of Ministry of the Environment, the Rausu Visitor Center, the Shiretoko Forest Center, the Shiretoko Nature Center and other facilities, advance information shall be provided to

Users who are considering entry to the Apical Region, including information on the danger in the use of, wilderness in, and the "Utilization Rules" applicable to, the region through brochures, web sites and other means. Furthermore, a system shall be established for receiving, and making use of in the conservation and management activities, information on the conditions of the natural environment obtained on-site by businesses, Users and other entities.

(1) Uses for seashore trekking, seashore kayaking and mountain climbing

- (i) Proper modalities for and methods of prior notification, lectures, restriction of the place where and the period(s) during which entry is allowed, etc.

Users shall obtain necessary information in advance. Discussion shall be made on the proper modalities for: the system for providing Users with information and lectures that provides points to note, etc.; prior notification and return reports to be made by Users; and beneficiary charges. Discussion shall also be made on the places where and periods during which entry should be restricted.

- (ii) How to determine the number of Users who entered the region

With respect to the method for determining the number of Users who entered the region, discussion shall be made in the future on each form of use based on the principle that the number of such Users should be limited to a level at or below the current level, by taking into account results of detailed surveys of usage involving such measures as the installation of traffic counters along the routes through which Users enter the region by land.

- (iii) Proper designation and method of designation of camping grounds

With respect to camping grounds, discussion shall be made on the proper designation of designated sites and camping areas and on the "Use Rules".

- (iv) Treatment of use of ferries

Although in principle Users should both enter and leave the region on foot, discussion shall be made on the possibility of allowing leaving (but not entering) by sea from some of the fishing areas.

(2) Use for salmon fishing near the river mouth

- (i) Proper definition and methods of definition of the zones where entry is allowed

Discussion shall be made in the direction of defining the zones where landing from ferries for salmon/fishing purposes is allowed and of setting limits to the fishing zones.

- (ii) How to determine the number of Users who entered the region

With respect to the method for determining the number of Users who entered the region, discussion shall be made separately on each district by taking into account results of more detailed surveys of usage and other data.

- (iii) Proper designation and method of designation of camping grounds

Any camping shall be subject to paragraph (1) (iii) above.

- (iv) Cooperation with ferry operators

Discussion shall be made on proper modalities for: the collection of information for adjustment of the uses by ferry operators who transport Users to the aforementioned places for fishing purposes; prior notification and usage reports to be made by these ferry operators; and dissemination of the "Utilization Rules" to these ferry operators.

8. Use Rules

In the "Apical Region", the adjustment of uses described in Section 7 above shall be made as well as establishing the "Use Rules" to be complied with by various Users who enter the "Apical Region", including those who enter the marine area by power-driven vessels, in accordance with the following items and ensuring the dissemination of and the provision of guidance on such Rules.

In addition, since organizations, businesses, ferry operators and other parties concerned which provide on-site guidance to Users on a day-to-day basis have voluntarily started to consider guidelines and other rules, future discussions for establishing concrete rules shall be made in cooperation with these parties concerned.

(1) Common rules

(Rules to be complied with by all Users of the Apical region regardless of the form of their use)

- (i) Rules on safety management and self-responsibility
(ii) General rules

(2) Rules for specific forms of use

(Rules applicable to specific forms of use)

- (i) Rules on use for mountain-climbing
(ii) Rules on use for salmon fishing near the river mouth
(iii) Rules on use of the marine area by power-driven vessels

9. Management of Facilities (The rest omitted.)

10. Administration of Operation (The rest omitted.)

11. Reinforcement and Supplement of the Plan (The rest omitted.)

Agreement on the instructions for usage restrictions of the Shiretoko Cape area (February 16, 1984)

1. Purpose of the restriction

Entering for recreational purposes is restricted to protect the natural landscape of the Shiretoko Cape that contains communities of endangered plants and the habitats of a variety of wildlife.

2. Target of the restriction

The restriction covers entering by general tourists for recreation, but not entering to carry out the duties of administrative bodies or fishery activities. The treatment of entering for educational/research purposes shall be examined on a case by case basis.

3. Scope of the restriction

The Special Protection Zone and the Class I Special Zone of the National Park in the apical area of the Shiretoko Cape.

4. Contents of the restriction

- (1) Landing on the Shiretoko Cape area by fishing pleasure boats is not allowed based on the applicable laws and regulations.
- (2) Entering via land route, mostly by mountain climbers, are not banned for the time being, but casual visits should be controlled as much as possible through the dissemination of information on the danger of the route and the prohibition of taking rides on fishing boats, etc.

5. Method of instruction

- (1) Response to inquiries, etc.

Instructions should be given based on number 4 from above. Regarding entering via land route, instructions shall be given to refrain from entering the restricted area by providing an explanation of the danger and the prohibition of taking rides on fishing boats, etc. Those who still desire to enter the restricted area shall be advised to go through the procedure of entering a national forest.

Whenever possible, magazines, etc., shall be asked to refrain from introducing routes into the restricted area.

- (2) Setting of signs

Signs that indicate the content of use restrictions shall be set at the following four locations:

Shari side: Bunkichi Bay and Aburako Bay of the Shiretoko Cape

Rausu Side: Aidomari and Kamoiunbe

《Bodies concerned》

- Shari District Forestry Office (currently Abashirinanbu District Forest Office)
- Shibetsu District Forestry Office (currently Konsentoubu District Forest Office)
- Abashiri Coast Guard Station
- Rausu Coast Guard Station
- Abashiri Subprefectural Office
- Nemuro Subprefectural Office
- Shari town
- Rausu town
- Utoro Fisheries Cooperative
- Ranger Office of Shiretoko National Park (currently Utoro and Rausu Ranger Offices for Nature Conservation)

4 Figure of Food web in the waters surrounding Shiretoko

In communities of species, relations such as predator, prey, and decomposition are all interrelated, forming a web-like structure. The food web is a concept used to describe the entirety of such relations by showing the flow of material and energy among organisms. Creating the diagram of a food web sheds light on the interrelation of the various species. In Figure 2 of main text of the management plan, the trophic level is shown on the vertical axis and biomass is shown by the size of the circle. Trophic levels were determined mainly based on current knowledge, while biomass was determined by dividing the respective species' catch in this marine area by the average of the total catch from 1993 to 2002. In the case of biomasses being 1 and below, they are shown as 1, for the convenience of graphic display.

Detritus and phytoplankton that are the starting point of a food web are expressed with a square and their biomasses are assumed to be 5.0 due to a lack of data for estimation.

Patterns in the figure indicate cold current fish (wavy line), warm current fish (horizontal line), and animals other than fishes (net pattern), respectively. Fishes are placed according to their tendency of seasonal migration, with the tendency increasing from left to right.

【Reference】

Food web in the Shiretoko World Natural Heritage Site

1. Target species in the food web were selected by the Marine Area Working Group.
2. Major food organisms are based on the Fisheries and Aquatic Life in Hokkaido, edited by Mizushima and Torisawa, 2003.
3. Catch was calculated as an annual average based on the Actual State of the Hokkaido Fisheries, 1993 to 2002
4. The biomass index was an integer of the value obtained by dividing the catch of individual species with the average catch of all species (X_i/M). The biomass index of the species with $X_i < 1$ is shown as 1.
5. The biomass indices of detritus, phytoplankton, zooplankton, and "Fisheries" are relative values and do not reflect their biomass.
6. Trophic levels were determined based on the Stable Isotope Ratio Analysis results (Kaeriyama, 2003) and Ecopath ecosystem model analysis results (Aydin et al., 2003) and by using Tian et al. (2006) as reference.

[Cited Literature]

- 1) Aydin, K. Y., G. A. McFarlane, J. R. King, and B. A. Megrey. 2003. PICES-GLOBEC international program on climatic change and carrying capacity. The BASS/MODEL report on trophic models of the Subarctic Pacific basin ecosystem. PICES Sci. Rep. 25: 1-93.
- 2) Hokkaido, 1993-2002 the Actual State of the Hokkaido Fisheries
- 3) Kaeriyama, M. 2003. Evaluation of the carrying capacity of Pacific salmon in the North Pacific Ocean for ecosystem-based sustainable conservation management. NPAFC Tech. Rep. 5: 1-4.
- 4) Fisheries and Aquatic Life in Hokkaido, Edited by Mizushima and Torisawa, 2003 (Hokkaido Shimbun Press) pp. 645
- 5) Tian, Y., H. Kidokoro, T. Watanabe. 2006. Long-term changes in the fish community structure from the Tsushima warm current region of the Japan/East Sea with an emphasis on the impacts of fishing and climate regime shift over the last four decades. Prog. Ocean. 68: 217-

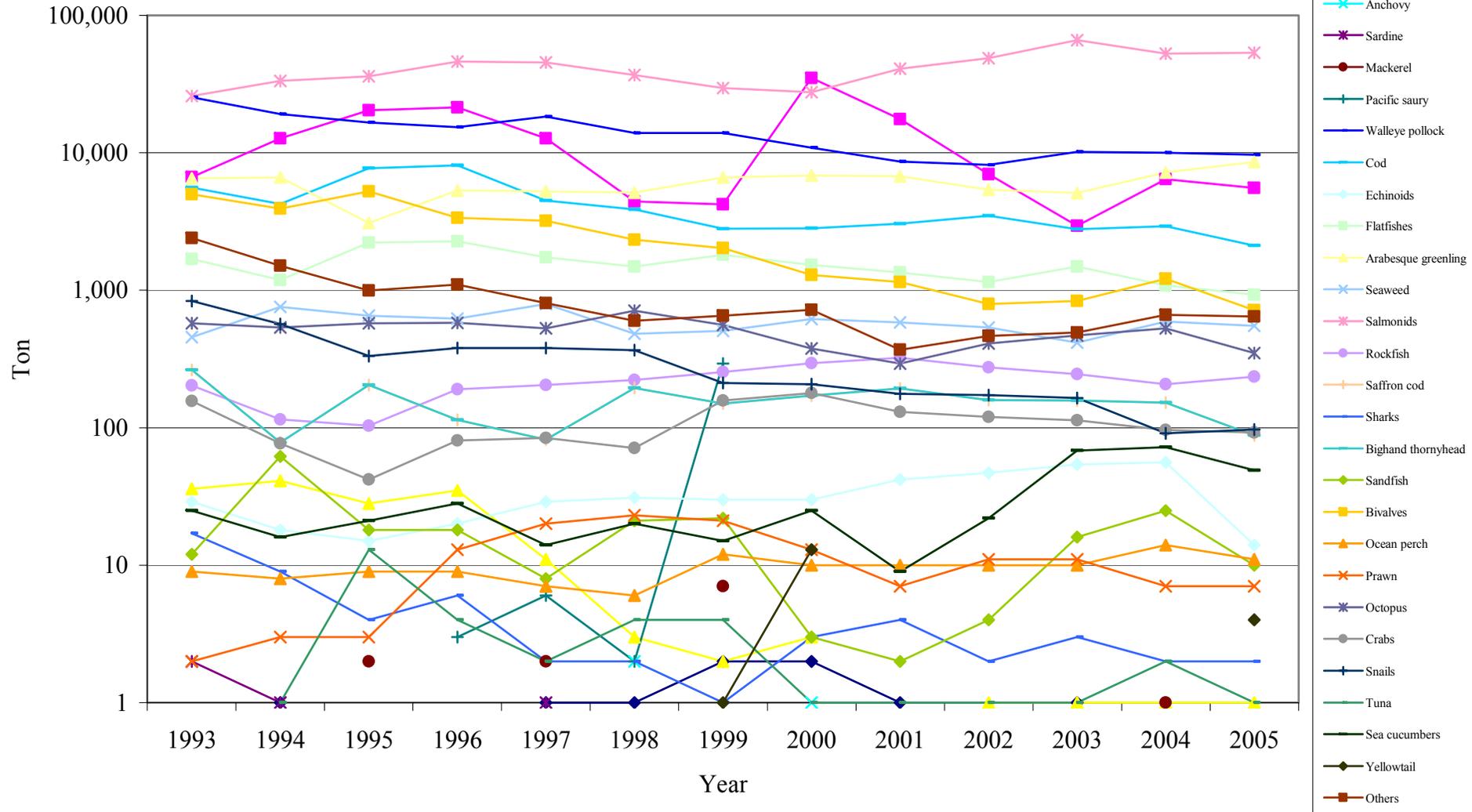
Food web in Shiretoko

	name	trophic level	indicator of biomass	Xi/M	catch of fish	food
1	phytoplankton (ice algae)	1	5			
2	seaweed	1	1	0.20	600.402	
3	detritus	1	5			
4	zooplankton (copepods, euphausiids)	2	5			phytoplankton
5	echinoids	2	1	0.01	16.879	seaweed
6	benthic-crustacea	2	1			
7	bivalves	2	1	0.96	2836.995	phytoplankton, detritus
8	polychates	2	1			
9	Pacific herring	3	1	0.00	0.986	phytoplankton, zooplankton, krill, small crustacean, fishes
10	anchovy	3	1	0.00	0.398	copepod
11	sardine	2.5	1	0.00	0.477	phytoplankton
12	sand lance	2.5	1			copepod, krill, fry in rarely
13	Pacific saury	3	1	0.01	30.556	zooplankton
14	snails	2	1	0.12	368.184	dead flesh (fishes)
15	sea cucumber	2	1	0.01	19.398	detritus
16	prawn	2	1	0.00	11.53	benthic crustacea, detritus
17	squids	3.5	5	4.83	14249.529	krill, gammarus, planktonic crustacea, lanternfish, sardine
18	mackerel	3.5	1	0.00	1.307	zooplankton, sardine
19	octopus	4	1	0.17	509.143	shellfishes, crustacea, fishes, squids, sea cucumber, starfish,
20	crabs	2.5	1	0.04	130.129	benthic crustacea, squids, bivalves, nereis
21	fat greenling	4	1	0.01	15.977	fishes, crabs, nereis, caprellids
22	baleen whale	3	1			
23	walleye pollock	3.5	5	5.13	15114.441	copepod, krill, gammarus, cannibalism
24	flatfishes	3.5	1	0.56	1650.672	zooplankton, nereis, bivalves, starfish, fishes
25	salmonids	4	12	12.74	37565.051	zooplankton, jellyfish, lanternfish, squids
26	arabesque greenling	3	2	1.99	5867.688	fishes, zooplankton
27	rockfish	3.5	1	0.07	220.127	fishes, zooplankton, prawn, squids, nereis
28	cod	4	2	1.57	4633.453	fishes, crustacea, squids, (young fish : zooplankton)
29	bighand thornyhead	3.5	1	0.16	484.856	brittle star
30	saffron cod	3	1	0.05	161.694	copepod, krill, gammarus, prawn, nereis
31	ocean perch	3.5	1	0.00	8.875	same as rockfish
32	sandfish	3	1	0.01	17.144	copepod, water flea, woodlouse, krill, prawn, fishes
33	toothed whale	5	1			
34	Pinnipeds	5	1			
	Steller sealion	5	1			
35	seabirds	5	1			
36	ray	4	1			
37	sharks	4.5	1	0.00	4.913	fishes, squids, octopus, prawn,
38	brown bear	5.5	1			
39	sea eagles	5.5	1			
40	fisheries	5	2			
41	tuna	4	1	0.00	3.245	
42	yellowtail	4	1	0.00	1.481	
43	starfish	3	1			
44	sea squirt	2	1			
45	Others				951	

2947.466552

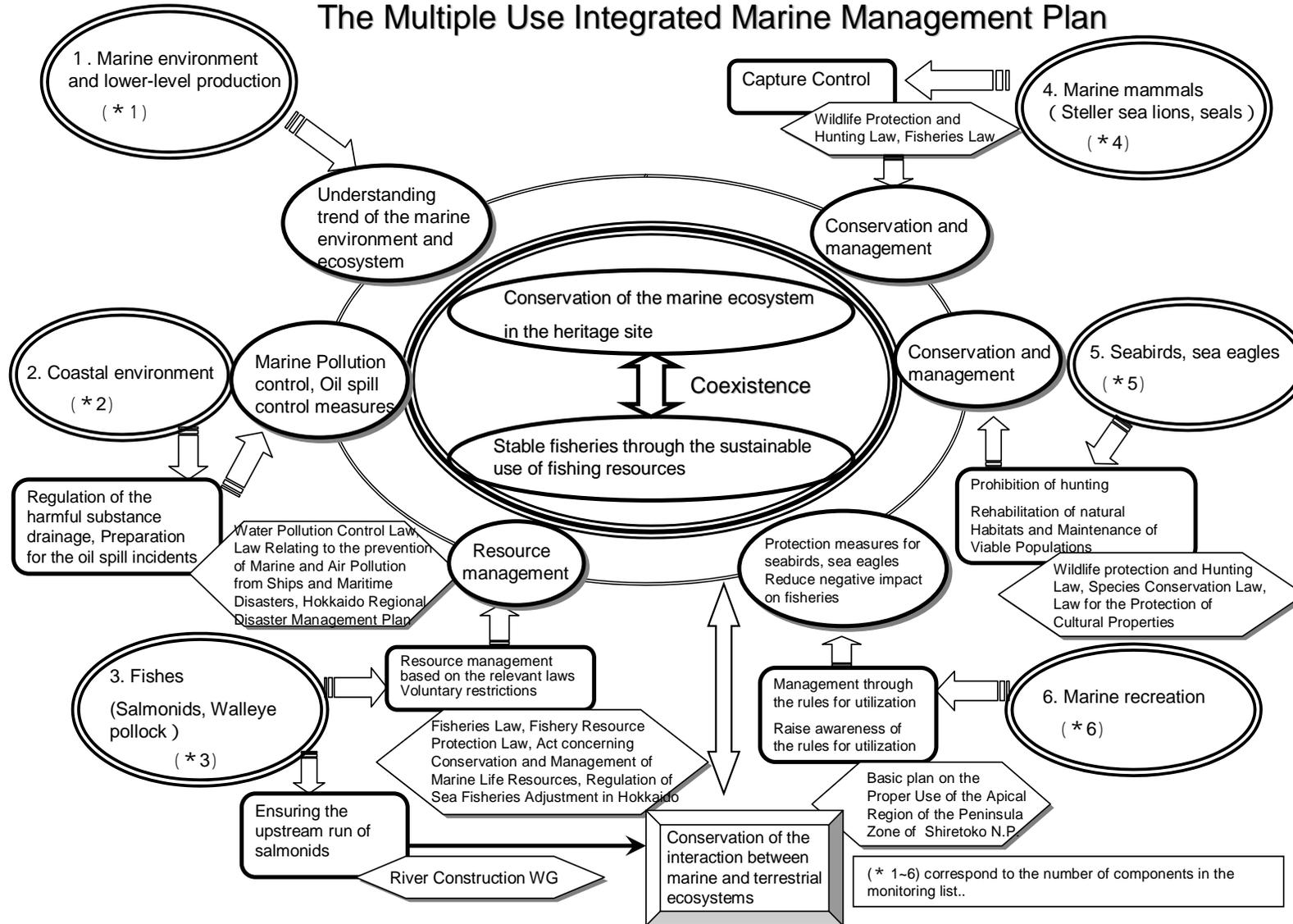
Fishery Production in Shari and Rausu

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Shiretoko World Natural Heritage Site

The Multiple Use Integrated Marine Management Plan



5 Table of Surveys and monitoring in the waters surrounding Shiretoko

Surveys and monitoring in the waters surrounding Shiretoko

Component of the ecosystem	Subjects	Type of survey	N0.	Survey title	Contents	Survey area	Frequency	Institution	Monitoring schedule						Notes
									06	07	08	09	10	11	
Marine environment and lower-level production	Sea ice	Monitoring	1	Monitoring of the current in the south-western part of the Sea of Okhotsk	Monitoring of the current direction, flow speed, and surface temperature by survey boats	The Sea of Okhotsk	Once a year	1st Regional Coast Guard Headquarters							http://www1.kaiho.mlit.go.jp/KANI/kaisvov/gaihou.html
			2	Monitoring of the sea ice	Monitoring of the sea ice condition from aircrafts	The Sea of Okhotsk	Every month	1st Regional Coast Guard Headquarters							http://www1.kaiho.mlit.go.jp/KANI/1center.html
	Water temperature, water quality, Chlorophyll a, plankton, etc	Monitoring	3	Study of changes in the marine environment by satellite images	Monitoring of water temperature, sea ice distribution, and chlorophyll a by satellite remote sensing	Marine area with a radius of over 300km encompassing the Shiretoko Peninsula	Throughout the year	Ministry of the Environment							Implemented in cooperation with Hokkaido University in 2006
			4	Fixed-point observation by setting buoys	Monitoring of the water temperature and the water quality (the concentration of salt, chlorophyll a) by observation buoys	Rausu, Utoro	Throughout the year	Ministry of the Environment (with the Rausu and the Utoro Fishery Cooperatives)							
		Intensive survey	5	Survey on the marine environment and the ecological characteristics of the species consisted of the marine ecosystem	Monitoring of water mass structure, plankton, and nekton by acoustic method and the underwater robot camera	Coastal zone of Shari and Rausu towns	Once a year	Hokkaido University							
	6		Monitoring of the biological communities with the underwater robot	Monitoring of benthos and fishes with the underwater robot	Coastal zone of Shari and Rausu towns	Twice a year (autumn-winter)	Hokkaido University (at the request of the Ministry of Environment)								
	7		Monitoring of the deep water	Monitoring of water temperature, salt concentration, zooplankton, and phytoplankton in the deep sea water pumped up	Rausu	Every hour	To be determined								
	Biota	Inventory	8	Fish survey	Identification of new fish species	Shari and Rausu towns	As needed	Shiretoko Museum of Shari town							
			9	Survey on biota in the shallow waters along the coast of Shiretoko	Survey on fishes, invertebrates, sea grass, and sea weed in the shallow waters	Utoro side (3 points), Rausu side (3 points), and the cape area (1 point)	Twice a year (once each in summer and autumn)	Ministry of the Environment							Implemented in cooperation with Hokkaido University and Tokyo University of Agriculture in 2006
			10	Survey of the sea grass bed in the shallow waters	Survey on biota of seaweeds and sea grasses	Rausu (nearby Pekino-hana point)	July	Ministry of the Environment							Survey on the shallow waters, Basic survey on conservation of the nature environment Further schedule is to be determined
Marine pollution	Hazardous substances	Monitoring	11	Monitoring of marine pollution	Analysis of petroleum oil, cadmium, mercury and other substances in the sea waters	The Sea of Okhotsk ('97 ~)	Once a year	Hydrographic and Oceanographic Department, Japan Coast Guard							http://www1.kaiho.mlit.go.jp/KANKYO/OSFN/gaiyo/osenf4/osenf4.htm
Fishes	Salmonids	Monitoring	12	Monitoring of the situation of running upstream salmonids in Shiretoko	Monitoring of the situation of running upstream and the spawning beds on each rivers	Two rivers in the heritage area	July -	Hokkaido Government							Chum salmon, pink salmon, masu salmon (Dolly Varden); every two years after 2007
			13	Current situation of fisheries in Hokkaido (same as No.18)	Transition of the catch	Shari and Rausu towns	Every year	Fishery Cooperatives (at the request of Hokkaido Government)							http://www.fishexp.pref.hokkaido.jp/marineinfo/internetdb/index.htm
		Intensive survey	14	Study on the effect of improvements of the river structures	Understanding the impact on the running upstream	Rivers of which structures were improved	July - November	Hokkaido Government, Hokkaido Regional Forest Office							To be conducted for three years after the improvement of the river structures.
			15	Study on nutrient circulation by the salmonids	· Survey on the upstream run of the salmonids and the amount taken by brown bears · Survey on nutrient circulation by analyzing carbon and nitrogen stable isotope in salmon, brown bear, willow, etc	Iwaobetsu River, Rusa River, Teppanbetsu River	At the time of running upstream	Hokkaido University (at the request of Ministry of the Environment)							Including Grant-in-Aid for Scientific Research
			16	Survey on behavioral ecology of pink and chum salmon in the coastal marine area	Survey on individual behaviour of the salmonids	Shari and Rausu towns	At the time of running upstream	Hokkaido University							Grant-in-Aid for Scientific Research

Surveys and monitoring in the waters surrounding Shiretoko

Component of the ecosystem	Subjects	Type of survey	NO.	Survey title	Contents	Survey area	Frequency	Institution	Monitoring schedule						Notes
									06	07	08	09	10	11	
Fishes	Walleye pollock	Monitoring	17	Evaluation of marine living resources in the waters surrounding Japan	Understanding and evaluation of the walleye pollock resources	Nemuro Strait	Throughout the year	Hokkaido National Fisheries Research Institute, Fisheries Research Agency; Hokkaido Kushiro Fisheries Experimental Station (at the request of the Fisheries Agency)							Survey for TAC setting http://alchan.job.affrc.go.jp/index.html
			18	Current situation of fisheries in Hokkaido (same as No.13)	Transition of the catch	Shari and Rausu towns	Every year	Fishery Cooperatives (at the request of Hokkaido Government)							http://www.fisheryn.pref.hokkaido.jp/marininfo/intermedb/index.htm
		Intensive survey	19	Survey on breeding behaviors and other activities	Observation of breeding behaviors by using of underwater robot cameras	Rausu continental shelf	March	Hokkaido University (at the request of Ministry of the Environment)							Conduct simultaneously with No.6
Marine mammals	Steller sea lions	Monitoring	20	Monitoring of the migration of, and damages caused by the Stellar sea lion	Monitoring of the migrating condition and fishery damages caused by the Steller sea lion	All over Hokkaido	Every year	Rausu Fishery Cooperatives in the heritage site (at the request of Hokkaido Hokkaido National Fisheries Research Institute Fisheries Research Agency, Kushiro, Wakkanai, Central Fisheries Experimental Stations, Hokkaido University (at the request of the Fisheries Agency)							This monitoring is aiming to understand the situation of whole Hokkaido, and the data of each fishery cooperative is not publicized.
			21	Resource monitoring of the Steller sea lion	Survey on populations migrating to the coast of Japan, and sexing, age, body length, weight, maturity, stomach and intestines contents of the captured Steller sea lions	All over Hokkaido	Early November - mid May								http://www.hmf.affrc.go.jp/11-touhou/toto/todo17.pdf#1
	Seals		22	Monitoring of population of marine mammals	Survey on population and fishery damages	Shari and Rausu towns	Winter season	Hokkaido Government							Conducting every two years
			23	Study on seals culled as pest in the Rausu sea area	Survey on migration, and analysis of food habit, DNA, breeding condition with the culled seals	Rausu	January - March	Marine Wildlife Center of Japan							Commenced from January 2004
Seabirds and sea eagles	Sea birds	Monitoring	24	Monitoring of seabirds	Survey on population and breeding pairs on the Shiretoko Peninsula (spectacled guillemot, black-tailed gull, slaty-backed gull, Japanese cormorant)	Shari and Rausu towns		Ministry of the Environment							Conducting every five years (as a part of seabird survey at "Monitoring site 1000")
			25	Monitoring of habitats and nesting grounds	Survey on habitats and nesting sites of seabirds	Shari	Summer season	Shiretoko Seabird Society (at the request of the Ministry of the Environment)							
			26	Long-term monitoring of seabirds	Survey on breeding status of seabirds along the coast of the Peninsula	Shari and Rausu towns	June	Seabird long-term monitoring group (Shiretoko Nature Foundation, Shiretoko Museum, Rausu town, etc)							
	Sea eagles	Monitoring	27	Monitoring of breeding status of white-tailed eagle	Survey on breeding conditions of white-tailed eagle	Shari and Rausu towns	Throughout the year	White-tailed eagle monitoring survey group (Shiretoko Nature Foundation, Shiretoko Museum, Rausu town, etc)							
			28	Monitoring of wintering population	Survey on wintering population	Shari and Rausu towns	January - February	Joint survey group (Shiretoko Museum, Rausu Board of Education, etc)							
			29	Monitoring of migrating population	Survey on migrating population	Rausu	December - April	Rausu town							
	Intensive survey	30	Programmes for Rehabilitation of Natural Habitats and Maintenance of Viable Populations for Steller sea eagle	Survey on wintering population and impact of human-induced food resources and so on	All over Hokkaido (Shari and Rausu)		Ministry of the Environment								
Marine recreation	Proper use		31	Monitoring of sight-seeing boats	Monitoring of the routes taken by sight-seeing boats	Shari	Summer season	Ministry of the Environment							To be determined for 2008 and after
Data base	The result of the above surveys shall be continually updated and publicized on the data base of the Shiretoko data center.														