How to Do It »

Ford a River

Ralph Radford

We've all heard the old joke about the chicken crossing the road. You could tell the same joke about the hiker and the other side of the river. It's important to ask this question before attempting to cross a river: is the risk worth the reward? Probably. A successful river crossing just calls for taking some safety precautions first and having a basic understanding of how a river works.

Let's start with the river hydraulics. Various objects, such as rocks, soil and tree ruts, create different levels of friction in a stream. This, in turn, creates different water surfaces called *laminar flows*. The basic principle is that various layers or channels of water move at different speeds. The lower layer of the river moves more slowly than the top layer. The layers next to the bottom and sides are the slowest; each subsequent layer will increase in speed. The top layer of the river is affected only by the air. The fastest part of the river will be just below the top layer of the river. For hikers, this means that your feet can have good traction on the river bottom below, but your knees will take the full brunt of the force of the current, which could knock you over.

You can test river hydraulics by sticking your trekking pole or stick in the stream to feel the current pressure. You can also throw a stick in the river and see how quickly it moves downstream. Track the stick and see if it gets stuck in a dangerous vacuum or suction hole. If you do fall in the river, your path will normally follow the path of the stick.

Once you have made up your mind to cross a river, carefully study the river, looking for a place to cross. If there is a high vantage point above the stream, climb up and survey the river. Note points where you can get out of the river if you fall in and are swept downstream.

Select an area that leads across the current at a 45-degree angle going downstream. It may be easier to cross if the river is broken into smaller channels with shallow banks and sandbars. Look for animal tracks such as deer or bear in the sandbars; this would indicate that large animals are able to cross this area safely and the water is moving slow enough to be used as a drinking hole by animals.

There are a variety of ways to cross a stream and your choice will generally be dictated by the terrain.

First, you must get yourself prepared. Loosen the straps on your pack; if you get knocked over, you need to get rid of your pack quickly. (Keep in mind that one downside to this tactic is that your backpack will shift on you, throwing your balance off during the crossing.) Don't cross barefoot; that could lead to injury from sharp rocks and sticks. Use an old pair of tennis shoes or surf shoes when crossing. Tie your hiking boots together and drape them over your neck or tie them to your backpack.

One way to cross a stream and keep your feet dry, too, is to find a tree that has fallen across the river. A tree with the bark on it will provide more traction for your feet than an older tree, stripped of its bark and slicked up with a layer of green moss.

Face upstream and sidestep as you cross the log. Don't stare at a fixed point. Rather, keep your eyes moving to help stop vertigo. Crossing

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Practice!

Here are three hikes that call for fording. Take your new skills on a test ride!

Baker River Trail: You've got the option to cross Sulphide Creek for a great view of Shuksan.

Ingalls Creek - Longs Pass Trail: You'll need to cross Ingalls Creek to make a nice loop out of these trails.

Twin Lakes: This trail near Stevens Pass offers an easy crossing of Twin Lakes Creek.

Ralph Radford

Ralph is a park ranger and WTA member from Seattle.

Cross water in these lightweight water sandals.

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on a downed tree with a large backpack will be a bit more difficult, as the branches tend to snag your straps or make it tricky to squeeze between two limbs.

Another crossing method is boulder hopping or rock jumping. I use this method most often, as it is hard to find a fallen tree that crosses an entire river. Boulder jumping requires good balance, quick reaction to loose rocks and a light pack. Scout your route and figure out where your hands and feet are going before taking that leap of faith. Try to keep three points of contact at all times. Jumping up to a boulder is easier than having to jump down on a rock because you will have more momentum and gravity pushing you along when hopping down. Having a stick or trekking poles will help you out during your balancing act. Many of the rocks may look safe to cross on, but remember, most of these rocks have been underwater for a long time. Their unseen slime layer can throw you into the river.

With all the storms that we've had in Washington over the past few seasons, there are quite a few logjams that can be used for crossing. Logjams consist of logs and brush collected from a high flood. Logjams are extremely dangerous to cross. If you fall in during this crossing, you can be swept under and pinned down under the trees and water. The jam will stay stationary, while the river runs under it or between the logs. The difficult part of any logjam is getting around the large tree rootballs that are sticking up. You may have to swing around the root ball, grabbing a protruding root off to the side. Loose rock and soil from the root ball may fall down on you as you grab the roots.

One last method to mention, which is not at all practical, is to pole-vault your way over the river. I've actually only seen this method used on one of those survival shows on television. First, you have to find a long, strong, straight branch about 8 feet tall. And, that's the first problem, because you then have a lot of sawing to do. Once that's done, you are going to have to find a narrow part of the channel of the river and then run with your pole, jam it into the rocks and vault yourself to the other side. Good luck with that!

If, despite all your preparation, you do fall in, point your feet downstream and float on your back, paddling with your hands towards shore.

Let's presume you make it across the stream successfully. Unless you're hiking one-way, you'll have to cross it again on your return. Mark the crossing point. Remember how much time it took to cross, so you can factor in the time it will take to cross back over before darkness. If you're camping for an extended stay, be sure to remember that a river can flood or have spring melt-off and your crossing point may be gone for several weeks. The book *Into the Wild* illustrated this point all too clearly, as a flooded river leads to the demise of the camper.

No matter how you get across, river crossings can add excitement and adventure to your hike. Use some common sense, and you won't get all washed up.

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sunlight and shadow filtering in through the trees. I can name the distant peaks or marvel at the delicate mosses on a rock.

There are no phones up here, nor emails, tweets, appointments, or disturbances. There are no committees, politicians, or lawyers. There are no televisions, traffic noises, construction chaos, interruptions by impatient people, or artificial deadlines. Up here the whole fabric of urban life is set aside.

In their stead, my mind and heart are free to settle in to the rhythm of Nature as my feet and legs settle into the rhythm of the hike. I can feel Nature and be part of it. This is not escapism. This is not getting away from the "real" world. This is the real world. This existed before finances and politics, before commercialization and commitments, before all the complexities that daily scream for our attention. Adventuring out alone in Nature dispels all notions of human pride and mastery. Out here, humans are reminded that they are only one small part of the vast interconnected web we know as Gaia. Out here, humans are reminded that they must adapt instead of control.

We need these reminders. They help put into perspective the trials and tribulations of life in our civilized world. No wonder so many people are out on the trails these days. It's a reality check.

Cool Gear »

New Balance 820

When it comes to crossing creeks and streams, there are two types of hikers. *Log-walking* types see every downed tree as an informal bridge, while the *wet waders* figure moving water can be conquered by a plodding kind of patience and tolerance of bracingly cold water.

After accidents left me with wobbly ankles, I became a wet wader. With many streams deep enough to go over the top of boots, it's nice to have another pair of shoes that are both good in the water and comfy at camp.

Enter the **New Balance 820, a lightweight water sandal**. Weighing in around 9 ounces a pair, these gossamer powerhouses have held up in rushing streams in the Cascades and Idaho's Salmon River. The siped Vibram sole provides bomber wet traction. The clever drainage holes keep things from getting too soggy. A speed-lacing system keeps everything snug when the going gets dicey, and the 820s are comfortable enough to wear all day with a thin pair of socks.

--- Allison Woods