



Sea ice glows with the splendor of the setting sun
photo by KURASAWA Eiichi

6. Monitoring

- 6a. Key indicators for measuring state of conservation
- 6b. Administrative arrangements for monitoring property
- 6c. Results of previous reporting exercises



6a. Key indicators for measuring state of conservation

Activities such as scientific studies and research as well as long term monitoring projects will be conducted on topics including the integrity of the site and the link between the ecosystems of the land and sea, and to collect basic data necessary for the adequate management of the area.

Additional monitoring sites will be established in Shiretoko to continuously collect data on both the terrestrial, freshwater and marine environment in order to carry out a long term monitoring study on the health of these ecosystems.

Table 6-1 is a summary of the key indicators currently used for measuring state of conservation.

6b. Administrative arrangements for monitoring property

A framework to facilitate cooperation and coordination among relevant agencies, groups, researchers and other related parties will be established to conduct periodic and systematic monitoring projects. In addition, a system to share and effectively use the information collected by surveys, researches and monitoring projects will be created.

Specific policies regarding monitoring activities are described in the management plan for the nominated site (Appendix 4-A). The contact addresses for agencies responsible for the monitoring projects are listed in sections 4d. and 4e.

Table 6-1 Key indicators for measuring state of conservation

Category	Indicators	Agency responsible for record keeping
Climate	Air temperature, precipitation, wind direction, wind speed, sunshine duration, snow depth	Japan Meteorological Agency (AMeDAS observation data) Hokkaido Regional Development Bureau (Shiretoko pass observation information)
Sea ice	Observation data from the sea ice monitoring radar	Japan Coast Guard
Plants	Number of species etc. (flora)	Shiretoko Museum Rausu Visitor Center
	Distribution and area of vegetation etc. (vegetation map)	Ministry of the Environment (National Survey on the Natural Environment)
	Status of specific plant communities	Ministry of the Environment (National Survey on the Natural Environment)
	Status of large trees and forests of large trees	Ministry of the Environment (National Survey on the Natural Environment)
	Status of forest resources	Forestry Agency (Forest Resources Monitoring Program)
Animals: Mammals	Number of species etc.	Shiretoko Museum Rausu Visitor Center Ministry of the Environment (National Survey on the Natural Environment) Forestry Agency (Shiretoko Peninsula Green Corridor Wild Fauna and Flora Monitoring Program)
	Status of brown bear	Shari town Shiretoko Nature Foundation Rausu Visitor Center
	Status of Yezo sika deer	Shari town Shiretoko Nature Foundation Rausu Visitor Center Ministry of the Environment Forestry Agency
	Status of red fox and other wild animals	Shari town Shiretoko Nature Foundation
Animals: Birds	Number of species etc.	Shiretoko Museum Rausu Visitor Center Ministry of the Environment (National Survey on the Natural Environment) Forestry Agency
	Number of visiting Steller's sea eagles and white-tailed eagles	Working Group for White-tailed Eagles and Steller's Sea Eagles
	Distribution of nesting trees and breeding status of white-tailed eagles (Shari town side)	Shiretoko Museum
	Breeding status of Blakiston's fish-owl	Ministry of the Environment Forestry Agency
Animals: Reptiles and amphibians	Number of species etc.	Shiretoko Museum Rausu Visitor Center Ministry of the Environment (National Survey on the Natural Environment)
Animals: Fishes	Number of species etc.	Shiretoko Museum Rausu Visitor Center Ministry of the Environment (National Survey on the Natural Environment)
Animals: Rare species	Status of species listed on the Ministry of the Environment's RDB	Ministry of the Environment
Landscapes	Images taken from fixed observation points	Ministry of the Environment
Utilization	Number of visitors	Shari town (Tourism statistics) Rause town (Tourism statistics)
	Number of visitors to the Visitor Center, etc.	Shiretoko Nature Foundation Rausu Visitor Center



6c. Results of previous reporting exercises

There have been a number of survey and research projects conducted for the nominated site. The following Table 6-2 contains a brief description of the papers and reports on the state of preservation of the nominated site.

Table 6-2 A list of key papers and reports in Japanese:

Paper or report	Issued by;	Brief description
Natural Conservation Division, Department of Lifestyle and Environment, Hokkaido (1981) Report on the Synthetic Survey of Nature of the Shiretoko Peninsula (Outline, Plants)	Natural Conservation Division, Department of Lifestyle and Environment, Hokkaido	Overview of the natural and social environment, brief history of research on higher plants, results of studies on vegetation, etc.
Natural Conservation Division, Department of Lifestyle and Environment, Hokkaido (1981) Survey on Vertebrate Communities in Shiretoko Peninsula, Hokkaido, Japan	Natural Conservation Division, Department of Lifestyle and Environment, Hokkaido	Results of the studies on fishes, birds, terrestrial and marine mammals, etc.
Nature Conservation Bureau, Environment Agency, Japan (1985) Conservation Reports of the Onnebetsudake Wilderness Area, Hokkaido, Japan	Nature Conservation Bureau, Environment Agency, Japan	Results of the studies on weather, geology, topography, plants, animals, birds, insects, etc.
Ohtaishi, N. and Nakagawa, H. (1988) Animals of Shiretoko, Vertebrate fauna in their natural state and their conservation in the Shiretoko Peninsula, Hokkaido, Japan	Hokkaido University Press	The animal communities (river fishes, birds, small and middle sized mammals, Yezo sika deer, brown bear, Pinnipedia) in Shiretoko and the measures to protect the population, etc.
Nature Conservation Bureau, Environment Agency and Nature Conservation Society of Japan (1997) Long Term Ecological Studies in The Onnebetsudake Wilderness Area and its Surrounding Areas	Nature Conservation Bureau, Environment Agency, Japan	Results of the studies on vegetation, birds, mammals, insects, etc.
Nature Conservation Bureau, Ministry of the Environment* (2001) Report on the National Wildlife Protection Area (FY 2000)	Nature Conservation Bureau, Ministry of the Environment*, Japan	Results of the studies on birds, mammals, etc.

* In January 2001, the Environment Agency was restructured and the Ministry of the Environment was founded in place.