

## Salmon Find an Ally in the Far East of Russia



Dmitry Beliakov for The New York Times

Estimates of the salmon fisheries' annual value reach \$600 million, and the fish are a crucial source of employment for Russia and other nations.

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UTKHOLOK RIVER BIOLOGICAL STATION, [Russia](#) — The wild salmon still rush the dark Utkholok and other rivers here in Kamchatka, one of the last salmon strongholds on earth. They surge in spring and come in pulses for months, often side by side in run after run.

All six native species of Pacific salmon remain abundant on this eastern Russian peninsula, scientists say, appearing by the tens of millions to spawn in its free-running watersheds. Even in October's chill they come: coho and a trickle of sockeye, mixed with sea-run trout and char.

Now, in a nation with a dreary environmental record that is engaged in a rush to extract its resources, the peninsula's governments are at work on proposals that would designate seven sprawling tracts of wilderness as salmon-protected areas, a network of refuges for highly valuable fish that would be the first of its kind.

Encompassing nine entire rivers and more than six million acres, the protected watersheds would exceed the scale of many renowned preserved areas in the United States. Together they would be more than four times the size of the Everglades, nearly triple that of Yellowstone National Park and slightly larger than the Adirondack Park, which is often referred to as the largest protected area in the lower United States.



These areas would be protected from most development, the government of Kamchatka says. Their purpose would be to produce wild salmon — for food, profit, recreation and scientific study, and as a genetic reserve of one of the world’s most commercially and culturally important fish.

If approved, the plans would push Russia toward the center of international efforts to prevent the remaining wild Pacific salmon stocks from suffering the declines and population crashes that have beset sturgeon, bluefin tuna and the Atlantic Ocean’s salmon, halibut and cod.

“Having weighed everything from the perspective of the economy, I have convinced myself that we have to have a different future, and that salmon must be allowed to return to spawn,” said Aleksandr B. Chistyakov, Kamchatka’s first deputy governor, in an interview in Petropavlovsk-Kamchatsky, the region’s capital.

Kamchatka is selecting protection zones not to create wildlife reserves, Mr. Chistyakov said, but because fish runs are the best foundation for the peninsula’s economy. Oil, gas and mining sectors will be developed, he said, but will provide a comparably brief revenue stream. Sustainable fishing, he said, can last generations.

The government’s position, set forth in documents in August, has surprised even the scientists and conservationists who have lobbied to protect habitat from the development pressures of post-Soviet Russia. They have rallied behind it.

“This initiative is magnificent,” said Dr. Dmitrij S. Pavlov, director of the A. N. Severtzov Institute of Ecology and Evolution at the Russian Academy of Sciences, in an interview here. “It is important not only for people who live today, for contemporary people, but for future generations.”

Andrei Klimenko, who directs programs on Kamchatka for the Wild Salmon Center, an Oregon-based organization working internationally to conserve salmon runs, said the proposal could become a milestone in the management of a beleaguered resource. "It will be a precedent," he said. "There is nothing else like this anywhere else."

Each year, Russian and American scientists say, a sixth to a quarter of the North Pacific's salmon originate in Kamchatka, a peninsula about the size of California.

Its endurance as an engine of sea life is attributed to geography and politics. Until 15 years ago it was a closed Soviet military zone, untouched and almost without roads. Today, it remains a remote region of volcanoes and glaciers, ringed by forested slopes and tundra laced with aquatic habitats where salmon spawn and their young grow.

Since Soviet authority evaporated, however, Kamchatka has faced intensifying pressures.

Prospecting has begun, mines have been dug, roads have been cut and poaching — from subsistence harvests to industrial-scale egg-stripping of salmon for caviar — is nearly unchecked. There are plans to develop oil and gas wells offshore.

Twice in the last two months the authorities have seized shipments of red Kamchatka caviar — weighing 20 tons and 10 tons — from airplanes landing at a Moscow airport

A few of the peninsula's salmon rivers are already depleted; others are at risk. "We face a choice," said Olga A. Chernyagina, president of the Kamchatka League of Independent Experts, a Russian conservation group. "Will there be salmon, or not?"

The Wild Salmon Center and Moscow State University work in Kamchatka, whose wild state is a nearly mythical destination for outdoor tourism, to conserve salmon.

Ms. Chernyagina said much could be lost, economically and socially. Estimates of the salmon fisheries' annual value range to \$600 million, and Kamchatka's sea-run fish and their bright-red eggs are an important source of protein and employment for Russia and other nations.

The peninsula is also a nearly mythical destination for outdoor tourism, a northern Amazon for volcano touring, heli-skiing, hiking, fishing, bird-watching and hunting.

Kamchatka's wild state is its best asset, Mr. Chistyakov said, adding that the rivers slated for protection are among its richest in fish yield and diversity. Dr. Jack A. Stanford, an ecology professor at the University of Montana and an adviser to the Wild Salmon Center, who, with Moscow State University, has helped direct research at biological stations on Kamchatka, agreed.

One river, the Kol, he said, has as many as five million returning salmon each year. "It has fish coming in from ice to ice," he said. "It's an amazing place."

A recent tour of two rivers selected for protection, and helicopter flights over five others, showed a verdant wilderness.

Rivers without dams fall from mountains and meander through tundra, creating networks of lakes and side-channels, dense plant communities and flood plains fertilized by decaying fish. Brown bears abound. Rare birds, including huge Steller's sea eagles, are a daily sight. At the Kol's mouth, where river meets surf, dozens of seals ambush passing fish.

But in places the banks are trampled by poachers and their camps. Treads from their all-terrain vehicles have cut scars in the tundra.

The efforts to create salmon refuges formally began in 2001 when Kamchatka's administration, which governs the southern part the peninsula, signed a memorandum of understanding with the Wild Fishes and Biodiversity Foundation, a local conservation group, proposing the contiguous Kol and Kekhta basins as a protected zone.

Later, the Koryak Autonomous Okrug, which governs the peninsula in the north, accepted a proposal to protect the contiguous Utkholok and Kvachina basins. After review and environmental assessment, Kamchatka designated the Kol and Kekhta in April — 544,000 acres in all.

Conservationists call the decision fresh thinking in a field in which huge sums have been spent on rivers, like the Columbia in the United States, trying to recover runs. The investments have had limited results.



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“What makes this special is that these rivers are being protected while they are still amazing fish producers,” Mr. Klimenko said. “To preserve something that is not destroyed is much less expensive than restoring an ecosystem that is already broken.”

The plans accelerated in August, when Kamchatka's administration wrote to the foundation unsolicited and proposed designating five more rivers. It asked the foundation to prepare surveys and assessments.

The new proposal includes the Oblukovina, Krutogorova, Kolpakova, Opala and Zhupanova rivers. Under the plans, these watersheds would be protected from habitat disruption, but traditional uses would continue, including regulated commercial and sport fishing, trapping and hunting. Each river would have a biological station to study the ecology of the river and the fish.

Vyacheslav Zvyagintsev, the foundation's director, said his staff was rushing to complete the documents. “We have a fantastically difficult task,” he said. “But I always say: if not us, then who?”

Mr. Chistyakov said Kamchatka planned to designate all the rivers except the Zhupanova by July 2007, when the Kamchatka and Koryak governments will merge, as part of the Kremlin's redistricting of Russia. The Zhupanova has more users and its designation needs more time, he said. (The Utkholok and Kvachina remain under review.)

Even if the rivers are protected, some conservation advocates warn, the fish runs could remain at risk. Mr. Chistyakov noted that many Russians might not recognize protected zones. “But I think this will change in time, and sooner rather than later,” he said.

The United Nations Development Program, which has a Kamchatka salmon conservation program, said poaching must also be reduced. It is drafting an antipoaching strategy it plans to release next year. Natalya Olofinskaya, a [United Nations](#) program officer, said the protected areas could help by putting scientists on the river who could deter and report poachers. “By expanding this presence we could do a lot,” she said.

Russia is often criticized for behavior that includes crackdowns on democracy and the use of trade and energy levers against its neighbors. Its laws often prove malleable, subject to the whims of politicians or those in their favor. But in Kamchatka, advocates for salmon say the proposed protected zones are an example in which Russia is ahead of the United States, where many salmon runs and habitats were lost long ago.

“Russia is getting it right,” Dr. Stanford said, on the bank of the Utkholok, a river of salmon bones and big, silver-sided fish. “And we got it wrong.”



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