

State of Conservation Report of Shiretoko
(Japan) (N1193)
in Response to the World Heritage Committee Decision
45 COM 7B. 84

The Government of Japan
November 2024

1. The executive summary of the report

In response to the issues raised in the World Heritage Committee Decision 45 COM 7B.84 (hereinafter “the Decision”) and with the collaboration of the Ministry of the Environment, the Forestry Agency, the Agency for Cultural Affairs, Hokkaido Prefectural Government, and other related organizations and based on scientific reviews at the Shiretoko Natural World Heritage Site Scientific Council, the Government of Japan reports as follows:

- Regarding paragraph 3 of the Decision, the Adaptive Management Strategy for Climate Change in the Shiretoko Natural World Heritage Site was developed in October 2024. The strategy takes into consideration the expected impact of climate change on the attributes of the Outstanding Universal Value (OUV) of Shiretoko and identifies specific adaptation measures that are to be implemented.
- Regarding paragraph 4 of the Decision, the Basic Management Policy, which sets out the basic approach to managing Steller sea lions (*Eumetopias jubatus*) that migrate to the waters around Japan, was revised in 2024 with the aim of both reducing damage to fisheries and conserving the sea lion population. The revised policy covers the entire Japanese coastal area (and offshore waters) where sea lions migrate, including the Sea of Japan, the Sea of Okhotsk, Nemuro Strait, and the Pacific Ocean, as target waters that are to be managed, and dynamic models have been developed for the two sea lion populations.
- Regarding paragraph 5 of the Decision, under the revised policy, catch limits for the two breeding populations of Steller sea lions in the Sea of Okhotsk and the Kuril Islands were set below the potential biological removal level, based on an assessment using population dynamics models for each population. This ensures that the Steller sea lion catches are based on the precautionary principle and are implemented through adaptive management.
- Regarding paragraph 6 of the Decision, since it is not known what has caused the populations to halve of certain seabird species, i.e. Japanese cormorants (*Phalacrocorax capillatus*), black-tailed gulls (*Larus crassirostris*), and slaty-backed gulls (*Larus schistisagus*), potential causes will be identified through ongoing monitoring and examining the relationships with other indicators that are being monitored.
- Regarding paragraph 7 of the Decision, the Phase II Long-Term Monitoring Plan was revised in March 2024 to maintain the OUV through adaptive management. The plan identifies the monitoring items that are necessary to assess the status and specifies concrete assessment methods.
- Regarding paragraph 8 of the Decision, the various monitoring measures of Rusha River, where six years of improvement works have been completed, will be continued. Improvements in the natural spawning environment for salmon and the reproduction efficiency of fry after dam improvements have been performed will be assessed, and further improvement measures will be implemented as necessary. As for wooden debris from the upper reaches of the river, it has been confirmed that the debris gets trapped in the wide sediment areas where the river curves, when the water level rises. The potential for utilizing this phenomenon as a method for capturing the wooden debris will be studied as necessary while closely monitoring the occurrence of wooden debris after dam improvements have been performed. With regard to fish runs, various monitoring measures will be continued, including the use of the riverbed path as a route for salmonids to migrate upstream, and further improvement measures will be implemented as necessary.
- Regarding paragraph 9 of the Decision, the current state of conservation of the property and the implementation status of the Decision are described in this report.

Regarding other conservation issues and large-scale development projects that may affect the OUV of the property, Japan replied in August 2024 about the development of mobile phone communication bases in response to an enquiry from the UNESCO World Heritage Centre in accordance with paragraph 174 of the Operational Guidelines.

Public access of the conservation report is accepted.

2. In response to the issues raised in the 45th World Heritage Committee Decision 45 COM 7B. 84, the Government of Japan reports in good faith as follows:

2-1. The Response to Paragraph 3 of the Decision

3. *Noting that effects of climate change are generating greater concern and that there is a lack of data to monitor climate change impacts, welcomes the planned development by 2024 of an adaptive management strategy that minimizes climate change-driven impacts on the Outstanding Universal Value (OUV) of the property, and reiterates its request for the State Party to submit the final strategy to the World Heritage Centre and to ensure that full support is provided for its implementation and the ongoing protection of the OUV of the property;*

The Adaptive Management Strategy for Climate Change in the Shiretoko Natural World Heritage Site was developed in October 2024 (Annex 1). The strategy takes into consideration the expected impact of climate change on the attributes of the OUV of Shiretoko and identifies specific adaptation measures that are to be implemented. The strategy will be improved according to the results of the monitoring while adaptive management against climate change will be implemented to protect the OUV of Shiretoko.

2-2. The Response to Paragraph 4 of the Decision

4. *Also noting that Stellar sea lions, including their impacts on fisheries, have been managed in line with a Basic Management Policy and that research on population dynamics is underway, however reiterates its concern regarding the continued culling of sea lions in the continued absence of population data, and urges the State Party to continue to accelerate the development of a population dynamic model to inform the revision of the Basic Management Policy in 2024;*

The Basic Management Policy, which sets out the basic approach to managing Steller sea lions that migrate to the waters around Japan, was revised in 2024 with the aim of both reducing damage to fisheries and conserving the sea lion populations. The revised policy covers the entire Japanese coastal area (and offshore waters) where sea lions migrate, including the Sea of Japan, the Sea of Okhotsk, Nemuro Strait, and the Pacific Ocean, as the target waters that are to be managed, and dynamic models described in the following paragraph have been developed for the two sea lion populations.

2-3. The Response to Paragraph 5 of the Decision

5. *Urges again the State Party to reconsider, reduce or eliminate, if necessary, the current levels of culling of the Western Steller sea lion population, consulting the IUCN Species Survival Commission as required, and adopting a precautionary approach until accurate and comprehensive data on this subspecies become available;*

Under the Basic Management Policy for the Steller sea lion populations revised in 2024, all Steller sea lions migrating to Japan are covered as target to be managed, including those in Nemuro Strait that have been excluded from management since 2014 and dynamic models have been developed for the two

breeding populations in the Sea of Okhotsk and the Kuril Islands (See the attachment). Based on an assessment using those models, the maximum number of animals that can be taken in the eastern sea area, including Nemuro Strait, for the 2024/25 migratory season was set at 31 individuals below the potential biological removal level.

Under the policy, the Steller sea lion catch will be managed adaptively based on the precautionary principle in light with past overharvesting, which led to the population declining to the point where it was listed as an endangered species.

2-4. The Response to Paragraph 6 of the Decision

6. *Taking note of the Comprehensive Evaluation Report of the 2012-2021 Long-Term Monitoring Plan (LTMP) for the property, expresses concern regarding the reported decrease by half of some seabird populations since inscription and recalls that seabird populations are an important attribute of the OUV;*

Since it is not known what has caused the populations to halve of certain seabird species (i.e. Japanese cormorants, black-tailed gulls, and slaty-backed gulls), potential causes will be identified through ongoing monitoring and examining the relationships with other indicators that are being monitored.

2-5. The Response to Paragraph 7 of the Decision

7. *Also welcomes the planned revision of the LTMP by 2023 and that this will include biodiversity attributes under Criterion (x), and reiterates its request for the State Party to ensure that the attributes of the property's OUV are fully reflected in the LTMP to ensure aquatic biodiversity, specifically the salmonid species, seabirds and marine mammals, are all included and monitored, and requests the State Party to submit the final revised LTMP to the World Heritage Centre;*

The Phase II Long-Term Monitoring Plan was revised in March 2024 to maintain the OUV through adaptive management (Annex 2). The plan identifies the monitoring items that are necessary to assess the current status and specifies concrete assessment methods.

2-6. The Response to Paragraph 8 of the Decision

8. *Also takes note of the State Party's ongoing response to the 2019 mission recommendations, including the monitoring of biological variables, and also encourages the State Party to continue to:*
 - (a) *Take measures to improve the representation of biological variables in river ecosystems, to enhance the current understanding of river restoration approaches and options,*
 - (b) *Consider alternative methodologies to capture large wooden debris as a way to better balance river restoration needs with the fishery stakeholders' concerns,*

(c) Monitor the impacts of the riverbed path pilot project, especially in relation to erosion, fish passage and disturbance to the benthic habitat, and take prompt remedial actions in relation to any identified impacts, as necessary, based on comprehensive scientific understanding;

- a) Regarding Rusha River, six years of improvement works were completed by November 2024. To track changes in the river during construction and as a result of the improvement works, monitoring has been conducted on the following: changes in the riverbed topography, the numbers of salmonids running upstream, spawning beds, and juveniles going downstream. The monitoring will be continued. Analyses of the factors that affect the distribution of spawning beds, including water depth, flow velocity, riverbed materials, and the distribution of wooden debris, will be carried out to assess improvements in the natural spawning environment of salmon and the reproduction efficiency of fry after dam improvements have been performed. Further improvement measures will be implemented as necessary.
- b) As for wooden debris from the upper reaches of the river, there is a wide sediment area with a curved channel 300 meters upstream of the third dam that has been confirmed to trap wooden debris when the water level rises. The effectiveness of a method for capturing the wooden debris using this curved topography will be studied as necessary while closely monitoring the occurrence of wooden debris after dam improvements have been performed.
- c) With regard to fish runs, various types of monitoring including the physical environment of the river will be continued to ensure that the riverbed path remains an unobstructed route for salmonids to migrate upstream, and remedial measures will be taken as necessary.

*9. Also requests the State Party to submit to the World Heritage Centre, by **1 December 2024**, an updated report on the state of conservation of the property and the implementation of the above, for examination by the World Heritage Committee at its 47th session.*

The current state of conservation of the property and the implementation status of the Decision are described in this report.

3. Other current conservation issues identified by the State Party that may have an impact on the property's Outstanding Universal Value

There are no other conservation issues identified by the Government of Japan that may impact the Outstanding Universal Value of the property.

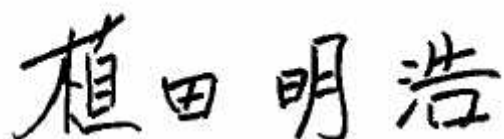
- 4. In conformity with Paragraph 172 of the Operational Guidelines, describe any potential major restorations, alterations and/or new construction(s) intended within the property, the buffer zone(s) and/or corridors or other areas, where such developments may affect the Outstanding Universal Value of the property, including authenticity and integrity.**

There are no development projects in and around the property which may affects the Outstanding Universal Value of the property. The Government of Japan replied in August 2024 about the development of mobile phone communication bases in response to an enquiry from the UNESCO World Heritage Centre in accordance with paragraph 174 of the Operational Guidelines.

5. Public access to the state of conservation

Acceptable: The Government of Japan is content for the full report to be uploaded to the World Heritage Centre's State of Conservation Information System.

6. Signature of the authority

Handwritten signature of UEDA Akihiro in black ink, consisting of the characters 植田明浩.

UEDA Akihiro
Director-General
Nature Conservation Bureau
Ministry of the Environment
Government of Japan

Handwritten signature of AOYAMA Toyohisa in black ink, consisting of the characters 青山豊久.

AOYAMA Toyohisa
Director-General
Forestry Agency
Government of Japan

Handwritten signature of MORITA Masanobu in black ink, consisting of the characters 森田正信.

MORITA Masanobu
Deputy Commissioner
Agency for Cultural Affairs
Government of Japan

Appendix. Summary of assessment of Steller sea lion populations migrating to Hokkaido waters.

Population	Okhotsk	Kurile
Model applied	Pella-Tomlinson production model ^[1]	
Calculation method of catch limit	Potential Biological Removal ^[2]	
Conditions of management ^{§[1]}	Probability of $D_{\text{Limit}} = 0.6 K^*$: $\geq 60\%$ over 10 yrs. Probability of $D_{\text{Extinct}} < 0.05 K^{**}$: $< 10\%$ over 100 yrs.	
Estimate of $K^{\dagger[1]}$	18,000	12,000
Lower limit of population estimate (N_{min}) ^{†[1]}	10,000	8,000
R_{max}	0.12	0.12
F_R	0.75	0.5
Other parameters		
Migration ratio ^{§§} (to Japan Sea)	0.3	0.1
(to Nemuro Strait)	0	0.2
Average bycatch number over past 10 yrs. [‡]	61	
Upper limit of annual harvest number	Japan Sea: 511, Nemuro Strait: 31	

*Probability of population depletion level equal to or exceeding 60% of K [1]**Probability of population depletion level below 5% of K [1]

§Assessed by the management strategy evaluation (MSE) simulation model[1]

†Shown as rounded numbers

‡based on past direct observations at rookeries and catch history[1],[3]–[6]

§§Based on resighting and cumulative survival estimate of branded animals [7] – [10]

‡Average for 2012-2021, based on the survey by Hokkaido Government (unpublished)

- [1] Kitakado et al. (in prep.) Assessment and management framework of Steller sea lion migrating to Hokkaido waters.
- [2] Wade, P. R. (1998). Calculating limits to the allowable human-caused mortality of cetaceans and pinnipeds. *Marine Mammal Science*, 14(1), 1-37.
- [3] Burkanov, V. 2018b. Current Steller sea lion pup production along Asian coast, 2016-2017. Memorandum to T. Gelatt and J. Bengtson. Available from Marine Mammal Laboratory, AFSC, NMFS, 7600 Sand Point Way NE, Seattle, WA 98115. 3 p.
- [4] Johnson, D. 2018. Trends of nonpup survey counts of Russian Steller sea lions. Memorandum for T. Gelatt and J. Bengtson, June 6, 2018. Available from NMFS Alaska Region, Office of Protected Resources, 709 West 9th Street, Juneau, AK 99802-1668.
- [5] Burkanov, V. N. and T. R. Loughlin (2005). Distribution and abundance of Steller sea lions, *Eumetopias jubatus*, on the Asian coast, 1720's - 2005. *Marine Fisheries Review* 67: 1-62.
- [6] Burkanov et al. (in prep.)
- [7] Isono, T., Burkanov, V. N., Ueda, N., Hattori, K., & Yamamura, O. (2010). Resightings of branded Steller sea lions at wintering haul-out sites in Hokkaido, Japan 2003-2006. *Marine Mammal Science*, 26(3), 698–706. <https://doi.org/10.1111/j.1748-7692.2009.00367.x>
- [8] Goto, Y., Isono, T., Ikuta, S., and Burkanov, V. (2022). Origin and Abundance of Steller Sea Lions (*Eumetopias jubatus*) in Winter Haulout at Benten-Jima Rock Off Cape Soya, Hokkaido, Japan between 2012-2017. *Mammal Study*, 47(2).
- [9] Isono et al. (in prep.) Resighting, origin and migration ratio of branded Steller sea lions in Hokkaido waters
- [10] Hattori, K., Kitakado, T., Isono, T. & Yamamura, O. (2021) Abundance estimates of Steller sea lions (*Eumetopias jubatus*) off the western coast of Hokkaido, Japan. *Mammal Study*, 46, 3-16.