




THE KAMCHAT PROJECT

HOW A VAST, VOLCANO-STREWN WILDERNESS
IN SIBERIA CAME TO BE ONE OF THE LAST
STRONGHOLDS FOR PACIFIC SALMON

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My ears ring with the whining drone of two giant turbo shafts as the 35-foot blades of the Mi-8 helicopter force the air into a maelstrom of sand, water and lily-infused grasses over the Karymskaya River. As the immense Soviet helicopter slowly defies gravity, a mushroom cloud of ash explodes from Karymsky, a large cinder cone that dominates the skyline before us. Moments later, the roar of the helicopter is swallowed by a roll of thundering bellows as the volcano erupts again, spitting another cloud of ash to join the long train of puffs that interrupt a clear cobalt sky. The Mi-8 disappears over the valley's rim, leaving the six of us gathered near our kayaks, standing in reverie at the foot of this prehistoric sight. The hundreds of hours of research, networking and setbacks we've experienced seem a trivial price to pay to be standing here, in the middle of nowhere, on Russia's remote Kamchatka Peninsula, one of the last great Pacific salmon strongholds.

Our plan in Kamchatka involves paddling nearly 100 miles of unexplored whitewater and joining locals and media crews to investigate several threatened rivers in the region. Back home in the Pacific Northwest, critics have dismissed our mission as selfish, pointing out that we'll be collectively burning thousands of gallons of jet fuel, using donation and sponsorship monies that could go toward other causes and exploiting the glamour of a threatened species, all to be the first to paddle our beloved plastic boats down a few pristine rivers in the Neverland of Kamchatka. To them, we're just a bunch of waterfall-happy kayakers parading around as environmentalists. Technically, they're right. But there's more to the story than that.

The seed of our expedition was planted along the Columbia River in the summer of 2008 over a dinner of salmon, stewed cabbage and vodka. There is a place the size of California, my friend Rob explained, where the topography is akin to the kayaking playgrounds of New Zealand and Japan, but where none of the difficult rivers have yet been explored, and where human populations are nearly nonexistent. A place, he continued, with one of the highest concentrations of brown bears on the planet, where the only way around is via outrageously expensive helicopter charters, and where the mafia calls the shots. With those morsels of information, Rob set a plan in motion that came to define our lives over the next two years. That night, none of us could stop talking about it:

Kamchatka. Within days, the idea sprouted into an obsession as we pored over every online article and description we could find on the mysterious place. We quickly realized that we were in for more than just another international kayaking trip.

Initially, our team was just three: Rob, an educator; Jay, a marketing pro; and me, a photographer and product designer. To round out our team's overall set of credentials, we soon brought on friends Jeff, a biologist; Shane, a lawyer and avid photographer; and Bryan, an adventure-film maker.

The authors of the articles we read described Kamchatka with a sense of starry-eyed wonder. And many of them reiterated the sentiments of the first story we came across, which warned readers to avoid the region for fear that too much interest would destroy the very thing that makes it so special. Our trip would almost certainly open the door for more kayakers to come to the peninsula. The onus was suddenly ours to balance the negative side effects of our expedition with something positive, something we could give back.

One message in particular stood out in every story we read: Kamchatka is one of the last great ecosystems that haven't been severely degraded by humans, and it provides spawning grounds to roughly a quarter of all Pacific salmon. But these fish and the exceptionally bountiful ecosystems their nutrients support are beginning to face severe threats from human activities as much of the world remains oblivious. Indeed, many of our friends and families didn't even know Kamchatka existed and were fascinated to learn there was still a place where salmon, the same salmon that return to our home rivers in the Pacific Northwest, annually choke rivers by the tens of millions.

At first, we were dubious about trying to integrate an issue as significant as salmon, something we knew relatively little about at the time, into the expedition's mission and objectives. But the eventual decision to expand the scope proved to be a pivotal one. After word got out, researchers, like Nicholas Zegre, Ph.D., a hydrologist at West Virginia

University who needed samples from rivers in Kamchatka, began approaching us about the expedition. Before long, we were having extensive conversations with organizations like Wild Salmon Center, The Freshwater Trust and World Wildlife Fund. Our network of advisers grew to include one of the leading salmonid ecologists in the world; a Kamchatka fly-fishing guide who has spent the past decade leading trips on the Kamchatka Peninsula; and the manager of the Little White Salmon National Fish Hatchery in the Columbia Gorge. Kamchatka's whitewater potential soon took a back seat to our fascination with a species that we've since come to know very well.

Salmon are integral to the history, culture,

of the peninsula and forcibly depopulated the area during the Cold War. It was not until 1989 that Russians were allowed to move to Kamchatka and not until 1991 that foreigners were allowed to enter. As a side effect of this designation, Kamchatka avoided the massive development boom and population growth that occurred in nearly every corner of the globe during the mid-20th century, and instead became the unique exception.

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The river is familiar—it always is. Like a gentle smile glimpsed across a crowded plaza, the language of water as it flows over, under, around and between rocks is universal. The six of us leapfrogged to eddy as the broad valley pinches

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ecology and modern politics of our home in the Northwest, and as kayakers we've long shared a fascination with these impressive creatures that battle their way up many of our favorite runs every year to spawn. It was no secret to us that humans have made it tough on salmon in most of Europe and North America. Industrialization and overfishing over the past 200 years have all but wiped out Atlantic salmon, and dwindling stocks of wild Pacific salmon have been dealt endless challenges on their upstream journeys as dams and agriculture have been developed in the United States, Canada and Japan. But as we dove into ecology textbooks, attended conferences and spoke with more and more experts, we began to recognize that in terms of salmon conservation, Kamchatka represented something special: humanity's last opportunity to get it right.

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Kamchatka is the land that time forgot. The 700-mile-long peninsula is nearly the size of California yet has less than 100 miles of paved roads. As recently as 300 years ago, the peninsula was densely populated with small tribal communities that lived along the coastlines and throughout the river valleys. Conflicts that arose with Russian settlers following the expeditions of Vitus Bering in the early 18th century led to the demise of the majority of this indigenous population as small European-style fishing villages and ports were erected and the peninsula became intrinsically tied to the Russian Empire. Due to its proximity to Alaska, the Soviet Union placed a top-secret nuclear submarine base on the southern end

down to bedrock slides, opens up to shallow riffles and pinches down again, collecting bits of flow at every bend from bubbling spring-fed tributaries. When we reach horizon lines we can't see over, one of us gets out to find a good vantage point to scout from, making a racket to alert bears of our presence. Often, the rest of the team is signaled to take a look, the rapid or slide or waterfall being big or complicated. Bryan, Shane and I find locations to set safety and shoot photos and video while Jay, Rob and Jeff decide on lines and forge ahead.

Few places on Earth have evaded exploration by kayakers, and while there are plenty of rivers that have yet to be run, it's rare to find an entire region that hasn't at least been scouted by people who understand whitewater. In every other corner of the globe, we've found at least a trickle of secondhand information about flow seasons and potential drainages or, at best, a like-minded kayaker who has understood what we're looking for. Two years of research produced no such intel on Kamchatka. So we paddle forth into the unknown, noting the river features, geology, flora and fauna we pass, aware that the information we collect will provide a jumping-off point for future kayakers to come explore this region.

Over its 26 miles, the river unfolds like a dream, and we plunge through an endless series of waterfalls, slides, gorges and wide-open boulder gardens. Occasionally a waterfall will land on rocks and we are forced to portage among gnarled groves of birch and through the desperately thick 8-foot-tall understory of grasses and willows that define this region's

vegetation.

Continuing toward the Pacific, we pause at every noticeable tributary while Jeff drops a probe to record data for Dr. Zegre. Kayakers are water geeks by nature, but our knowledge is generally limited to what we can see and feel: flow, sediment load, color, temperature. As we move downstream, the water-quality multiprobe lent to us by Dr. Zegre's university lab opens a window of understanding and fascination about how dynamic water chemistry is. The information we gather will bolster understanding of Kamchatka's rivers and hopefully provide agencies information they need to help protect its salmon.

The morning of our fourth day on the river is bittersweet, as we spot a white speck on the horizon that slowly takes the form of a 36-foot Bavaria at full sail, our chartered ride back to Kamchatka's capital and only major city, Petropavlovsk-Kamchatsky. By the time we pull into port the next day, we'll have already begun to shift gears in preparation for the next segment of our expedition.

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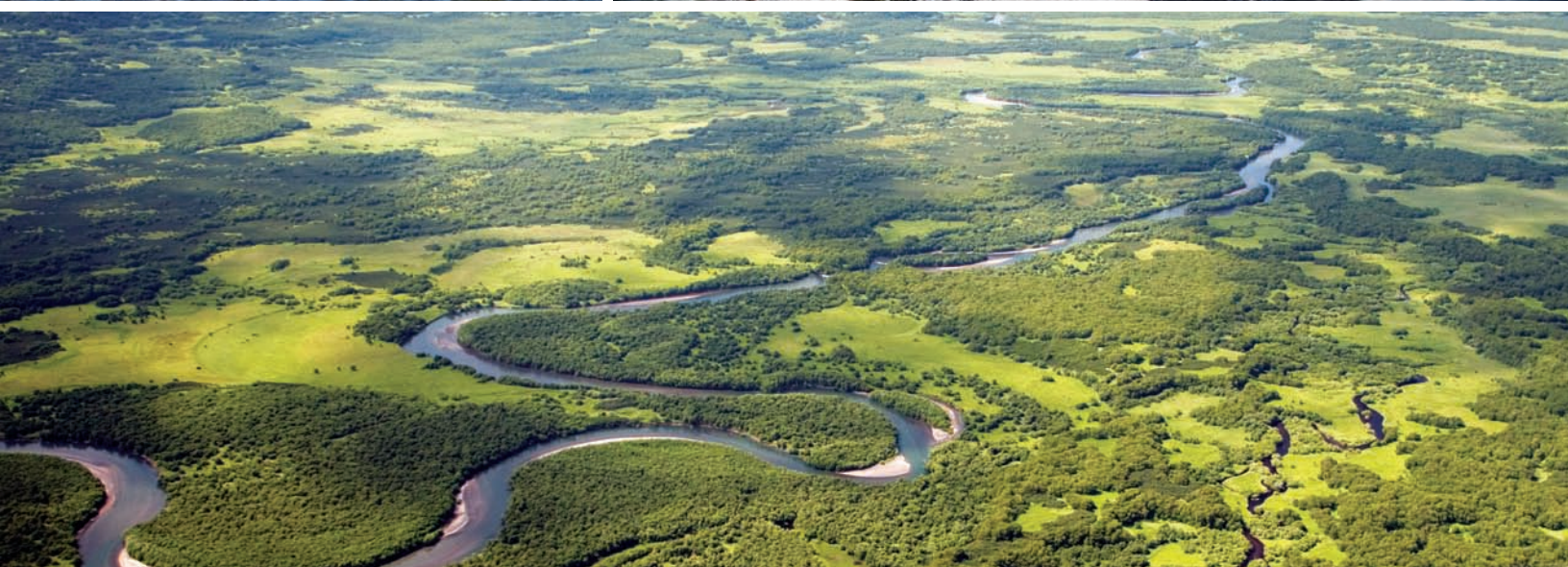
First a gentle tug, and then *sha-zing!* A wild explosion of water exposes a gargantuan Technicolor beast, which in a flash turns on its nitro boosters and propels itself—and a sprinting Jeff—toward the ocean through knee-deep, fast-moving current.

"Yeeeeeeeee-haw! Let 'er run, and hold on tight!" shouts our fishing guide, Ryan, a lanky and typically soft-spoken fishing fanatic from Northern California, as he steers his 12-foot oar frame across the wide channel to help.

"Bring her in. Gently now! That fish'll run you all the way to the Pacific!" counters Zeb, the host of the National Geographic Channel's "Monster Fish" television series, jumping into a second raft.

Within a few minutes, a circus of 12 or 13 gawkers holding a quiver of expensive camera equipment has assembled in a shallow eddy around a panting and grinning Jeff and the ever-cool and swift-handed Ryan, to whom Jeff has handed off his rod for the final haul and netting. The trout *is* gigantic. Ryan measures it at 30 inches and 10 pounds, one of the largest he's seen during many seasons of guiding on the legendary Zhupanova River, where the fish outnumber humans 100,000 to 1 and even fishing neophytes like us occasionally stand a chance at landing a big one.

At some point in any expedition, idealism collides with reality, and compromises have to be made. A year into our planning, we applied for and were awarded a National Geographic Expeditions Council grant for \$25,000. As



part of the deal, we were assigned to integrate our journey into the storyline of an episode of “Monster Fish.” This completely changed the dynamic of our expedition: The constraints of television production meant that we couldn’t spend our entire time and budget in Kamchatka paddling Class V rivers. At the same time, it gave us an opportunity to broadcast our message to a much bigger audience and meet some interesting experts on Kamchatka’s rivers.

As kayakers, we are adept at looking at rapids and understanding how water courses through them in order to choose a safe line of passage. As a fly-fisherman since before he can remember, Ryan can casually glance at what appears to us as a still pool and know exactly where fish are resting in the shadows. We all understand how to talk about rivers, but we see them from entirely different perspectives.

Floating over thousands of fish, each species taking advantage of different riverbed features, we begin to grasp what makes this place feel so special. In addition to the exceptionally large rainbow trout the Zhupanova is known for, this 1.1-million-acre drainage is home to two species of anadromous char (Dolly Varden and Kundzha) and six species of wild Pacific salmon (chinook, sockeye, coho, pink, chum and masu). Above the waterline, forests of birch, alder and willow similar to those we found on the Karymskaya grow tall and strong, nourished in part by the bountiful nitrogen these salmon carry upstream from the ocean, providing habitat to countless species of brown bears, Steller’s sea eagles, foxes, wolves and wolverines, to name a few.

On our second-to-last day on the Zhupanova, we spot a mother bear with three young cubs fishing from the left bank. We pull into a calm eddy 40 feet away on the opposite bank to watch. Undeterred by our presence, the sow continues to work from her perch on a riverside boulder. Every few seconds, we see the shadow of another 30-inch pink salmon muscle its way up the current past the bear’s nose. She’s analyzing every sushi boat that passes, and when an unfortunate entree is in the right place, she lunges her front paws into the current with claws extended, her hindquarters anchored to the boulder. Over the course of an hour, we watch her successfully catch five, six,

locals on a short stretch of the Bystraya River for a completely different type of fishing.

We watch from shore as Dmitri and Sergei load a faded green gill net with floats crafted from plastic milk cartons into their narrow two-person paddle raft and push off toward a slowly sinking sun. The two roughneck locals, hand-rolled cigarettes dangling idly from their disinterested lips, lay a net across the main channel, wait a few minutes and, after observing a few tugs on the floats, haul the catch into the raft and paddle back. We approach Dmitri and Sergei as they pull over a dozen struggling trout, salmon and perch from the net, tossing the plump females into a bag of “keepers” and

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seven huge and violent pinks, each of which she carries up the boulder-strewn bank and shares in an excited and messy ordeal with her cubs.

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While the salmon in the Zhupanova worry about bear claws, eagle talons and the occasional dry fly, their brethren in other parts of the peninsula are beginning to face an entirely different kind of threat. As Kamchatka is slowly developed, the type of pristine salmon-based ecosystem we encountered on the Zhupanova is becoming less common. A few hours after landing back in Petropavlovsk, we ditch our kayaks where we’re staying and join a pair of

the rest into a bloody pile that will be left as carrion on the banks. When asked about the best part of these fish to eat, Dmitri expertly opens a switchblade from his back pocket, selects a female chum from the net and slits open her belly, exposing a sac bursting with hundreds of bright-red eggs, or roe. But, he nervously points out via our translator for the evening, his family and friends will be eating all the parts of the fish they keep.

“The fish have been here forever. They will be here forever,” relays our translator. “Our fishing has no impact on them.” Two minutes later, when asked how long he’s been fishing



like this, Dmitri states without apparent irony, “The fishing was much better here 10 years ago. There were many more fish. Bigger fish.”

The type of fishing we’ve just observed is technically illegal in Kamchatka: All sport fishing is supposed to be done with rods, and the daily catch limit is small. But this seemingly trivial evening spectacle provides an indicative window on the engine that drives much of Kamchatka’s loosely regulated gray-market economy—and one of the greatest immediate threats to Kamchatka’s abundant salmon population and biodiversity.

Salted salmon roe, or red caviar, is a prized delicacy served throughout Asia and Europe, and Kamchatkan red caviar is judged second to none. On the open market in Petropavlovsk a week earlier, we chatted with women selling the red delicacy in bulk from huge flats for as much as US\$20 a kilo. In Moscow, St. Petersburg and Japan—the largest markets for smuggled red caviar—it goes for five times as much. As a result, poaching for roe offers a quick escape from poverty, and many of the peninsula’s 350,000 inhabitants depend directly or indirectly on the US\$1-billion-a-year red caviar smuggling trade for their well-being.

While small-scale poaching like we just witnessed isn’t terribly destructive on its own, a fisheries researcher from Petropavlovsk we speak with says the cumulative effect caused by thousands of others doing the same is gradually killing off much of the aquatic life, particularly salmon, in the rivers surrounding Kamchatka’s populated areas. Much larger, mafia-run operations spread among Kamchatka’s most productive

salmon runs on its west coast often net entire rivers near their mouths, catching everything attempting to swim upstream, extracting roe and leaving truck-sized piles of carcasses to rot in their wake. By preventing the flow of nutrients to vast regions inland, this extraction can cause massive shocks to ecosystems that depend on returning salmon as a keystone species in their complex food webs. A number of the scientists and anti-poaching patrollers we talked with spoke of rivers they’d encountered on Kamchatka’s west coast that flooded with millions of salmon only a decade ago, and now only receive the paltry numbers we’re used to seeing at home in the Northwest.

Targeted investment from the Russian government and international NGOs over the past several years has set aside a number of protected areas and bolstered anti-poaching enforcement along Kamchatka’s most-at-risk rivers. But budgets for these programs are relatively small, and deep-pocketed poachers still vastly outnumber and outmaneuver patrollers. Recent attention from Russia’s prime minister and most infamous environmentalist, Vladimir Putin, has many hopeful that more poaching operations might be thwarted and destructive oil and mineral exploitation kept at bay, but for now it’s just a hope.

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The next day’s weather proves too poor for us to reach our destination, a lake near the southern tip of the peninsula that boasts Eurasia’s most productive sockeye spawning ground. Instead, we explore Petropavlovsk, where we discover a small two-story ecology learning

center filled with informational posters and children’s drawings of Kamchatka’s landscapes, flora and fauna. Tatiana, a well-dressed woman in her mid-30s, tells us in broken English about how her organization, funded in part by the United Nations Development Programme, promotes environmental awareness to businesses and children throughout the peninsula, participates in efforts to protect at-risk areas and works to develop an ecotourism industry. Tatiana represents a large group of Russians we’ve encountered who have a strong global awareness and see Kamchatka’s salmon and ecological bounties as a rare gift to be treasured and protected. These small, localized efforts are among Kamchatka’s best hopes against overfishing and the destructive oil and mineral exploitation that threaten this global treasure.

We leave the learning center to see that the clouds have begun to lift. I glance up toward the three snowcapped volcanoes that stand partially enshrouded over Petropavlovsk and recall the stories that got me so excited about coming to this enticing land two years ago. Perhaps we are simply kayakers on parade here. But the starry-eyed wonder exuded by those authors is now within me. And though it will be impossible to quantify the effects of our own small efforts to broadcast the ecological importance of Kamchatka, I feel good knowing that the people who read this article, who watch the television special and who have followed our journey online will at least know that such an amazing place still exists. **W**

