



Snowchange Cooperative Discussion Paper #3:

***Report on the Collaborative Management Workshops in
Kola Peninsula, Russia and
Along the Näätämö River Catchment Area, Finland –
Working Report from 2013-2014***

May 2014

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Preface to the Report

This report discusses the main findings of two pilot-style collaborative management projects from Ponoï and Näätämö catchment areas in the Eastern Sámi territories in Finland, Norway and Russia. Main results of workshops in the watersheds are reported and priority steps for the future identified. This report is the third year when the co-management steps are being implemented in the project areas.

To summarize, while both rivers, Ponoï and Näätämö remain in fairly pristine condition, they are affected by outside interests, past damages from industrial land use, and most severely in the early 2010s, from impacts of weather changes. We hope this report allows the local peoples voices to be heard more better in science, management and discussions regarding these catchment areas. Materials from the collaborative management efforts (including Feodoroff and Mustonen 2013) provide a rich basis for scientific papers, monographs and baseline for future steps with these rivers.

By a written agreement with the NCM, the Sámi and other local people possess all unlimited rights to their traditional and Indigenous knowledge materials. Selected materials have been shared in this report for the project purposes.

Authors are thankful – first and foremost to all participants, fishermen and -women¹ in the community workshops who shared their voices along Ponoï and Näätämö and in the community of Sosnovka, funders Nordic Council of Ministers, United Association of Finland and United Nations – Traditional Knowledge Initiative.

Then; in no particular order - Sergey Phillipchenko, Sergey Zavalko, Jevgeni Kirillov, Yanis and Galina Shebut, Leif Rantala, Ari Lehtinen, Kaisu Mustonen, Jevgenia Prokhorova, Gleb Raygorodetsky, Dennis Martinez, Eero Murtomäki, Rita Lukkarinen, Olli Klemola, Eero Niemelä, Karl-Magnus Arvola, Tiina Sanila-Aikio, Seija Sivertsen, Satu Moshnikoff, Victor Steffensen, Che Stow, Miina Sanila, Toini Sanila, Virve Sallisalmi, Stockholm Resilience Center, Jorma Mattsson, Veikko Feodoroff, Juha Feodoroff, Risto Semenoff, Vladimir and Paula Feodoroff, Teijo Feodoroff, Jouko Moshnikoff, Jenni Kauppila, Larisa Avdeeva, UNEP LIVE, Arctic Observation Summit, Milja Sarkola and all others involved in the work.

The report is dedicated to all the Elders.

¹ Cover photo: Jouko Moshnikoff and Teijo Feodoroff winter netting in March 2014. Cover Image by Gleb Raygorodetsky, 2014. Used with permission.

Part I: Collaborative Management Workshops in Kola Peninsula, Russia

1. Introduction – Work for the 2013 and 2014

The joint efforts of the United Nations University – Traditional Knowledge Initiative in partnership with the Indigenous Peoples Climate Change Assessment - IPCCCA and the Nordic Council of Ministers led to the culmination of multi-year work to engage with the Sámi and local peoples knowledge, co-management and community efforts regarding fisheries in Näätämö watershed, Finland and Norway and in the Ponoï river area in Murmansk, Russia². The outcome of this process was released 25th April 2013 as the Neiden and Ponoï River Collaborative Management Plan (Feodoroff and Mustonen 2013) in a book form. Around the same time extended funding was received for an additional year from the NCM to implement the plan in the Ponoï and Näätämö villages in the 2013-2014 period. Additional funds were also secured from the UNU-TKI.

With the new grant for 2013-2014, the following efforts were undertaken:

1. **In July 2013 extensive community workshops and oral history documentation** during these events was carried out in Sosnovka and Kanevka. Chief responsible field investigators of these workshops were Galina Veniaminovna Shebut (Sosnovka) and Yanis Shebut (Kanevka).
2. **In August 2013 new community workshops** were organized with the residents of Krasnochelye along the Ponoï River. Chief responsible field investigator of these workshops was Sergey Philipchenko.



*Photo: One of the women who took part in the Sosnovka Workshops in Summer, 2013.
Image by Galina Shebut, 2014. Used with permission.*

² Given the importance of the community of Sosnovka in the fisheries issues in the wilderness part of Kola Peninsula, this village, while not in the Ponoï watershed, has been included in the work since 2011 too.

2.1. Voices from Sosnovka in 2013: Land Use and Soviet Times

The community visits were organised from 10th to 17th July 2013. The village of Sosnovka is located at the mouth of the Sosnovka River. Population of this fly-in remote wilderness village fluctuates between 25 and 50 people depending on the season.

Population has declined, as in 1927 there used to be 115 people in the village (Shebut 2013a). Administrational changes have shifted the regional center from Gremikha in 1960s to Lovozero in the 2000s. Larger population in early part of the 1900s can be explained by amalgamation of villages, such as the Pomor *vyselki* settlement Pialka, from where five families arrived to Sosnovka in 1930s. In 1960s and 1970s another round of village liquidations took place with the closure of the neighbouring Ponoï settlement. School was closed in early 2000s as the last students departed from Sosnovka.



*Photo: Soviet time monument in Sosnovka, Summer, 2013.
Image by Galina Shebut, 2014. Used with permission.*

Main economies of the village have always been reindeer herding³ and fisheries (Feodoroff and Mustonen 2013: 54) but they suffer from the ailments of the Post-Soviet situation. In 2013 community residents felt sad as young people do not return to the village to work⁴ as there are no economic opportunities available. As one reindeer herder observed: *“There is no hospital or any medical workers here. When the Soviet Union collapsed it all went down.”*⁵

During the 2013 community events and oral history work special attention was paid to the pre-Soviet, Soviet and contemporary land use issues in addition to the focus on health of the fish and climate change as in 2013 (Feodoroff and Mustonen 2013: 54). However, one

³ With 2500 reindeer in Sosnovka in 2013, officially.

⁴ For example Snowchange Sosnovka Oral History Tape 2013-2.

⁵ Snowchange Sosnovka Oral History Tape 2013-2. The local cow farm was closed down too.

improvement from 2012 to 2013 was a more stable air connection to the Lovozero village, with a weekly flight now in place for this year (Shebut 2013a).

Shebut (2013a: 1) reports that “in the 1920s the people of Sosnovka preserved their pre-revolutionary life-style. The Sosnovka area was divided into sections [locally known and ‘owned’ by the *artel cooperatives* as *tonia*⁶] according to the number of people [sections included Novos(z)elikha, Navolok, Small and Large Snezhnitsa, and Zolotukhi Island⁷]. Everybody had reindeer. The local Soviet⁸ organised communal work for the residents: this included efforts such as establishing pathways and public works [*vekha*⁹] towards Ponoï and Pialitsy¹⁰, bringing post, repairing *karbos*¹¹. The village soviet also re-organised reindeer herding. In 1930 a *kolkhoz Put’ Olenia* [The Way of Reindeer] was formed¹². The local Soviet founded a fire fighters team. Inspections on fire safety and chimneys were carried out. The Soviet also took decisions that regulated the ownership of dogs, cleaning of the village territory¹³, and the management of drinking water sources. So, the life was structured and was strictly controlled by the local Soviet.” Seal hunt also was a part of the economy of the community in the 1900s¹⁴. The fat was used by the state.



*Photo: A boat in low tide in Summer, 2013.
Image by Galina Shebut, 2014. Used with permission.*

⁶ Local division of fisheries territories. Tonya can refer to a fishing spot in the northern dialect of Russian as well as a fish trap. One Elder said in the March 2014: “*About the concept of “tonya”. It refers to a location where fishing was done on the coast with fish traps. First people chose a place and then installed the net and trap. It was not put to shallow waters. It means good fishing place, spot, territory. Kolhoz chose the sites of harvest, they owned the tonyas, everything used to belong to the kolhoz.*” (Mustonen 2014).

⁷ Snowchange Sosnovka Oral History Tape 2013-1

⁸ refers to the village soviet or political unit.

⁹ made of thin trees that mark a road.

¹⁰ A seasonal village with some residents only in the summer time. They arrive by helicopter. For example Snowchange Sosnovka Oral History Tape 2013-2.

¹¹ A sea-going vessel.

¹² Later renamed *kolkhoz* of Chkalov.

¹³ A local tradition which has formed to be held every 20th April. Snowchange Sosnovka Oral History Tape 2013-1.

¹⁴ In Russian *torosnyi promysel*.



*Photo: Communal center in Summer, 2013.
Image by Galina Shebut, 2014. Used with permission.*

In Soviet times according to the oral histories from Sosnovka (Shebut 2013a) the coastal range was divided between residents so that each person had a small slice of the beach¹⁵. Items, such as drift wood brought in by the sea belonged to the person and family who used the particular stretch of the shoreline. This was crucial for the firewood in the village. Houses were also constructed and repaired using this wood material. In 2000s the driftwood has become more scarce and now the local birch wood forests are under increasing pressure to provide firewood for the village. In earlier times birch wood was primarily used only in the winters¹⁶.

During the Soviet period, until 1991, the salmon fishery was organised also according to sections of the shore and coastal zone. The salmon and other prized fish were given to the collective farm to be sold to the state. Local people harvested flounders and navaga¹⁷ for subsistence. People remember that the first freezers came in 1929.

In the Soviet era Salmon fishing (Shebut 2013a) began in the village in May¹⁸ and lasted until October. Catch was collected and taken to Lakhti, a bay at the mouth of the Ponoï River. The collective farm "Sever"¹⁹ is fondly remembered to be a very successful enterprise in the past. Majority of the fish was caught with coastal seines²⁰ which had one end of the net attached to

¹⁵ Snowchange Sosnovka Oral History Tape 2013-1

¹⁶ Snowchange Sosnovka Oral History Tape 2013-1

¹⁷ In Latin *eleginus nawaga*. Cod-related species of the White Sea. The salted fish was soaked in hot water and eat as a soup with bread tipped in it. Dish was called in Russian *pomakushki*.

¹⁸ Seines were put out immediately when the ice left in May. Snowchange Sosnovka Oral History Tape 2013-2.

¹⁹ Means "The North".

²⁰ In Russian *nevod*.

the shore. Fish ended up in the trap at the end of the seine. Seines which exist today are owned by the Cooperative.

Until 1970s the annual quota was 20-25 tons for salmon²¹ and it could not be exceeded. In 1970s the kolkhoz was reformed into a sovkhoz and the fishery was officially abandoned as no new quotas for fisheries was allocated from the administrative center. State fishing teams arrived from Murmansk to harvest the stocks, and they were allocated their tonia sites or fisheries sections. Locals continued to harvest navaga fish with small fish traps²². The fish is also harvested in March-April with rods on the ice²³. Salmon continued to be the main target species for the commercial fishery.



*Photo: A view of downtown Sosnovka, Summer, 2013.
Image by Galina Shebut, 2014. Used with permission.*

These smaller fish traps were occasionally also set under the ice. Fishermen were taken on sea ice with planes. Larger versions of the *Merezhka* traps were checked also with horses, and fish was brought to the shore with the help of these animals²⁴.

The *tonias* or the fisheries sections had specific names at this time. For example, tonia *Rvy* located seventeen kilometers from Sosnovka is close to a old reindeer slaughter place²⁵. Different locations needed more manpower and thus were depended on the available

²¹ Snowchange Sosnovka Oral History Tape 2013-2.

²² In Russian *merezhka*. *Merezhka* is shaped as two wings of net, 10 meters long, and a cone-shaped landing-net in the middle. Fish enters from the sea in the space between the wings and on its way back to the sea it gets into the landing net. It is checked on low tide. If there is wind, fish goes to the traps, as opposed to calm weather. Snowchange Sosnovka Oral History Tape 2013-3.

²³ Snowchange Sosnovka Oral History Tape 2013-3.

²⁴ Snowchange Sosnovka Oral History Tape 2013-2.

²⁵ Snowchange Sosnovka Oral History Tape 2013-2. It was used until 1992 and slaughters made in November and December. Snowchange Sosnovka Oral History Tape 2013-3.

personnel for harvest. In 2013 the Olenivod Cooperative has current rights to four fishing sections, accessible only from the sea, along the coast, for a 10-year period:

1. *Kislokha*
2. *Krasnyi nos*
3. *Novinki*
4. *Kuz'minskie Novinki*²⁶.



*Photo: Small coastal fish traps, Summer, 2013.
Image by Galina Shebut, 2014. Used with permission.*

The village had a local regulatory fisheries mechanism for the salmon entering the rivers. Seines were used only on certain days to allow fish to swim upstream. Up to twenty seines were used in close proximity of the Ponoï delta and still there was plenty of fish to reach upstream.

Features of a cultural landscape have been preserved in the village despite the fact that majority of Sámi culture has disappeared from the community (Feodoroff and Mustonen 2013: 75). One crucial link to the past is the Seid fjell or mountain located close to the Babie Lake, ten kilometres long, which is 40 kilometers from the village. Locals describe it to be

²⁶ A company from Murmansk was bidding to receive the rights to Kislokha and Krasnyi Nos some time ago but the Cooperative prevailed. Snowchange Sosnovka Oral History Tape 2013-3. These sites are 65-85 kilometers from Sosnovka.

pyramid-shaped²⁷. The lake continues to be an important site of subsistence fisheries of brown trout, burbot, pike and brook trout for the village²⁸.



*Photo: Coastal fish trap in low tide, Summer, 2013.
Image by Galina Shebut, 2014. Used with permission.*

2.1.2. Weather and Ecological Change

Participants in the Sosnovka Workshops in July 2013 identified the on-going weather change to be a major issue. Summer 2013 was unusually warm in the community (Shebut 2013a). Locals had made observations of “*burned yellow stripes*” on the ground and close to cloud berries. A person making the observations conceptualized these to have resulted from “*acid rain*” (ibid.)²⁹.

A well-respected fisherman and reindeer herder³⁰ is positive that the weather patterns have shifted. Overall it is more dry now. There used to be so much snow that many of the houses in the village in 1970s were covered with it. Children slid down from the roofs of the buildings. For the winter 2012-2013 there was so little snow that grass could be seen under the snow

²⁷ As a remnant of past times, gifts are still placed sometimes on the lake and wishes made. Snowchange Sosnovka Oral History Tape 2013-3.

²⁸ In Soviet times the lake was harvested also by the collective farm. Snowchange Sosnovka Oral History Tape 2013-2.

²⁹ Snowchange Sosnovka Oral History Tape 2013-1.

³⁰ Oral history reported in Shebut (2013a: 3).

with frosts only arriving in New Year. May brought a very warm spring and all the leaves came out early.

A woman who has lived in the village since 1988 observed that during the summer 2013 the water levels on the rivers were extremely low³¹. According to her this prevents the salmon from entering the streams.



*Photo: Abandoned boats in Summer, 2013.
Image by Galina Shebut, 2014. Used with permission.*

2.1.3. Fisheries in 2013

In 2012 the Sosnovka Cooperative did not receive quotas for salmon. For the 2013 there was a small quota of harvest³² mainly utilized in August (Shebut 2013a), in the location Kuz'minskie Novinki. The fish will be sold to the Olenivod Cooperative. Fish inspection teams arrive mostly from Archangelsk³³. For Ponoï river, they arrive from Murmansk. Fisheries are regulated by the Federal and regional Acts³⁴. Fishermen need to keep diaries³⁵ of their catch which are then reviewed by the inspectors. A person living in the village since 1988 reflects on the contemporary selling of fish: *"It is up to us how and to whom we sell this fish."*³⁶

³¹ Snowchange Sosnovka Oral History Tape 2013-3.

³² Reported to be 1888 kilograms for 2013. A 10-ton quota for pink salmon was issued too, but will not be utilized due to lack of fishermen and storage space. Officially the Sosnovka Cooperative suffers in this aspect from the status of "reindeer herding business", lacking the rights to fish. See also Pennanen (2000: 38).

³³ Arrived in 2013 on the 20th June.

³⁴ Snowchange Sosnovka Oral History Tape 2013-3.

³⁵ In Russian *promyslovyi zhurnal*. Reports have to be filed also to the regional center, Murmansk on the 15th and end of the Month.

³⁶ Snowchange Sosnovka Oral History Tape 2013-3.

Majority of the participants in the community workshops are afraid that the rivers will be wrecked by salmon tourism in the future. One of the reasons for this fear is that a past practice included use of rowing boats in harvest of fish with nets and seines. Now the tourist camps³⁷ (Feodoroff and Mustonen 2013) affect negatively the salmon spawning areas with jet streams. Some participants identified the noise from the engines to influence the salmon, especially during the times of low water levels. They remembered that in Soviet times a system was in place in Kanevka where removable engines were not allowed to prevent noise from the boats impacting the fish. One person in Sosnovka called for a ban with engines on rivers (Shebut 2013a).



*Photo: A view of the coast, Summer, 2013.
Image by Galina Shebut, 2014. Used with permission.*

³⁷ as also reported in 2012



*Photo: Kanevka boats by the Ponoï, Summer, 2013.
Image by Yanis Shebut, 2014. Used with permission.*

2.2. Voices from Kanevka in 2013: A Small Village on Ponoï

Community workshops began in Kanevka on the 11th July 2013 and lasted six days. Those people who could not participate but had contributed in 2012 were visited at their homes (Shebut 2013b).

Social realities in the village continue to be hard. Electricity is only administered from 17.00 to 22.00 o clock. Methodologically the use of voice recorder was an issue with many local participants, and only with their permission it was used. The main results of the collaborative management plan for Ponoï were presented and it took some convincing to indicate that such a plan has not been developed by the salmon tourist companies, but a third party organisation to develop the future management of fisheries and watershed. This indicates that the idea of a collaborative management for fish stocks remains a distant dream still in the wilderness communities of Kola.

The village is “*dying down*” according to one villager (Shebut 2013b). The settlement was reflected as a “*volcano*” in Soviet times because of large number of fishermen and reindeer herders who visited the community – all of this has now changed. On-going rumours persist about plans to close the village down.

An older man reflected on the development of reindeer herding in the village: “*Herding is closing down. Young people do not go into that field because salaries are very small. Nobody is watching the herds, reindeer are just on their own. Slaughter used to be over by New Year. Nowadays, slaughter takes place in March, sometimes even in April when calves are about to be born. Reindeer are scared of helicopters. I used to go with a tractor making a winter road and reindeer did not fear it. They just run towards me. Earlier reindeer were away from May to December and there were regular shifts when reindeer herders went to the herds. There was a list of vaccinations given to reindeer. The whole summer and the whole winter reindeer were*

watched by the herders, who moved them from one grazing land to another. Nowadays they just bring them for slaughter, otherwise reindeer are on their own and nobody knows where reindeer are. Then they start flying over Kola Peninsula searching for reindeer. Then they find some reindeer, four or five thousand and count those. Kanevka used to slaughter up to four thousand reindeer, nowadays they slaughter only around one or two thousand.”³⁸



*Photo: Kanevka, Summer, 2013.
Image by Yanis Shebut, 2014. Used with permission.*

He also reviewed the shift along the river in his lifetime: *“Reindeer used to be like a domesticated animal. It was used for wood transportation for the village, there was fishing brigade, field brigade, tractor brigade. Sosnovka used to fish for salmon and there used to be two reindeer herds, two reindeer herds in Kanevka. The village Ponoï that was closed down used to fish salmon with seines and they also had two reindeer herds. Some smart guy decided that the village and the brigade run losses and closed it down. There was fishing brigade in the 1930s there, it was here until 1980s. Then the village was closed down though it was profitable. Their herd was up to six thousand reindeer including calves. They used be allocated with a fishing quotas of 120 tons of salmon. Maybe in Kanevka they also fished salmon during the kolkhoz time. Soon there will be no fish here. Some guys tell me that sometimes when a fish flock passes they go upstream with jet-boats, anchored their boats and start engines so that fish would to go further. This allowed those tourists from camps to go fishing with almost guaranteed catches.”³⁹*

2.2.1. Situation with Fisheries

Local people remember the village to have been founded by Vasiliï Feodorovich Kanev in 1923-24⁴⁰. In 2012 some of the older villagers positioned the founding year to be 1923 (Feodoroff and Mustonen 2013: 65, see also Pennanen 2000: 32). Kanevs moved there from the Komi Republic because of a sharp decline in the number of reindeer caused by an illness known as necrobacillosis⁴¹. The act of settlement took several years because it was a long way

³⁸ Snowchange Kanevka Oral History Tape 2013-2.

³⁹ Snowchange Kanevka Oral History Tape 2013-2.

⁴⁰ Pennanen (2000: 24) provides the year 1923 and stresses that in addition to Vasiliï, Igor/Egor was a part of the initial settlement too.

⁴¹ In Russian *kopytka*. Pennanen (2000: 23) agrees. He writes that five Komi and Nenets families began their journey towards Kola in 1883 with 9000 reindeer.

and people moved with herds and small children⁴². Vasiliï began resettling together with his brothers Aleksei, Sergei, Afanasii and Egor Kanev (see also Feodoroff and Mustonen 2013: 65).



*Photo: Oldest building in Kanevka, Summer, 2013.
Image by Yanis Shebut, 2014. Used with permission.*

Shebut (2013b) reports that first, these Komi went up to Arkhangelsk in their search for grazing land, then to Lovozero, where all brothers stayed while Vasiliï moved further. He found a settlement of herders at the bank of Ponoï River where they lived in summer. According to the local residents and Vasiliï's relatives, Vasiliï saw that around the settlement was plenty of berries, mushrooms and reindeer lichen.

There were moose tracks everywhere and when he threw a fishing line to the river he immediately caught a salmon. Therefore he decided to stay since the river provided food. Then all his brothers moved to Kanevka, they built houses and settled. One woman from the village doubts this was the case however. She says that: *"Many think that Komi came here from the Komi Republic because of kopytka, a reindeer illness. But I doubt that. How would they be able to move with ill reindeer? I think they moved here because of collectivisation, when reindeer were taken away from them and they decided to move away."*⁴³

According to the versions of arrivals from Komi, during the initial migration they travelled mainly in winter when large lakes and rivers were frozen. Children travelled in special cradles made of skin and pelts of reindeer. The main difficulties during the migration were harsh climate conditions, predators that followed the herd, and the lack of medicines and doctors.

An older lady reflects on the Komi spreading across the Peninsula in the following: *"In 1923 Kanevka was founded by the Kanevs. First they settled in Lovozero, then moved away further."*

⁴² The Komi sent scouts beforehand to explore prospective sites according to Snowchange Kanevka Oral History Tape 2013-1. Pennanen (2000: 23-24) indicates they arrived in Lovozero in 1886.

⁴³ Snowchange Kanevka Oral History Tape 2013-3.

*Maybe because of collectivisation, maybe they had some tensions with Sami; I do not know. Then they came to Krasnochelye and only after that they settled in Kanevka. Nobody lived here. Sami from Lumbovka or Iokan'ga often came for hunting and they had hunting huts. And maybe Komi liked it and settled here."*⁴⁴



*Photo: One of the Elders, Summer, 2013.
Image by Yanis Shebut, 2014. Used with permission.*

At the early times of the collectivisation in the 1930s, the transfer of the lakes and the river Ponoï sections under the control of the kolkhoz⁴⁵ was coercive, similar to the transfer of the reindeer herds (Shebut 2013b). People were forced to work for the state – unless they obeyed they would be sent to a labour or a prison camp. Villagers remember some of the herders refusing the order to turn their reindeer to the state, and this resulted them being sent to distant, forced work placements⁴⁶, such as the construction of Belomorkanal Channel in Karelia. Community residents also remembered that whole herds⁴⁷ were drowned in lakes and rivers rather than given to the state (Shebut 2013b).

⁴⁴ Snowchange Kanevka Oral History Tape 2013-3.

⁴⁵ the state farm

⁴⁶ GULAG

⁴⁷ Some oral histories in 2013 indicate the herds were up to 300 animals strong, pre-collectivisation. The act of drowning was done by a Sámi man, according to Snowchange Kanevka Oral History Tape 2013-1.



*Photo: Kanevka has a famous bridge, Summer, 2013.
Image by Yanis Shebut, 2014. Used with permission.*

Private fisheries focused on northern pike, white fish, grayling, perch, brown trout and pink salmon⁴⁸ during the Soviet times. Villagers of Kanevka remember the crucial state salmon fishery at the mouth of the Ponoï, but in Kanevka the village was allocated as a reindeer herding community and therefore the fishery was not in a prominent role in the village at this time (Shebut 2013b). There was a fishery at Ivanovka-Chalme Varre in addition to the Ponoï village fishery. In total up to seven or eight brigades were focused on fishing. Local residents remember that some years the quota for these state farms could be up to 120 tons of salmon. One older man remembered a fisherman from the Soviet period and reflected the youth of today and the Soviet period: *“There was Stepan Vasilievich Okatov, a participant of the war, who fished. When he went fishing they used to provide him with gasoline for his boat, however, he did not want to waste things and used to row downstream twenty-five kilometers from Krasnochelye. He used gasoline only to get upstream after fishing. And look at the young people nowadays! In Krasnochelye there is an island at the river. Some young people were given a job to cut grass there. They came back to the office and said that they did not do it because they could not start their boat engine. Why did they need engine if it was much easier to go with oars? They just do not want to work, they just want to get money.”*⁴⁹

Shebut (2013b: 2) describes the fisheries: “8-10 *tonias* [seines] were set in checker patterns. Tonia had a box in the middle; fish entered the box and could not leave it. In the villages situated below Kanevka the boxes were from time to time opened so that fish would be able to get up the river. It was done in order to let fish to spawn and to provide the villages above with fish for eating and for commercial fishing.” The Soviet fishery was discontinued with the closure of the villages in the 1970s.

⁴⁸ Pink salmon has been observed to “attack” Atlantic salmon in stream. Snowchange Krasnochelye Oral History Tape 2013-4.

⁴⁹ Snowchange Kanevka Oral History Tape 2013-2.



*Photo: A fisherman on Ponoï, Summer, 2013.
Image by Yanis Shebut, 2014. Used with permission.*

Shebut (2013b: 3) identifies some past fisheries methods along Ponoï that were discussed at the workshops: “A fisherman goes below a seine and hits the water with oars so that fish would get scared and would go upstream straight to the seine. The main fishing method was with a seine but the local residents also used nets that they made themselves. They also fished with rods with a float. For a long time people crafted their own fishing lines, hooks and floats because the communication with the civilization was only in winter and the trips to the largest neighbouring villages were few. People also fished with spoon lures that were made of spoons. Fishing lines were made of horsehair and later of nylon threads because no other materials were available. Another interesting fishing method was fishing with a form of gaff or spear⁵⁰, which was used until fifteen years ago. The Komi that moved into the village in 1920s were the first to use that method. The method was following: a stick with two points was sharpened; the points were also scorched at fire. A special metallic base was fixed at the front of a boat to burn moss covered with pine sap in order to see fish at shallow waters at night. In light fish froze and a fisherman with a spear pressed the fish to the bottom and waited until the fish died. After that the fish was fished out with a scoop-net. Later the stick was replaced with a metallic trident with sharp points. A fisherman put on a rubber overall, took an accumulator for a flashlight and fished for salmon and pink salmon. The difference was that you did not need to press it to the bottom, since you get fish out with sharp points. Another salmon fishing method was used too, fishing with a can⁵¹. A wooden handle was fixed within a tin can. A line with spoon lure was spanned on the top of the can. The spoon lure was thrown to the water and after that the line was spun back. This method is similar to modern spin fishing. Until the present day the local residents like trolling. It means that the spoon lure is set behind a boat and a fisherman rows or steers a motor-boat at a slow speed, a second fisherman just sits and waits for a catch. As soon as a fish take the spoon lure he asks the partner to stop and to help with a scoop-net.”

⁵⁰ In Russian *ostroga*.

⁵¹ In Russian *lovlia na banku*.



*Photo: A small catch of salmon and trout, Summer, 2013.
Image by Yanis Shebut, 2014. Used with permission.*

For 2013 in general local people identified the deteriorating situation of salmon and its fisheries. 2008 was a good year, but since then stocks were down (Shebut 2013b). These observations were much in line from 2012 (Feodoroff and Mustonen 2012: 66-76). However the first part of the summer 2013 was a turn for the better in amounts of salmon, perhaps due to high water levels in late 2012.

Especially size and weight of the fish had diminished since 2002. In late 1990s one participant recalled to have caught several 9-15 kilogram salmon with an average size of 3-5 kilo fish. Nowadays the average fish weights 0.8-2 kilos and a 5-7 kilos fish is considered being a very good catch (Shebut 2013b).

The fishing brigade was closed in Kanevka in 1978 (Pennanen 2000: 39). This changed the composition and structure of harvest in the village⁵². Subsistence fishery preserved. Much like in 2012 (Feodoroff and Mustonen 2013), again, the local people identified in 2013 that the salmon camps continue to influence local life and salmon. Salmon roe is destroyed by the jet streams of the motor boats⁵³ and the catch and release methods damage the fish. People are also worried that in the tourist camps they use artificial flies and when fish swallows them they have to damage the gills to get flies back.

One recommendation was that a fishing ban is needed for at least two-three years in order to recover the fish population. Or as one local man says: *"It would pay off many times over."*⁵⁴ Official licences cost 950 rubles for the residents of the Murmansk region and 1250 rubles to outsiders in 2013.

⁵² Pennanen (2000: 39) indicates the Ponoï river was protected from all fishing for a ten-year period, prior to the collapse of the Soviet Union in 1991.

⁵³ For example Snowchange Kanevka Oral History Tape 2013-1, -2.

⁵⁴ Snowchange Kanevka Oral History Tape 2013-2.



*Photo: Salmon in the net, Summer, 2013.
Image by Yanis Shebut, 2014. Used with permission.*

An older man reflected on the salmon camps during the community work: *“In Riabon’ga there are rapids and plenty of fish. You can see how fish stands there on top of each other in front of the rapids. There is also a tourist camp Riabon’ga, where Americans live. They practice catch and release technique and as a result there is a lot of dead fish below the rapids. Fish dies because air gets in. It would have been better if these camps would sell their catch to the state. They have destroyed their own nature in Alaska with this technique. They tried to get to Finland but Finns did not allow them there. We are not allowed to fish but they are allowed.”*⁵⁵



*Photo: Perch for food, Summer, 2013.
Image by Yanis Shebut, 2014. Used with permission.*

An older man summarized the hopes and wishes of the local people: *“What can a local Russian Ivan from Kanevka do? Just wait when there is no fishing inspection to get couple of fish for himself. And here we have poaching but they [authorities] cause poaching themselves. If only they would allow free fishing for locals from Kanevka. We do not need this fish apart from eating*

⁵⁵ Snowchange Kanevka Oral History Tape 2013-1.

it from time to time. Maybe to salt one or two fishes for winter. It would be enough. It used to be like that. We never fished with greed. And look nowadays at those new Russians at the camps – they just load 150-kilo coolers full of fish to helicopters. Sometimes they load two or three coolers and they call it sport-fishing – ‘catch-release’. They gave us quota for 150 kilo for sixty local residents. It is two kilos per person. We live at the river and cannot fish. It is no allowed to fish for grayling. But it eats salmon roe and there is too much of it at Ponoï but they do not allow us to fish it. If you fish out grayling in autumn you will see that its belly is full of salmon roe.”⁵⁶

Some of the women in the village still think things could be improved: *“We should do something about the fish camps and our situation. There are rumours that Kanevka might be closed down. They can just stop bringing post and food and close down the helicopter connection. Maybe some people will still live here and bring food by all-terrain vehicles and snow-mobiles.”⁵⁷*



*Photo: Ponoï, Summer, 2013.
Image by Yanis Shebut, 2014. Used with permission.*

2.2.2. Weather and Environmental Change in Kanevka in 2013

Weather seems to be rainier according to local residents in Kanevka (Shebut 2013b). November rain has replaced proper snowfalls⁵⁸. On the river there is no more hummocky ice during break-up. Air quality has changed according to older villagers. They frame this change to have resulted from motorboats and aviation transportation (Shebut 2013b). One older man said that *“the air has become heavier. And the taste of the water is different.”⁵⁹*

Ponoï ice break-up used to be around May Day in 1970s but now interestingly enough it seems to have shifted to 9th or sometimes even to 14th May according to one older man⁶⁰. Another man reflected that *“when ice is thawing there used to be a loud noise and ice often*

⁵⁶ Snowchange Kanevka Oral History Tape 2013-2.

⁵⁷ Snowchange Kanevka Oral History Tape 2013-3.

⁵⁸ First frosts used to be around 10th November. Snowchange Kanevka Oral History Tape 2013-4 confirms it is warmer.

⁵⁹ Snowchange Kanevka Oral History Tape 2013-1.

⁶⁰ Snowchange Kanevka Oral History Tape 2013-2.

blocked the river. But nowadays you can hardly notice when the river opens. Three years ago ice still blocked the river and there was a flood.”⁶¹

⁶¹ Snowchange Kanevka Oral History Tape 2013-4



*Photo: New church of Krasnochelye, Summer, 2013.
Image by Sergey Phillipchenko, 2014. Used with permission.*

2.3. Voices from Krasnochelye in 2013 – The Largest Settlement on Ponoï

The previous studies (Mustonen and Mustonen 2011, Feodoroff and Mustonen 2013) have explored the situation in the largest community in the Ponoï watershed, Krasnochelye⁶², at length. In 2013 the reign of the new director of the Cooperative “Olenivod”, mr. Andrey Reizvih, continued (Phillipchenko 2013). Throughout the 1980s he was involved in various positions of the sovkhos in the region. He is well-known public person in the district of Lovozero.

Some of the Elders, such as an 84-year-old Sámi lady⁶³, took part in the 2013 workshops in the village. She explained how she worked in the kolkhoz since 13 years of age (it was during the WW II). She was a *chum-worker*⁶⁴. Her husband worked in the fourth brigade⁶⁵, their herd had 800 reindeer. They wanted to send him to the fifth herd but the fifth herd was too large and he wanted to learn herding with a smaller herd. Herders used to live with the herd, nowadays herders do not even see reindeer according to this Elder. When she went to school

⁶² Pennanen (2000: 23-24) indicates the community was founded in 1919, at first some kilometers upstream.

⁶³ Snowchange Krasnochelye Oral History Tape 2013-03.

⁶⁴ A female worker in the nomadic reindeer tent in the camps.

⁶⁵ During the Soviet times the reindeer herding was organized into “brigades” of labour, and each of them had their own herd to tend to. The herds and brigades were numbered.

the mothers were told not to speak Sami to them so that the children would learn Russian language.



*Photo: One of the knowledge holders of Krasnochelye, Summer, 2013.
Image by Sergey Phillipchenko, 2014. Used with permission.*

Some memories of the Sámi sacred sites are preserved in the village as is apparent in the oral history of a 50-year-old lady: *“There are many of them and I have a list of them. I have heard of Praobabka and Praodedka, ‘grandmother and –father’ stones somewhere at a bog. Some kids played at the bog and suddenly they came to a place where everyone got scared and went silent. Their parents told them that they were close to those Praobabka and Praodedka stones. There is also the Flying Stone. In general the Sámi believe that they should not show the way to their holy or sacred? places and stones. They tell it only within their family, their kin.”*⁶⁶

A 63-year-old man also remembered the collectivisation stories passed on in the village: *“We had two waves of collectivization. The first wave was in 1927 and it did not work, they just destroyed everything. The second wave was in 1930 and it was more strict and as a result [a forced] working system appeared. As for Kanevka I think there was sovkhos from the beginning. I do not know about other villages. Ponoï had a kolkhoz.”*⁶⁷

⁶⁶ Snowchange Krasnochelye Oral History Tape 2013-05.

⁶⁷ Snowchange Krasnochelye Oral History Tape 2013-04.

Another 82-years-old man remembers the collectivisation himself: *“They just took all reindeer without any records and documentation, and took all harnesses and sleighs. And the fishing territories went to the kolkhoz - only the poor Sámi were fishermen because the Komi were richer as a rule – this was done also without any documents. There was a document that was lost, it said 28 vazhenkas⁶⁸ and a broken harmonica were confiscated from a kulak⁶⁹ Arsentii Semionovich Terentiev. It was signed by Mikhail Koivin. Unfortunately, this document was lost.”⁷⁰* He remembered that in 1946-47 there was 3200 reindeer in the community. Losses were not great as no poaching took place. In 1948 the number went up to 5200⁷¹.



*Photo: An Elder in Krasnochelye, Summer, 2013.
Image by Sergey Phillipchenko, 2014. Used with permission.*

The 84-year-old Sámi Elder lived in Ivanovka/Chalme-Varre and used to travel a lot with her father by reindeer from thirteen years old to the time when she was twenty. They came to Krasnochelye only in 1967. Her Sámi husband did not want to move away from Ivanovka, because the herd was close by. She used to deliver food to Ivanovka, salted fish. Pike and white fish⁷² were the main fish there. It was also fished at Peschaniy⁷³.

⁶⁸ Adult reindeer

⁶⁹ "Rich peasant".

⁷⁰ Snowchange Krasnochelye Oral History Tape 2013-06.

⁷¹ Snowchange Krasnochelye Oral History Tape 2013-06.

⁷² coregonus

⁷³ Snowchange Krasnochelye Oral History Tape 2013-03.

She remembers that her children used to be ill often and she thinks that it might be because of some geological studies. Authorities used to give some drugs to reindeer herders because they told that there is radiation but nobody checked the children during the Soviet times⁷⁴.



*Photo: Krasnochelye and Ponoï, Summer, 2013.
Image by Sergey Phillipchenko, 2014. Used with permission.*

She remembered an old story of a family in Ivanovka who was *'raskulachen'*⁷⁵, they were drawn away from their own house with eleven people and came to live to with the Elder's mother's family house which had two rooms.

As for modern times, she is afraid that they might close Krasnochelye down as they closed down Ivanovka. Once she noticed that somebody was measuring something in Krasnochelye and she came to the man and said: *"Are you going again to resettle us, as it was with Ivanovka?"*⁷⁶

Turning to the contemporary situation, participants in the workshops in the Krasnochelye village indicate that the reindeer number around 20,000 animals in 2013⁷⁷. Number of private

⁷⁴ Snowchange Krasnochelye Oral History Tape 2013-03.

⁷⁵ repressed as being too wealthy.

⁷⁶ Snowchange Krasnochelye Oral History Tape 2013-03. Pennanen (2000: 29) uses the term "destroyed villages" in the 1960s. He writes that there was a plan to create huge hydroelectric stations along the Ponoï.

⁷⁷ Some older men in the village reflected on a "lost" herd of 6000 animals which went to Varzuga area in 2003, and were never found afterwards. Snowchange Krasnochelye Oral History Tape 2013-02.

reindeer resulting from the administrative reforms of Reizvih, have dropped almost to zero⁷⁸. It is too costly for people to maintain the private ownership regime. However, many people indicate the payment of salaries on time has been a positive development (Philipchenko 2013). Helicopters bringing tourists have arrived on a regular schedule, an improvement to earlier times. Now also some tourists arrive with snow machines (Philipchenko 2013).



*Photo: Main street, Summer, 2013.
Image by Sergey Phillipchenko, 2014. Used with permission.*

Philipchenko (2013: 1) reports on the overall situation in the village in 2013⁷⁹: “Other activities of "Olenevod"⁸⁰ unfortunately are sinking into oblivion. For example, milk production has not been conducted for many years. Only private owners hold three milking cows in the whole village, and the milk is used only for their families and, above all for their children. Owners of the cows harvest hay; silage is stored in small quantities or not stored at all. Mixed fodder is very expensive, without it cows lose fat and gives only a little milk. This reduces the quality of the milk and the percentage of fat in it.

⁷⁸ Herders can have up to 12 animals and pensioners up to six animals in their ownership without having to pay for "grazing costs". If this number is exceeded, then a cost of 2000 rubles per animal is applied.

⁷⁹ For 2013, the school has 32 students, kindergarten 14-24 children, diesel power operates from 06.00 to 24.00. Library, telecommunications, Sberbank, five small stores and other basic services are operational.

⁸⁰ Cooperative, former sovkhos.

Situation remains critical (ibid.): “A construction team was abolished even earlier; the park of mechanization was apportioned from the structure of "Olenevod" in a separate legally independent company. Cautious statements of "Olenevod" manager Alexander Terentiev validates the suspicion that the board of "Olenevod" has no influence on processes in the collective farm; all the decisions are being taken by Reizvih personally.”

2.3.1. Environmental and Weather Related Changes in Krasnochelye in 2013

Most significant observation for 2013 was according to all participants in the workshops the low water levels on Ponoï and in other waterbodies⁸¹ (Phillipchenko 2013). Locals discussed at length an island in front of the village that becomes part of the opposite bank of the river because there is a lot of sand brought by the water. There are too many trees and grass. They used to cut grass (Carex) and trees for themselves and clean water flow, nowadays there is too much trees (birch and willows) and grass and water cannot come to some lakes and ponds. The Kurei pond is disappearing because a river does not get there in spring⁸².



*Photo: Nets for perch, Summer, 2013.
Image by Sergey Phillipchenko, 2014. Used with permission.*

⁸¹ Also only one week of -30 C during the winter 2012-2013. Snowchange Krasnochelye Oral History Tape 2013-01. Everything freezes late. Boats are still used in October, when Ponoï used to be frozen in 1950s at this time for the year. Ice melts in early May, as opposed to 1980s when people went to fish with snow machines on 15th May. Snowchange Krasnochelye Oral History Tape 2013-04. Some participants, especially herders identify the weather change to impact reindeer too (Snowchange Krasnochelye Oral History Tape 2013-07, Snowchange Krasnochelye Oral History Tape 2013-08).

⁸² Snowchange Krasnochelye Oral History Tape 2013-05.

There were hardly any rains in 2013, and thus less mosquitoes. Much in line with the observation of residents of Kanevka, the people in Krasnochelye noticed the worsening of air quality due to larger numbers of vehicles, snowmachines and motor boats in recent years in the village. As all roads in the village are sand roads, winds blow dirt from these pathways, and the locals have now in 2013 even started to use the term “sandstorms” of this phenomenon (Philipchenko 2013). On the positive side, a number of bicycles has increased in the community this year. Also: *“there is lack of something in the air. In spring icicles used to smell nicely: the collected smell from roofs which were wooden with moss. It was a special spring smell. Now it had disappeared.”*⁸³

Residents do not remember the case of phenols or oil spills taking place on the village, as was apparent from the water quality measurements in 2012 (Feodoroff and Mustonen 2013: 39). However, several people indicated that bags of fertilizers have been dumped on the shores of Ponoï annually⁸⁴, and they may cause some long-term impacts. Left-over bags of fertilizers have been dumped in recent years to close-by lakes.

As a new issue, some of the residents recalled mineral exploration close to Ivanovka/Chalme-Varre, downstream from Krasnochlye. It seems to have taken place in 1950s and in 1970s. All was done in secret according to workshop participants. One elderly man also remembered that *“close to the Kholodnyi lakes there were some geological studies, there are some holes in earth dug out.”*⁸⁵ On the topic of radioactivity, one person remembered that: *“in mid-1960s there was a case: they buried some core samples from Yelskii lakes with high uranium concentration. They were buried in led capsular. Some local boys found it by accident and there was a huge scandal. There were experts running around here measuring the radiation level to find the capsular. They found it very fast and later were observing the kids.”*⁸⁶

63-year-old hunter in the village reports that new birds appear in the area even though they are not typical, including herons and “grey ducks”. According to him the appearance of these birds is caused by the devastation of their original habitats by humans: forests are cut, factories are poisoning the air, and cause forest fires. So the birds move further north.⁸⁷ Forest grouse has moved from the watershed because of large numbers of mink that have appeared. Musk rat has also disappeared according to him. Frogs have suffered from the weather changes in the region.

He remembered that there were attempts to bring beavers from Southern Russia in the 1950s but they did not survive. Without beavers many local lakes are affect. Willows grow in water and the level of lakes rise, the water washes down the banks, causing more silt and increase their shallowing. Even burbot cannot live in such lakes. There are many large lakes without any fish in them. You can notice those lakes easily because there are no birds around them either⁸⁸. Wolverine almost disappeared in the 1970s due to overharvest, but has now made a comeback according to the hunter. Wolf is a normal being of the forest, and they have “stable”

⁸³ Snowchange Krasnochelye Oral History Tape 2013-04.

⁸⁴ Snowchange Krasnochelye Oral History Tape 2013-04.

⁸⁵ Snowchange Krasnochelye Oral History Tape 2013-02.

⁸⁶ Snowchange Krasnochelye Oral History Tape 2013-04. Another person also referred to nuclear waste having been buried “above” the village, see Snowchange Krasnochelye Oral History Tape 2013-05.

⁸⁷ Snowchange Krasnochelye Oral History Tape 2013-04.

⁸⁸ Snowchange Krasnochelye Oral History Tape 2013-04.

territories, if they are not disturbed. Some herders indicated that there are more wolves now in the area of Kal'm-ozero, Kolm-ozero⁸⁹.

This 63-year-old man also shared reflections from past man-made alterations to the waterflow and –bodies in close proximity to Krasnochelye⁹⁰. One project was an attempt to make Ponoï river to flow more straight. They cut a hole in some ground but it did not work. Only a beautiful place was ruined.

Another project was that of the local kolkhoz (with Petr Terentiev as the head of the kolkhoz) to dig out two canals from *Kal'van'*-lake. As a result the water level is very low now and there are almost no fish left. The digging was done long time ago. The hunter wanted to close the canals but was not allowed because the locals were afraid that as a result the local airfield would be flooded.

Now locals just take peat from that lake. The hunter reports that that the name of the lake is not from a Sámi word but from the Russian name "*Ivan Gavrilovich*", who was the first to fish in this lake. They used to seine at that lake.

The man remembers such fishing though he was only a child at that time. At least three people were needed to pull this seine to the bank. They used two wheels and axels⁹¹ – one for each wing of the seine. Sometimes even third was used if the seine was very large: the would go with a boat and hook the seine.

Beliaiev, an old resident, who is already deceased, destroyed two lakes. One of those lakes is Beliaevskoe, around three kilometers downstream from Ivanovka on the right bank of Ponoï. He also dug out a canal from the lake and it dried up. The other lake was Starikovo. He also dug a canal to dry the lake around four-five kilometers from Krivaia. The canal is still open.⁹²

The locals also tried to restore habitats and fisheries during the Soviet times. Iona Kovarnin lived in Ivanovka and he revived Peschaniy lake. Once all fish in the lake died because of "*poisonous gases*". He send all his relatives to clear the bottom layer of the lake with seines and gradually fish returned when food was restored. He also cleaned Krivaia river that connects Peschaniy with Ponoï river. The river was blocked with wood and he cut the wood and let the water flow again. He was Russian from Varzuga.⁹³

2.3.2. Salmon and Fisheries in Krasnochelye in 2013

Information regarding pre-Soviet salmon harvest has faded away from the memories of the people in the village. However, one person reflected on the Pomor fishery on Ponoï: "*There used to be fourteen names of salmon and Pomors could distinguish between them. Salmon and lokh are just age groups but there are also different sorts of salmon: e.g. mezhenka, listopadka⁹⁴, oshchenka and so on. But I do not remember when mezhenka comes. The friend*

⁸⁹ Snowchange Krasnochelye Oral History Tape 2013-07.

⁹⁰ Snowchange Krasnochelye Oral History Tape 2013-04.

⁹¹ In Russian *vorot*.

⁹² Snowchange Krasnochelye Oral History Tape 2013-04.

⁹³ Snowchange Krasnochelye Oral History Tape 2013-04

⁹⁴ For the salmon in September.

also told that southern wind was called golodai⁹⁵ by the Pomors because salmon was not coming. The father of my partner told me that before collectivisation they used to fish salmon in a river with a fence and every man in the family would receive their own share of the catch. The catch was divided only between men. I do not know where they fished, unfortunately. First they did a sort of a bridge and then they put long wooden sticks into the water and there was some sort of trap for salmon. Those who had a lot of boys in the family they used to live better, but if you had only girls it was difficult because only father would get one share of fish.”⁹⁶

Memories of the Soviet times and fisheries were recalled by some participants. First team⁹⁷ to fish during the period of collective farms in 1930s started their activities on lake Peschaniy⁹⁸. Also the lakes Peschaniy, Verkhne-Kamenskoe, Medvezhka⁹⁹ and Losie were harvested. During the 1940s and 1950s the fishery was expanded to lakes Churozero¹⁰⁰, Nizhne-Kamenskoe. Target species included whitefish, pike, ide¹⁰¹, perch and trout¹⁰². European cisco was only in three local lakes: Bolshoe Losievo, Yelskie and Chur-ozero according to a 82-years-old Elder¹⁰³.

Fishery at Medvezhka brought memories to a 63-year-old man: *“My father sometimes went to Varzuga in winter by reindeer sleds and on the way back they used to go to Medvezhka lake. [when they fished there in the open water] they put a wooden board across the brook and let the whitefish go upstream and then they blocked the brook with wooden sticks. The gathered fish was caught with a scoop-net. They did that at the brook that goes to the lake because fish goes there for spawning. They caught fish only after spawning - to catch fish before spawning was considered to be a sin. Well, you can take just a bit with roe but you should not block the brooks when fish go up. You can do it only when it goes down.”¹⁰⁴*

Salmon fishery focused on Ponoï. An older fisherman who has been involved with the state-fisheries in 1981-82, stresses that the larger salmon have disappeared, as reported also in 2012. This change has been mostly visible in 2002-2007 (Philipchenko 2013).

In Soviet times there was a continuous monitoring of the salmon populations and also benefits when the collective farms caught much fish. It provided a staple food for the community from June to September, including the military personnel along Ponoï (Philipchenko 2013). Catch varied between 10-30 tons, but in 1989 it reached 79 tons.

⁹⁵ Referring to hunger it caused.

⁹⁶ Snowchange Krasnochelye Oral History Tape 2013-04.

⁹⁷ Each team had a name, for example the Moshnikov team and so on. They consisted of three men usually (Snowchange Krasnochelye Oral History Tape 2013-06.) Pennanen (2000: 39) confirms catches of several tons during the Soviet time.

⁹⁸ The kolkhoz seines got eight to forty tons annually from this lake. Snowchange Krasnochelye Oral History Tape 2013-01.

⁹⁹ There used to be a “mobile” brigade here.

¹⁰⁰ The kolkhoz seines got seven tons annually from this lake. Snowchange Krasnochelye Oral History Tape 2013-01.

¹⁰¹ For fish loafs.

¹⁰² Residents recall 3-7 ton annual catches from these lakes on average. Fish was used as a food in the village and it was fed to the fox farm in the community. Some additional catch was sold in Lovozero.

¹⁰³ Snowchange Krasnochelye Oral History Tape 2013-06.

¹⁰⁴ Snowchange Krasnochelye Oral History Tape 2013-04.

In 2013 the residents in the workshops and meetings allocated the decreases of salmon to the presence of tourist salmon camps¹⁰⁵. Philipchenko (2013: 2) reports: “On helicopter landing grounds Krasnochelye inhabitants often see neatly packed plastic boxes loaded to helicopters. These flights are available only for tourist camps guests, and inaccessible for the villagers. Even sick people are not allowed to fly with these flights. It is very likely that on these flights salmon is transported from tourist camps.”

In the 2012 oral history work the question of rights to fisheries was discussed at length (Feodoroff and Mustonen 2013). In 2013, some administration staff members indicated that: *“we are against dividing fishing rights by ethnic background because it creates ethnic tension within the community. It would be better if they would give special fishing rights for all local residents.”*¹⁰⁶

One of the new monitoring targets for 2013 oral histories was the northern pike, especially on the Verhne-Kamenskoe¹⁰⁷ lake. An experienced fisherman said that: “there are two types of pikes on the Ponoï watershed: *“Lake and river. They are very different: lake pike is short, massive and black; river lake is long and light, yellowish. I have seen a seven kilogram pike but I have never seen as big as 2 poods*¹⁰⁸. *Sometimes there can be eight or ten kilos, they were lake pikes.”*¹⁰⁹

The lake was chosen as a topic of discussions as many people identified to be a crucial subsistence fishery earlier (Feodoroff and Mustonen 2013). Philipchenko (2013) reports that in 2013 the people described this lake and its fish: “In late August, as well as in September and October, pike was very tasty, large, “fat” fish, which was distinctly different from the same species from other rivers and lakes. Those, who have tasted a pike from Verhne-Kamenskoe lake, paid attention to its unique taste and slimness. Fish-soup made of Verhne-Kamenskoe pikes was very substantial with large fat content in it. Many of fishermen and inhabitants of Ivanovka, Krasnoshelie and Kanevka noticed its extraordinary medicinal characteristics for those who suffered with stomach diseases. Nowadays people pay less attention to these fish than in 70s and 80s.”

A new phenomenon appeared in the 2013 meetings. Some lakes suffer from lack of oxygen during the winter. Fish death occurs at a lake from time to time if spring ice on the lake does not break early. Then fish die of the lack of oxygen. The problem there is not enough water circulation. A 63-year-old hunter has dug a canal to bring some spring water directly into the lake to bring new oxygen to save such a lake¹¹⁰.

Some non-commercial species of fish have dwindled. Lamprey and misgurnus have diminished in numbers according to an older hunter¹¹¹. He says that burbot has been impacted negatively by the warmer summers in recent years. He also provided an interesting link between eagle populations, weather and the fish: *“When summers are hot, chicks of white-*

¹⁰⁵ Some participants, such as Snowchange Krasnochelye Oral History Tape 2013-04 identified that 2013 catch of salmon was in some parts higher than since 2008.

¹⁰⁶ Snowchange Krasnochelye Oral History Tape 2013-09.

¹⁰⁷ The kolkhoz seines got seven tons annually from this lake. Snowchange Krasnochelye Oral History Tape 2013-01.

¹⁰⁸ approx. 33 kg.

¹⁰⁹ Snowchange Krasnochelye Oral History Tape 2013-01.

¹¹⁰ Snowchange Krasnochelye Oral History Tape 2013-04.

¹¹¹ Snowchange Krasnochelye Oral History Tape 2013-04.

tailed eagle are dying of hunger because parents cannot catch fish that hides at the cool bottom layers of the lakes and rivers.”¹¹² He says also that while fishing he stored his caught fish in cold streams. The cold water helps to preserve the fish and to hide fish smell from possible bears. Fish was put into plastic bags with salt and put into a stream of water.

A 84-years-old Sámi lady reflected on the current situation and warned: *“it is unfair that foreigners get right to catch salmon and the locals are denied fishing. Earlier the locals used to fish tons of salmon and there always was fish. Now they claim that the net can destroy the whole population of fish. They used to fish whitefish and ide and feed them to cows. There was a lot of fish. And now there is no farm, nothing, everything is destroyed.”*¹¹³

3. Concluding Thoughts From Ponoï

We still have a historical chance to investigate the past events of the Ponoï watershed by working together with local knowledge holders. The oral histories workshops from three villages, Sosnovka, Kanevka and Krasnochelye have continued the steps outlined in the collaborative plan for the catchment area (Feodoroff and Mustonen 2013).

While the administrative situation of the region and country continues to discourage reforms of watershed management, some aspects of a co-management regime can be implemented, as is demonstrated in these voices from the community workshops.

We can see that both on-going pressures as well as new developments emerge from the analysis of the community-based materials:

- A. Climate change continues to play a role, both in the historically low water levels of 2013 and the warmer winters.
- B. Population diminishes in the wilderness villages of the Kola Peninsula, as there is no jobs available and opens the territories for both safari-style harvest and natural resources extraction.
- C. Villages have been forcefully removed and local people are afraid it will happen again
- D. The Soviet coastal fishing territories of the collective farms contained traces of pre-Soviet land use patterns
- E. Local cooperatives have won important fisheries rights to continue small-scale harvests on the coast at least for a ten year period
- F. Impact to salmon and their roe continues from the jet streams of the motor boats. Noise is also observed to cause changes.
- G. The settlement pattern of Kanevka portrays a “pre”-colonial arrival of the Komi from the modern-day Komi Republic, indicating a great shift from the siida-controlled Sámi territories into large-scale herding already prior to Soviet terror.
- H. Residents in the villages still remember endemic fishery techniques used until 1980s
- I. There are several unmapped Sámi sacred sites in the Ponoï watershed
- J. History of collectivisation meant a range of local responses – some Sámi drowned their own reindeer rather than giving them away, some were sent to labour camps and remaining people accepted the new system in the face of forced measures.
- K. Impact of phenols and oil in Ponoï does not emerge visible in the oral histories, but is evident in the water measurements. However, new issues of fertilizer dumping to river

¹¹² Snowchange Krasnochelye Oral History Tape 2013-04.

¹¹³ Snowchange Krasnochelye Oral History Tape 2013-03.

as well as possible presence of nuclear waste in the catchment areas has been reported.

- L. Local people have both created new ditches and channels that have dried and negatively impacted the water courses in the catchment areas as well as tried to assist the fish in those lakes which suffer from lack of oxygen. Thus humans are both active agents of negative change as well as restoration actors. Role of communal seining has been identified as a mechanism to restore endemic fish species.
- M. The pike from Verhne-Kamenskoe lake is of special quality and may be considered a traditional healing remedy.

These observations form a crucial building block for future studies of the river and watershed and will be disseminated throughout 2014 in workshops in the region.



*Photo: Taking it easy in the village, Summer, 2013.
Image by Sergey Phillipchenko, 2014. Used with permission.*

Part II: Collaborative Management Workshops Along the Näätämö River, Finland



*Photo: Vladimir Feodoroff pilots his boat, September, 2013.
Image by Skolt Sámi Optic History Archives, 2014. Used with permission.*

4. Introduction

2013 was most active year in terms of workshops and assessment of changes underway in the Näätämö catchment area. At the end of the previous funding cycle, in April 2013, the *Ponoi and Näätämö River Collaborative Management Plan* (Mustonen and Feodoroff 2013) was released in Sanila Reindeer Farm, April, 2013 in a large cross-border Workshop. Regional media coverage was a success.

Shortly after the release of the Plan the NCM provided an extension to the grant for the dissemination and workshops in Näätämö watershed. The main aim for the April 2013 – April 2104 was to:

- A. implement different elements of the Plan, discuss the main findings and keep the monitoring efforts in the catchment area going through the winter.
- B. the Plan and its components were to be reviewed by series of international delegations, both Indigenous and scientific experts through the year. This was achieved with a number of events in the communities of the watershed as well as regional capitals.
- C. Given the pilot-style character of the Ponoi and Näätämö River Collaborative Management Plan, it was also presented (separately funded) in a number of high-profile events, seminars and Summits through the year.

5. Spring Work 2013

After the release of the Ponoi and Näätämö River Collaborative Management Plan members of the community discussed it in two small communal events. It was agreed that the monitoring

efforts regarding weather, animal and river changes would be continued. This led one of the Skolt Sámi fishermen, Teijo Feodoroff, to catch predator fish from the upper reaches of the Näätamö river, as outlined in the Plan¹¹⁴. Largest single catch was a five-kilo northern pike¹¹⁵. Other Skolts continued daily observations as a part of their spring fishery, such as the knowledge holder, Elder Illep Jefremoff, who focused his activities to catch white fish on lake Jänisjärvi¹¹⁶ in April.



*Photo: Teijo Feodoroff catching pike in March 2014.
Image by Gleb Raygorodetsky, 2014. Used with permission.*

In May 2013 the whole community of Sevettijärvi was devastated with the news that mr. Jefremoff has passed away unexpectedly. His work and efforts in the collaborative management work cannot be replaced and all project team members joined mourning together with the Sámi for this loss.

6. Collaboration with the Inuvialuit Joint Secretariat, Canada

In June 2013, separately co-funded, the co-management team members met with the Inuvialuit Joint Secretariat¹¹⁷ representatives from Northwest Territories, Canada in Helsinki, Finland.

The Inuvialuit co-management regime has been functioning the longest in the Arctic, since early 1980s, with a comprehensive programme to address traditional knowledge, science and harvests of fish. The contact between the Näätamö watershed team and the Inuvialuit had formed during the Arctic Climate Impact Assessment¹¹⁸ work 2001-2004, onto which both participated.

While the context is very different from Arctic Canada to Skolt Sámi areas, during the June Workshop in Helsinki exportable elements were reviewed. The Joint Secretariat had prepared

¹¹⁴ Mustonen 2014

¹¹⁵ Mustonen 2014

¹¹⁶ Mustonen 2014

¹¹⁷ <http://www.jointsec.nt.ca>

¹¹⁸ <http://www.acia.uaf.edu>

custom-made reports and methodological training kits for the Skolt team, and they were discussed at length. Later, in July and August 2013 the Inuvialuit shipped further materials to the Näätamö team to increase the depth and mechanisms of engaging Indigenous knowledge with science, especially regarding whitefish harvest.



*Photo: River Näätamö is at all time low, September, 2013.
Image by Skolt Sámi Optic History Archives, 2014. Used with permission.*

7. Weather Changes in the Näätamö Catchment Area From May 2013 to April 2014

A new year of monitoring efforts was activated due to climate change and the unexpected weather phenomena. They had been instrumental in catalyzing the local fishermen and other community people to activate regarding the workshops and efforts along the Näätamö watershed.

May 2013 became a historical month in Näätamö area. It had never been so warm, with temperatures soaring up to 30,1 C (YLE 2013). Utsjoki, the neighboring community was the warmest place in Europe (Yle 2013) on the 31st May. Lake water temperatures reached 16,6 C, which was over nine degrees above the average. Teijo Feodoroff, one of the fishermen, had to cut his spring harvest of pike short, because the ice became very thin and there was a lot of water on top of it in early May¹¹⁹.

Changes in bird behaviour remained a constant theme in the spring workshops and discussions. Avid bird watcher, a Finn Kari Penttilä reported that the following species had arrived within the last ten years into the region:

- *European Greenfinch*¹²⁰
- *Eurasian Blue Tit*¹²¹
- *Eurasian Tree Sparrow*¹²²

¹¹⁹ Mustonen 2014

¹²⁰ *Carduelis chloris*

¹²¹ *Parus caeruleus*

¹²² *Passer montanus*

- Eurasian Jay¹²³
- Hazel Grouse¹²⁴
- Pine Grosbeak¹²⁵ which appeared in 2005 for the first time¹²⁶

Satu Moshnikoff, an Elder who monitors the weather and the birds daily, reported that during the winter 2012-2013 the Eurasian Jays had stayed the whole season in Sevettijärvi community, as opposed to migrating south¹²⁷.

How then did the Skolt Sámi respond to these extreme weather events and changes in 2013?

Firstly, monitoring efforts along the Näättämö river area were expanded and increased. One of the younger herders maintained a daily record of temperatures, catches and weather events in the base camp on lake Opukasjärvi area¹²⁸. Some of the most important selected observations from June to July included:

18th June: 25 C, strong southern winds, no fish at all

19th June: 24 C, water temperature at 18 C, a salmon 6,5 kgs

26th June: 26 C, water levels dropping five centimetres, temperature 18 C

19th June: 23 C, water temperature at 18 C, a salmon 6 kgs

1st July: 27 C, water temperature at 19 C, water levels extremely low, big thunder, 4,5 kg to 8 kg salmon, 2 kg trout

8th July: 24 C, water temperature at 20 C, water levels dropping, at extreme low levels

10th July: 19 C, water temperature at 18 C, 5 kg salmon

17th July: Northern winds, mists, 4 C temperature, salmon 2 kgs¹²⁹



Photo: Community workshops were held on the river too, September, 2013.

¹²³ *Garrulus glandarius*

¹²⁴ *Tetrastes bonasia*

¹²⁵ *Pinicola enucleator*

¹²⁶ Mustonen 2014

¹²⁷ Mustonen 2014

¹²⁸ Snowchange Sevettijärvi Oral History Tape 2013-1

¹²⁹ Moshnikoff Water Records 2013

Image by Skolt Sámi Optic History Archives, 2014. Used with permission. Olisiko syytä mainita että team sitting in the dry rapid at Opukasköngäs

Secondly, Skolts decided to focus efforts to identify those damaged parts¹³⁰ of the Näätamö watershed which could be restored to increase salmon productivity¹³¹ in the area. Field visits were made in August and September. In September 2013 a large delegation of co-management scientists and Sámi visited the rivers Kuosnajoki and Vainosjoki tributaries. Photographic documentation of extremely low water levels, new algae growth¹³² and past land use damages¹³³ were surveyed.

During this field visit on 13th September an Elder, Mrs. Olga Semenoff conveyed aspects of gendered fisheries. She remembered that back in the traditional territory of Suonikylä (Mustonen and Mustonen 2011), which is now a part of Russia, women used to long-line for lake trout using white fish baits¹³⁴. She is a carrier of Skolt traditions and in future efforts will be made to document her observations and opinions about the catchment area issues (Mustonen 2014). She confirmed this is the warmest summer in fifty years, at least.

International experts participated in the September 2013 community workshops. Mr. Victor Steffensen, Indigenous Australian and his partner, Mrs. Che Stow, from the Torres Strait, Australia, shared their methods of documenting Indigenous knowledge. More specifically using the Indigenous methodologies by the Australian Aboriginal peoples in the “*Traditional Knowledge Revitalization Pathways*” project¹³⁵ a traditional knowledge database was constructed. Then the method was passed on to the Skolts.

This collection of the digital knowledge database features oral histories of the area, songs, artwork, photos, mapping of traditional land use of the Skolts and other peoples of the region as well as historical accounts of community life. Co-management team was very thankful to them for sharing all of their experiences and wisdom.

¹³⁰ From outside state-sponsored land use, such as forestry, dredging and tourism

¹³¹ One of the traditional methods includes the spreading of ant nests to a lake to improve the nutrient levels and fish fodder in the waters (Mustonen 2014). Fish need the additional food most urgently after ice break up. Ant eggs are used to feed the fish in this method.

¹³² One of the younger herders said that green algae has appeared on Näätamö in earlier times of warm waters, but a “black algae” was a new observation for 2013. Snowchange Sevettijärvi Oral History Tape 2013-1

¹³³ In 1968 the state forestry company Metsähallitus dredged six kilometers of the river Vainosjoki and the adjacent lakes to improve boat access and forestry activities. Sámi report impacts to the salmon spawning areas, trout and other fishes (Mustonen 2014, Snowchange Sevettijärvi Oral History Tape 2013-2).

¹³⁴ Mustonen 2014

¹³⁵ <http://www.tkrp.com.au/>



*Photo: Knowledge of women is central to tradition.
Olga Semenoff, left, shares memories with Kaisu Mustonen, September, 2013.
Image by Skolt Sámi Optic History Archives, 2014. Used with permission.*

8. Sámi Observations about the Atlantic Salmon

Sámi observations about the salmon were collected through-out the Summer and Autumn 2013 in the Workshops. A younger herder reported that the salmon arrived to the stream from the ocean as early as May, unexpectedly early¹³⁶. First salmon was caught 5th June, 2013. Due to the very low water levels the Sámi had a fear that the fish cannot reach the upper parts of the river Silisjoki to spawn¹³⁷.

Still in September the water levels remained one meter below “*observed normal*”¹³⁸. A younger herder in his 40s did not recall such times on the river in his lifetime¹³⁹. He expressed his concerns that if the water temperatures continue to be around 20 C degree all the time, salmon and other fish cannot survive.

¹³⁶ Snowchange Sevettijärvi Oral History Tape 2013-1.

¹³⁷ Snowchange Sevettijärvi Oral History Tape 2013-1

¹³⁸ Snowchange Sevettijärvi Oral History Tape 2013-1

¹³⁹ Snowchange Sevettijärvi Oral History Tape 2013-1



*Photo: Risto Semenoff surveys the dried-up river bottom of Vainosjoki, September, 2013.
Image by Skolt Sámi Optic History Archives, 2014. Used with permission.*

In mid-September, during a community workshop, two elderly herders in their 60s shared their observations about the place names of the catchment area¹⁴⁰. One of their concerns was that many of the place names are wrong on maps, providing an example of the river *Pä'htt*¹⁴¹, which is on the maps known as river *Pakanajoki*¹⁴². Another similar mistake was *Njuhčvää'rr*¹⁴³ which on Finnish maps appears as "*Nuhjausvaara*"¹⁴⁴. Such problems with the public topo- and hydronyms on state maps prevent the traditional knowledge of the Sámi from becoming visible.

The two Elders had observed the various dredging and man-made alterations to rivers Vainos and Kuosna as well as the Jäniskoski rapids and a deep water pool of Karikkilompolo. Algae spreads after the streams have been altered by humans. Salmonid fish had been lost there since 1968, and northern pike has increased their populations. According to them whitefish disappeared completely from these tributaries¹⁴⁵. Authorities such as Metsähallitus had ignored their complaints for decades. One of the Elders also stressed the role mink has had on the fish in the watershed¹⁴⁶.

¹⁴⁰ Snowchange Sevettijärvi Oral History Tape 2013-2

¹⁴¹ Referring in Sámi to large rocky cliffs

¹⁴² "Pagan river". Snowchange Sevettijärvi Oral History Tape 2013-2

¹⁴³ Swan hill. Snowchange Sevettijärvi Oral History Tape 2013-2

¹⁴⁴ "Hill of idle times"

¹⁴⁵ Snowchange Sevettijärvi Oral History Tape 2013-2. They also report that in 1980s forestry activities took place close to these tributaries.

¹⁴⁶ Snowchange Sevettijärvi Oral History Tape 2013-2



*Photo: Rivers dried up and algae emerged in the remaining pools, September, 2013.
Image by Skolt Sámi Optic History Archives, 2014. Used with permission.*

A traditional knowledge holder, a Skolt Sámi Elder in his mid-60s, confirmed that while each year is different, but during his lifetime it has never been so dry¹⁴⁷. New, strange rocks have emerged from under the water, as the river course runs very low. He thinks the fish should be allowed to have a chance, and only a limited fishery allowed: *“Salmon should get up here to spawn and then they should be allowed to leave in peace to return to the ocean. Creator cleans the river with floods, but humans can help by not polluting and by not taking too many fish.”*¹⁴⁸



*Photo: Pollen was plentiful, September, 2013.
Image by Skolt Sámi Optic History Archives, 2014. Used with permission.*

He recalls the state enterprises such as Metsähallitus affecting the lake Opukasjärvi premises in 1950s, in his youth: *“They tried to burn the whole hillsides. To destroy the native birch trees and replace them with pine. Every time they tried to burn the hill side, a strong rain fell. They were thinking of putting the area to grown pine trees. Our birds however prefer the deciduous forests to evergreen. It is also bad for the reindeer if there are no deciduous forests left. Well, the rest of them was taken care*

¹⁴⁷ Snowchange Sevettijärvi Oral History Tape 2013-3

¹⁴⁸ Snowchange Sevettijärvi Oral History Tape 2013-3

by the defoliating looper moth¹⁴⁹. Every year they are still turning the rocks on Näättäjä river, big rocks. Or look at Kallojoki, they diverted the whole river. Humans should not do things like that.”¹⁵⁰

¹⁴⁹ *Epirrita autumnata*

¹⁵⁰ Snowchange Sevettijärvi Oral History Tape 2013-3. Other participants remembered logging on the Näättäjä river in late 1800s and early 1900s.



*Photo: Käpälä paw seines pulled in 1950s, Neiden, Norway.
Image by National Board of Antiquities, Finland, 2014. Used with permission.*

9. Situation in Neiden, Norway

In Autumn 2013 Karl-Magnus Arvola, leader of the Kven fishermen in the community of Neiden, Norway, shared his experiences of the year as a part of the collaborative efforts. Overall, the summer turned out to be alright for the salmon in the lower parts of the river, but Arvola agreed with the Skolt observation that the water levels remained extremely low¹⁵¹ without any rain, at all. Usually the water torrent is around 30 cubic meters a second, and at times the current was down to five cubic meters per second in July. The old fishermen in Neiden cannot recall such conditions. All the rocks emerged from underwater at this time¹⁵².

¹⁵¹ Mustonen 2014

¹⁵² Mustonen 2014



*Photo: Salmon catch from seine, Neiden, Norway.
Image by National Board of Antiquities, Finland, 2014. Used with permission.*

Fish catches totalled around 1000 kilograms with the cultural fishery of *käpäälä* “paw” seine. Sport fishery results are available now also in the internet¹⁵³. All in all the spawning of the salmon on the Norwegian side succeeded quite well. Sea trout fishery was late, with a lot of small fish coming upstream in late summer, the fishery closed at 31st August 2013. Some of the introduced humpback salmon had tried to spawn also on the Norwegian side, and efforts were made to catch them. Seal levels remained stable at the delta of the river¹⁵⁴.

A new feature of the revitalisation of cultural fisheries was that old photographs from the National Board of Antiquities of Finland from 1950s were printed in large-scale. They featured the *käpäälä* seining events from over 60 years earlier. Many community people could recognize their relatives from the photos and the sizes of the salmon were discussed at length¹⁵⁵.

¹⁵³ <http://www.neiden.no/>

¹⁵⁴ Mustonen 2014

¹⁵⁵ Mustonen 2014



*Photo: Fishermen are preparing the seine, Neiden, Norway.
Image by National Board of Antiquities, Finland, 2014. Used with permission.*



Photo: Indigenous Australian Victor Steffensen and researcher Tero Mustonen survey the dried-up Vainosjoki river, September, 2013. Image by Skolt Sámi Optic History Archives, 2014. Used with permission.

10. International Efforts to Disseminate Key Findings

As the Näättäjä river collaborative management efforts are the first of their kind in Finland, the team involved decided to share and disseminate the results and key findings as well as the methodology of combining science, local and Indigenous knowledge in salmon management from November to April. All the dissemination efforts were separately funded¹⁵⁶.

In early November 2013 team member Tero Mustonen participated in the Swedish-Finnish Cross-Border River Commission “Water Parliament” in Tornio-Haaparanta area. Main tools, including mapping, water measurements, optic and oral history documentation and other activities were shared with the main officials in charge of water resource management in Sweden and Finland. The Tornio watershed, which flows into the Baltic Sea, was reviewed for practices and on the Swedish side the heavily-damaged Luleå catchment area was assessed for similar possible future initiatives.

In early January 2014 the Stockholm Resilience Center in Sweden organised two international groups to review the Ponoj and Näättäjä River Collaborative Management Plan and conduct cross-cutting interviews with the involved parties. The summary reports provided by the Center clarified and positioned the work into an international context and were found to be very meaningful activity by all parties.

¹⁵⁶ The role of the United Nations Association of Finland needs to be recognized here as a key disseminator of Näättäjä and Ponoj materials in the international arenas.

One of the teams (Spijkers et al. 2014) concluded their resilience assessment by stating that: ***“The Näätämö river is a sensitive ecological system and is of great importance for the traditional Skolt Sámi fishery. Current and future disturbances caused by climate change and increased human activity are challenging the delicate dynamics of this socio-ecological system and, even though the particularities of future impacts remain largely uncertain, call for a new perspective on the governance of this system. For the system to be resilient to those disturbances, local [including Indigenous] ecological knowledge, traditional management practices and resource owner- and user rights of the Skolt Sámi people need to be recognized by the authorities involved and co-management needs to be identified as the only type of governance that would ensure future sustainable use of the system in question.”***

Hannah et al. (2014) frames the solutions in the following: ***“Although Finland has granted the Skolt Sámi cultural and language rights, land rights are unlikely to be granted in the near future. The mineral resource within the Finnish territory occupied by the Skolt Sámi might be influencing this decision...A landless culture is bound to extinction, since their identity is embedded in the land. When analyzing the specific and general resilience of the system it is found in both areas there is potential for adaptability and transformation, providing that several features are enhanced:***

X Water quality: Currently, at risk of being further degraded by other land uses such as forestry and mining. Enhancing water quality will help to improve spawning habitat and salmon survival.

X Restriction on fish farming: Fish farming is responsible for diseases, loss of genetic diversity in wild salmon and polluting water system from intensive methods and overuse of nutrients. Placing more restrictive policies on the size and intensity of fish farming will help to improve water quality and salmon habitat.

X Policies that favor co-management: Officially recognizing the capacity of the Skolt Sámi to act as stewards of these waterways. This will foster resilience of indigenous communities and ensure survival of traditional knowledge and culture tied to Atlantic salmon and build social capital through mobilization and trust.

X Quotas on fishing permits for tourists: While the economic benefits from tourism for the Skolt Sámi may be negligible the impacts they are having on the landscape are considerable. By setting quotas on the number of fishing permits for tourists it ensures that the Sámi can continue subsistence fishing of salmon while not contributing to stock depletion.”

In April 2014 the Ponoï and Näätämö River Collaborative Management Plan was highlighted as the opening event at the Arctic Observing Summit¹⁵⁷. Main idea was that both science and Skolt Sámi share their thoughts regarding how, where and in what direction efforts should be focused to restore and improve the situation of salmon in these extreme weather conditions. The event was a success. It led the United Nations Environmental Programme to highlight the Ponoï and Näätämö work at the new “*UNEP LIVE*” web portal¹⁵⁸ and fostered a further dialogue between scientists and Indigenous peoples at the summit.

¹⁵⁷ <http://www.arcticobservingsummit.org/>

¹⁵⁸ <http://uneplive.unep.org/region/index/AR#.U2DonygR9Ib> → “Traditional Knowledge”



*Photo: Pauliina Feodoroff is the project leader for the collaborative management measures in the Eastern Sámi territories. Researcher Tero Mustonen in the background.
Image by Skolt Sámi Optic History Archives, 2014. Used with permission.*

11. Efforts During the Winter and Spring 2013-2014

Work in the catchment area intensified in the winter 2013-2014 as the historically low water levels convinced the Sámi that things are really serious. Winter continued to be extremely warm according to the Sámi¹⁵⁹. Open leads, water on top of the ice, rain and early melt of snow in March with plus temperatures continued the “new” weather conditions in the community¹⁶⁰.

One of the new measures for the winter 2013-2014 was to initiate a dialogue with the scientists working with the freshwater mussel¹⁶¹ populations in the Näättämö watershed. The mussel is a key species for the water quality and it remains a great puzzle, why the populations are so low in the catchment area.

The first meeting was held in Kiilopää area in September 2013 between the Sámi and the scientists. Some of the key findings included:

- Scientists agreed that removal of stones from rivers, such as Vainosjoki tributary destroys the gravel beds and ice affects these sites more, altering them. River becomes unproductive.

¹⁵⁹ Mustonen 2014

¹⁶⁰ Mustonen 2014

¹⁶¹ *Margaritifera margaritifera*

- Freshwater mussel cleans the water with the rate of approximately 50 liters a day. This helps the fish as the organic materials floating on the stream are directed to the bottom sediments.
- There is a lot of non-organic discharge in Näätamö river, which suffocates the bottom species in the absence of mussels.
- Mussels spawn in Autumn, and the fertilized egg attaches itself to the gills of a young fish without killing it. It provides better resilience to the host fish, against many diseases.
- Mussels can live up to 200-years-old.
- The rivers along which the Skolts used to harvest mussels (Mustonen and Mustonen 2011) include now Suomu and Lutto in Finland with the worst situation being along the Näätamö stream.
- To compare, on the river Varzina on the Kola Peninsula, there are at least 100,000 mussels today.
- Between 1880 and 1930 there was a large Karelian harvest of mussels for their pearls in the region, in addition to Skolts.
- In 1998 17 mussels were discovered in Näätamö river, in 2005 none, in 2012 nine and in 2013 two which were 20 meters apart from each other¹⁶².
- Mussels can travel two meters per day against the current with their feet.
- Sámi traditional knowledge regarding mussels from Luleå watershed tells that that if they start to float, something bad is about to happen.
- Scientists confirmed that new algae, reported also by the Skolt fishermen, had been discovered in Näätamö and the eutrophication of the main river course is increasing. Reasons for this development may include air pollution, increases in reindeer amounts or some unknown factors. New water plants, not present a year before, had been observed.
- Water visibility had dropped in 2013, only a few meters could be seen during the snorkelling expeditions for the mussels¹⁶³.



Photo: Risto Semenoff shows the size of the salmon from his youth – Tero Mustonen and Vladimir Feodoroff pay attention, September, 2013. Image by Skolt Sámi Optic History Archives, 2014. Used with permission.

¹⁶² Scientist Eero Niemelä suggested during the Arctic Observing Summit 2014 that the disappearance of mussels from Näätamö may result from the acidic rains in 1980s (Mustonen 2014).

¹⁶³ Feodoroff 2014

The Sámi and mussel scientists agreed to improve coordination of efforts and share main results. Researchers suggested for the 2014-2015 that the Sámi could:

- investigate the gills of the young returning salmon in the spring and early summer 2014 to see if there are mussels attached. They are willing to train the Sámi to do this work.
- Documentation of observations of mussels from the Sámi during the summer 2014.
- Possible regeneration of Näätamö stocks with implanted mussels – male and female need to be 200 meters apart, minimum for this to succeed.
- Situation of mussels in Ponoï river remains unknown and observations could be shared here too¹⁶⁴.

In March 2014 another large international workshop was held in Sevettijärvi, which included field visits to the river Silisjoki and lake Opukasjärvi areas of the Näätamö watershed. Experts from the Indigenous Peoples Restoration Network, mr. Dennis Martinez from USA and United Nations University – Traditional Knowledge Initiative, mr. Gleb Raygorodetsky spent a week with the community fishermen sharing their knowledge and reviewing progress made so far. Predator fish harvest was initiated for the spring 2014 during this time too¹⁶⁵.



*Photo: Open lead in the Silisjoki river, March 2014.
Image by Skolt Sámi Optic History Archives, 2014. Used with permission.*

The Skolts doubled their efforts to share the co-management materials. They are one of the only Sámi groups to possess written agreements about fisheries and land use with the nation-states. These documents are the so-called “*Skolt Sámi Archive*”. Together with the Finnish national authorities, the Skolts applied for the Archive to be included into the Memory of the World process of UNESCO. As a part of that process a documentary film, highlighting the 2013 co-management efforts was produced¹⁶⁶.

¹⁶⁴ Feodoroff 2014

¹⁶⁵ Mustonen 2014

¹⁶⁶ At https://www.youtube.com/watch?v=JKKJqu-vV_Q



*Photo: Knowledge shared by the Indigenous leader Dennis Martinez, USA was crucial for Indigenous-led restoration activities in Näätämö catchment area.
Researcher Tero Mustonen agrees.
Image by Gleb Raygorodetsky, 2014. Used with permission.*

12. Culmination of the 2013-2014 NCM Activities

Between 13th and 16th March a large international Workshop, devoted to the Näätämö and Ponoï efforts, key findings and collaborative management results from the first year of implementation was held. The location of the event was in Lovozero, due to the wishes of the key coordinators – delegates from the Ponoï river communities arrived early to the event by air, as the flight scheduled remained unstable¹⁶⁷. Depending on the day, 10-15 people took part in the Workshop.

The first activity of the Workshop was to share main findings with the regional authorities in Murmansk on the morning of the 13th March 2014. The deputy Minister of the Environment, mr. Schweitzer together with the heads of the hydrology and water resources department received the international delegation. Main results of the Näätämö and Ponoï work and reports were shared, and the future steps discussed.

The actual workshop began with cultural programme in Lovozero. Visits to the House of Culture and Museum were made, and old fishing methods, land use and Sámi artefacts reviewed¹⁶⁸. Then the Plenary began, with the main results first explained¹⁶⁹. After that the Komi, Sámi, Russian, Finnish and international discussions on the issues of salmon, water management and co-management emerged.

To offer a brief summary of the discussions, Pauliina Feodoroff explained that Näätämö is different river system from Ponoï. It is more shallow and shorter at length, it is a Skolt Sámi

¹⁶⁷ See this problem persisting in Feodoroff and Mustonen (2013).

¹⁶⁸ Mustonen 2014

¹⁶⁹ Consisting of a draft of this report and the 2013 Plan.

river, and formerly owned by the now-assimilated Näätamö siida¹⁷⁰. In Norway and Finland there is a different situation with legal and self-governance issues as in Russia. Skolt self-governance has been partially preserved in Finland. However, Skolts have lost exclusive rights to the fish, but still have stronger rights than in Russia, as an example the traditional ownership and use of the cabins along Neiden.

She continued to say that the main focus is now by the Skolt fishermen on salmon spawning restoration sites. Fishermen of the project were equipped with digital cameras to document changes. Idea is to foster the return of salmon and trout back into the “lost” areas, and investigate the situation of freshwater mussels¹⁷¹, and restore them too. It is a indicator species for salmon health. Winter 2013-2014 is vanishing as we speak, there are, despite the differences, models the could be adopted from Neiden to Ponoï. Sámi fishermen on Näätamö are excited about the work and send their greetings to Kola¹⁷².

A Russian Sámi man in his mid-30s reflected that the summer 2014 is predicted to be hottest in a decade, by Roshydromet, the state weather service. A Komi Elder from Krasnochelye shared that there was cattle along Ponoï too in earlier times. Ponoï used to be a rich home community for him, but he has not been allowed to visit there for over ten years now.

Sergey Phillichenko, the main local coordinator for the work in Ponoï reflected on the environmental waste dumped to the river during Soviet times. He said that negative impacts to the river result from the irresponsible behaviour of local peoples. Fertilizers were dumped on Ponoï thirty years ago.

Participants explained that there were several sacks of fertilizers on the riverbank, and were leaked to the river. People disposed them to the river without thinking. Kolhoz ordered them to “clean” the pile, and it was done by dumping. That is why there are results in the water measurement data. There are many examples of such criminal negligence. Some locals do not wish to protect the environment. *“We need to include those people who have a good relationship to the river”*, he concluded. Officials cannot be trusted with this work. Russian authorities have good intentions, but the work is often wasted, nothing happens. Most participants felt that: *“We need to process the 2012-2013 results and take it to the villages. Also we need to expand the work to cover all seasons, not just summer.”*

Cultural heritage reflected in the place names emerged too. *“Place names of Ponoï can exist in many forms on maps.”* One example of many place names is the so-called *“Nenets mountains”*, which are also the *“Keiv”* range on Ponoï.

Locals are limited in their fisheries. Helicopters bring outsiders who fish most of the catch. According to the participants of the workshop there are many changes to the social realities in the villages, as in Krasnochelye: *“Village changes. There used to be 140 students in 1978 in Krasnochelye and now there are 45 students.”*

The issues of water quality brought forwards sad memories from other catchment areas of Kola Peninsula as one of the ladies in the workshop reflected: *“I was relocated from the*

¹⁷⁰ Mustonen 2014

¹⁷¹ Workshop participants said that people have also seen mussels in clay bottoms and the dead shells along Ponoï.

¹⁷² Mustonen 2014

Koarddek-siid, Voronye, in 1961. Hydropower development began at that time. We used to have a lot of river mussels and pearls; some place names were called “the Pearl rapids”. Local people never sold them, they were used in handicrafts. Sámi would never reveal the locations of the harvest sites. Prior to the hydro-development the local cemetery was covered with concrete. It was a shaman graveyard. This was done as the area was to be flooded, and it would prevent the bones from floating. It was promised more recent graves would be re-located, but it never happened. Bones floated afterwards on the river. It was scary if it happened in the evening. I arrived in Lovozero in 1962, but we still go to collect berries along Voronye. Kolhoz took all animals away. Parents started to die off soon after relocation. Now we do not have any rights to the land. There are new users and owners, as there was a man with a motor boat driving us away from the river and area. It is our traditional territory. We can only find anymore 3-4 people who are alive and really remember the events of 1961. I wrote the book on traditional games to preserve the old knowledge, aspects of it.”¹⁷³

In other recent environmental pressures, there are several mining companies, such as Voronye Mineral Company and Barrick Gold still exploring, reindeer herders see them doing testing on the land¹⁷⁴. Ponoï river bed is changing naturally too, altering in form, the bottom shifts. There used to be deep pits, but they have disappeared, according to Workshop participants.

13. Future Steps for the Näätamö and Ponoï Watersheds

As a result of the 2013-2014 work in Näätamö and Ponoï watersheds, the following future steps have been identified:

- a. Restoration of a pilot-spawning site that has been affected negatively on the Neiden watershed.
- b. Organization of several small-scale community workshops in the Neiden watershed to discuss the fine details of the plan and allow the Sámi and other local people to discuss the proposed actions further.
- c. To coincide with the traditional knowledge workshops in the watershed, national scientists working with the Atlantic salmon will be invited to share layman representations of major science discoveries of the river, the fish, Barents Sea and the weather change.
- d. New traditional knowledge oral histories should be collected to focus on a new season of Atlantic salmon and observations regarding its health, with a new topic of a status of freshwater mussels in the Neiden watershed. Mussel is another indicator species of the health of the watershed and preliminary science results indicate a collapse of mussel populations on Neiden for unknown reasons¹⁷⁵.
- e. Management fisheries in 2014 that will focus on predatory fish such as burbot and northern pike that impact on salmon smolt – they are best caught during February-March-April spawning times.
- f. A larger conference with state bodies, scientists and non-governmental organizations to advance the collaborative management steps further in the fisheries and management policies between Finland and Norway.

¹⁷³ Mustonen 2014

¹⁷⁴ Mustonen 2014

¹⁷⁵ Feodoroff 2014

- g. To organise a poster exhibition for Kanevka, Sosnovka and Krasnoshelye, based on the work 2012-2014, and also have it in Lovozero.
- h. Begin a school cooperation in Krasnochelye devoted to these topics
- i. Investigation of the Voronye hydroelectric station impacts and histories



*Photo: Näätämö in Autumn, September, 2013.
Image by Skolt Sámi Optic History Archives, 2014. Used with permission.*

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Oral Histories

The oral history materials recorded in the territory of Murmansk region, Russia appear here anonymously based on the wishes of the participants to the local community workshops during the summer 2013. Original tapes are available at the Snowchange Cooperative Archives.

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*Photo: Vladimir (L) and Pauliina (R) Feodoroff,
Father and Daughter revitalising Näätämö river and the Skolt tradition.
Image by Skolt Sámi Optic History Archives, 2014. Used with permission.*



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