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## Final Report

### Recreational Fisheries Management Exchange,

Portland, Oregon, USA July 9-16, 2004

### Summary

With the support of the Trust for Mutual Understanding and the United Nations Development Programme, and the active participation of dozens of federal, state, and non-governmental agencies or organizations, the Wild Salmon Center has completed its **Recreational Fisheries Management Exchange** involving Russian, American, and Canadian governmental and non-governmental fishery managers.

This two-part exchange was intended to enable leaders in the Russian Far East's regional fisheries management agencies to benefit from the expertise of North American fisheries managers in devising ecologically, socially, and financially responsible strategies to handle recreational angling demand.

This exchange draws from the Wild Salmon Center's mission: *The mission of the Wild Salmon Center is to identify, understand and protect the best wild salmon ecosystems of the Pacific Rim. We devise and implement practical strategies, based on the best science, to protect forever these extraordinary places and their biodiversity.* We have identified recreational angling tourism as a practical, economically viable and ecologically sustainable strategy for Russian regions with salmon populations to derive benefits from their fishery resources, while supporting science and conservation goals.

Recreational fisheries management represents a case in which the needs of Russian and North American natural resource managers are truly complementary: Russia's salmon watersheds are mostly intact, without the habitat degradation suffered in North America from dams, logging, urbanization, pipelines, and irrigation. However, they face a crisis of illegal salmon caviar poaching and unlicensed or unregulated fishing. Conversely, North American fisheries managers are much more familiar with the social component of recreational, commercial, and subsistence fishing demand, in the forms of legislation, public outreach, and civic involvement in scientific and conservation work. But habitat has been so degraded during 150 years of extensive landscape development that salmon populations have failed to recover despite federal Endangered Species listings and billions of dollars spent by federal, state, and local governments.

By bringing together senior managers from the salmon ecoregions of North America and Russia, we fostered productive dialogue and the opportunity to learn from both successes

and failures in salmon management, especially in the promotion of ecologically sustainable and economically viable sportfishing ecotourism. In the first portion of the exchange, in October 2003, American and Canadian managers traveled to Kamchatka to discuss techniques and management priorities for addressing sportfishing demand with representatives from Russian Far East regional fisheries agencies. North American and Russian mainland participants had the opportunity to observe some of Kamchatka's infrastructure for sportfishing tourism, including fishing lodges and helicopter charter operations, and to spend two intensive days discussing allocation of limited fisheries resources among sport anglers, commercial fishing operations, and subsistence and indigenous users. They learned of the crisis of salmon caviar poaching, and the shortage of capacity in Russian agencies to confront even the most egregious illegal fishing gangs, not to mention lower-scale priorities such as the emergent sportfishing sector.

North American participants shared with Russian managers the methods they use to estimate salmon runs and trends, and how these scientific data are deployed to design sound sportfishing regulations. They debated methodologies to estimate the economic impact of sportfishing, and the best ways to promote angling tourism to benefit local citizens. All told, the October 2003 exchange revealed great opportunities for sustainable angling management in Russia, with real scientific and economic benefits – but a serious shortfall in management capacity and information to manage this opportunity.

The interim report completed in November 2003 described the activities of the first portion of the exchange. It is available in English and Russian on the Wild Salmon Center's website, <http://www.wildsalmoncenter.org>, in the Publications page. Please refer to it for specific issues on the structure of the exchange and key topics of discussion.

Based on key problem areas and opportunities identified in the October seminar, the Wild Salmon Center structured an intensive 9-day exchange in Oregon and southwest Washington in July 2004. The activities comprising the exchange were designed along three key themes that the participants – Russian, Canadian, and American – had identified in October as particularly salient.

These themes are:

- **Using the best available scientific data** to design and implement sound sportfishing regulations;
- **Allocating fisheries resources** among different user groups, and mediating disputes over limited resources;
- **Assessing the economic value of sport fisheries** and promoting positive economic benefits to local communities.

While other issues were also of interest in the first exchange, these three core themes recurred often enough to merit more intense investigation. To that end, we designed a schedule of meetings, site visits, and discussions in the second half of the exchange, each designed to contribute to improving management capacity in Russian fisheries management agencies to address these three themes.

## Participants

As in the October 2003 exchange, there was a high degree of interest from Russian, American, and Canadian agencies in the Recreational Fisheries Management Exchange in Oregon and Washington. Most of the agencies which participated in the October exchange, representing Sakhalin, Primorski Krai, Khabarovsk Krai, the Kamchatka Peninsula, Murmansk, and Magadan in Russia, and Alaska, Washington, and British Columbia in North America, wished to participate again. However, visa troubles and scheduling conflicts prevented some promising participants from Russia from traveling to the United States. Motivated fisheries managers from Magadan's OkhotskRybvod and the Sakhalin Regional Administration were unable to participate, and the Vice Governor of Fisheries in Kamchatka was called away to political meetings in Moscow.

However, a diverse and motivated group of agencies and individuals participated in the July 2004 exchange in Oregon and Washington State, representing three countries and the regions hosting the world's entire diversity of anadromous salmonids:

- **SevvostRybvod** (Kamchatka, Chukotka, and the Koryak Autonomous Okrug)
  - Alexander Firsov, Director of Angling Tourism Service
  - Alexander Kaljuzhniy, Senior State Inspector
- **AmurRybvod** (Khabarovsk Krai)
  - Sergei Mikheev, Senior State Inspector
- **MurmanRybvod** (Murmansk Oblast)
  - Boris Prishchepa, Director of MurmanRybvod
  - Svetlana Krylova, Head of Fishing Licensing
- **Wild Fishes and Biodiversity Foundation** (Kamchatka)
  - Sergei Tikhonov, Assistant to the President
- **Washington Department of Fish and Wildlife**
  - Dan Rawding, Fisheries Biologist
- **British Columbia Ministry of Air, Water and Land Protection**
  - Miles Stratholt, Sr. Science Policy Analyst
- **Department of Fish and Wildlife, Togiak National Wildlife Refuge** (Alaska)
  - Paul Liedberg, Refuge Manager

The Wild Salmon Center and the participants benefited greatly from the active support of governmental, tribal, non-profit, and commercial institutions who sent representatives or hosted activities with our delegation. These groups gave willingly of their time and resources to provide an information-rich, diverse, and fulfilling range of perspectives on recreational fisheries issues, and the exchange could not have succeeded without them.

The remaining narrative of this report addresses these three themes in turn, and discusses opportunities and obstacles observed in the course of the exchange, as well as opportunities for the further collaboration between participants to address common management priorities. The structure is somewhat arbitrary – themes and topics overlapped at every discussion and presentation – but allows for greater coherence in addressing core issues, and discussing the next steps for collaboration and mutual benefit in protecting and managing the North Pacific's salmon fisheries.

## **Summary of Major Themes**

Full narratives are provided in the following pages, in which we describe in detail our key themes, and discussions and activities relevant to them during the Recreational Fisheries Management Exchange.

### **Theme I: Using the best available scientific data to design and implement sound sportfishing regulations**

In meetings and site visits, Russian participants were impressed by the extent to which monitoring and scientific investigation contributes directly to the establishment of sportfishing regulations and the level and specificity of regulatory limits. Particular concerns related to the science around hatchery impacts, dams and hydroelectric facilities, and genetic diversity. There was strong agreement among the exchange participants that science and monitoring data should contribute more directly to the formation of fisheries regulations, to the extent possible, while including opportunities for private citizens, non-governmental organizations, and others to offer comment and suggestions. This approach would differ from the Russian paradigm, in which managers under direction from federal agencies set catch limits, restrictions, and license structures.

### **Theme II: Allocating fisheries resources between different user groups, and mitigating disputes over limited resources**

Russian participants were introduced to the various formal and informal mechanisms for allocating fishery resources between states, between different user groups within states, and between federal recognized Native American tribes and other users. Many Russian participants were impressed by the high degree to which public proposals are reviewed and considered in the regulatory process. They learned of the inter-state allocation process in the Pacific Fishery Management Council and the tribal allocations through the Columbia River Inter-Tribal Fish Council. Wild Salmon Center staff made an effort to ensure that exchange participants were cognizant of the history of conflict over the Northwest's fishery resources, and to demonstrate attempts to mitigate these disputes. Many were impressed by the multiparty facilitation and allocation forums that have been created to address the disputes exacerbated by the precipitous decline in wild fish populations and wished to implement some of these mechanisms in their own regions.

### **Theme III: Assessing the economic value of sport fisheries and promoting positive economic benefits to local communities**

In the course of this exchange, the Wild Salmon Center made a particular effort to demonstrate the economic value of sport fisheries, through participation in the Pacific Northwest's economically vibrant and ecologically sustainable sportfishing tourism industry. Russian participants also met with industry representatives and independent economists on the economic contribution of the sportfishing trade, and discussed means of most directly building economic benefits to local communities. In every instance where Russian fishery managers were exposed to the sportfishing industry in Oregon and Washington, the Wild Salmon Center made sure to emphasize science and conservation needs alongside the industry's business perspective.

## **Theme I: Using the best available scientific data to design and implement sound sportfishing regulations**

It was clear in October 2003, that the level of sophistication in estimating salmon populations and trends in Russia and North America varied widely. In the United States and Canada, regulations on sport, commercial, and subsistence fishing are based on the latest assessments of salmon populations, trends, and ecological health. It is increasingly essential for fisheries management agencies to use the best available scientific data to design and implement sound sportfishing regulations. However, accurate methods for assessing salmon populations depend on investments in staff, training, and research equipment, and resources are very limited in Russian agencies.

During the Recreational Fisheries Management Exchange, participants were exposed to the methods used by federal and state agencies in monitoring and tracking salmon populations; equally importantly, they learned how agencies use the best available data to design and implement their sportfishing regulations.

At a daylong session hosted by the Oregon Department of Fish and Wildlife (ODFW) in Salem, Charlie Corrarino explained the workings of Oregon's *Native Fish Conservation Plan*, which was designed by state agency scientists to meet the requirements of the federal Endangered Species Act listings of coastal salmon species. Under the *Native Fish Conservation Plan*, all sportfishing and commercial fishing regulations are designed to prevent serious depletion of native fish species, maintain and restore naturally reproduced native fish, and foster and sustain opportunities for sport, commercial, and tribal fisheries. With conservation of native fish at the core of the ODFW plan, the state agency dedicates many resources to monitoring and population counts of fisheries. These data in turn are used to create the sportfishing regulations, published each year in a 100+ page pamphlet that is made available to all sportfishers.

Russian and Canadian participants were very interested in the process by which scientific findings and population monitoring are used directly to determine the level and specificity of regulatory limits – for example, banning fishing for particular species at specific times of the year, or eliminating certain kinds of gear and tackle from a particular river. Participants from Khabarovsk inquired about Oregon data on catch-and-release impacts on salmon fisheries; others were interested in the science behind the Department's approach to minimizing adverse genetic impacts from hatchery production on wild fish. There was a great deal of interest in the Oregon approach to managing fish populations and setting catch limits with a complementary management of angler numbers and access. This diverges from the approach of British Columbia, Kamchatka, and Murmansk, where entry into some fisheries is limited either under law or due to high costs of entry. Additional questions related to catch-and-release mortality figures and sources, and the impacts of particular types of gear – bait versus lure mortality, for example. Important research on this topic, which has been used in creating the ODFW regulations, was conducted by Bob Hooton of British Columbia, a participant in the October 2003 exchange in Kamchatka. While Hooton was not able to participate in the

July 2004 exchange, his colleague Miles Stratholt was able to participate to share the British Columbia management priorities.

Exchange participants were interested in the mechanisms that ODFW uses to inform anglers of regulatory and science issues. They were impressed by the *Oregon Sport Fishing Regulations* handbook – which is available for free in many sporting goods and general stores as well as state agency offices – and particularly interested in the public safety, environmental, and conservation messages in the regulation handbook. Some also expressed interest in the advertising from sportfishing gear companies that allows for the free publication and distribution of the regulatory handbook.

Senior Russian fisheries managers expressed a great deal of interest in North American fish counting techniques during the October 2003 exchange. As a result, a special emphasis was placed on exposing the exchange participants to the field science work that determines salmon run counts, population structures, and hatchery/wild salmon origin.

During a visit to the Bonneville Lock and Dam, our fisheries delegation was particularly interested in the sophisticated Bonneville mechanisms for fish counting, determination of hatchery/wild origin, and counting of species. At the Bonneville Dam, returning salmon and steelhead swim upriver through a complex system of fish ladders, and selected fish are directed into a mechanized system of shunts and gates, where tagged hatchery fish and wild fish are examined, weighed, and sampled for genetic and other information by scientists from universities, federal agencies, and Native American tribes. Inside the dam, Russian scientists spoke to biologists of the U.S. Army Corps of Engineers, as well as university and tribal scientists. While impressed by the sophistication of the dam and the fish counting mechanisms, Russian scientists were astonished by the associated price tags – more than \$1 billion per year is spent on Columbia Basin salmon science, restoration, and hatchery production by the federal, state, and tribal agencies – and its poor record of salmon recovery. The Wild Salmon Center stressed that in terms of cost-effectiveness and ecological integrity, it's much more efficacious to conserve healthy wild salmon populations than to restore them through hatchery and other mitigation measures.

Following the highly sophisticated, mechanized approach of the Bonneville Lock and Dam, our exchange participants were exposed to the relatively low-technology chinook and steelhead station operated by the Washington Department of Fish and Wildlife (WDFW) on the Wind River, a tributary to the Columbia. Participants hiked into the Columbia Gorge to the station, where exchange participant Dan Rawding demonstrated how a simple system of fish ladders, built in the 1950s, allows biologists to track and estimate populations of returning spring chinook and wild steelhead. The Wind River's series of waterfalls, up to 12 feet tall, are too steep for hatchery chinook to ascend. However, wild steelhead can leap the falls, while the chinook bypass the falls through the fish ladders. Over decades of monitoring, WDFW scientists have developed simple algorithms to monitor the numbers and population structure of returning fish. Rawding and colleagues at the Wind River station demonstrated how fish are trapped, weighed, and scale samples extracted before they are returned to the river to continue their spawning migrations. The data derived from these river surveys are used in Washington to generate fishing regulations, including sportfishing regulations that are tailored to the health of the local salmon populations on a year-by-year basis. Our exchange participants

saw fish biologists from WDFW with both the wild steelhead and the hatchery chinook in the trap, and also visited the Carson National Fish Hatchery, upstream, to see where the chinook are spawned and released.

The degree of specificity in regulations was very impressive to Russian exchange participants. In Oregon and Washington, fishing regulations can be established on the basis of individual rivers, seasons, and species of fish, due to the extensive and longstanding system of fish counts and population analysis. There was strong agreement among the exchange participants that science and monitoring data should contribute more directly to the formation of fisheries regulations, to the extent possible, while including opportunities for private citizens, non-governmental organizations, and others to offer comment and suggestions. This approach would differ from the current Russian paradigm, in which managers under the direction of federal agencies in Moscow set catch limits, restrictions, and license structures.

## **Theme II: Allocating fisheries resources between different user groups, and mitigating disputes over limited resources**

One of the main themes of the first half of the Recreational Fisheries Management Exchange was the allocation of limited fisheries resources among different user groups (subsistence fishers, sport anglers, commercial fishing interests), and the effort to mediate disputes over limited resources. Russian managers discussed the role of their management agencies in protecting the rights of subsistence fishers while promoting the growth of new sportfishing tourism opportunities, while American and Canadians discussed the need to restrict access to some high-demand rivers when risks to fish populations or ecological health became a concern.

To follow up on the evident needs and opportunities in this area, Wild Salmon Center scheduled a series of meetings and discussions with different user groups and governing bodies with responsibility for allocating fishery resources. We encouraged presenters to address both positive and negative examples of fisheries allocation issues, and scheduled activities to reflect sportfishing, tribal, and commercial fishing interests.

At the Oregon Department of Fish and Wildlife, participants learned about Oregon's governing board and mechanisms to hear out public disputes and elicit proposals to ensure the fairest possible allocation and access to fishery resources. In its regulatory process, the State of Oregon evaluates fisheries management proposals on a variety of criteria, i.e.: Do they meet a defined need? Are they based in sound science? Do they support conservation goals? Are they understandable and enforceable? Rhine Messmer, a Department of Fish and Wildlife employee who designs sportfishing regulations, described the complex process in which the state reviews more than 600 public proposals during each four-year cycle. Messmer and Bob Buckman of Oregon DFW described how scientific research and monitoring on the Oregon Coast are used to create priorities and regulations on sportfishing. In a year-long cycle, the Department of Fish and Wildlife solicits recommendations on fisheries management from agencies and the public, screens the proposals, and holds public meetings and commission hearings to

determine the regulations that will govern Oregon's fisheries for the succeeding year. Many Russian participants were impressed by the high degree to which public proposals are reviewed and considered in the regulatory process, an approach which is relatively underutilized in Russia, where fisheries regulations are set under the purview of expert managers, under the direction of federal structures in Moscow, and seen as less of a public policy matter. Russian and Canadian exchange participants were curious to find out how individuals and groups could play a role in the public process to set sportfishing regulations – could this access be abused?

ODFW is responsible for the management of recreational angling in Oregon's rivers and coastal waters. But Russian participants were also keenly interested in the role of commercial fisheries and the allocation of fisheries between sectors. To address this issue, we met with the lead salmon staff of the Pacific Fishery Management Council (PFMC), which is responsible for ocean fisheries off the coast of Oregon, California, and Washington, extending to 200 nautical miles offshore. The PFMC voting membership consists of state governments, federal agencies, tribes, and at-large members including conservation interests, recreational fishing groups, and commercial fishing interests. Under its governing principles, the PFMC adheres to standards of allocating fishing privileges fairly, and provide economic participation for coastal communities.

There was a great deal of interest in the sectoral and geographic representation on Council, and in the role of commercial and non-commercial interests as well as conservation groups. While many of the governance issues within the PFMC were fairly abstract, Russian participants were curious about specific examples of tradable allocations – how recreational allocations can be traded for commercial allocations by species (1 chinook :: 4 coho) or between ports. A participant from Murmansk was interested in knowing how scientific recommendations contribute to the allocation of fishing quotas, and precisely which agencies are responsible for biological assessments and enforcement. Russian participants needed clarification whether quotas are freely allocated or bought (they are freely allocated, but in limited amounts) and how agencies or individuals gain a seat on the Council (nomination by a Governor of one of the states).

Chuck Tracy of the Pacific Fishery Management Council described the mechanisms of public participation within the Council to ensure engagement by interested parties. It became particularly important to clarify that PFMC itself has no scientific or enforcement capacity, and merely acts as the decision-making body for the state, federal, tribal, and other interested parties. Unsurprisingly, none of the interested parties tend to be particularly happy with the PFMC's ultimate allocations – a result which indicates that no one controls too much of a valuable and limited resource!

In addition to recreational and commercial fishing, the important third sector in management of the Pacific Northwest's salmon fisheries is tribal subsistence groups. In response to questions in October 2003 about the role of native and non-native subsistence fisheries and possible conflict with sport fisheries, we arranged a series of discussions with the Columbia River Inter-Tribal Fish Commission (CRITFC).

The four treaty tribes comprising the Columbia River Inter-Tribal Fish Commission have legal claim to ½ of the harvestable salmon and steelhead of the Columbia Basin, under

regulations and treaties dating to the 1850s. The Warm Springs, Umatilla, Nez Perce, and Yakama tribes, and the biologists, lawyers, and policy staff who work with them, work in a range of conservation, mitigation, and legal mechanisms to protect and restore fish populations throughout the Columbia Basin. The tribal representatives have adopted the principle that large-scale salmon and steelhead recovery will benefit both Indian and non-Indian sport and commercial fisheries and eliminate conflicts – i.e., more fish, fewer problems. For that reason, and to protect the tribes’ historical cultural and subsistence reliance on salmon populations, the tribes manage and operate many hatcheries, whose production benefits a range of fisheries users. While this position on hatcheries differs from the Wild Salmon Center’s, we felt it important to expose our Russian participants to a range of perspectives on crucial hatchery-wild fish issues.

The question of allocation of fisheries is viewed very differently from the tribal perspective. Shareefah Abdullah and Stuart Ellis of CRITFC described not only the allocation of fish, but the allocation of *fish mortality*, both deliberate and inadvertent. It is the CRITFC contention that federal and state agencies should allocate mortality by assigning “adult equivalents” to juvenile salmon deaths associated with hydropower, habitat loss, and other anthropogenic impacts, as well as deliberate catch. In effect, this would “charge” the Bonneville Power Administration and other institutions with a larger number of adult-equivalent deaths. While the possible impacts of this approach were not immediately clear to some Russian participants, there was a great deal of productive discussion on a range of issues, enlivened by the presence of CRITFC policy analyst Julie Carter, a Russian speaker who has lived in Khabarovsk.

Among the topics of particular interest related to allocation issues:

1. *Do tribal governments need to set fishing and hunting regulations along the lines of the federal/state regulations?* (asked by a Kamchatka participant). Tribes do not always use the same regulations, but do coordinate with appropriate federal and state authorities, while setting their own regulations for reservation lands.
2. *How does CRITFC allocation work in regard to PFMC’s allocation process?* CRITFC’s allocations are inland only, and thus are part of the Oregon allocations that PFMC allots between the different Pacific states. CRITFC is a very active participant in the PFMC process.
3. *What other rights do tribes have under treaty allocations?* Tribes have rights to oil, timber, hunting, and other resources – both on and off tribal lands.
4. *How do tribes use their catch?* (asked by the Murmansk representative) Tribes have ceremonial uses for spring chinook, as well as subsistence and commercial rights to sell their catch, for which they pay no federal taxes.
5. *What does tribal membership mean? How do people “join” or provide documentation to receive these benefits?* There are differences between federal “treaty” tribes and non-treaty tribes, and individuals must prove their descent from a tribal member. Each tribe has its own enrollment rules.

In all meetings on allocation issues, Wild Salmon Center staff made an effort to ensure that exchange participants were cognizant of the history of conflict over the Northwest’s fishery resources. Russian participants were exposed to the Pacific Northwest’s political

battles over fisheries and forest issues in a number of instances. For example, while our exchange was taking place, there were front page newspaper articles in Oregon on “spillage” in the Bonneville Dam, which removes water from the hydroelectric system to benefit juvenile fish migration. Tribal, conservation, and commercial fisheries representatives filed suit in favor of the continued spillage, while the Bonneville Power Administration and irrigation interests fought to reduce spill. Exchange participants learned about the perspectives of different user groups, and were able to inquire about the economic and philosophic rationales that drove them to their different perspectives.<sup>1</sup>

Exchange participants also heard about continued political battles between timber and fishery advocates, and were immersed in the hatchery/wild fish debate, with perspectives from scientists and conservation advocates on the dangers of the hatchery system, and the arguments from sport, commercial, and tribal organizations in favor of continued hatchery production.

In every case, the Wild Salmon Center attempted to show our exchange participants how different user groups may come to different conclusions on natural resource management issues, but how mechanisms exist to ensure that all users have a chance to submit proposals and public comments. Our concluding message, however, always emphasized the benefits of protecting existing, healthy wild salmon populations and their ecosystems. Russian managers have the opportunity to avoid the collapsing fisheries and habitat loss that have necessitated the Northwest’s allocation and dispute resolution mechanisms – by preserving the ecological diversity and productivity that still exist in Kamchatka, Murmansk, and elsewhere in Russia’s salmon fisheries.

### **Theme III: Assessing the economic value of sport fisheries and promoting positive economic benefits to local communities**

The third and arguably most pressing issue for many Russian fisheries managers relates to the economic impact of sport fisheries. Some Russian regions, faced with the decline in the rural Russian economy since the collapse of the Soviet Union, have no economic base other than their natural resources. However, the reckless development of non-renewable extractive industries – oil, gas, mining, timber – has caused catastrophic impacts on wild fish populations and their ecosystems. In order to meet the needs of local economic development, while protecting existing wildlife, many Russian regions hope to develop ecotourism, including sportfishing tourism.

To expose Russian fisheries managers to the kinds of sportfishing tourism available in the United States, and to generate a productive discussion on economic values of sport fisheries, the Wild Salmon Center arranged for day-long tours of two very different sport fisheries – the recreational steelhead and chinook fisheries on the North Santiam River near Salem, and the ocean halibut and tuna fisheries off the coast of Ilwaco, Washington. These two selections were chosen to resemble angling opportunities available in Russia. The Santiam River, on which anglers can fish from driftboats as well as from the shore, and with fly or spincasting gear, is similar to the river fishing opportunities available in

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<sup>1</sup> Shortly after the completion of the exchange, federal judges ruled that the Endangered Species Act required the continued spillage over the turbines, to benefit salmon populations.

Kamchatka and the coastal Russian Far East. The offshore ocean fishing model is a type of recreational angling not currently available in Russia, but one that Kamchatka fisheries managers are particularly interested in developing.

The two angling opportunities in the exchange allowed for great collaboration with Northwest fishing and conservation groups. Our site visit to the North Santiam River was hosted by the Association of Northwest Steelheaders, a non-profit organization of conservation-oriented anglers. The Steelheaders volunteered boats and guide services from its members, many of them professional guides who also volunteer in river restoration and policy work to protect fisheries. During a four-hour float trip on the river, Russian participants learned about the demographics of the sportfishing industry in Oregon, the types of angling available, and the pressing habitat issues that have adversely affected steelhead populations in Oregon. All participants purchased fishing licenses on the day of the activity, and were very interested in the tiered system of licensing, which sets different rates based on the species of fish, the time period during which the licensee will fish, and whether the licensee is an Oregon resident or out-of-state. They purchased these licenses at a major outdoor equipment vendor, and were impressed by the sheer degree to which sportfishing is a major industry in the United States, with a vast diversity of manufacturers, distributors, and marketers of gear and equipment.

The angling trip on the Santiam River set the stage for an intense discussion of the economics of the sportfishing industry in the United States. We met with Liz Hamilton, executive director of the Northwest Sportfishing Industry Association (NSIA), a trade association representing boat manufacturers, fishing guides, and other commercial interests in the sportfishing industry. The association has 300 business members, from one-person outfitters to large manufacturers, representing 36,000 employees. Hamilton described how Oregon statewide surveying shows that anglers require an average of four fishing days to catch one salmon – when calculating boats, gear, motors, gasoline, food, bait, and other expenses, this means an expenditure of almost \$400 per fish! This economic impact is dramatically higher than the per-fish impact associated with commercial fisheries, and NSIA advocates on this basis for fisheries management agencies to make sportfishing a higher priority. NSIA's active policy and legal wing advocates for reforms in hydropower – including participation in the “spillage” lawsuit – to improve angling opportunities, and advocates marking of all hatchery fish to ensure that wild fish are released by anglers and allowed to spawn, while ensuring abundant fish for recreational anglers.

Russian participants were interested in the policy and legal role of this trade group. Particularly, our delegation inquired if NSIA managed hatcheries or reproduced fish itself, or mostly lobbied the government? Hamilton explained that NSIA mostly lobbies for the interests of its members, and makes a case to agencies for the needs of fish populations – on the basis of the economic impacts of the sportfishing industry, and its millions of participants across the Pacific Northwest. Russians were very interested in the organization of the various businesses in the recreational fishing realm, and their attempts to protect their livelihood and promote their businesses by reforming the fisheries management system. Kamchatka and Murmansk delegations inquired about the kind of outfitting and guiding companies active in Oregon, and how they differed from operations in Alaska and British Columbia. There were also serious questions on the

methodologies by which NSIA derived its figures on economic impacts, a question that was also addressed in subsequent meetings.

One important issue for Ms. Hamilton was the percentage of the Department of Fish and Wildlife budget that was generated directly from sportfishing expenses. Forty-five percent of the DFW budget comes from license fees for fishing and hunting; another 45% from federal agencies, much of it generated through highly targeted taxes on boats, fishing gear, and other fishing and boating expenses. Only 10% is derived from general state budget allocations. This is a very different funding model than the Russian agencies, in which funds are distributed from Moscow to the regions, and the growth of sportfishing might yield no revenue benefits for the agencies whatsoever, while incurring significant new costs.

Hans Radtke, a highly respected independent natural resource economist, met with our exchange participants to offer his own perspectives on the economics of the sportfishing industry. Rather than the generous assessments offered by representatives of the trade, Dr. Radtke emphasized the need to determine direct, local economic impacts, rather than an all-encompassing figure of expenditures. Dr. Radtke was an extremely valuable resource for our participants – not only as an economist, but as an avid recreational angler with a particular interest in Russia. He will be on a flyfishing trip on the Yama River in Magadan in August 2004, through connections made by the Wild Salmon Center, and had been studying Russian fishery issues to prepare for his trip. Also, Dr. Radtke formerly headed the PFMC as its Chairman, under the nomination of former Oregon Governor John Kitzhaber.

Dr. Radtke used concrete examples to describe how economists need to understand direct, community-based economic benefits from sportfishing, rather than general expenditures. For example, on his trip to Magadan, he and his son will fly to Anchorage, thence to Magadan, incurring significant airfares. However, those expenses will not accrue to the communities of the Yama River, so the NSIA methodologies would misrepresent the economic benefits of his sportfishing tourism. In fact, Radtke estimated that of the \$6,000 he expects to spend on his fishing expedition, less than \$1,000 might remain in Magadan with positive economic impacts for local communities. Addressing that discrepancy, he said, is a serious challenge for fisheries and tourism managers.

Dr. Radtke specifically critiqued some of the models used by NSIA and other trade groups, raising some opportunities for thoughtful debate on economic benefits of sport fisheries. Svetlana Krylova of Murmansk inquired about the methodologies by which NSIA and Radtke might come to very different conclusions on economic benefits. Other Russian guests wanted to understand the multiplier effects of local expenditures, and to know about developing other infrastructure for the tourism industry, to capture more of the angling tourism dollars locally. Dr. Radtke emphasized that a major potential growth area is the creation of complementary tourism opportunities, in addition to sportfishing, to capture whole families rather than isolated anglers. He drew laughter when describing how he and his wife travel – he fishes, she shops – but that laughter became more reflective when he observed that Russian regions fail to offer birdwatching, cultural tourism, shopping, and other complementary tourist amenities to encourage families to travel to the Russian Far East together and spend their dollars in local communities.

Liz Hamilton's and Hans Radtke's insights helped inform the Russian exchange participants about the economic issues surround sportfishing prior to their other meetings and site visits. Following these discussions, participants from Murmansk and Kamchatka spoke with the Oregon Department of Fish and Wildlife about how fishing license fees are set, and where the revenues go. They heard from DFW staff that the agency does not set the license fees itself, even though its budget is strongly dependent on license revenues – which support almost the entire Fish Division's conservation, science, and hatchery programs. Instead, the governor's fishery commission recommends license fees, which must be approved by the Legislature. The relationship between the agency and the state legislature on revenues and funding was eye-opening for many of the Russian participants.

Tom Wolf, president of the Oregon Chapter of Trout Unlimited (TU), presented to the group both on economic and management issues around recreational angling. TU is a national conservation group of recreational anglers with 140,000 members, most of them interested in trout, steelhead, and salmon fishing. The organization has developed a strong public policy and advocacy base to federal and state agencies, using the clout of its membership base, in favor of the restructuring of gear and tackle restrictions to favor catch-and-release angling and other less damaging methods of angling. Wolf described how TU volunteers work closely with biologists in state agencies to monitor fish populations and ecosystem health and conduct stream restoration activities. The membership of the Trout Unlimited national and state organizations have also advocated for a range of economic and policy measures outside the immediate fishery management realm that could create benefits for wild fish – among them, fostering windpower instead of large hydroelectric dams.

Russian participants took the opportunity to query Wolf not only on the economic and policy matters relevant to TU, but on the specific methods of catch-and-release and other low-impact angling. For instance, the Khabarovsk exchange participant was intrigued that TU advocates that anglers rapidly bring a fish to shore, leave it in the water, and remove the barbless hook using special gloves. In the catch-and-release taimen fishery in Khabarovsk, anglers are advised to wait for the fish to tire before bringing it in, a process which can take an hour. Wolf also drew diagrams of different styles of barbed and barbless hooks, describing their relative risks to different species of fish, and shared TU materials on hooking, handling, and releasing fish. Wild Salmon Center will translate those materials and share them with Russian fisheries agencies for their outreach and education programs.

While the Wild Salmon Center's expertise in recreational angling is in river salmon and steelhead fishing, Kamchatka participants were strongly interested in the development of a recreational ocean fishery, as part of a large-scale overhaul of the Kamchatka ocean fisheries.<sup>2</sup> There is no current market for ocean recreational angling for halibut or other popular recreational fishing species, despite the large populations of those fish in the Bering Sea and Sea of Okhotsk. To expose some of our Russian managers to this kind of

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<sup>2</sup> In particular, SevostRybvod is considering converting parts of its commercial trawler fleet, which uses large nets for indiscriminate ocean fishing, to a mix of line-caught troll fisheries for tuna, salmon, and halibut, as well as ocean-based recreational angling for sportfishing tourists.

fishery, we arranged a daylong halibut fishing expedition off the coast of Ilwaco, Washington, in the company of Rob Russell, a fishing guide who has worked with SevostRybvod personnel in Kamchatka as well as in Oregon and Washington. Russian managers accompanied by Rob Russell and Roman Kultajev of the Wild Salmon Center received fishing licenses and instruction from Pacific Salmon Charters in Ilwaco, Washington. Alexandr Firsov, Sergei Mikheev, Sergei Tikhonov and Alexandr Kaljuzhnij received help filling out fishing license applications, and were very intrigued by every aspect of this computer-driven process, examining the computer database and asking questions about different license options the State offers to anglers.

Equipped with lunch boxes and licenses, the participants met the captain and departed on board the 40-foot vessel *Stardust* with Captain Erik Ervest. Morning fog covered the harbor as the captain introduced himself and the crew, went through necessary safety tips and regulations, described his boat and fishing gear, and talked about halibut fishing techniques. The *Stardust* took off and after two hours of relatively smooth sailing, stopped 30 miles west of the Washington coast in open ocean.

Watching his sonar screen, Captain Eric Ervest spotted school of halibut 600 feet down at the bottom and ordered skipper to unreel our fishing rods. The Russian managers learned how recreational anglers are guided to their targets and taught the appropriate fishing techniques: balancing in the rocking boat, with their fingers on the fishing line carrying two pounds of salmon flesh and heavy weights, waiting for a pull from a fish. As the action began, the exchange participants were soon struggling alongside the gunwales pulling their catch out of the deep waters. The excitement grew, as waves crashed against the boat, dousing anglers ankle-high in foaming water. Fifteen minutes after an exhausting struggle, anglers pulled out a halibut – the amount of time it takes to get halibut from 600 feet deep. The first catch was smaller than regulations permit, so the captain ordered the fish released. Nevertheless, several halibut of legal size were caught.

The Captain also took the opportunity to demonstrate the ocean fishery for tuna. Unlike halibut, albacore tuna “graze” near the surface, requiring different fishing techniques. Captain Ervest piloted the boat at a high rate of speed, and anglers used no fishing rod, just a fishing line and the angler’s bare hands pulling fish onboard.

The captain and crew assisted the exchange participants at every stage in the process, including training them in fishing techniques, describing the ocean conditions, preparing the bait and hooking the prey. Our Russian guests were very impressed with this trip, service, and hospitality. Kamchatka offers no comparable ocean angling industry, despite the endless opportunity for this kind of recreational activity, include 300 lb halibut species within miles of the Peninsula. Our Russian guests received a superb opportunity to learn how Americans have established a profitable industry that supports the local economy and attracts tourism.

In every instance where Russian fishery managers were exposed to the sportfishing industry in Oregon and Washington, the Wild Salmon Center made sure to emphasize science and conservation needs alongside the industry’s business perspective. The Northwest Steelheaders and Trout Unlimited, whose membership consists of conservation-oriented recreational anglers, were ideal organizations to reflect these

views. Commercial interests, such as the Northwest Sportfishing Industry Association and the charter boat operators, were balanced with the perspectives of analysis from Dr. Radtke and the science and management staff from federal and state agencies. We attempted to showcase, but by no means hype, the economic opportunities of sportfishing tourism as an economic development mechanism. Additionally, when speaking with Dr. Radtke or others, we encouraged speakers to specifically highlight opportunities where economic benefits can accrue to local communities which are reliant on salmon runs, and not merely to corporations based in faraway cities. Only by generating local economic benefits can sportfishing tourism create economic incentives for communities to preserve and treasure their wild salmon and steelhead populations. Otherwise, local political and economic leadership have no mandate for conservation, and will likely promote more destructive extractive industries, such as mining, oil and gas development, and timber.

## **Evaluation Findings: Opportunities and Obstacles**

It is the policy of the Wild Salmon Center to solicit written evaluation forms from all participants following the conclusion of an exchange program, in order to shape future exchanges, identify next steps, and pinpoint substantive and logistical areas for improvement. Following are some of the most important findings that were discussed in the evaluation forms of Russian, American, and Canadian participants, with the participants' regions identified in parentheses:

### Proposals to develop further within own agencies

- Economic and policy mechanisms to foster ocean angling (Kamchatka)
- Banning motorboats near spawning grounds during spawning (Alaska)
- Clear marking of all hatchery fish (Kamchatka, Khabarovsk)
- Tiered pricing for catch-and-release angling licenses and for local/non-local anglers (Kamchatka)
- Genetic banks for salmon species and runs to ensure the preservation of genetic and life-cycle diversity (Kamchatka)
- Adoption of a formal public consultative process for regulations, like the process utilized in Oregon (British Columbia)
- Greater ties between regions and agencies (numerous participants)
- “It was useful to see how agencies have addressed problems connected with the (hydroelectric) power station building.” (Murmansk)

### Obstacles identified during the exchange

- Some presentations were overly dry and abstract, and the direct relevance to management needs was hard to determine (Kamchatka, Khabarovsk)  
There was a strong preference for site visits and first-hand exposure to issues, such as the Bonneville Dam, which enable face-to-face questions to scientists and managers about their activities (Kamchatka)
- Difficulties of understanding competing governance models in the United States, Canada, and Russia (Alaska)
- Translator sometimes was unfamiliar with technical vocabulary - although Wild Salmon Center staff assisted in both languages (Kamchatka, Alaska)

### Logistical issues identified

- Lodging and transportation were good (all participants)
- “Everything was wonderfully organized. There were no problems whatsoever with the presentations and the discussions. Transfer was professional ... Arrangements, transport, nourishment - all was excellent.” (Murmansk)
- The lodging offered a central location in Portland with good access to different kinds of sites and activities (Kamchatka, British Columbia)
- Food did not always match preferences of the Russian palate (Kamchatka)

### Next Steps

Based on the responses of our participants, the Wild Salmon Center and its partner agencies have developed a list of next-steps to build on the successes of the Recreational Fisheries Management Exchange. Some of these steps were initially identified by the Wild Salmon Center; others were suggested by participants in the exchange.

1. Final project report and translation into Russian, for distribution to all participants and agencies, and posting in English and Russian to Wild Salmon Center website.
2. Translation of catch-and-release materials and other low-impact fishing information into Russian, for distribution in Russian agencies. This is already underway in Sakhalin in conjunction with agency partnerships there, and we will build a concerted effort to distribute materials elsewhere based on this experience.
3. Transfer information to SevvostRybvod on converting trawlers to trollers and developing an ocean-based recreational angling industry – in conjunction with Ecotrust and Pacific Fishery Management Council. The Wild Salmon Center intends to build on these suggestions during the commercial fisheries management exchange being planned with Trust for Mutual Understanding support.
4. Publication and translation of a concept paper on angling ecotourism and its possible benefits for conservation and science, as well as local economic development in resource-rich, job-poor rural regions.

In addition to these concrete activities, two of the participant agencies expressed particular interest in hosting some kind of future exchange within their respective regions. The U.S. Fish and Wildlife Service’s Togiak National Wildlife Refuge, which faces ecological and subsistence issues similar to those in Kamchatka, may host a future exchange on angling guide licensing and management. Additionally, MurmanRybvod expressed interest in developing more extensive ties between Atlantic and Pacific Russia in salmon management, and building on this exchange with future opportunities for collaboration on the Kola Peninsula. Wild Salmon Center will consider pursuing these future opportunities on the basis of identified needs, suitability with programmatic goals, cost-effectiveness, and available funding.

**Appendix I: Sportfishing on the Catch-and-Release Principle**

**Рыбалка по принципу «поймал – отпусти!»**

(Authored by Wild Salmon Center's Mikhail Spopets)

**Appendix II: Mortality References for Catch-and-Release Fishing**

**СПРАВКА о смертности рыбы при использовании принципа «поймал-отпустил».**

(Researched by Wild Salmon Center's Michael Zwirn)

**Appendix III: Newspaper coverage of exchange**

- *Vancouver Columbian*
- *Salem Statesman-Journal*

## Appendix II: Sportfishing on the Catch-and-Release Principle

### Рыбалка по принципу «поймал – отпусти!»

#### Михаил Скопец

Популяции лососевых рыб очень уязвимы, прежде всего, они чувствительны к ухудшению качества воды. В населенных местах численность лососевых и их средние размеры быстро уменьшаются, при этом воздействие именно любительского вылова часто является определяющим. Нельзя не вспомнить тайменя, который становится редкой рыбой во многих реках все еще малонаселенной Сибири и Дальнего Востока. При этом измельчание и исчезновение этого хищника прямо и непосредственно связано с появлением спиннинговой снасти.

Идея о том, что можно и нужно выпускать пойманную рыбу, появилась в среде нахлыстовиков Северной Америки. Здесь уже давно поняли, что нельзя в населенных районах иметь в общедоступных местах хорошую рыбалку, если не отпускать рыб хотя бы ценных и уязвимых видов. Мне приходилось рыбачить на знаменитой Грин Ривер (Зеленая река) в штате Юта. Рыбы здесь много: в прозрачной зеленоватой воде можно видеть стоящих у дна пятнистых форелей весом в среднем по полкило, а многие на вид куда крупнее. Несколько лет назад здесь была поймана рекордная, семикилограммовая форель. И это все рыба «дикая», то есть родившаяся в реке, а не выпущенная с рыбоводного завода. Грин Ривер популярна среди рыболовов, многие из которых приезжают сюда за сотни километров из таких крупных городов, как Денвер или Солт-Лейк-Сити. Даже в начале марта, в довольно холодный и ветреный день, здесь на лучшем пятикилометровом участке собралось несколько сотен человек. Большинство ловили на мушку, и только некоторые – на блесну с одинарным крючком. За проведенные на реке полтора дня я не видел ни одного случая, чтобы кто-то не выпустил пойманную рыбу, хотя по правилам, 2 штуки форели в день (длиной не более 30 сантиметров) и можно было «убить» и увезти домой.

Правила любительского рыболовства Канады, США и Западной Европы стимулируют выпускание пойманной рыбы ценных видов, ограничивают норму вылова и перечень разрешенных к использованию снастей и приемов лова. Так, норма вылова форели (фактически – норма изъятия) обычно не превышает 2-5 штук в день, а во многих местах вообще всех лососевых нужно отпускать (действует правило catch-and release only). При этом на многих лососевых водоемах запрещается использование многокрючковых снастей, и даже блесны должны быть оснащены одинарными крючками. А в Канаде во многих местах блесен с тройниками уже и в продаже нет. Все это призвано стимулировать рыболовов использовать наиболее безопасные для рыбы приемы лова, при которых смертность выпущенных после поимки рыб будет минимальной. Далеко не все виды рыб находятся под столь строгой охраной. Во многих бассейнах не ограничен вылов налима, карповых рыб и сомов.

При ловле на мушки с одинарным крючком (особенно при использовании крючков без бородки) большая часть пойманных рыб практически не повреждается; смертность при этом не превышает нескольких процентов - конечно, если все делать правильно. Считается, что рыба чаще получает повреждения от неправильного обращения, а не от крючка или вываживания. Сложного здесь ничего нет, нужно только знать и выполнять несколько основных правил:

\* Если Вы собираетесь отпускать пойманную рыбу, не пользуйтесь натуральными наживками и приманками.

\* Позаботьтесь, чтобы размер крючка соответствовал величине рыбы: излишне крупные крючки вызывают излишние повреждения рта или глаз рыбы, а мелкие она может слишком глубоко заглатывать.

\* Используйте только одинарные крючки без бородки. Бородку можно убрать, прижав ее плоскогубцами. Как правило, воблеры и блесны заводского изготовления оснащаются

тройниками. Особенно вредны для рыбы воблеры с двумя-тремя тройниками. Заранее замените тройники одинарными крючками.

\* Не пользуйтесь крючками из нержавеющей стали, т.к. они не растворяются в тканях рыбы. Бывают ситуации, когда крючок проглочен слишком глубоко, и лучше отрезать поводок, чем наносить серьезную травму, высвобождая крючок. Не рекомендуется слишком долго вываживать рыбу. Сильно утомленной понадобится больше времени, чтобы восстановить силы. Поэтому используйте удилище, леску и поводок достаточной прочности.

\* Лучше всего подведенную к ногам рыболова или к урезу воды рыбу осторожно взять рукой (предварительно намоченной!) поперек тела или же подхватить подсачком. Сетка сачка должна быть из мягкого безузелкового нейлона.

\* Не берите рыбу за жабры, не сжимайте ее с силой. Крупную рыбу, которую не удержать одной рукой, можно вывести на мелкое место, но не вытаскивать на берег и тем более не давать ей биться.

\* Хирургическим зажимом (не руками) вытащите крючок. Крючок без бородки извлекается намного легче и практически не повреждает рыбу.

\* Если Вы хотите сфотографировать добычу, подготовьте все заранее, не давайте рыбе биться на берегу. Можно на несколько секунд положить ее в мокрую траву. Взять рыбу двумя руками (одной рукой за хвост, а другой – под брюхом) и подержать ее головой против течения. При этом нужно убедиться, что рыба находится «в сознании» и активно пытается уйти на глубину. Если она от стресса ведет себя, как сонная или переворачивается на бок, нужно держать ее головой против течения, пока она не придет в себя. Лучше всего осторожно двигать ее взад-вперед, держа за хвост. Жабры при этом хорошо омываются водой, и рыба быстрее приходит в себя. Выпускать рыбу можно только когда она начинает активно вырываться из рук.

В тех случаях, когда рыба сильно утомлена вываживанием, ее приходится подолгу держать в воде и ждать, когда она восстановит свои силы. С одним тайменем на реке Тумнин нам пришлось провозиться минут пятнадцать. Но зато как приятно, когда рыба, явно здоровая и неповрежденная, выйдет из твоих рук, постоит секунду на отмели и уйдет в глубину.

На Дальнем Востоке наиболее привлекательными для рыболовов рыбами являются таймени - сибирский и сахалинский. Популяции обоих этих рыб находятся в очень плохом состоянии. Сибирский таймень стал редким, сильно измельчал. А сахалинский или проходной таймень (чевица) в большинстве рек полностью исчез! И главная «заслуга» в этом - чрезмерный вылов, промысловый и любительский. Дело в том, что таймени относятся к таким рыбам, которые поздно созревают и долго живут. Поэтому довольно приличного размера таймешонок длиной 60-70 сантиметров - это еще «малек», ни разу не участвовавший в нересте. В здоровом, невыловленном стаде сибирского тайменя средняя длина рыб в уловах составляет порядка метра, а крупные рыбы длиной до полутора метров и весом 30-40 килограммов не являются редкими. Некоторые таймени достигали двухметровой длины и, вероятно, столетнего возраста!

Вылов тайменей запрещен и промысловикам, и любителям. Сахалинский таймень попадает в ставные невода и сети при промысле лососей; иногда он попадает на спиннинг при ловле голец и сима. Сибирский таймень в основном вылавливается на спиннинг - разрешенную снасть, которую рыболовы используют для ленка и щуки. Идея отпускать рыбу для нас еще новая, но к ней нужно привыкать. Ведь если всё будет продолжаться так, как идет сейчас, лет через 20 тайменей в России вообще не останется... Давайте оставим что-нибудь нашим внукам!

## **СПРАВКА о смертности рыбы при использовании принципа «поймал-отпустил».**

Представленный ниже материал любезно предоставлен международной общественной организацией Центр Дикого Лосося.

Тема хорошо изучена для популярных для спортивного рыболовства в Северной Америке видов: стальноголовый лосось, кижуч, чавыча, атлантический лосось и некоторые другие.

Смертность зависит от применяемых орудий лова (мушка, блесна, воблер или наживка, крючок с бородкой или без) и метода выпуска рыбы. Выпускание рыбы в воду немедленно после вылова, не травмируя жабры и не вытаскивая на берег, сохраняет высокую выживаемость.

Некоторые ссылки:

1. Из статьи Bob Hooton (The Osprey, Sept. 2002, Issue 43): Смертность при «поймал-отпустил» составляет 7-10%, но при ловле нахлыстом значительно ниже.
2. Ученые Simon Fraser University сделали обзор физиологического воздействия на чавычу от рыболовства «поймал-отпустил». Они вывели, что воздействие глубоко и требует более 24 часов для восстановления гомеостаза. (<http://www.sfu.ca/cstudies/science/selective/chinook.doc>).
3. Atlantic Salmon Federation суммировала наличную информацию о смертности при «поймал-отпустил» для атлантического лосося. Смертность оценивается в 5%. (<http://www.asf.ca/release/science.html>).
4. Из обзора Effects of catch and release angling on Atlantic salmon, *Salmo salar* L., of the Conne River, Newfoundland Source: Fisheries Management & Ecology Volume: Number 9: проведены экспериментальные исследования по отсаживанию в садок рыбы, пойманной рыболовами и выдерживаемой до 40 дней. Смертность составила 8,2 %.

Таким образом, имеющиеся исследования по воздействию лова «поймал-отпустил» на популяции ценных лососевых показывают, что смертность рыбы при правильном применении этого метода составляет 5-10 %. При этом следует учесть, что принцип лова «поймал-отпустил» предусматривает использование в орудиях лова одного одинарного или двойного крючка, на котором отсутствует бородка. Наименьшее воздействие на популяции оказывает лов нахлыстом на искусственную мушку.

Пока нет исследований по изучению влияния лова «поймал-отпустил» на дальневосточный вид лососей - симау. Предлагаем провести натурные наблюдения силами Анивской КНС и ИРО в ходе рыболовного соревнования по принципу «поймал-отпустил», проводимого общественной организацией «Сахалинский таймень».

Составил: гл. ихтиолог Анивской КНС, председатель правления общественного фонда «Дикая природа Сахалина», региональный координатор общественной кампании «Живое море» Макеев С. С.

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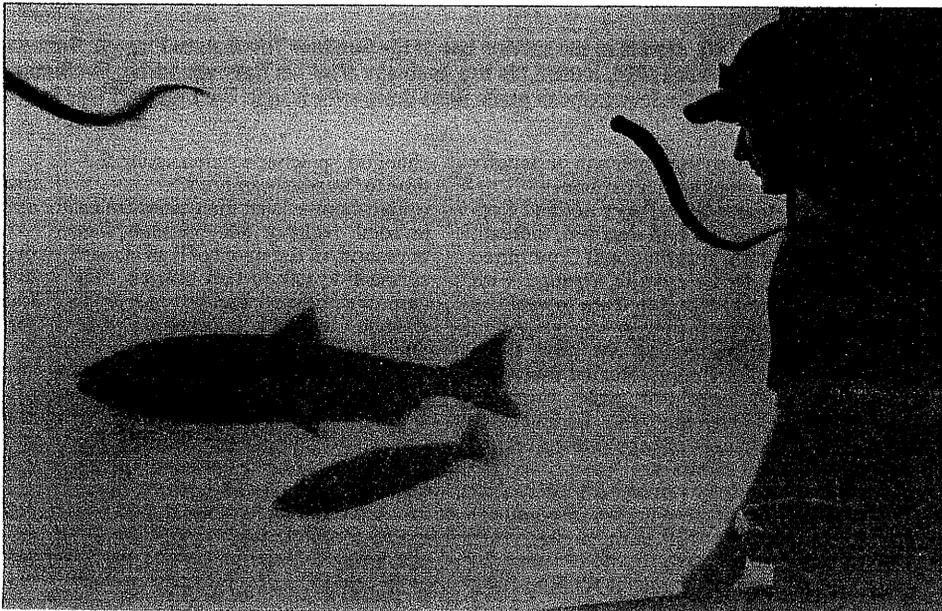
SERVING CLARK COUNTY, WASHINGTON ■ MONDAY, JULY 19, 2004

## FISH TALES LURE RUSSIANS

Visiting experts learn  
value of habitat protection  
to sport-fishing industry



**Aleksandr Firsov, director of Angling Tourism Service on Russia's Kamchatka Peninsula, leads Russian fisheries experts across the suspension bridge at Shepherd Falls.**



Photos by JEREMIAH COUGHLAN/The Columbian

**Sergei Tikhonov from the Wild Fishes and Biodiversity Foundation on Russia's Kamchatka Peninsula watches salmon swim upstream through Bonneville Dam's fish ladder as writhing lampreys cling to the viewing glass.**

By **ERIK ROBINSON**  
*Columbian staff writer*

**B**ONNEVILLE DAM—A half-dozen Russian fishery managers peered down from a catwalk in the bowels of Bonneville Dam.

On the water-soaked concrete floor below, technicians measured the length and weight of a steelhead temporarily diverted from its journey through the fish ladder outside. They scraped off a scale sample to determine the fish's age, and they checked for tags to determine its hatchery of origin.

In Russia, there's no need for such meticulous fussing over fish: Most of them spawn without human help or hindrance.

The group visited the dam on Thursday at the end of a weeklong tour of various fish-management facilities in Oregon and Washington, part of an international exchange hosted by the Wild Salmon Center in Portland. The Russians, who are trying to develop a sport-fishing industry of their own, found much to emulate and pitfalls to avoid during the first visit of this kind to the highly engineered environment of the modern Columbia River basin.

The take-home message: Preserve wild habitat and reap the benefits of a lucrative sport-fishing industry.

Aleksandr Firsov, director of the 11-year-old federal Angling Tourism Service on the Kamchatka Peninsula on the Bering Sea, said hunting and fishing groups are organizing to preserve vast areas of pristine habitat.

"These structures are forming, and at larger and larger scale at the national level, as well as regionally and locally," Firsov said through interpreter John Sigliano of Vancouver. "A lot of work is going on organizing hunters and fishermen for rational and sustainable use of natural resources."

With less than half the population of the United States, and double the land mass, Russia has plenty of rivers and streams untrammelled by people.

### Learning from Northwest's mistakes

But the Russian visitors noted that some streams are beginning to suffer the effects of increased logging, as well as oil and gas exploration. Firsov noted that pollution, a smattering of hydroelectric dams and roads built atop spawning grounds have started to eliminate some subspecies of salmon in the Russian Far East.

"We see the beginning of this," he said.

Michael Zwirn, a Wild Salmon Center policy analyst who organized the group's visit, said most of the historical salmon spawning sites in the Pacific Northwest have already been lost.

"We want to help other people avoid the same mistakes," he said.

Firsov listened carefully as the group's American hosts explained the high cost of operating hatcheries, building fish ladders across dams and restoring stream habitat — all to offset the habitat degradation that's already occurred from various forms of human development. The U.S. Army Corps of Engineers alone spends

# Fish:

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about \$100 million per year mitigating the harm caused to salmon by its network of dams on the Columbia and Snake rivers.

"We were not very gentle with the environment," Gary Johnson, a corps biologist, told the group. "The mindset was that we could artificially offset habitat damage by using hatcheries."

Later, the group visited a half-century-old fish ladder and a hatchery on the Wind River.

At the ladder, just two miles above the Wind's confluence with the Columbia, the Russians got a first-hand view of the last vestige of native summer steelhead capable of leaping a series of falls as high as 12 feet. Washington Department of Fish and Wildlife biologist Dan Rawding said about half the summer steelhead eschew the ladder, instead choosing to fight their way over the waterfalls just as their ancestors did.

The ladder was constructed to accommodate spring chinook salmon bound 12 miles



JEREMIAH COUGHLAN/The Columbian

**Megan Heinrich, right, of the University of Idaho, describes various tracking devices implanted into fish at Bonneville Dam to visiting Russians Roman Kultajev, Svetlana Krylova, Sergei Mikheev and Boris Prishchepa.**

upriver to the Carson National Fish Hatchery, where they will be spawned with factory-like efficiency.

At the hatchery, Rawding emphasized the benefits of

maintaining wild runs rather than relying on hatcheries.

"These spring chinook originated in the upper Columbia and Snake rivers," he said.

"This broodstock started about

40 years ago. Because these fish are from a distant watershed, and they have been in the hatchery for 40 years, they are not successful at producing smolts in the wild."

*Henry Miller*



# NORTHWEST Field Report

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## SPORT FISHING

# Russian visitors to get fisheries lesson

They will learn how to promote sport fishing, tourism

By HENRY MILLER  
Statesman Journal

If you hear some strange-sounding conversations on the North Santiam River on Saturday, it's a fishing clinic of sorts.

With a good share of it being taught in Russian.

The splash-and-giggle outing is the fun part of a six-day visit by a delegation of about 15 Russian Far East fisheries managers to learn how to promote sport fishing and tourism back home.

"Work and fun are two things we try to bring together here," said Michael Zwirn. "There's going to be a strong element of sitting down in work groups and hearing presentations and things like that."

"But at the same time, we've got to get people out on the rivers to see what the fisheries are like. Without having a chance to be out on the river ... it's really hard to conceptualize what the resources are and what the opportunities are for angling."

Zwirn is a policy analyst for the foreign exchange-sponsoring Wild Salmon Center in Portland.

The nonprofit, foundation-supported organization's mission, he said, is to promote sustainable salmon and steelhead fisheries anywhere the fish are found in the Pacific Rim.

Bill Sanderson of Mill City is a professional fishing guide and the president of the Salem Chapter of the Association of Northwest Steelheaders.

He is one of eight chapter members who volunteered to row the Russians and other members of the group down the Santiam from Fisherman's Bend, near Mill City, and Mehama, near Lyons.

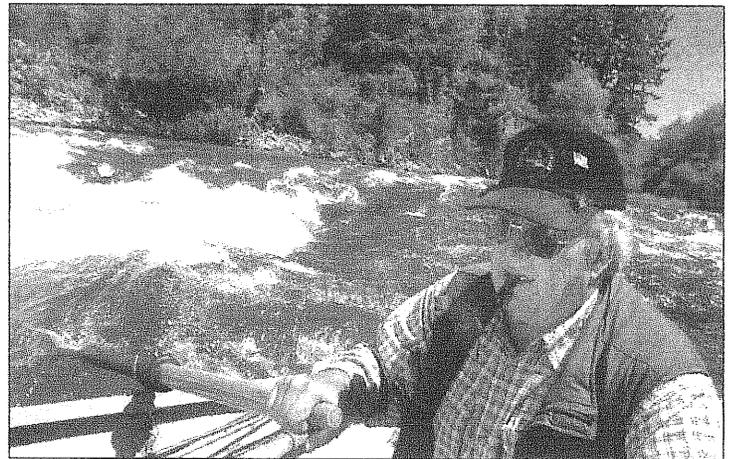
Sanderson said it should be a real kick. "Somehow, they figured out that the North Santiam would be a good river for them to look at,"

he said. "We're going to float them down and show them the recreational aspects of doing it."

"There will be a bunch of bank anglers at Fisherman's Bend and other areas along the eight-mile trip."

Along with the boat ride, there will be presentations, seminars and discussions July 13 at the Oregon Department of Fish and Wildlife headquarters in Salem; a July 15 van tour of Bonneville Hatchery on the Oregon side and Wind River hatchery on the Washington side of the Columbia River; and a host of other activities.

In addition to the field trips



Statesman Journal file  
*River guide Bill Sanderson of the Salem Chapter of the Association of Northwest Steelheaders is among eight chapter members who will help teach a group of Russians about sport fishing and tourism.*

and the daylong series of meetings in Salem are sessions with federal and state officials from Oregon and Washington as well as with Native American tribal members involved in fishery issues.

"This is the second half of a two-part exchange," Zwirn said. "I ran the first part in Kamchatka (a peninsula on the east coast of Russia) back in October."

"We're going to have a number of people who were there for the first part. ... It really is a lasting relationship that we're trying to build."

For the Wild Salmon Center, the "sell" for the exchange program is encouraging conservation-oriented, environmentally sustainable fisheries and tourism as a viable economic model

rather than resource exploitation and depletion.

"The payoff for those in Russia is that they get to learn from the experiences about managing recreational fisheries," Zwirn said. "Kamchatka and the Kola Peninsula are really the only two regions that have a sport-fishing and tourism industry."

"The payoff for us is that we get to learn about rivers that are basically in the condition that Lewis and Clark would have seen when they were traveling into Oregon in the 1800s," Zwirn said.

"The rivers in Kamchatka (display) basically the same abundance, the same diversity, and the same productivity of fish that we used to have in Oregon and Washington 150 years ago."



JULY 20, 2004 | updated at 8 and 9 a.m. PST | a project of [ECOTRUST](#) | YOUR TIDEPOOL EDITOR TODAY IS: [DEREK REIBER](#)

### TOP STORY: [Fish Tales Lure Russians](#) [email this article](#)

A half-dozen Russian fishery managers peered down from a catwalk in the bowels of Bonneville Dam. Below, technicians measured the length and weight of a steelhead temporarily diverted from its journey through the fish ladder outside. In Russia, there's no need for such meticulous fussing over fish: Most of them spawn without human help or hindrance. The group visited the dam at the end of a tour of various fish-management facilities in Oregon and Washington, part of an international exchange hosted by the Wild Salmon Center in Portland. The Russians, who are trying to develop a sport-fishing industry of their own, found much to emulate and pitfalls to avoid during the first visit of this kind to the highly engineered environment of the modern Columbia River basin. The take-home message: Preserve wild habitat and reap the benefits of a lucrative sport-fishing industry. (07/19/04)

*From the Vancouver Columbian*

[http://www.columbian.com/07192004/front\\_pa/167931.html](http://www.columbian.com/07192004/front_pa/167931.html)

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