

Comprehensive Plan – p. 8

Goal: to describe management strategy aimed to limit impacts on freshwater ecosystems.

Indicators: 2.5.2, 2.5.3

During the season 2018, the management strategy aimed to limit impacts of commercial fisheries on freshwater ecosystem included the following two major elements:

1. Collection and processing of the data on freshwater ecosystem in the area of fishing company activity.

2. Taking actions on limiting impacts on freshwater ecosystems.

During implementation of **element 1** the open materials from the Ministry of Forestry of Sakhalin region uploaded to the website of the Ministry of Forestry and Hunting of sakhalin region

(<http://les.sakhalin.gov.ru/dejatelnost/okhotniche-khozjaistvo/monitoring-okhotnic-hih-resursov-i-sredy-ikh-obitanija>). According to this data, the numbers of terrestrial mammals and birds in Okhinsky district for the last 6 years are following:

Species	data valid on 01.04.2018		data valid on 01.04.2017		data valid on 01.04.2016		data valid on 01.04.2015		data valid on 01.04.2014		data valid on 01.04.2013	
	Accounted Number of individuals	Expert assessment, individuals	Accounted Number of individuals	Expert assessment, individuals	Accounted Number of individuals	Expert assessment, individuals	Accounted Number of individuals	Expert assessment, individuals	Accounted Number of individuals	Expert assessment, individuals	Accounted Number of individuals	Expert assessment, individuals
Brown bear	406	-	327	-	344	-	125	-	165	-	324	-
Sable	1270	-	641	-	1968	-	1082	-	1237	-	658	-
Fox	823	-	721	-	1662	-	1188	-	898	-	832	-
Otter	261	-	199	-	ND	-	ND	-	ND	-	ND	-
American mink	214	-	68	-	ND	-	ND	-	ND	-	ND	-
Alpine hare	5839	-	5325	-	6502	-	6939	-	6986	-	4471	-
Squirrel	2905	-	3540	-	3276	-	2738	-	2743	-	4089	-
Weasel	45	-	391	-	827	-	1265	-	746	-	259	-
Wolverine	11	-	17	-	9	-	24	-	30	-	22	-
Wild reindeer	302	848	-	800	356	800	405	700	898	-	469	-
Wood goose	2073	-	952	-	267	-	978	-	ND	-	1496	-
Hazel grouse	31867	-	7121	-	5565	-	20457	-	39094	-	24933	-
Willow grouse	208942	-	35029	-	31020	-	61202	-	60294	-	166684	-

As we can see from the table, population of animals such brown bears, sable, fox, otter, American mink (whose forage base is salmon), in the last few years has increased.

Presence of salmon in an ecosystem has essential importance for waterbirds. As it is stated in the Report 2017, there are about 360 species of birds in Sakhalin region. Out of those species: in northern Sakhalin there are 120 water birds species, and out of them 43 are nesting birds.

Specialist of the Ministry are not concerned with conditions of bird populations in northern Sakhalin. The most numerous species are representatives of Anseriformes order. The total goose population migrating through in the spring, fluctuates over years and is about 25-35 thousand individuals. In the fall, the population increases up to 50-70 thousand.

The total number of ducks annually passing through the north Sakhalin and adjacent areas of Okhotsk sea and the Tartar straight, is estimated at 1-1.5 million individuals.

High population numbers have also representatives of Dotterels, Cormorants (gannet), Gruiformes and other orders.

Final reports of the Ministry for the current year are compiled and published in April of the following year. Thus, the report 2018 we will be available in April 2019.

In August 2018, the Okha fishing company helped a zoological expedition from Saint-Petersburg Zoological University that (besides the main works) monitored freshwater ecosystems and observed fishermen actions. The expedition was led by 2 researchers - Nazarkin M.V. and Platonov V.V. Research work was conducted in 2 locations:

- August 2-12 – Nyvrovo area (54° 19,501' N 142°36,693' E),
- August 15-21 - Pilvo river mouth (54° 02,380' N 142°34,206' E).

The research included field works and data collection on animal populations from fishermen and locals. Field works included daily walking tours (4-10 km) along the shore fixing number of observed animals, their footprints and remains of life activity.

In the area of work the following animals were observed:

Nyvrovo:

Mammals: brown bear, fox, chipmunk, japanese mouse, shrewmouse. Visual observation suggests that there are about 15-20 seals. According to survey data, in the end of July there were noted 4 orcas. As for birds, there were noted 12 species, including seagulls, swallows, sandpipers and 11 Steller's sea eagles.

Pilvo river mouth:

Mammals: brown bear, fox, chipmunk. Visual observation suggests that there are 74 seals in the area. There are noted 5 species of birds, including flocks of seagulls, sandpipers and 1 black albatross. Also, there were noted bats and asiatic grass frog.

Zoologists's conclusions: "Brown bears are present in both locations, number of individuals is approximately the same and is equal to average

population size in the region. Analysis of samples of forepaw width (palmar callus) suggests that the population contains all age groups. It is important to note the large number of seals were observed in the mouth of the Pilvo river (3 times larger than at Nyvrovo). There are numerous rookeries between Pilvo and Vodopadka river. Birds are present in both locations, their population number presents regional average for this time of a year.”

On July 16th, 2018 a meeting was held with the head forester of Okhinsky district, Nikitin N.U., who stated that forestry is obliged to protect forests, protected zones, account and protect hunting resources. Forestry staff consists of 15 rangers who conduct inspections on a regular basis. They also patrol along the river banks and remove any poacher nets that are found. In this year, there were no records of taimen catch by poachers. There are written agreements with law enforcement agencies, they have rights to issues protocol on poaching activities. Video and photo evidences of poaching are recorded and sent to prosecution department. The question of OOO “Okha” and OOO “Rybnovskii losos” companies violations of environmental law was answered that those companies are not of concern (there were no records of violations by the companies).

During implementation of **element 2** in July 2018, Fedorova L.K. examined 3 camps: Muzma, Pilvo, Tropto. Camp allocation is approved by Sakhalin-Kuril territorial administration. Living and miscellaneous buildings located in the area are temporal. For vehicles and tracks, a 10 cm thick layer of gravel was deposited. Camp area is kept clean, all trash and household wastes are disposed outside of the camp by contracted organizations or burnt in specific burners. To prevent wildfires, fishing camps are equipped with boat-hooks, baskets and have water reservoirs. Personel is instructed about environmental protection legislation rules.

At the end of the fishing season all equipment was removed, the area was cleaned and recultivated.

Sakhalin-Kuril territorial administration didn't report any violations of environmental regulations by fishermen of OOO “Okha” and OOO “Rybnovskii Losos” fishing companies. According to Saint-Petersburg Zoological University researchers, fishing camps had almost no effect on freshwater ecosystem.

This proves that companies complied with strategy aimed to limit fishery impacts on freshwater ecosystems.

During season 2018, the poll among heads of fishing teams on presence of marine mammals and birds in stationary nets was held on regular basis. No observations of marine mammals or birds caught in the nets were recorded.

In the end of August - beginning of September strong storms were recorded along the north-east coast. We received information that some fishing gear was damaged during the storms, but not lost.