



THE KAMCHATKA STEELHEAD PROJECT

SCIENCE, CONSERVATION AND FLYFISHING ON RUSSIA'S MOST REMOTE FRONTIER

2010 SPONSOR'S TRAVEL AND OUTFITTING GUIDE



Professor Ksenia Savvaitova of Moscow State University, and Kamchatka Steelhead Project sponsor, Bob Hamilton admire a typical specimen from the Sopchnaya River.





SEA OF OKHOTSK

Snatolvayam

Kvachina

Utholok

ESSO

Petropavlovsk-Kamchatsky

BERING SEA

← to Moscow, 4204 miles

THE KAMCHATKA STEELHEAD PROJECT

A Brief History

The Kamchatka Steelhead Project (KSP) was conceived by Professor Ksenia Savvaitova of Moscow State University (MSU) and Peter Soverel, founder of the Wild Salmon Center (WSC), in 1994. The essential concept was to fund and conduct scientific expeditions to remote rivers in Kamchatka, Russia to investigate steelhead populations there which had been listed as a “threatened” in the Russian *Red Book* of rare and disappearing species.

Individual sponsors provided a preponderance of the funding although in the early years of the project, the US government provided significant seed monies. Sponsoring anglers participate in the field expeditions and assist in collection of biological samples (length, girth, sex, tissue for DNA, tagging for migration and population estimates, scales to determine life histories of individual fish) through catch and release flyfishing. This methodology proved particularly suited to the study of listed steelhead:

- Low mortality
- Sample collection over long reaches of the river systems
- Sample fish of all sizes

Each of these features provides significant advantages over gill nets, which cause high levels of mortality, restrict sampling to a single location at a time, and select for size.

The first KSP expedition was conducted in September-October 1994 on the Kvachina and Snotalvayam Rivers in western Kamchatka. The WSC co-directed these expeditions until 2000 when it created a separate, not-for-profit company, Wild Salmon Rivers (WSR), to conduct the angling ecotourism/conservation angling activities formerly directed by the WSC. Today The Conservation Angler (TCA) (a d.b.a. of WSR) co-directs the expeditions with MSU.

Between 1994 and 2005, the KSP conducted field work on a large number of steelhead rivers on Kamchatka’s west coast, including Kvachina, Snotalvayam, Utkholok, Vyampolka, Belogolovia, Moroshechnaya, Sopochnaya, Saichik, Krutogorova, Oblukovina, Utkha, Pympta, and Bryumka Rivers. The Russian federal government suspended the project for several years while it reviewed the process by which it issued the special “taking” permits that allowed for the capture of listed steelhead for scientific purposes. Having completed that process, MSU and TCA are resuming field work this fall. As in the past, our renewed expeditions will consist of American and Russian co-directors, several Russian and American scientists, sponsoring anglers/volunteers, Russian federal fish inspector and support staff including Russian and American steelhead flyfishing guides.

So what have we learned to date? For a complete bibliography of over 20 published, peer-reviewed scientific works see: www.wildsalmoncenter.org and follow the links to *publications*: http://wildsalmoncenter.org/pubs/kamchatka_steelhead_bib.php.

Abundance / Recovery

Steelhead had been listed in the Russian *Red Book* in the mid 1970's due to low abundance which had been caused by industrial level poaching activities. KSP presence, which included federal fish inspectors, resulted in a termination of steelhead poaching in 1994 on Kvachina/Snotalvayam (the rivers share a common estuary) and 1995 on the nearby Utkholok Rivers. The typical illegal harvest in both systems had averaged about 2000 fish each year, allowing for escapement of just 1500 spawners.

With the cessation of poaching, spawning escapements immediately increased dramatically for each year, 1994-1998. The majority of steelhead in these watersheds return as first time spawners at five and six years of age. Thus, the first year in which we might have expected to see the first increases in overall abundance as a result of the increased escapements in 1994, was in 1999. Similarly, the first year in which we would see increases in overall abundance from the bolstered spawning year 1999, was 2004. Typically, at the lower end of escapements, each spawning steelhead in these watersheds produces about 2 returning adults. As escapements increase, the spawner to recruit ratio decreases to about 1.5:1. Taken altogether, this means we should have seen runs of about 7,000-8,000 in 1999-2004 and 10,000-12,000, after just two generations, in 2005-2010.

It is also important to note that the spawning class does not all return in the same year. (See below, Life History Diversity.) Typically, this means no more than 20% of any spawner class is represented in any annual run, excluding repeat spawners. Also note that repeat spawning (about 50%) provides an important buffer in those years where spawner recruitment is lower than expected. All this means that once the population has stabilized at the river's productive potential, year to year variations in run sizes should exhibit much less variability.

Based upon sonar enumerations conducted in 2007, we estimated the steelhead population in the Utkholok to be approximately 11,000-12,000 fish. Similar levels of abundance were found in the in the Kvachina/Snotalvayam based upon mark-tag-recapture methodology. In both cases, these represent very large populations in rather small rivers, and dramatically demonstrate the ability of the species to rapidly recover to high levels of abundance without any "supplementation" from hatchery introductions. (Indeed, the evidence indicates that hatchery introductions in North America *prevent* such recovery.)

Verifying the continuing recovery of steelhead populations will be a key goal of our 2010 field work.

Life History Diversity

Oncorhynchus mykiss (rainbow trout and steelhead) are an extremely adaptable species. Healthy populations often display extremely diverse life histories. When we conducted our first expeditions, the life history variations in the Kvachina, Snotalvayam and Utkholok rivers

differed significantly from those documented by Moscow State University in the early 1970's. By the mid-2000's (i.e. after two cycles of increased escapements), each of these populations had reconstituted their diverse life history structures. For example, in the Utkholok River, *O. mykiss* display an astonishing 19 different life histories, including:

- Half pounders, with less than 1 full year salt residency.
- “Typical” anadromous steelhead (various lengths of fresh and salt water residency.)
- Riverine fish which live in the river for up to 5/6 years and then go to sea as large (4-5 pound) trout, becoming true steelhead by over-wintering at sea
- Large riverine trout that spend a month or two each summer in the salt
- Non-anadromous, river-resident trout, 100% of which are males
- 75% of all steelhead are females
- High levels of repeat spawning by both males and females, >50%.

Based upon DNA work, we have established that steelhead parents can produce both resident and anadromous offspring, and the reverse. In other words, resident and anadromous life history components of the population are part of a single, homogenous breeding population; not distinct and separate population components. This incredible diversity is nowhere to be found in current North American steelhead populations. However, such diversity and the importance of resident-anadromous breeding interactions are almost certainly requirements for robust, sustainable *O. mykiss* populations.

Anadromy

Interestingly, steelhead are not widely distributed in Kamchatka. In North America, steelhead are (or at least were) present in virtually every watershed that provided a migration corridor to the sea, from the border with Mexico to the Aleutian Islands. In Kamchatka, steelhead appear to be confined to a few dozen rivers on the west coast of the peninsula. Even there, in neighboring, adjacent rivers *O. mykiss* display different life histories that may, or may not include anadromy. For example, in the Snotalvayam all *O. mykiss* are anadromous. We have not found any adult trout in that system. In its sister river, the Kvachina, with which it shares an estuary, steelhead dominate the population but there are individual specimens of resident trout. The next river south, Utkholok, has the very complex life history structure described briefly above. The next major river south, Khairosovo (a very large complex watershed), is dominated by the resident form with a few individual specimens of steelhead. We do not yet understand the mechanisms that drive these differing life-history structures.

Run Timing

Steelhead begin returning to the Kvachina, Snotalvayam and Utkholok during the last days of August and continue after the rivers freeze over in November. Indeed, it appears that the interplay between river and sea temperatures is a key factor influencing run timing. In September and early October, it is not unusual for river temperatures to be significantly lower than sea temperatures by up to 15 degrees F. Under these conditions, steelhead will frequently refuse to migrate up into the relatively cold rivers above tidal influence (remember that the water on the bottom of the river in the tidal zone is actually warm seawater, with

cold freshwater on the surface.) Rain raises river temperatures and triggers upstream movement. Conversely, later in the season, as sea temperatures fall towards 40 degrees F, steelhead migrate in large numbers into the rivers – they cannot survive in saltwater below 39 F.

We have found that catch rate remains remarkably consistent over the fall expedition season. Although there are probably less fish entering the rivers each day in September than later in the year, the water tends to be warmer and the fish more aggressive. As the water temperatures drop, the number of steelhead entering the rivers increases. However, the fish are less aggressive in the colder water, but, because there are more fish present, the catch rate remains about the same. Of course, as with anadromous fish everywhere, local environmental conditions greatly influence angling success. In angling for steelhead we often hope for rain to raise/warm the river, but not too much. After a storm and high water, we hope for chilly weather to drop the river back into ideal angling levels, but hope the chill does not last too long or be too severe.

2010 Goals

- Determine overall abundance.
- Establish the relationship between angling encounter rates (hook-ups/angler/hour) with abundance – i.e. can we use encounter rates in the future to monitor abundance trends?
- Check life history diversity and compare to past structures.
- Assess evolutionary legacy.



Peter Soverel
President, The Conservation Angler
Edmonds, Washington, USA
April 7, 2010



YOU'RE ON YOUR WAY TO KAMCHATKA!

By now you are coming to terms with the fact that, yes, you are actually going to fish for steelhead in Kamchatka! Take it from us, we've fished many of the best rivers of the most out-there corners of the world - this is the most extraordinary flyfishing on the planet. The Kamchatka Steelhead Project is an incredibly unique and noble effort that allows anglers to participate directly in the conservation of one of nature's most mystical and iconic creatures.

Now, have you...

- ❖ Contacted TM&I preferred travel agency for travel to Kamchatka? They're experts at sorting out the best itinerary at the best prices on the schedule that works best for you. There's typically availability on the 5 daily flights between Moscow and Petropavlovsk, Kamchatka, but it's best to get in touch with TM&I as soon as possible – especially if you intend to purchase tickets with air miles. (800) 596-2297
- ❖ Begun the detailed process of packing? You may already have most of the tackle and equipment necessary for fishing Kamchatka (especially if you fish in Alaska or British Columbia.) However, read through this booklet and double check that you're prepared. You are going to one of the planet's most remote points - there isn't a fly shop there.

In the meantime, don't hesitate to call or write when questions arise on logistics, equipment, or any other subject. It is always our pleasure to help.

Have a GREAT trip!

The Fly Shop Travel

Mike Michalak
Pat Pendergast
Mike Mercer
Ryan Peterson
Bill Marts
Eileen Born
Michelle Quinlivan

Now turn the page to start learning about the things you'll need to know before you leave, because when you arrive in Kamchatka, we're going to take care of everything else!

KAMCHATKA TRAVEL GUIDE

EMERGENCY CONTACT NUMBERS

Below are a few numbers that you'll want to share with those people that might need to contact you in an emergency. There is a satellite phone in every camp that is restricted to emergency use. In the event of an emergency contact:

The Fly Shop: (530) 222-3555 • (800) 669-3474 • travel@theflyshop.com
The Conservation Angler: (In-Kamchatka outfitter) (800) 687 0411 • 425 742 1938
Travel Meetings & Incentives: (visa & air ticketing) (800) 596-2297 • (425) 275-4207

TIME ZONES

Russia is the largest country in the world. Its landmass is over twice that of the USA. It spans 9 time zones. Moscow is farther from Kamchatka than Kamchatka is from Maine.

Moscow is 11 hours ahead of California time. Petropavlovsk is 18 hours ahead of California time. So if it is 12:00 pm in California on Tuesday, it is 11:00 pm in Moscow on Tuesday, and 6:00 am in Petropavlovsk on Wednesday.

THINGS TO CONSIDER BEFORE YOU LEAVE...

CASH & CURRENCY

You will need USD cash currency to cover your hotel in Petropavlovsk, gratuities and your bar tab. You should bring along newer issued bills in denominations of \$20 or higher as old, dirty, overly-wrinkled and/or small bills are not accepted by Russian banks.

For hotel accommodations in Moscow and/or Esso, credit cards are accepted. The same is true at most restaurants and souvenir shops, and ATMs are readily available if you find a need for Russian Rubles.

HEALTH PRECAUTIONS

There are no mandatory inoculations for travel to Kamchatka. Exercise the same caution that you would prior to traveling to Alaska and make sure you are current on all common inoculations (tetanus, hepatitis A and B, polio, etc).

If you have special health or diet requirements, notify The Fly Shop well in advance of the trip and we'll see that your needs are met.

COMMUNICATIONS

Communication to the outside world is twice daily by high frequency radio between camps. There is a satellite phone in every camp, used for helicopter and emergency communications. Technically Russian customs does not allow personal satellite phones into the country. However, we bring them in routinely and have never been questioned or had a problem.

CAMP SAFETY

While breaking a leg or arm stepping carelessly out of a boat is a serious annoyance anywhere, in Kamchatka it could be life threatening. Injuring yourself takes on a new meaning under remote circumstances. Watch your step and don't take risks with wading!

Each camp is equipped with a professionally stocked medical kit, trained personnel, and has state-of-the-art radio and satellite equipment through which medical evacuation can be arranged. Our concern for safety is the reason evacuation insurance is mandatory.

ELECTRICITY IN CAMP

Camps are wired for generator-produced electricity. Virtually all modern cameras, sat phones, laptops, iPods, and sleep apnea chargers will accept the 220 volt output. You will, however, need the two-pronged outlet adaptor, standard for Continental Europe.

LAUNDRY

Unfortunately the remoteness of this camp does not make modern laundry service practical. However, you may easily hand-wash your socks and base layers. There are basins, soap, plenty of hot water and a drying room for this purpose. Keep a spare set of travel clothing clean for the journey home.

ALCOHOL

Camps are stocked with beer and vodka for sale. Generally beer costs \$4 for a 16oz. can, and vodka costs \$20 for .5 liters. Feel free to bring your own favorite alcoholic treats. There is a handy Duty Free shop near the departure gate in Moscow.

GRATUITIES

Your Russian hosts, guides, and every person in camp works very hard as a courtesy and a matter of personal pride, to make sure that you have a good time. If you feel the staff has worked hard to make your trip a good one, we recommend leaving about 7-10% of the trip cost - \$700-\$1000 per person for the 2-weeks. Leave your tip with the camp manager at the end your week. The camps pool their tips and have a formula for distributing the total among all the guide and camp staff. MGU science staff does not participate in the tip pool.

TRAVELING TO KAMCHATKA

The fastest connection to Kamchatka is via Moscow. You may easily add additional days to the front or back of your trip to visit Moscow, Saint Petersburg, or Petropavlovsk. If you have the time, we highly recommend taking two or three days for such a visit. It offers a chance to decompress and acclimatize, and an urban cultural accent not found in the wilderness of Kamchatka. Contact Sandy DuBois or Terry Seabury at Travel Meetings & Incentives (TM&I) to secure your air travel. They are wonderful to work with and are very savvy. They can even help you secure reservations using your mileage club credits.

Travel Meetings & Incentives (TM&I)
Mill Creek, WA
800 596 2297
sandyd@travelmeet.com or terry@travelmeet.com.

In order to arrive on the river on Friday, you'll typically depart the United States on a Wednesday night. Direct flights to Moscow depart daily from Los Angeles, Houston, Chicago, Toronto, New York, Washington DC and Atlanta.

From Moscow you can connect directly on TransAero or Aeroflot airlines for the overnight flight to Petropavlovsk-Kamchatski (PKC).

INTERNATIONAL AND DOMESTIC BAGGAGE POLICY

Most airlines that people will take to Moscow have an international baggage allowance of 40 kilograms (88 pounds), which is honored domestically all the way to Kamchatka if you make a direct connection. If you stay and tour Moscow before heading to Kamchatka, the domestic allowance is 20 kilograms (44 pounds). You should easily be able to fit all gear necessary for your trip into one bag that weighs approximately 40 pounds, and two carry-ons.

If you'd like to bring a few extra niceties, overweight is charged by the kilo and is comparable to rates charged by western airlines. If you are overweight, take note that it is standard practice in Russia for the ticket agent to quote you an official overweight price. You can then tell the agent that you "don't need a receipt" and often they will quote you a second, lower price. If you go for that option, the agent pockets this money and you are on your way. The only entity who loses in the deal is the airline company. Not saying it's ethical, but it's Russia, which does pride itself on a little light corruption here and there. At no point is this a dangerous or scary transaction. You can pay the official charge or pay the "no receipt" charge...it's up to you. And if you're in your weight limit, it shouldn't come up at all.

IMMIGRATION AND CUSTOMS PROCEDURE

Traveling within Russia requires patience. Business and government operate differently than they do in North America and Western Europe. For instance, on arrival to Moscow you will likely pass through customs after a short wait of just a few minutes. However, do not be alarmed if the whole process takes up to 2 hours - both on arrival and departure. While

Russia is in some ways a very modern society, in other ways it remains a time consuming and not always logical experience. As you wait in line in customs, bear in mind the old Russian saying, "You are nothing without paper." This relic of the Soviet-era bureaucracy still holds true in that your paperwork must be immaculately prepared or you will be sent to the back of the line. You should have your visa, passport and airline tickets readily available to the officials should they request them. We recommend you make 2 copies of these documents, keeping the copies safely separate from the originals.

MOSCOW SIGHTSEEING GUIDE

A 2-4 day stay in Moscow will be a highlight of your time in Russia for any traveler with an appreciation for history, art, food, architecture, shopping and people watching. It's a megapolis that absolutely vibrates with the energy of a "new" Russia. One in ten Russians lives in Moscow, and it has long been the cultural, intellectual and political center of the world's largest country. Russians who live outside Moscow have a love/hate relationship with their capital, and you'll hear it described as "the other Russia." Indeed, its mode is modern, sophisticated, clean, technologically advanced, and expensive - markedly different from Petropavlovsk, Kamchatka. Because of the international influence in Moscow - a result of booming tourism and oil & gas industries - Muscovites understand and provide superior service in the way of hotels, restaurants, museums, bars, and anywhere a visitor is likely to find him or herself. It makes for an astonishing - if completely opposite - side trip to your Kamchatka wilderness adventure.

Moscow Hotels	Rates	Reservations
Courtyard Marriot, City Center	\$300-\$1000	800-321-2211
Moscow Ritz-Carlton	\$500 ++	ritzcarlton.com/en/Properties/Moscow
Metropol Moscow	\$400 ++	www.metropol-moscow.ru
Aerotel DME Airport	\$300 +	TM&I

Moscow's Famous Landmarks	Location / Description
Kremlin	Red Square / cultural & political center of Russia
Armoury	Red Square / museum & diamond fund
Lenin Mausoleum	Red Square / Lenin + interesting building
Pushkin Muesum	Arbat / western & antiquities fine art
Tretyakov Art Gallery	south center / famous Russian fine art
St. Basil's Cathedral	Red Square / colorful onion domes!
Bolshoi Theater	Theater Square / home to Russian ballet/theater

If you'd like a personalized tour guide, we can connect you to an expert service.

GENERAL TOURIST INFORMATION

- Exchange rate: 1 US dollar = approx. 30 Russian rubles.
- Credit cards are widely accepted in Moscow, but for taxis, souvenirs, museum tickets, etc., you'll need Russian rubles. It's easiest to get cash from ATMs, which are readily available.
- Moscow guide book for visitors: [The Rough Guide to Moscow, 4th Edition.](#)

TRANSFERRING TO THE CAMPS

- On arrival to Petropavlovsk, Kamchatka you'll be met by our representatives, collect luggage and transfer to a comfortable motorcoach for the drive to the interior village of Esso. Lunch and snacks will be provided. The drive takes between 6 and 8 hours, depending on road conditions. Hopefully time will fly as the anticipation levels increases as the goal draws near.
- In Esso anglers spend the night in an extremely comfortable hot springs resort hotel. Rooms (double occupancy) are reserved in advance and anglers may pay for them by credit card or Russian rubles, approx. \$200/night/room.
- Early the next morning the helicopter will be loaded, weight estimated, fuel calculated, the pilots will get weather clearance and depart for camp. The flight is spectacular. You'll get to glimpse Kamchatka from the air, marveling at scores of isolated rivers that you pass over en route to camp, all set in the peak of Autumn colors on the expansive *taiga* forest and tundra meadows.

EXTREME WEATHER DELAY

Over the past 14 years we have had a very few instances where getting stuck due to bad weather has resulted in additional nights spent in Kamchatka, either in camp, in Esso, or in Petropavlovsk. With so many daily flights from Petropavlovsk back to Moscow, re-arrangements are straightforward. In all events, The Fly Shop, TM&I, and our partner outfitters will do everything possible to help make this unusual event go smoothly.

Tension and stress can set in when bad weather prevents the helicopter from flying. Remember, the helicopters fly by visual flight rules (VFR), not instrument flight rules (IFR). Weather and safety conditions and the related flight permissions are tightly controlled by a regulatory flight tower. Helicopter companies do not make money unless the rotors are turning, so rest assured they want to fly as much as you. When it is safe to fly, and only when it is safe, you'll be on your way to the river.

THE FISHING WEEK

ARRIVAL TO CAMP

Upon arrival in camp, you'll be introduced to the staff, assigned your accommodations, and given an orientation briefing on the expedition and scientific focus of the project. Expect to organize your tackle, eat lunch and go out fishing for the rest of the day.

The camps are equipped with tidy tent or wood cabins, dining room, hot showers, flushing latrines, drying rooms, wood stoves, fire pit and a first rate Russian crew.

THE DAILY ROUTINE

- 7:00 a.m. Coffee and tea are ready
- 8:00 a.m. Breakfast
- 9 a.m. - 6 p.m. Fishing, with shore lunch
- 6 p.m. - 8 a.m. Banya, cocktails, R/R.
- 8:00 p.m. Dinner
- 11:00 p.m. Generator off

The Kvachina and Snatolvayam Rivers enter the Sea of Okhotsk at a common estuary. The KSP basecamp is located a few miles up from this estuary, on the Kvachina River. Each day 4 sponsor/anglers will fish the home river, utilizing jet boats for access to beats, while the other 4 sponsors will be transported 1.5 miles overland, by ATV, to fish the Snatolvayam on foot. The normal arrangement is to “flip flop” between the two rivers; you'll fish the Kvachina one day, the Snatolvayam the next, then the Kvachina again, and so on. Fish size and numbers tend to be equal between the rivers, as do angler encounter rates.

DEPARTURE FROM CAMP

On the day of departure you'll have breakfast, pack your gear and await the helicopter transfer back to town. The helicopter usually arrives sometime in the late morning, depending on weather both in camp and at the heliport.

A FEW WORDS ABOUT BEARS

Kamchatka has a very high concentration of grizzly/brown bears - testimony to the incredibly fertile salmon streams, berry patches and pristine wilderness where bears can grow fat and happy. Our expeditions are in the heart of bear country, and on certain stretches of river, at certain times of the year, seeing bears is an everyday occurrence. So have your camera ready! We've never had a serious bear encounter in Kamchatka. However, safety is paramount and between the Russian and American guides, who've spent lifetimes in bear country, you can expect a safe, professional initiation into the same. Use common sense while in the field and follow a few simple rules; stay out of tall grass, do not take short-cuts through willow groves, make plenty of noise, stay in groups of two or more within sight of each other, and don't run from a bear.

HELICOPTERS IN KAMCHATKA

The iconic orange and blue MI-8 helicopters are to Russia what the DeHavilland Beaver is to Alaska: They are time proven, burly, reliable workhorses that transport people, produce, construction materials and everything else throughout the roadless wilderness. Russians seem to have a utilitarian approach to equipment and it's rare that anyone bothers to wash these machines on the outside from the time they're painted and rolled off the Moscow assembly line (Mil Moscow Helicopter Plant JSC), until they're scrapped. But the tender loving care that is given to their mechanical maintenance is another issue. The crew that flies the chopper inspects and supervises every minute aspect of the aircraft's life on the ground. The captain monitors the loading and unloading of cargo, the co-captain is on top of the fueling, and the flight engineer is the mechanic. It instills a tremendous sense of confidence knowing that the guy responsible for your safety is sitting right behind that Plexiglas windscreen.

As Americans we are propagandized to the eyeballs about technological superiority. Russians, too, think that they invented the telephone, radio, and electricity. And they

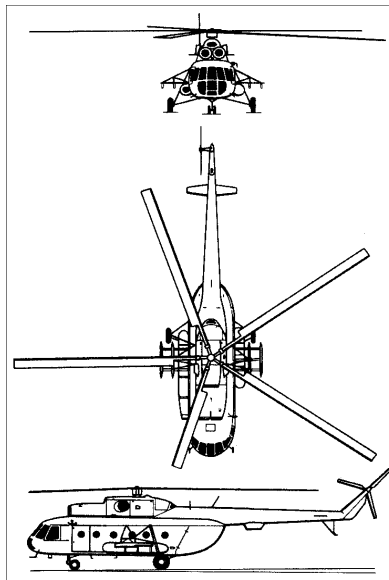
might be right. What is a fact is that they build great helicopters. The safety record of the more than 15,000 Mi-8 (NATO code name Hip) choppers is incredible. It is the Volkswagen of the sky and they've been making the same essential model since 1961.

Economy, power: weight ratio, reliability and a useful load of 16,230 pounds are but a few of the reasons why 52 countries around the world – including the USA – employ the Russian-built MI-8 for search & rescue, short range military duty, and medium load transport in private industries like telecommunications and oil & gas.

As a passenger they are smooth to ride in. After a jostling rotor and motor check, the beast roars into the air. The blades

chop through the atmosphere, normalizing air pockets that cause turbulence in fixed wing aircraft. There are bench seats along each inside wall, equipped with seldom-used seat belts. Large glass portholes open inward, so when you want a photo or a little ventilation, you can just open them. Just don't forget a set of earplugs!

There is no baggage weight limit on the MI-8 Helicopters.



Moscow Helicopter Plant MI-8: Medium duty helicopter
Maximum Take-off Weight: 13,000 kilograms / 28,600 pounds.
Rotor Diameter: 21.3 m / 69 ft; with 5 blades
Cruising Speed: 225 km/h / 140 mph
Crew: Pilot, Co-pilot, Flight Engineer
Engines: 2 Isotov TV2-117 turbines
Range: 375 kilometers / 232 miles
Payload Capacity: 32 passengers
Length: 18.3 meters / 61 feet
First Flight: July 31, 1961

KAMCHATKA TACKLE AND EQUIPMENT GUIDE

Much of the allure of steelhead comes from their sheer power and fight when hooked. Atlantic and Chinook salmon may rival them, but no other freshwater fish surpasses the steelhead for sport. And Kamchatka steelhead are among the largest on the planet. You need to come prepared with all equipment you'll use on the expedition.

Below are The Fly Shop's recommendations for camp equipment, clothing, rods, reels and lines and flies for Kamchatka steelhead fishing. If you have a different set-up, we're not saying you need to rush out and replace it, but do make sure you are outfitted with quality equipment in reliable working condition that will stand up to the rigors of the Kamchatka wilderness and fish.

The Fly Shop is a full service purveyor of flyfishing equipment. We carry only top quality equipment that our Kamchatka staff uses and swears by while in the field. We would love to have your business in outfitting you for your trip!

CAMP EQUIPMENT AND FLYFISHING HARDWARE

SLEEPING BAGS ARE REQUIRED!

Although camp cabins are outfitted with comfortable beds and mattresses, you need to bring a sleeping bag. A bag rated to around 20 degrees is sufficient. Although the cabins are heated by wood stove, the wood will burn out in the night, making for chilly mornings. Frosty conditions should be expected, and average air temperatures will swing between 20 and 50 degrees anytime in September and October. If you "sleep cold" you might want a bag that is somewhat warmer. Pick a synthetic or down model that packs to a small size for transport, such as the mummy-bag style designed for mountaineering. Companies like The North Face, Marmot, Western Mountaineering, Feathered Friends and Mountain Hardware make excellent technical sleeping bags.

BATH TOWEL AND TOILETRIES

Camps have well pressurized hot water showers, but you'll need to bring a towel and personal toiletry items.

LUGGAGE

You do not need waterproof luggage, although note that with all the methods of transport involved, you'll want quality luggage that can withstand the rigors of international travel, and that you don't mind getting dirty! Fishpond's Stampede roller duffel is a very nice choice.

FISHING VEST OR TACKLE PACK

For vests we like a high quality product, in a shorty model. Choose one that has room for a rain jacket or camera in the back. The brands we like are Simms and Patagonia. If you prefer a tackle pack, take a good look at the Fishpond Water Dance Pack.

WATERPROOF DAY PACK OR BOAT BAGS

These hold extra gear, clothes, flies, camera, snacks, etc., and keep them safe and dry during floats and boat rides. The Fly Shop recommends Sagebrush Dry Goods and Simms products as they both produce 100% waterproof packs, bags and duffles.

HEADLAMP

Headlamps work great for late night gear fiddling and trips to the loo. The Petzl “Tikka” and models made by Black Diamond are the best headlamps on the market.

INSECT REPELLENT

The late fall is thankfully NOT bug season! However, if September is unseasonably warm, there may be a few no-see-ums around in the mornings and evenings. Repellents with 50% - 100% of the active ingredient, DEET, are the best. Apply to exposed skin sparingly, using the *back* of your hand. (DEET dissolves fly line and leader instantly if they come in contact!)

CAMERA & CAMERA PROTECTION

Waterproof or splash-proof 35mm pocket cameras are handy. Canon or Nikon digital SLR cameras with a good zoom lens (28 - 80) are the best. The best hard plastic cases to protect expensive camera equipment are made by Pelican Products, www.pelican.com The Sure-Dry Hip Pack by Sagebrush Dry Goods is a totally submersible soft option.

POLARIZED SUN GLASSES

Good quality polarized sunglasses are a must for seeing fish and for safety. Oakley, Costa Del Mar and Action Optics make excellent fly fishing sunglasses, and even offer prescription options. Bring a spare pair!

NIPPERS, HEMOSTATS, HOOK FILE AND MEASURING TAPE: These are essential.

WADING STAFF

Wading is very easy, with pea-gravel or sand bottom and gentle currents. If you use a staff at home, however, bring it along.

COFFEE

If you're like us and you have an addiction to “good” coffee, you might want to bring a pound of your favorite pre-ground beans.

CLOTHING FOR KAMCHATKA

Steelhead have adapted to take advantage of river temperature and flow regimes that can coincide with nasty fall weather. Therefore, anglers intent on taking advantage of steelhead should adapt to the same. By planning your clothing strategies around a layering system, you can easily adjust to changing temperatures and conditions. These insulating layers can be used in any combination, and not necessarily in the order listed. For instance, you may want to put your rain jacket directly over your base layer on a warm, breezy day. Concentrate on synthetic fabrics in all your garments when packing for Kamchatka. Synthetic materials retain little moisture, "wicking" it away from your skin and "breathing" it out away from the body. This is important when you are walking in waders or when outside temperatures heat up. Remember, cotton garments are nice in the tropics but have no place in the mountains or wet country. When wet, cotton has negative insulating qualities and takes a very long time to dry.

Average daily temperature swing in Kamchatka in September and October is 20° - 55° F. Average water temps will range from 36° - 52° F.

BASE LAYER

Start off with synthetic thermal underwear tops and bottoms. They usually come in three weights: light, mid and expedition. According to your individual metabolism, pick what weight is best for you. The Fly Shop's Signature "Base Layer," Simms "WaderWick" (lightweight) and "RiverTek" (midweight) and Patagonia Capiline are good choices.

MIDDLE LAYER

Your second layer of insulation, both top and bottom should match the weather and conditions of the day. Synthetic fleece is the way to go here. Simms' "Windstopper Softshell" and "Guide" Pants and shirt, or Patagonia's "Regulator" line of fleece provide great insulation. Also consider The Fly Shop's "Alpine Tech" and "Wind Barrier" jackets; they are terrific garments and are a great value.

HATS

Bring a few hats: One with a good brim for sun protection, a thin beanie for light insulation, and a warmer stocking hat for chilly morning boat rides and cold days.

SOCKS

Three pairs to six pairs of heavy socks will be adequate. Wool, polypro or a combination of both are the best choices in sock material. Try on your socks with your waders and wading boots before you go to insure you have plenty of room to move your toes. Being unable to move your toes and cramping your feet in your wading boots are the biggest reasons for numb toes and cold feet. Fox River, Simms and Patagonia synthetic and "smart wool" are the way to go. You can also add extra insulation by layering with very thin synthetic "liner" socks, worn next-to-skin.

GLOVES

Fingerless insulating gloves are great for fishing on chilly days. We have had the best success with synthetic gloves because they can be wrung out, insulate when wet, and dry very quickly. You should also bring a pair of full-fingered gloves or mittens for insulation on cold morning boat rides.

WATERPROOF SHELL

The final layer on your upper body should be a rain jacket. High quality Gore-Tex type products are the best. Your rain jacket should be 100% waterproof and breathable, multi-layered, with sealed seams. Buy the best rain jacket you can afford, as it is one of the most important pieces of equipment you can own. The Simms line, and Patagonia's Guidewater are high quality jackets designed specifically for flyfishermen. Various models by North Face, Arcteryx, Columbia, and Marmot are all good crossover choices.

WADERS

Stocking foot, breathable waders are the only way to go. You will experience little or no moisture build-up inside the waders, even after a long hike; they wear like iron, pack down very well, and are comfortable to be in all day. For safety we strongly recommend wearing a wading belt at all times. Simms waders are the time-tested gold-standard and Patagonia's Guidewater are also high-quality.

WADING BOOTS

Vibram "sticky" rubber-soled wading boots are the best choice. Patagonia, Simms and Chota - there are lots of good brands. Metal-studded boots are unnecessary in Kamchatka and not allowed in the boats.

CAMP SHOES

A good weight saving trick for overall packing is to wear comfortable tennis or hiking shoes during air travel that can double as camp shoes. Wooden walkways connect all camp facilities to keep your feet dry.

RODS, REELS, LINES, LEADERS FOR KAMCHATKA STEELHEAD

SINGLE-HANDED FLY ROD SELECTION

Seven, 8 or 9 weight rods are the best choices, with 8 being the most popular. Bring at least two rods, which gives you insurance against breakage, and/or allows you to have two different rods rigged at the same time.

There are lots of great rods that will work in Kamchatka. Pick ones that are relatively “fast action” that will allow you to turn over heavy flies and tips with ease. A few to consider are the Sage Z-Axis series, Scott’s S4 and The Fly Shop’s GL H20.

SINGLE-HANDED FLY LINES FOR KAMCHATKA

Most steelhead lies are less than 4 feet in depth. Consequently, the rigging is relatively light. You'll want a full selection of lines with 10 or 15 foot sinking tips from intermediate to high density, fast-sinking: Intermediate, Type 3, Type 6, Type 8 should cover it. Also throw in a 300 grain shooting head for high water or unusual conditions, and a weight-forward floating line, like Rio's Steelhead & Atlantic Salmon taper for low and shallow water fishing. The most convenient and cost-effective option is the Rio Versi-Tip, which comes with an assortment of tips of differing densities that can be changed to meet the conditions.

DOUBLE-HANDED RODS...

...are perfectly matched to the methodical, cast-step-repeat techniques used when steelhead fishing. The rivers in Kamchatka are very small and rods in the 6 to 8 weight class, 12 to 14 feet in length work well. Sage’s Z-Axis 6126, 7136, 8129, or Scott 7wt T2h are perfect. Match your rod with a Rio Skagit Spey Line with interchangeable tips (floating and sinking).

SPEY LINES

Short “Skagit” style lines are the way to go for casting sink tips and large flies. Rio developed this style of line and they still make the best model. Match it with a good selection of sinking tips from light to fast sink. Most people will prefer an assortment of T-14 tips in lengths of 7.5, 10, 12.5, and 15 feet. The Fly Shop can construct a T-14 tip selection for you.

FLY REEL SELECTION:

Make sure you have good reels with quality drag systems. Solid choices as reels by Galvan, Nautilus, Tibor and The Fly Shop’s own brand.

LEADERS AND TIPPET

MAXIMA is the best combination of suppleness, durability and strength. Bring a spool of 30 or 40 lb test for but sections, and tie on 15 or 20 lb test tippet. Your entire leader needs only to be 3 – 6 feet long.

FLIES FOR KAMCHATKA STEELHEAD

Like every other aspect of steelhead fishing, the flies used are subjected to endlessly sophisticated thought and construction on the part of the angler. That being said, ironically, most serious steelhead fishers would agree that the fly is the least important part of your rigging. Steelhead bite from aggression or curiosity, not hunger, so throw the idea of “matching the hatch” out the window. Pick flies that give YOU confidence. Standard color patterns are black, blue, purple, fuchsia and combinations thereof, with and without an “egg-sucking” head; orange, shrimp-pink, and white and combinations of those hint at shrimp, prawns and crustaceans and are used more in Kamchatka than in other parts of the steelhead’s North Pacific range.

INTRUDER AND STRING LEECH-STYLE FLIES

Big, 3-5 inch long patterns that wiggle and flash are “go-to” patterns for Kamchatka steelhead. Bring a selection of lightly-weighted and unweighted flies. “Stinger-style” with a trailing hook, or flies tied on plastic or aluminum tubes both work well.

- Paul Miller’s Predator
- Miller’s Shrimptishioner
- Skagit Minnow
- Paul Miller’s Prowler
- Sleech
- Sunray Shadow
- Paul Miller’s Phantom
- Strung Out Rockstar
- Trailer Trash

TRADITIONAL AND SMALLER FLIES

Especially in low water conditions, but also in normal conditions, smaller flies will coax big grabs. They should be dressed 1–3 inches long on #2 - #1/0 hooks or tubes.

- General Practitioner (#2 and #1/0)
- Cone Head Trailing Tube
- Egg Sucking Leech
- Dag Midtgaard’s Norwegian Tube Flies
- Skunks
- Glasso Heron Flies
- Motion Prawn
- Battle Creek Bunny

DRY FLIES

Bring a couple Bomber-style skating flies...just in case.

TRAVEL CHECK LIST

- _ Airline tickets and itinerary
- _ Valid passport
- _ Invitation address
- _ Copy of passport (pack separate)
- _ Wallet, cash
- _ Cash, credit cards
- _ Toilet articles
- _ Towel
- _ Prescription medications
- _ Aspirin / Ibuprofen
- _ Foreign language dictionary
- _ Camera, lens paper, battery
- _ Emergency telephone numbers
- _ Lightweight Underwear
- _ Fleece pants
- _ Fleece jacket
- _ Long-sleeved shirts
- _ Short-sleeved shirts
- _ Slacks and pants
- _ Bandanna
- _ Pocket knife
- _ Light socks
- _ Heavy socks
- _ Pen and pencil
- _ Reading book
- _ Flask
- _ Travel alarm
- _ Reading glasses
- _ Sleeping Bag
- _ Bug repellent
- _ Sweater
- _ Helicopter ear plugs
- _ Camp shoes
- _ Undershirts
- _ Coffee
- _ Notebook
- _ Playing cards
- _ Briefs
- _ Belt
- _ Fishing hat
- _ Stocking cap
- _ Rain jacket
- _ Fishing gloves
- _ Lip balm & hand lotion
- _ Waterproof day bag
- _ Garbage bag for wading gear
- _ Tape measure
- _ Fly rods
- _ Fly reels
- _ Spare spools, spare lines
- _ Leaders
- _ Tippet
- _ Fly boxes
- _ Dry flies
- _ Streamers
- _ Polarized sunglasses (2 pair)
- _ Waders
- _ Aquaseal
- _ Flashlight/headlamp
- _ Wading belt
- _ Wading boots (no studs)
- _ nipper, hemostat, file, knot tool
- _ Fishing vest/tackle pac

PROPER FISH HANDLING AND SAMPLING TECHNIQUES

YOU AND YOUR GUIDE WILL COLLECT BIOLOGICAL DATA FROM ALL STEELHEAD BROUGHT TO HAND. Remember, the ultimate purpose of this trip is scientific. Under their *Red Book* protected status, steelhead are illegal to fish for in Kamchatka. It is only through our cooperation with science that this extraordinary angling opportunity exists. The procedure is straight forward:

- 1.) Fight the fish aggressively and efficiently. This will lower the potential mortality.
- 2.) The guide will dig a trench in the gravel in shallow water aligned with the current – about 4”-5” deep. As you bring the fish to shore, the guide will take the leader and guide the fish into the trench with its head facing upstream. The guide will hold the fish upside down in the trench. (This seems to quiet the fish so that it does not struggle.)
- 3.) The guide will hand you a sample kit which includes tape measure, scissors, hemostats, scale envelope, Floy tag gun, Floy tags, sample vials containing alcohol, a note book and a lead pencil. You will record the data that the guide passes to you:
 - Load the Floy gun with the Floy tag;
 - Record the Floy tag/sample number in the notebook;
 - Record length, girth, sex of the steelhead;
 - Write the sample number on the scale envelope; hold the envelope slightly open and the guide will insert scale samples into the envelope. Seal the envelope;
 - Write the tag number on a small piece paper and insert in the sample vial. The guide will place a small tissue sample in the vial. Screw the lid on the sample vial tightly;
 - Hand the loaded Floy tag gun to the guide who will insert the tag;
 - All of this will go most smoothly if you do not try to handle the fish – keep your hands dry so you can write.
- 4.) Record all steelhead that are hooked but not landed. Keeping track of these encounter rates is an important part of the scientific protocol. You will be able to tell the difference between a steelhead and char – there is no mistaking the former.

TAKE A PHOTO IF YOU LIKE. Do not lift the fish completely out of the water. Instead, with the fish facing up current, rest (not grip) the fish gently just behind the pectoral fins and firmly grip the tail at the wrists. Keep the fish’s head submerged until the guide or your partner announces that he has framed the picture and is ready to take the picture. Gently lift the fish so that its belly remains in contact with the water. Snap the picture and immediately resubmerge its head. Repeat again if necessary, but please, under no circumstances lift the fish fully out of the water or keep its head out of the water for more the 5 seconds. Through all this, try to imagine you’ve just run a marathon and then had your head submerged in the river. Return the steelhead to the river, making sure it is strong enough to holds itself upright in the current. With proper fish handling, the fish will survive to spawn again.

POLISHING YOUR KAMCHATKA FISHING SKILLS

To take the best advantage of your fishing excursion to Kamchatka, and for that matter any fishing holiday you embark on, we highly recommend some pre-trip brushing up angling techniques and casting.

Practice your fly casting - any lawn will do. It's a good idea to spend several hours in the back yard, or local pond, stream or schoolyard, practicing your fly-casting. If you feel your skills are lacking or you need some refreshing, consider professional instruction to help you hone your technique. This is especially true with double handed, Spey casting.

Having a solid grasp of the "double-haul" casting technique is invaluable, especially when throwing bushy big streamers. It will lead to more fish caught, guaranteed.

TIPS ON STEEHEAD FLY FISHING IN KAMCHATKA

- Fish streamers on a downstream 45-degree angle.
- Always fish flies on a tight line.
- Keep rod tip low to improve tactile contact with the fly.
- Do not set the hook, but rather let the fish take and turn on the fly before tightening up. Steelhead often grab with delicacy. If they are merely "mouthing" the fly facing forward, a premature hook set will pull it straight away from them.
- Practice on home waters before your trip to make sure you can easily cast a weighted #2 streamer 40 or 50 feet with the rod you plan on bringing. Practice with both floating and sinking tips lines.
- Train yourself to fish and move along quickly. This is essential as steelhead tend to strike the fly on the first cast. The "potted plant" syndrome is anathema to catching fish.
- Use heavy tippet. We suggest nothing lighter than 12 pound test Maxima.
- Steelhead do not hold in water according to access to food. Rather, they hold in water that offers rest and cover. Learn to read this type of water.
- Don't rely completely on your guide's help with all your fishing. Don't be reluctant to experiment. Be self-reliant, independent; you'll learn quickly and you'll have more fun!

KAMCHATKA REFERENCE MATERIALS

BOOKS

Reeling in Russia - highly recommended!

Author: Fen Montaigne Publisher: St. Martin's Press

Atlas of Pacific Salmon - highly recommended!

Author: Xanthippe Augerot Publisher: The Wild Salmon Center

Where the Sea Breaks its Back

Author: Cory Ford Publisher: Little, Brown

Grizzly Heart: Living Without Fear Among the Brown Bears of Kamchatka

Authors: Charlie Russell and Maureen Enns Publisher: McClelland & Stewart

Tent Life in Siberia

Author: George Kennan Publisher: Gibbs Smith

Birds of East Asia - highly recommended!

Author: Mark Brazil

Publisher: Princeton Field Guides

Steller's History of Kamchatka

Author: Georg Steller

MAPS OF KAMCHATKA: www.avachabay.com - This is the best map of Kamchatka. Available for purchase.

WEATHER: <http://www.wunderground.com/global/stations/32540.html>

COMMON RUSSIAN WORDS AND PHRASES

Hello	pri-vyet	Catch a fish	pie-mahl ri-bah
Nice to meet you	o-chin' pri-yaht-na	Rainbow Trout	Ma-ki-zha
Thank You	spa-see-ba	Steelhead	syom-ga
You are welcome	pa-zhal-sta	Silver Salmon	kir-zootch
Yes	dah	King Salmon	chah-vee-chah
No	nyet	Chum Salmon	ke-ta
Good Bye	da-svi-dahn-ya	Pink Salmon	gar-boosha
Good Morning	dobe-ray oot-ra	Dolly Varden	gar-lyetz
Good Night	spa-coy-nay no-chay	Rain	dosht
To your health (toast)	nah-zdah-rove-ya	Helicopter	ver-ta-lote
Water	va dah	Tent	pa-laht-ka
Boat	lote-ka	Firewood	drah-vah
River	ri-kah	Bear	med-ved
Fish	ri-bah		



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