

State of conservation report of Shiretoko

In response to the World Heritage Committee Decision 36COM7B.12

Ministry of the Environment

Forestry Agency

January 2015

I . Update statistics on annual Steller sea lion quotas and numbers caught and report on population trends within the property (decision:Item4)

Update statistics on annual Steller sea lion quotas and numbers caught

1. With respect to Steller sea lions (SSLs) that migrate to Hokkaido, the Fisheries Agency of Japan (FAJ) provides the Hokkaido Government every year with an annual allowable catch number, which serves as the scientific basis for management purposes. The Hokkaido Fishing Zone Coordination Commission, under the supervision of the Hokkaido Government, then sets annual catch limits.

The annual allowable catch numbers were calculated on the basis of the PBR (Potential Biological Removal) level for the migration seasons from 2007/08 to 2013/14. For the migration seasons from 2010 to 2014, a block quota (i.e. an aggregate quota) was originally set for the five-year period based on the PBR level, and catch has been managed in accordance with that quota. The annual allowable catch numbers have therefore been calculated by reference to the degree as to how much the PBR and block quotas have been used up.

However, for the 2014/15 migration season, which is the last year of the current block quota period, the annual allowable catch numbers were presented separately for the Sea of Japan migrating group and the Nemuro (Shiretoko) migrating group. For the Sea of Japan migrating group, the population has recovered rapidly in recent years and increased enough to be downgraded from the threatened species. On the other hand, such population recovery has started causing serious damage to the fisheries. Against this background, the annual allowable catch numbers were recalculated scientifically in accordance with a basic management approach that had been newly presented by FAJ ((i) the objective should be to minimize damage to the fisheries caused by SSLs to the extent of posing no risk of SSL extinction; and (ii) in light of the past experience of letting the population decrease to be listed as threatened species, SSLs should be managed based on the precautionary and adaptive approach). For the Nemuro (Shiretoko) migrating group, the annual allowable catch number was set to be the same as the most recent catch quota for the Nemuro district set by the Hokkaido Government within the annual catch limit.

Table 1 Annual allowable catch numbers

(Number of individuals)

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Sea of Japan migrating group						501
Nemuro (Shiretoko) migrating group	144	156	197	257	257	15

(Fisheries Agency)

2. The Hokkaido Government manages catches by allocating the catch quota for each district within the annual catch limits of SSL set by the Hokkaido Fishing Zone Coordination Commission (Table 2), and on the basis of the catch records from the previous year and the state of damage to the fisheries, as well as information on SSL spotting from fishermen. For the Nemuro district, the catch quotas have been set at a level similar to, or not substantially exceeding, the catch records for the previous year (Table 3), in spite of the fact that fisheries damage has been growing year after year.

Note that up until 2013/14, figures set for the respective districts were changed (upwards or downwards) midterm on an as-needed basis, considering the catch numbers and fisheries damage of given season, as well as information on SSL spotting from fishermen, that were relevant to the respective districts. The numbers were managed thereby to the extent that they should not exceed the prefecture-wide quota. However, as the annual catch limits have been presented separately for the Sea of Japan migrating group and for the Nemuro migrating group - an approach that has started from 2014/15 as described earlier - proper catch management is now slated to continue so that catches should not exceed the respective catch limit (501 for the Sea of Japan migrating group and 15 for the Nemuro migrating group).

Table 2 Annual catch limits of SSL in Hokkaido offshore waters

(Number of individuals)

	2009/10 (2009.10.1 -2010.6.30)	2010/11 (2010.10.1 -2011.6.30)	2011/12 (2011.10.1 -2012.6.30)	2012/13 (2012.10.1 -2013.6.30)	2013/14 (2013.10.1 -2014.6.30)	2014/15 (2014.9.1 -2015.6.30)
Hokkaido	144	156	197	253	253	516

(Hokkaido Fishing Zone Coordination Commission)

Table 3 Catch quota or Annual catch limit for the Nemuro district within the annual catch limits shown in Table 2

(Number of individuals)

	2009/10 (2009.10.1 -2010.6.30)	2010/11 (2010.10.1 -2011.6.30)	2011/12 (2011.10.1 -2012.6.30)	2012/13 (2012.10.1 -2013.6.30)	2013/14 (2013.10.1 -2014.6.30)	2014/15 (2014.9.1 -2015.6.30)
Nemuro district	12(*1)	10	12	12→15(*2)	12→15	15

(Hokkaido Government)

* Catch figures set for the Nemuro district containing the Shiretoko World Natural Heritage Site

(*1) The 2009/10 figures are the numbers set for "Other districts" excluding Soya, Rumoi, Ishikari and Shiribeshi

(*2) (→) indicates a change in the set figure made midterm in consideration of the state of fisheries damage, etc.

Table 4 State of catches

(Number of individuals)

	2009/10 (2009.10 -2010.6)	2010/11 (2010.10 -2011.6)	2011/12 (2011.10 -2012.6)	2012/13 (2012.10 -2013.6)	2013/14 (2013.10 -2014.6)
Hokkaido	122	115	195	249	253
Nemuro district	8	6	10	14	13

* This shows the catch records for the Nemuro district and is not limited to the area within the Shiretoko World Natural Heritage Site.

(Hokkaido Government)

Report on population trends within the property

3. The population of the Eastern subspecies, found to the east of Cape Suckling in Alaska, has been on the rise since the mid 1970s at the rate of approximately 3% per year. The population of the Central in the vicinity of the Aleutian Islands, belonging to the Western subspecies found to the west of the same cape, dropped rapidly in the 1970s, but has been increasing slightly (1% yr⁻¹) since 2000. The Asian group, another among the Western subspecies that occurs to the west of the Commander Islands, experienced a rapid population decline up until the 1980s, but it has then either remained stable or decreased in the west of the Bering Sea and to the east of the Kamchatka Peninsula, while showing an upward trend in recent years in the Kuril Islands and the Sea of Okhotsk at the rate of 4% yr⁻¹. In particular, a sharp increase in pup number has been marked on Tuleny Island in the vicinity of Sakhalin.

In the red list revision in 2012, the International Union for Conservation of Nature (IUCN) lowered the category of the species from Vulnerable to Near Threatened. In Japan, SSLs were assessed as Vulnerable (VU) on the red lists issued by the Ministry of the Environment but the category was lowered to Near Threatened (NT) in the red lists revised in 2012 (the 4th Version of the Japanese Red Lists, released on August 28, 2012). The reasons include: it is estimated that there are roughly 5,800 SSLs migrating to Japan (FY2009, Fisheries Agency) and; the population of their origin, the Asian group, has been on the increase since the 1990s (Fisheries Agency and Fisheries Research Agency, "FY2013 Current Status of International Fishery Stocks").

4. The state of SSL migration on the east coast of the Shiretoko Peninsula is surveyed by frequent land-based sighting survey in the winter season between November and February, with six fixed observation points set along the coastline of Rausu Town and the northern part of Shibetsu Town. Ever since the largest count (*3) attained 126 in 2009/10 (between November 16, 2009 and February 15, 2010), the spotting of over 100 migrating SSLs is confirmed every year.

(*3) A series of land-based observation on swimming SSLs were performed at a total of 6 fixed observation points along the eastern coast of the Shiretoko Peninsula including the Heritage area. Sequential counts were taken when swimming SSLs were found during a 5-10 minutes of scanning of the sea surface from each observation point, using 8x to 10x binoculars. After a series of counts continuing 10-30 minutes, a maximum count was adopted as the data of the day

at each point. The numbers of SSLs counted on the same day at the six points were summed up (a daily count). The survey was performed for multiple days including the peak period of SSLs' sighting (between mid-Dec. and mid-Jan.) in each year, the largest value of the daily counts for each season was defined as the "largest count." Note that on the east coast of Shiretoko Peninsula, there is no SSL hauling out while they float and rest in groups off the coast of each of the particular locations (which match the observation points described above) during daytime between November and February. For that reason, any count of SSLs landing occasionally at some locations is not appropriate as a means of studying SSLs as far as Shiretoko is concerned.

Table 5 State of SSL wintering migration on the east coast of Shiretoko Peninsula after the World Heritage List inscription (Largest count by survey year)
(Number of individuals)

2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
winter	winter	winter	winter	winter	winter	winter	winter
season	season	season	season	season	season	season	season
(2006.10.21 -2007.4.26)	(2007.9.30 -2008.3.8)	(2008.11.3 -2009.3.10)	(2009.11.16 -2010.2.15)	(2010.11.15 -2011.2.14)	(2011.10.22 -2012.2.4)	(2012.11.21 -2013.2.12)	(2013.11.2 -2014.2.7)
95	98	60	126	179	128	131	110

(Ishinazaka *et al.* (2009), Bulletin of the Shiretoko Museum 30:27-53.; Shiretoko Nature Foundation independent research project data (Proceedings of the 17th Conference of the Wildlife Conservation Society of Japan, pp. 85-86, etc.), Ishinazaka (2009) *Eumetopias jubatus* (Schreber, 1776) In: The Wild Mammals of Japan. Shoukadoh, Kyoto, pp. 284-285)

II . Report on the state of conservation of the property, including progress achieved in addressing the conflict between fishers and Steller sea lion (Decision:Item6)

1. Damage to the fisheries caused by SSLs consists of direct damage in the form of broken nets and indirect damage due to lost fishery incomes resulting from damaged catches and loss of fishing opportunity by broken nets. The amount of those damages to the coastal fisheries in Hokkaido has exceeded one billion yen for 20 years, and the situation has become increasingly serious in recent years, especially due to the growing population of migrating SSLs and their extended migration periods, among other factors.

Table 6 State of fisheries damage caused by SSLs (Hokkaido)
(In millions of yen)

	FY2009	FY2010	FY2011	FY2012	FY2013
Amount of damage to fishing gear	661	710	680	530	529
Nemuro district portion	5	—	—	—	55
Amount of damage to catches	693	898	818	1,082	1,449
Nemuro district portion	11	51	63	209	302
Sum total	1,354	1,608	1,497	1,612	1,979
Nemuro district portion	16	51	63	209	357

* The amounts of damage for the Nemuro district is not limited to the area within the Shiretoko World Natural Heritage Site.

(Hokkaido Government)

2. In Hokkaido, there are prefecture-wide efforts under which the Liaison Committee for Mammal Damage Prevention was set up in the government's headquarters, as well as a Liaison Council for Marine Mammal Damage

Prevention in each (general) subprefectural bureau including in the Nemuro Subprefectural Bureau, and comprehensive marine mammal-control steps are pushed forward in partnership with groups associated with the fisheries, municipal governments, associated prefectural government bodies and other organizations, working to ensure accurate comprehension of the state of damage through fisheries damage surveys and to provide support for actions being taken to address the damage, including introducing reinforced bottom pound nets and implementing capture procedures.

In the Nemuro district, Rausu Town developed a wildlife damage prevention plan in an effort to address fisheries damage, including implementing repelling or capture procedures, and is planning to continue taking further steps aimed at the coexistence of SSLs and fisheries, with various organizations working in cooperation.

Furthermore, the Ministry of the Environment and the Hokkaido Government have also established the Multiple Use Integrated Marine Management Plan for Shiretoko World Natural Heritage Site with the aim of achieving two goals together: the conservation of the marine ecosystem and the lasting and productive fisheries through the sustainable use of marine resources in the waters within the heritage site.

With the SSL designated as one of the indicator species characterizing the marine ecosystem of Shiretoko in the course of those actions, monitoring surveys, including counting the number of migrating SSLs, are carried out and their findings are reported to the Shiretoko World Natural Heritage Site Scientific Council, which then provides advice from scientific perspectives: efforts are thus being made for the purpose of marine ecosystem conservation and management in the waters within the heritage site.