

**CAP Application on the Ground: Sakhalin, Russia**  
*End-of-year grant report to Conservation Leadership Programme*

## **1. Summary and brief description**

Through the support of the Conservation Leadership Programme, the Sakhalin Salmon Initiative Center (SSIC) and its partners furthered implementation of a Conservation Action Plan (CAP) for the Langry River in Northwest Sakhalin. The primary goal of the CAP is to conserve salmonid biodiversity in the Langry basin and ensure that abundance levels of the various salmonids present in the basin will foster sustainable natural reproduction into the future. The CAP includes an evaluation of existing threats to salmon biodiversity, methods for mitigation of these threats, monitoring and analysis of results, and means of cooperation with government agencies. As subsistence and commercial-scale poaching represents the greatest threat to salmon populations in the Langry, we devoted most of our conservation efforts to poaching prevention.

The main objectives for the project were:

1.1. Implementation of a community-based anti-poaching plan for the Langry River, including anti-poaching patrols (which worked on the river during the August-October fishing season), road checkpoints coordinated by the local watershed council, monitoring of juvenile out-migration (May-June) and surveys of salmon redds. The monitoring and survey work is conducted to assess success of the anti-poaching plan.

1.2. Accomplishment of additional research focused on the in-basin distribution and migration patterns of two endangered salmonid species (Siberian and Sakhalin taimen). In order to facilitate this work, an official scientific program was developed through a new collaboration with the Institute of General Genetics (Russian Academy of Sciences) in Moscow. The program received federal government approval and catch permits for Sakhalin taimen were issued to the Academy, a first for taimen research conducted on the island. Taimen fin clips were gathered for the purpose of genetic studies of sub-population structure. Through this research program, extremely high taimen densities were found on another river of Sakhalin, the Dagi. Plans were developed to begin conservation planning work on the Dagi in 2010, transferring lessons learned on the Langry in 2008 and 2009 to a second Sakhalin geography which likely contains the world's highest density of Sakhalin taimen.

1.3. Protection of salmonid habitat of the Langry River. In 2008-2009, SSIC staff evaluated the feasibility of various conservation methods, including protected area creation. In light of the current Regional Administration's strong viewpoint that additional protected areas cannot be created in the Sakhalin Region at this time due to insufficient government funding, we decided to instead pursue a strict conservation planning strategy through which we hope to impact overall regional land management policy toward focusing more on long-term study, conservation and sustainable management of salmon. By involving government representatives and specialists in the development and accomplishment of the Langry plan, we built momentum for similar projects on other watersheds and inclusion of conservation planning principles in government protocols. Lessons learned from our conservation activities on the Langry can thereby be applied to other rivers on Sakhalin and, perhaps, the entire Russian Far East.

This bottom-up approach to conservation which involves members of the community in accomplishment of conservation activities may in fact build sufficient momentum to create a protected area on the Langry in the future despite the Administration's hesitance.

1.4. Promotion of stakeholder involvement in implementation of the CAP. The CAP was presented to the local watershed council in July, and the council became involved in its implementation over the course of the summer (particularly in the organization of anti-poaching road checkpoints that intercepted poachers' vehicles entering the territory of the river). In addition, the Okha Administration, Sakhalin-Kuril Territorial Management Agency, local branch of the Federal Internal Affairs Department, and the local forest management department supported and participated in the anti-poaching plan, contributing employees that helped to conduct raids along the river.

1.5. Water quality monitoring of the Langry River and the Amur strait in order to develop a set of baseline data in light of oil and phenol spill danger in the region, as well as climate change.

## **2. Introduction and project background**

2.1. At a 2007 river prioritization seminar in Yuzhno-Sakhalinsk attended by representatives of the two most prominent government science agencies focused upon salmon, the Langry River was recognized as the river on Sakhalin with the highest conservation value for Pacific salmon. Owing to the fact that the Langry River is in close proximity to the mouth of the Amur River, there is rich biodiversity of Salmon species found there, including grayling, lenok, whitefish, and the endangered Siberian and Sakhalin taimen. Expeditions conducted last year on the Langry River confirmed the presence of this rich diversity of fish, including the two species of taimen. At the time, co-existence of taimen at one location had not been proven elsewhere. We also discovered during the course of the research that there was a high level of poaching in the region, representing the most important threat to sustained salmon populations.

2.2. A Conservation Action Plan describing threats to the Langry ecosystem, methods for mitigating these threats and measures for monitoring conservation success was developed in 2008 by SSIC using data collected during two field expeditions. As the plan identified poaching as the most important individual threat to salmon in the basin, anti-poaching efforts began in 2008. Check points were established along the roads that poachers use to access the river. Passing vehicles were stopped, and only those with correct permits could pass. However, we realized that we needed active community involvement in order to adequately cover all the access roads. The SSIC, therefore, developed a new plan to work with the local watershed council and involve additional local organizations in the implementation of anti-poaching measures. In 2009, anti-poaching patrols were coordinated by the tourism-focused organization, "Karibu", a forest lease-holder in the region, while a local community youth organization, "Basketball," was responsible for road checkpoints.

## **3. Organizations/People that helped put the project together**

SSIC developed the CAP based on a model developed by The Nature Conservancy (TNC) and guidance provided by Dr. Gordie Reeves, a salmon monitoring expert with the USDA Forest Service and Wild Salmon Center. SSIC staff participated in two CAP-focused workshops conducted by TNC staff in 2007 and 2008, and became acquainted with salmon-focused CAPs currently being implemented by TNC in Alaska.

#### **4. Project participants**

Project leader: Sergei Didenko, New Executive Director, SSIC. In the spring of 2009, we welcomed Sergei Didenko as the new director of SSIC following Vladimir Ovchinnikov's retirement and departure for St. Petersburg. Didenko has over three decades of experience in fisheries management (he directed the Regional Government Fisheries Department) fisheries-related NGO organizing and the commercial fishing business. Didenko oversaw all work associated with this project following the moment of his hiring.

Alexey Fedosenko, Watershed Councils Project Manager, SSIC. Mr. Fedosenko is in his third year of work at SSIC managing the watershed council effort. Using his legal background, He helped advise the various councils, including the Okha (municipality in which the Langry River is located) council, on how best to organize their various conservation efforts. Mr. Fedosenko worked with the Okha council in organizing their involvement in the CAP.

Tatyana Grizhebovskaya, Director of the Federal Fisheries Agency Langry biostation and Project Coordinator, Langry CAP, SSIC. Grizhebovskaya has over two decades of experience in fisheries science in the Okha region and now serves as the Federal Fisheries Agency's lead scientist there. Ms. Grizhebovskaya managed the monitoring efforts associated with the CAP and oversaw the involvement of various organizations in the anti-poaching efforts.

Anatoly Semencheko, Monitoring Project Manager, SSIC. Dr. Semenchenko has over three decades of experience in salmon biology, having served as director of the Vladivostok Fisheries and Oceanography Institute salmon laboratory before joining SSIC in 2008. Mr Semenchenko participated in last year's expedition on the Langry, and used his knowledge of the region and overall ichthyology background to advise Ms. Grizhebovskaya throughout the year.

Alexander Semencheko, graduate student in ichthyology. Alexander conducted field research focused on taimen and other salmonids included in the CAP with Ms. Grizhebovskaya this year. Anatoly Semenchenko's son Alexander is currently pursuing his PhD at an institute in Vladivostok, and is quickly establishing himself as a leading expert on grayling in the Russian Far East.

Ksenia Semenchenko, graduate student in hydrobiology. Ksenia assisted in 2009 with the accomplishment of fisheries-related field work while also conducting studies pertinent to her graduate work.

Sergei Kuchin, ichthyologist, SakhNIRO (Sakhalin Fisheries and Oceanography Institute). Mr. Kuchin is a new staff scientist at SakhNIRO and participated in the project for the first time this year, serving as a field researcher. Last year he conducted whale counts on the Okhotsk Sea coast for Sakhalin Energy Investment Company (SEIC), a local oil and gas enterprise.

Andrei Yurchenko, undergraduate fisheries biology student. Andrei, a native of Sakhalin, is in his third year of undergraduate studies at the Vladivostok Fisheries Institute. Yurchenko has gained valuable research experience through two years of involvement in this project, as well as a summer of taimen-focused field studies for Sakhalin Energy Investment Company. Yurchenko represented the project at the Society for Conservation Biology conference in Beijing last summer.

Andrei Emelin, Director, OAO Karibu. Mr. Emelin, a local tourism entrepreneur on the Langry. Mr. Emelin owns the lease to the Langry's forest territory. He participated in the project for the first time this year and helped organize the anti-poaching efforts.

Dmitry Kiselev, Director, "Basketball", a community youth organization" that has existed for thirteen years in the Okha region. He has worked with over 500 teenagers over the course of its existence on a variety of thematic areas, including sport, building shelters for the homeless and professional development. The group also does environmental work, and belongs to the Okha Watershed Council. "Basketball" worked through the watershed council to organize anti-poaching checkpoints on the Langry this year.

Lev Zhivotovsky, Department Head, Population Genetics and Genetic Management, Institute of General Genetics, Russian Academy of Sciences. Zhivotovsky has studied salmon genetics for many years, focusing particularly upon interactions between hatchery and wild fish. He began focusing on taimen genetics in 2008 through development of collaborative relations with SSIC.

## **5. Region selected for analysis**

This project focused on the Langry basin in Northwest Sakhalin. At 1200km<sup>2</sup> in area, the Langry is the eighth largest watershed on Sakhalin Island. The freshwater fish species diversity of Northwest Sakhalin is the richest found on the island. Fish groups ecologically adjusted to different habitats are represented there. Many species of Amur origin have been observed there due to past periods of ocean regressions, when the freshwater network of this part of the island was likely joined with the Paleoamur basin. The basin is home to 11 salmonid species, the highest diversity found in the region.

This region is undoubtedly a unique ecosystem. At the same time, the connectedness of the various aquatic ecosystems is very sensitive. Uncalculated anthropogenic impact here could cause irreparable damage to the structure of the freshwater fish community, which formed over a long period of time. Although human development in the Langry region is in decline, as local villages have been officially closed by the government and abandoned by prior residents, an oil pipeline which passes under the main channel and tributaries of the Langry poses a spill threat to the biodiversity found here. There is also some erosion into the rivers from roads that were built for oil exploration in the 1960s, but these roads are not being maintained and are disintegrating. Due to the difficulty of access (poor roads and swamps), nobody purchased the lease to fish commercially at the mouth of the Langry during last year's commercial fishing lease auction. This further improves the conservation opportunity of the Langry.

Over the course of the year, due to the opportunity presented by the new Sakhalin taimen

monitoring program established through collaboration with the Russian Academy of Sciences, other basins on Sakhalin were visited by SSIC and Academy staff in the effort to sample taimen. An extremely high density of taimen was found on the Dagi basin of northeastern Sakhalin. The Dagi is also a large basin by Sakhalin standards, ranking fifteenth in size among the over 200 rivers classified as “main spawning rivers” by the Federal Fisheries Agency. It is somewhat less remote than the Langry, as it is located near Nogliki, a city of 15,000. However, road access to the upper portions of the basin is limited and the watershed has thus remained in fairly pristine condition. The Dagi is likely a good river for taimen due to the presence of a large estuary/bay at its mouth. Taimen are known to migrate into estuaries during the summer following spawning, returning to the river in fall to overwinter.

The Dagi region is home to Nivkh indigenous communities, which have traditional fishing plots near the mouth of the estuary. Only 2,000 Nivkh remain on Sakhalin Island, less than 1% of the island’s population.

See the map of Sakhalin in Appendix 1.

## **6. Field Work**

### **6.1 Anti-poaching Effectiveness Monitoring**

In 2008, SSIC conducted two fisheries-focused expeditions on the Langry in order to determine the current status of the Langry’s salmonid populations and develop conservation strategies for the basin. As poaching was identified as the greatest threat to the Langry’s salmon, most of the monitoring conducted in 2009 was focused upon developing data sets that will allow SSIC to quantify whether or not its anti-poaching strategy is achieving success.

In August 2009, a group of fisheries scientists led by Tatiana Grizhebovskaya began the monitoring work. They evaluated escapement numbers by visually counting groups of returning fish. At the same time, Alexander Semenchenko conducted pink and chum redd counts. Differences between total escapement estimates and total spawning estimates are accounted for by natural mortality and poaching of fish before they spawn. If the anti-poaching efforts succeed, a difference in the ratio between redd and escapement quantities should become apparent. As redd counts were only conducted for the first time this year, preliminary conclusions cannot be drawn until next year, when the same surveys will be conducted.

Success of anti-poaching efforts will also be apparent in changes to the ratio of returning adults vs. out-migrating juveniles. Several years of data for these two indicators already exist at the Langry biostation. Pink salmon, the predominant species in the basin and on Sakhalin, spend two years in the ocean before returning to their native rivers to spawn. Spawning chum, meanwhile, have approximately three year cycles. As anti-poaching measures are in their second year, we can begin to judge the effectiveness of the work using these indicators in 2010 for pinks and 2011 for chum.

While we can only begin to show the success of the anti-poaching measures in quantifiable terms next year, visual observations of poaching activity can give us an idea in the meantime of whether or not the work is achieving results. A recent (October 9-11) monitoring trip on the

upper Langry and Komulan River, the Langry's largest tributary, confirmed that anti-poaching measures are achieving results. Last year there were gutted fish on the banks from which the poachers had taken the eggs for the lucrative caviar trade and thrown the carcasses into the river, but this year the scientists did not find any evidence of poaching activity. Neither dead salmon on the banks of the river nor human tracks were found.

As for methods used, out-migrating pink and chum juveniles were surveyed in May through July. Salmon fry were caught daily at pre-determined times and locations along a single cross-section of the river. A minnow trap similar to a net with square sides equal to 50 cm was used. All data, such as date and time of the catch, weather conditions, research area, area of the trap opening, and light exposure, were listed in a research journal. These data were then extrapolated to determine the overall number of migrating juveniles.

As for adult spawner returns, or escapement, we established control sections of the river, determined the area of these sections and calculated the quantity of fish located within the sections. We conducted this monitoring at pre-determined times on a daily basis. Counts included fish that have already spawned and those preparing to spawn. Escapement counts must occur at the same cross sections next year and into the future in order to generate significant results.

Redd counts were conducted by Alexander Semenchenko, Sergei Kuchin, Tatyana Grizhebovskaya and others. Mr. Semenchenko and Mr. Kuchin counted redds in the middle and lower reaches of the river. They investigated two chum salmon spawning areas and several pink areas, establishing and measuring control sections and counting redds within those sections. Ms. Grizhebovskaya, meanwhile, counted redds in the upper Langry and the Komulan, the largest tributary. The participating scientists recently completed a report on their findings, which outlines sampling methods and results. This report will be provided to CLP following translation and editing.

## 6.2 Taimen Research

In 2008, the CAP indentified gaps in scientific knowledge regarding the Sakhalin and Siberian taimen life cycle and distribution within basins. In 2009, our science team (Semenchenko and Grizhebovskaya) reviewed possible new methods that could be used to fill these gaps. Although we indicated in our application our intention to use a weir and the NetMap satellite imagery program, as have been used by our colleagues in Alaska, we decided to continue to use traditional methods (seine, trap and rod-and-reel surveys) because of the following obstacles:

- 1) The actual price of a weir far exceeded our estimate at the time of writing the application to CLP.
- 2) A high customs fee in the Russian Federation would apply to an imported weir.
- 3) The river is not ideal for weir placement due to its large width at the mouth and slow flow of 0.6-0.8 m/s.
- 4) Upkeep of this equipment involves a high cost for service, transportation and repairs.
- 5) We need permits from the authorities in order to place a weir on the river. As weirs are traditionally used for hatcheries in Russia and not for counting fish, it would require significant effort and likely several years to receive these permits.

- 6) We were also unable to use the NetMap program in 2009 due to a new federal law deeming use of such satellite imagery-analysis programs by non-governmental organizations illegal. In order to continue with such research, it will need to take place under the auspices of a government agency, and this will take time to organize.

Funding for purchase and operation of the weir and purchase of satellite imagery for use in NetMap was instead focused upon anti-poaching activities, monitoring of the success of anti-poaching work and monitoring of taimen using traditional methods.

Using traditional methods, we surveyed the Langry and other rivers on Sakhalin as part of the new Russian Academy of Sciences taimen monitoring program. Taimen catch location, length, weight, and approximate age were all recorded upon sampling. Fin clips were taken from all sampled specimens before they were released alive back into the river. Lev Zhivotovsky of the Institute of General Genetics will begin genetic analyses on fin clips in the winter of 2009. Zhivotovsky's work will fit into the context of taimen genetic studies conducted by Dr. Steven Weiss of the University of Graz, Austria, and other collaborators on samples from several locations within the range of Sakhalin taimen (Japan, mainland Russia). Dr. Zhivotovsky and Dr. Weiss met in November 2008 in Moscow to exchange methodologies and information. The two scientists developed a plan for comparing results between their two laboratories through the calibration of equipment using shared samples; this will allow for the analysis of results generated by Dr. Zhivotovsky in the context of results from samples from the other geographies already analyzed by Dr. Weiss.

The methodology uses microsatellite DNA markers to reveal gene-flow barriers among neighboring river systems that help identify genetically unique populations. A total of eight loci have already been identified - sufficient to resolve among-population differences if they exist. Dr. Zhivotovsky will identify alleles at these loci from samples obtained from taimen collected from the Sakhalin rivers, and the results will show whether or not populations in the Langry, Dagi and elsewhere are unique and thereby merit particular conservation focus. Conservation of unique populations is key to preventing extinction of the endangered species.

### 6.3. Water Quality Monitoring

Water pollution is the second most important threat to conserving the biodiversity of salmon in the Langry. Pollution comes from drainage of the Amur River, water which contains a large quantity of industrial and domestic waste. While the waste does not enter the Langry river, anadromous fish, including salmon, migrating in and out of the Langry can be exposed to the pollutants. An indicator of this is the number of salmon sampled from the Langry with a marked scent of phenol.

On August 16, 2009, team members traveled to Rybnovsk, a nearby village to the Langry, to talk with local residents and fishermen and collect information about phenol content in the fish. This year, no phenol-contaminated fish were found by locals. The results of this survey were confirmed by analyses conducted by Langry biostation employees on pink (July-August) and chum (August-September) salmon. In sampling several hundred pink and chum specimens and recording data such as length, weight, organ weight, and stage of maturity, Grizhebovskaya's employees noted no anomalies or presence of phenol.

Scientists also tested water temperature at various locations throughout the summer season. This research is important for observing climate change-related effects in the Langry over time. Temperature and dissolved oxygen are the most important factors for aquatic life forms, particularly for fish. As eating, growth, reproduction, and other fish behavior are directly correlated with water temperature, fish are very sensitive to temperature changes. In order to observe temperature changes in the water, we installed electronic sensors that measure water temperature in the river every two hours (from July 1 through October 15, 2009). There were no significant changes in water temperature that would have affected the survival of taimen and other salmon species. Dissolved oxygen measurements were also taken during the field investigation. Salmon require an oxygen concentration of 4.4-7.0 mg/l for healthy survival. According to our results, the water had sufficient oxygen (7.8-11 mg/l) for salmon productivity.

We would also like to conduct laboratory analyses of polycyclic hydrocarbon concentration in the tissue of salmon specimens from the Langry. This will help us to further research the phenol contamination question, as well as establish a baseline for normal concentrations among Langry populations in case of an oil spill from the Rosneft pipeline. We discussed the organization of official assessments of water quality and fish tissue with a scientific institute in Khabarovsk. We received an estimate for such analyses. If 2010 funds allow, we will sign a contract with the institute in order to conduct these analyses in August-September 2010.

## **7. CAP implementation / Field work results**

Although quantitative improvement of salmon populations through the anti-poaching plan cannot yet be demonstrated until 2010, we do have signs of promising results this year. Three poaching camps were discovered by the anti-poaching team on the river and dismantled. Twenty poachers were apprehended who could have harvested a ton of caviar had they remained on the river. In a recent high-profile case on October 6, a truck was caught on the river with a load of caviar (450 kg) and salted chum salmon. The poachers were arrested and an official investigation was undertaken (Appendix 3).

In addition to counting the number of poachers caught on the river, the science and anti-poaching teams counted the number of nets in the middle and lower sections of the river. The scientists also recorded fish harvest by poachers detected on the main channel. Approximately 1000-1100kg of caviar were confiscated, and four nets were also found along the river. These figures will be compared to future totals as an additional means of gauging the success of our efforts.

Organization of anti-poaching patrols through the forest leaser and road checkpoints through the watershed council, proved successful in focusing community attention on the poaching problem and developing a conservation ethic among a resource user (Andrei Emelin of OAO Karibu). Mr. Emelin's patrols worked with various regional government authorities, notifying government representatives when poaching camps or harvest was discovered and ensuring that arrests took place.

Escapement, juvenile out-migration and spawning counts were conducted for pink and chum salmon. These data will be collected again next year and into the future as funding allows. Water



quality baseline data (water temperature and dissolved oxygen) was also gathered. Water samples were taken for later analysis at a mainland Russia-based institute.

Unfortunately, the results of our taimen research in the Langry in 2008-2009 showed that the populations are unfortunately limited, likely due to poaching. This year, only two Siberian taimen were sampled. Fin clips were taken for genetic studies at the Institute of General Genetics. Meanwhile, no Sakhalin taimen were found during the course of the field investigation, confirming that there are very few Sakhalin taimen left in the Langry River. In order to restore these populations, years of steady poaching control are likely required.

However, studies on other Sakhalin rivers conducted through the collaborative program with the Institute of General Genetics led to the discovery of what is likely the world's most taimen-rich river - the Dagi. While taimen research conducted in other areas of the Russian Far East and Japan generally yield single-digit samplings of taimen, a 10-day research effort on the Dagi yielded 30 catches and fin clip samples. Fin clips from the Dagi and the Langry will undergo genetic analysis this winter in Moscow.

## **8. Summary and field work results**

8.1 Our results to date from CAP implementation on the Langry indicate that:

1. The Langry truly has Sakhalin's highest diversity of salmonids, as we have confirmed the presence of 11 species;
2. A comprehensive approach to fighting poaching which involves resource users, government authorities and the local public can achieve success;
3. Conservation Action Planning methodology is suitable for use in Russia, as it facilitates targeted use of resources and cooperation among stakeholders in order to maximize conservation successes.
4. Taimen populations on the Langry River are very limited, and implementation of the Langry CAP must continue uninterrupted for several years in order for these populations to be restored.
5. The Dagi river of northeast Sakhalin contains a remarkably high Sakhalin taimen concentration and merits additional attention.

As a result of these findings, we plan to continue CAP implementation on the Langry in 2010, as well as begin transferring lessons learned from the Langry to the Dagi River in the Nogliki Region, where a watershed council was recently formed. Engagement of local stakeholders in a CAP process for the Dagi will help to develop an anti-poaching and water quality monitoring strategies there in order to maintain taimen populations of global significance. Overall, development of additional CAPs over time on Sakhalin will lead to incorporation of conservation principles in regional policy and local stakeholder mentalities.

## **9. Education and outreach**

One of our major objectives for 2009 was establishing greater community involvement in our conservation planning activities. Outreach and education were therefore of great importance. The Langry River conservation plan was presented to the regional Okha Watershed Council early this year. The Council served as a forum for coordination of various roles in the anti-poaching effort among different stakeholder. The municipal government is represented within the Council by Mayor Sergei Pakukin and the Vice Mayor for fisheries and agriculture, Mikhail Kan. Karibu and Basketball are the main business and NGO organizations involved.

At the initial Council meeting devoted to the Langry CAP, the anti-poaching plan was developed, laying out the locations of check-points and resolving logistical issues associated with mobilizing anti-poaching groups and involving the local community. This plan particularly emphasized the importance of educating the public on the harmful effects of poaching. Community members involved in the anti-poaching work approached sport fishermen and tourists encountered on the Langry and informed them of environmentally responsible fishing practices and the ecological harm of poaching. The Council has begun to work with recreational fishermen who will inform the science team regarding where and when they have caught taimen. This data will help to fill in gaps regarding migration timing and in-basin distribution of taimen. One of the Siberian taimen sampled this year on the Langry was caught by an amateur fisherman.

## **10. Conclusion**

We thank the Conservation Leadership Programme for its valuable support for our work. Through this project, we have successfully applied Conservation Action Planning methodology to a valuable freshwater ecosystem, a first for Russia. An effective, community-based anti-poaching program has been developed which includes a quantitative monitoring protocol for assessing its success. Through continuing implementation of this protocol, we will be able to make a preliminary assessment of the effectiveness of the anti-poaching work in 2010.

This work has also led to a taimen-focused collaboration with the Russian Academy of Sciences and the discovery of unusually high taimen concentrations on another river, the Dagi. We hope to continue the successful development of the CAP on the Langry in 2010 and engage a wider group of stakeholders, particularly government, in its implementation. We will also expand our CAP efforts to include the Dagi River in 2010. By creating and developing CAP projects in other areas of Sakhalin over time, we hope to motivate an overall change in regional policy, leading to greater government focus upon salmon conservation and sustainable management. We believe that the 2008-2009 Langry work is a big first step in that direction.

Appendix 1: Sakhalin Map



Appendix 2: photos



Andrei Yurchenko and Anatoly Semenchenko conduct seine surveys.



Ksenia Semenchenko observes macroinvertebrates.





Andrei Yurchenko with a Sakhalin taimen on the Dagi River.



Lev Zhivotovsky of the Institute of General Genetics with Dolly Varden specimens.



Sakhalin taimen.



River shots.





Alexander Semenchenko with a pink salmon in the Langry River.



Anti-poaching patrol pulls poachers' net out of the water at the mouth of the Langry.





Salmon roe.



Tatiana Grizhebovskaya with her husband Oleg Grizhebovskiy, who also works for the Fisheries Agency.

## Appendix 3

### Criminal News Report, Sakhalin Internal Affairs Department (08/10/2009)

On October 6 at 4:00am, staff of the Okha Internal Affairs Department arrested the director of a Dolinsk firm near a tourism base located on the Langry River as part of the “Salmon Run 2009” anti-poaching operation. The 40-year old man had rented a room at the tourism base and was vacationing there with three friends. At the moment of his arrest, Internal Affairs staff confiscated a rubber boat, motor and fishing gear from the group. They also took two Kamaz vehicles containing 7 tons of chum and 100kg of salmon roe. The confiscated fish products are currently being stored by the Department.

Work has been initiated to raise criminal charges against the arrested suspect in accordance with Article 256 of the Russian Federation Criminal Codex (unlawful harvest of aquatic animals and plants).

<http://www.uvdsakhalin.ru/?part=news&news=3246>

Appendix 4

**EXPENDITURE REPORT**

**“Conservation Action Planning (CAP) Application on the Ground: Sakhalin Island, Russia”**

As of October 20, 2009

**Annual revenue from CLP**

- Second payment for “the Future conservationist” project which was implemented in 2008 (transferred in January 2009) - \$2938.44 (US)
- Implementation of the project 2009 “Continuation award” (first payment transferred in June 2009) – \$21,250 (US)
- USD rate – 34.86 RUR

USD				
#	Name	CLP plan	expected expenses until the end of 2009	actual expenses
Project Preparation				
1	Communication	500	30	142.34
2	Books/articles/materials	500		0.00
3	Team training	2000	1600	0.00
Reconnaissance				
4	Medical supplies/first aid	200		78.34
5	Scientific/field equipment and supplies (outboard engine; inflatable boat; GPS; tent; nets; ropes; supplies and accessories for expedition etc.)	3000	2036.72	5939.74
6	Maps	1500	1500	0.00
7	Satellite imagery	2000		1721.20
8	Fuel (Ural truck, UAZ, motor boat)	2300	717.16	6823.03
9	Accommodation for team members and local guides	2000	300	2903.42
10	Food for team members and local guides	3000		3411.52
11	Contracts with a scientists (fish biologists, botanist, university students, local guides) + taxes		1434.30	14940.57
12	Transportation (train tickets, bus tickets, rent payments, vehicle rent)	6500	516.35	4554.33
13	Outreach/education activities and materials	500	231.38	268.62
Post-Project Expenses				
14	Scientific report preparation	1000	2000	0.00

15	Profit tax 6% (Because CLP is not listed in the Federal Governmental decree as an official Grantor in Russian Federation) + bank tariffs		225	7941.31
<b>Total USD</b>		<b>25000</b>	<b>10590.91</b>	<b>48724.41</b>

Actual + expected = 59315.32USD

**General comments:**

1. Statistical discrepancy in the table approximately ± 20\$, due to all payments being been done in Russian Rubbles.
2. All CLP funds received to date in 2009 (\$23,648) have been spent as part of the “actual expenses” column. Funds from other sources are also shown (Sakhalin Energy Investment Company and Wild Salmon Center). The final installment of CLP funds will go toward “expected expenses until the end of 2009,” as will funds from other sources.
2. The anti-poaching program, which was implemented under the auspices of the Okha Watershed Council, was not listed in the table, as all monetary funds for that purpose are taken from the “Salmon Councils” project (a different project funded by the Mott Foundation. Within that project, our organization has spent approximately \$67,307 USD, on anti-poaching activities in the Okha region only.

**Itemized comments:**

Item 1 - Internet, phone calls, Satellite phone calls.

Item 3 – This money has not been spend due to the fact that the organizer of the seminar "Integrated management of aquatic resources" informed us too late about participating of our team. Unfortunately, we could not buy tickets for our team members because we had only 3 days and it was impossible to buy tickets in summer, all tickets for those dates were sold 2 weeks prior to departure. Money will be redistributed to the watershed council in order to conduct Public hearings in Okha in the middle of December 2009 (room rental, design and printing of photos, posters, banners, printing of CAP brochures etc.)

Item 5– In addition to actual expenses for field equipment, we will buy an additional satellite phone (as the old one broke during the field work in 2009) and software for working with an images (such as posters, banners etc.);

Item 6 – The SakhNIRO scientific research institute allowed us to use their maps for field work in 2009. However, new maps will be procured in November 2009 for use in future field work.

Item 7 – We have a contract with the SakhNIRO scientific research institute, through which one of their specialists will process all collected data into ArcGIS format and perform all necessary analyses of river basins in the NetMap software. Previously we expected to do this work ourselves, but due to changes in Russian legislation we cannot process and collect such information (as all geospatial data fall within the scope of the Russian federal law #5485-1 "Regarding the national security information" and the item 61 of the Presidential decree dated June 10 2009 # 640 “Regarding signing into law the list of data classified as a National Security Information”). The new decree resulted in delays with this effort.

Items 8-10 – These items include our expenses for the Langry expeditions and partial expenses for anti-poaching program implementation on the ground.

Item 11 – Through the end of November we will make payments to a fish biologist (Alexander Semenchko) who collected data on the ground during the autumn season.

Item 12 –We will spend this sum to cover transportation expenses of the CAP specialist (Grizhebovskaya) and fish biologist to Yuzhno-Sakhalinsk and back and redistribute remained sums between other items.

Item 13 – In mid-December 2009 the watershed council will conduct public hearings regarding poaching in Okha. The remaining sum in this item will be for the design and printing of photos, posters, banners, printing of CAP brochures etc.