

Report by Ludmila Fedorova on the Results of the Business Trip to Yuzhno-Sakhalinsk May 25 to 30, 2021

I. YUZHNO-SAKHALINSK May 25–30

Ludmila Fedorova's business to Sakhalin coincided with [the third International Virtual Workshop of the North Pacific Anadromous Fish Commission \(NPAFC\)](#) on Linkages between Pacific Salmon Production and Environmental Changes.

05.25.2021

Okha Ltd and Rybnovskii Losos Companies

The meeting with participation from Oksana Borisenko was held at the company office. Ms. Borisenko notified Ms. Fedorova that the client companies are ready to take on the risk of entering the full certification evaluation process. Fedorova discussed the possible risks associated with not passing the certification, in particular the uncertainties related to the companies' Principle 1 and 2 problems, which are:

For Principle 1 – with the reality of the general harvest downturn, we also know that the companies' total harvest consists of two portions: local and by-passing stocks. Therefore, it is necessary to have a clear understanding as to which portion that harvest drop is related to – the reduction of reproduction rate in the local stock or the reduction in the migrating population abundance including the Amur River salmon. There is a need to conduct a comprehensive Pink and Chum Salmon escapement monitoring program of the Okhinskii District rivers to figure this out. In addition, it is necessary to conduct research on the reproduction success of the stocks migrating past the fishery to other regions. The work to this goal would require involvement on the part of competent scientists.

For Principle 2 – it is necessary to collect primary statistical evidence and a scientific report proving that the Okha regional fisheries have no negative impact on the local kaluga and Sakhalin taimen populations.

05.26.2021

Ludmila Fedorova held meetings with SakhNIRO and Sakhalinrybvod representatives.

Sakhalin branch of Glavrybvod (Sakhalinrybvod): the meeting with Galina S. Rudakova took place in the office of the agency.

After our greetings, Fedorova spoke about the work process related to the North Sakhalin FIP (Okhinskii District), as well as about ForSea Solutions and provided copies of the Rosrybolovstvo and Fishnet press releases about ForSea Solutions.

Fedorova asked for details of the Sakhalinrybvod ichthyological services and their plans for monitoring Sakhalin rivers in 2021. Ms. Rudakova said that Sakhalin is the only Far Eastern region where the Fish Biology Department is still operating within the agency structure. In all other regions, all fish biology departments and spawner escapement monitoring functions have been transferred to scientific institutes – VNIRO regional branches. The exception was justified by the Sakhalin administration's need to receive a larger amount of information on Pink and Chum Salmon escapement into Sakhalin Island's watersheds. Sakhalinrybvod's fish biologists conduct walking escapement counts and provide in-season data to SakhNIRO. Then, based on their own data, as well as the information received from Sakhalinrybvod, SakhNIRO scientists develop recommendations on increasing harvest volumes and fishing season timing or measures to limit the fishery, which they present at the Commission for Anadromous Species meetings.

Another new development of the current year: the government is providing scientific salmon fishing quotas aimed at collecting biological data and conducting research. These quotas

can be obtained only by the scientific staff members of research institutes. To provide the

Sakhalinrybvod fish biologists with these research opportunities, they are now temporarily and part-time employed by SakhNIRO, so have the ability to take fish for biological analysis. This is why in Table 3 of the Fishery Strategy for the Sakhalin Region there are “lab assistant” positions mentioned next to the names of the Sakhalinrybvod staff.

The plans for the Sakhalinrybvod governmental escapement monitoring in the Okhinskii District include 26 on-foot river monitoring expeditions during the 2021 Pink and Chum Salmon run season, as well as biological analysis of Pink and Chum Salmon on the northeast Sakhalin coast.

Similar to last year, the work in Okha will be supervised in 2021 by Oleg Grizhebovsky.

SakhNIRO

Ludmila had two meetings at the institute: one with the Head of the Salmon Lab Vitaly Nikitin, and one with the staff member of the Otolith Division Olga Barkovskaya. During the meeting with Vitaly Nikitin, they discussed the lab plans for the Okhinskii District. Vitaly explained that there will be 2 staff members in the district in 2021 to be based in the village of Rybnovsk and to provide in-season data on Pink and Chum Salmon fishery for Sakhalin Northeast. Their functions will include sampling fish for biological analysis once every 5 days, collecting statistical information on harvest, and participating in surveying the district rivers. All in all, their work will be directed at monitoring the fishery and providing scientific data for in-season harvest increase or fishery closure if necessary. Vitaly clarified that the agency had neither the manpower, nor the budget to conduct activities at other locations within the Okhinskii District (North and North-East).

They also discussed the upcoming SakhNIRO work on the Kunashir Island. Vitaly informed Fedorova that one of their staff was already stationed there (Andrey Zhivoglyadov) and conducting a coastal foraging resources study in the Izmena Bay and Pervukhina Harbor. Vitaly confirmed that in the fall Zhivoglyadova is scheduled to travel there again for data collection on the Pink and Chum Salmon escapement to the Kunashir River spawning grounds.

At the meeting with Olga Barkovskaya, they discussed the program of work related to the otolith marking of the hatchery output on Sakhalin.

05.27.2021

On the third day of the Sakhalin visit, Fedorova met with representatives of the Sakhalin State University (SakhSU).

SakhSU (Federal State Budgetary Educational Institution for Higher Education SakhSU – Sakhalin State University): Ludmila had a meeting with an Associate Professor from the Department of Ecology, Biology and Natural Resources Anna V. Litvinenko who is the head of the Aquatic Bio Resources and Aquaculture Program.

After her short introduction on salmon fishery certifications and ForSea Solutions, she offered Anna the printed copies of the press releases from the Rosrybolovstvo and Fishnet websites. In the course of their discussion, the question of attracting students and staff to perform data collection services to fishing companies was discussed. Fedorova raised an issue of the information deficit on Pink and Chum Salmon populations that Sakhalin fishing companies experience in spite of harvesting these very stocks. There is a clear lack of river monitoring at the end of run seasons since most fish biologists conduct river escapement monitoring only until the mid-run point to be able to provide in-season data to the Commission on Anadromous Species.

Anna shared that the Aquatic Bio Resources and Aquaculture Program students do acquire the skills related to hydrobiological and ichthyological research and are able to identify the species composition and age class, as well as measure the biometrical characteristics of fish and much more. The institute has a chemical-biological lab legally permitted to contract with companies to provide a full spectrum of commercial technical and analytical services; the lab staff and university faculty are also legally permitted to provide consulting, scientific and other professional services to private companies. Anna talked about the already existing wide spectrum of collaboration with private salmon hatcheries. The university students are dispatched to complete their internship to all

Sakhalin districts and even Khabarovsk Krai hatcheries. Representing the university, Anna expressed the readiness for the institute’s wider collaboration with Sakhalin fishing companies. The joint work on engaging SakhSU students in such work could become mutually beneficial to all

parties. On the one hand, students would receive the field data they could use for their course and graduate projects, and on the other – fishing companies would gain access to potential experts, at least those in training, who they could potentially hire in the future.

05.28.2021

Fedorova met with Svetlana Sidorova, the head of the Oversight and Audit Division for Sakhalin Regional Hatcheries of Sakhalin-Kuril Territorial Administration (SKTU). Ludmila tolda Svetlana about the progress achieved by Okha and Rybnovskii Losos toward completing their salmon Fishery Improvement Plan activities in the Okhinskii District. Svetlana asked questions regarding Fedorova's role in this project. Ludmila told her of the work she and other ForSea Solutions experts do and shared the copies of the press releases published by Rosrybolovstvo and Fishnet about ForSea Solutions.

Ludmila and Svetlana discussed the procedure for new hatchery location and construction negotiations, as well as the regulatory and legal documents required as part of that process. Svetlana clarified that during the first stage of the process, companies enter a contract agreement with scientific agencies and receive a so-called Fish Hatchery Biological Justification (FHBJ) containing a detailed description of the watershed, its ichthyofauna composition and the evaluation of the possible future increase of the harvestable resource as the result of the perspective juvenile salmon releases. The document of that sort is usually compiled by Sakhalinrybvod, SakhNIRO, VNIRO and other scientific organizations with fishery-related expertise.

At the next stage, the company is to file a request with an Engineering firm which would produce design documentation. Then, the company is supposed to send both obtained documents to the regulatory agency (Sakhalin-Kuril Territorial Administration in this case) in order to receive the official approval (permit) to begin the construction work. Once the SKTU approval is received, the company may begin its salmon hatchery construction and simultaneously apply to SakhNIRO to be issued recommendations on the juvenile release volumes for the given river and region. Svetlana told me that there was an approval process under way for a salmon hatchery construction project in the Okhinskii District. The hatchery will be located on the Volchanka river which empties into Baikal Bay connected to Severny Bay by means of two channels (Zapadny Channel and Vostochny Channel). According to the plan, the hatchery is to release 18 mln Chum Salmon, and 2 mln Pink Salmon smolts. More detailed information will become available at a later time.

\