

Ben Gadd's list of things to bring on a ski trip to the Wapta Icefield

I began skiing the back-country in 1970, when we ventured onto big glaciers shod in low-cut, floppy cross-country boots that were flimsily attached to skinny wooden cross-country skis. The poles were bamboo.

We fell down a lot. The skis and poles and bindings all broke. Our feet got cold. But we survived long enough for our knowledge to improve markedly, along with our gear. Having learned everything the hard way, I present this list of suggested modern clothing, equipment and food for multi-day trips on the most-skied icefield in the Canadian Rockies, the Wapta. (Plus the Waputik, which almost connects to the Wapta and is part of the famed Wapta-Waputik Traverse).

I also offer this main piece of advice. The key thing in all true back-country skiing (no lift, no snow-cat, no helicopter) is to remember that you will spend far more time climbing uphill than you will spend skiing downhill. So keep your skis, boots, poles and pack as light as possible. With less weight to haul up the mountain, you will find the climb more pleasant. You will save energy for the run back down, when strength and coordination really count. With less weight on your back, especially, you will fall down less often and you will be able to get up more easily. Bring only essentials. Of which there are still many.

Skis

- Light, strong skis designed for back-country trips.** Mine are Atomic Tourcap Guides from 1996. They are 180 cm long, a little under head-high on me. The tip is 90 cm wide, the waist 65 cm. The weight is 2.2 kg without bindings. Newer models are wider, shorter and heavier. (Some are *much* heavier.) Wide, short boards give adequate flotation, so you don't sink in too deeply in the powder or break through crusty snow too often. They turn easily. But they are more work to push ahead when breaking trail, and when the snow is uneven—soft pockets between hard slabs—you'll pitch forward over the tips more often.
- I still use **telemark bindings**. The boot flexes at the toe, the binding is not hinged, and the heel doesn't lock down. These bindings are light and simple. Your heel is always free to move upward, so you are less likely to break your leg in a tumbling fall than you are with a lock-down binding that fails to release. (Not that you can't still break your leg in telemark bindings.) Doing turns free-heel is more difficult than doing turns locked-down, which is why **alpine touring ("AT") bindings** are more popular these days. The boot flexes very little or not at all. The binding is hinged at the front, so your heel can work up and down as it does on a cross-country ski. When it is time for a downhill run, you lock your heel down and turn more easily than you would free-heel. The trade-off is that AT bindings are typically harder to get in and out of, especially in cold and icy conditions. They break and get bugged up more easily. When you're skiing terrain with ups and downs, you often have to stop and lock or unlock your heels, while telemark bindings work in all situations. Take your pick.
- Heel lifts.** These are not to make you taller. They are to raise the spot where your heel hits the ski, so your ankle doesn't have to bend forward as far on a steep climb. Very worthwhile. For telly bindings, you buy heel pads with a pop-up wire lift. AT bindings typically have heel lifts built-in.
- Plastic double boots.** "Double" means that there is an inner boot and an outer boot. Plastic boots of both the alpine-touring and telemark type are the most common ones seen on icefield trips these days. They're heavy and stiff, compared to the single boots most people use for day trips in the woods, but they give great downhill control. They're warm, they don't get wet as leather does, and the inners can be worn as hut shoes.
- Spare binding parts.** Bring extra binding screws, an extra telemark-binding bale if it's not riveted on, an extra cable if used, whatever tends to break on your AT rig.
- Runaway straps,** connecting your skis to your boots. If a ski comes off partway up a glacier or on a pass or near the summit of a peak and starts down the slope, it's unlikely to hit anyone—the reason for ski brakes in downhill areas—but you might never get that ski back. Runaway straps can easily be made from nylon cord.
- Waxes: yes, they work on icefield trips.** I carry skins and use them for steep climbs, but waxing is really preferable. The skis are lighter and move forward more easily. One needn't keep putting skins on and taking

them off. What works for me is Swix “Dry Snow,” Storte “Universal Minus” or an equivalent dry-snow (cold) wax in a two-wax system, plus purple. Bring scraper and cork. Before the trip, I hot-wax my skis with dry-snow wax, tip to tail. In cold conditions this will get me up moderate slopes. If I start to slip, I apply a light line of purple the full length of the ski, not rubbing it in. Typically most of the purple wax has worn off when it’s time to turn around and head downhill.

- Skins** are very useful for long, steep grades and really lousy snow conditions. They are standard for AT rigs. If some party members are using skins, all party members need to have skins, because those on wax will be unable to do the steep angle of ascent that skinned-up members can do.
- Strong poles, with large baskets for powder snow.** The poles should be short, such that they come up no higher than your armpit when measured in your socks. Most glaciers and icefields are not kick-and-glide country—you’re either slogging uphill or running downhill—so long poles are not very useful. They just make you raise your arms higher on each stroke. Further, long poles are more trouble on steep slide-slopes. I use **Life-Link** poles, which assemble into an avalanche probe. Adjustable-length poles are currently popular, although they’re heavier and weaker than plain poles, and the adjustment mechanisms are inclined to slip or stick.
- Strapping tape** (fibreglass tape) and **duct tape** for quick equipment and clothing repairs.
- Screwdriver** for tightening binding screws if they loosen. A **Leatherman tool** is handy for binding repairs generally, with its needle-nose pliers and various blades.

Avalanche rescue & snow-cave gear

- Avalanche transceiver.** You can’t get to the Bow Hut without venturing into avalanche country, so a rescue beacon is essential. The new digital ones (I have the Backcountry Access “Tracker”) are wonderfully easy to use. They point the direction to the victim and tell you the distance in metres. Cost is about \$250–400. They can be rented. Whichever beacon you bring, be sure that it works on the standard 457 kHz frequency. Older ones may not. And be sure you learn, and learn well, how to use that life-saving gadget.
- Light portable shovel.** Metal-bladed ones work better for digging in hard snow than plastic-bladed ones, with their thick front edge that doesn’t cut as well.
- Avalanche probe,** or use poles that screw together to form a short probe.

Re roping up in case of a fall into a crevasse, professionally guided parties often do this, because licenced guides have to be extraordinarily careful. Unguided parties rarely use rope, or even bring it, because the chance of falling through a snow-bridge into a crevasse is quite small when you’re on skis, which spread your weight so well. And the rope, harness, snow anchor, pulley, jumars, etc. add a lot of weight. Still, falls into crevasses do occur, typically (1) when people are off their skis, so put on or take off your skins one ski at a time, keeping the other ski on your foot, (2) when skiing in flat-light conditions down a convex slope and into an open crevasse not seen until it was too late—I have done this myself, and luckily the crevasse wasn’t deep—and very rarely (3) when skiing along a hidden crevasse rather than across it, then falling through the snow at a weak point.

The trick here is to know enough about glaciers and crevasse fields to recognize hazardous places and avoid them. I’m familiar with the Wapta Icefield—have been going there for over thirty years—and avoid any spots I know to be dangerous.

Pack

The best pack for skiing is a **long, slim internal-frame backpack,** medium capacity (around 50 litres). Such a pack is large enough to comfortably hold everything needed for a four-night hut trip, yet small enough to use as a day-pack when you’re out touring around. It’s also very light in weight.

You may want to line the inside of your pack with a plastic garbage bag, to keep the contents (especially your sleeping bag) dry in case the weather warms up enough to make the snow wet. Bring a couple of extra garbage bags.

Clothing

- Re socks**, I wear a light inner pair and a heavy outer pair. Both are wool/polyester blend. Try wearing your inner socks inside out, which puts the smooth side against your skin and thus helps to prevent blistering. For plastic boots, which press hard against the front of the shin, you'll want long socks, which provide a smooth surface and prevent pressure blisters where the tops of shorter socks form a bump.
- Long underwear**, including a long-sleeved undershirt. A turtleneck or zip-neck will keep the wind off your throat. Re polypropylene underwear, which is popular because it dries quickly after sweating up, undershirts made of this material typically get smelly very quickly. And I still like the feel of plain cotton against my skin.
- Windproof shirt**. Nylon is tightly woven, but be sure to get the kind that doesn't rustle constantly as you move. A tightly woven cotton-poly shirt is also good.
- Warm pants**. I have "salopettes," which are thin pile overalls. **Insulated pants** (pile plus an outer windproof layer) are also popular, although they can become too hot on a warm day. With pile plus lightweight wind pants you can adjust things.
- Wind pants** to pull on when the breeze comes up. These needn't be waterproof. **Get the kind with full-length zippers**, so you can put them on without removing your ski boots. Hint: don't undo the zippers all the way, such that you have to assemble your wind pants in a gale. Undo them up to the crotch only, so you can step into them in your big ski boots, then close the zippers down the legs.
- Gaiters with under-foot strap, or pants that fit closely over the tops of your boots**. Regular knee-height cross-country ski gaiters are fine. Some pants have a hook on the leg to attach to your ski boots and keep snow out.
- Thick fleece jacket**. Should be as wind-proof as possible.
- Down jacket**, or other insulated jacket. Choose a fairly light one, which will be warm enough. Big down jackets are good for only two things: climbing K2 or waiting for the bus in Winnipeg in January. No hood needed if you're bringing a hooded wind shell. Your down jacket can be placed in your sleeping bag's stuff sack and used as a pillow in the hut.
- Wind shell, with hood**. Uncoated fabric is best for winter, because it breathes very well and needn't be waterproof. Rain or wet snow is rare on an icefield in winter. Goretex is okay, but it tends to ice up inside at low temperatures. I use a lightweight one-layer ripstop-nylon anorak with a decently deep hood.
- Light knit or fleece gloves**, for a warm day, for wearing in the hut on cold mornings, and for wearing in your sleeping bag.
- Warm ski gloves** of waterproofed leather, or nylon with reinforced palms. Look for comfortable-fitting gloves that are soft and supple, such that your fingers are not forced apart or tightly enclosed, conditions that restrict circulation and make your hands cold.
- Warm mitts** for really bitter, windy conditions or if your hands get cold easily. The huge, heavy arctic type are not required. I pack a pair of light, puffy down mitts.
- Warm, windproof hat** with earflaps and bill to shade your eyes from the sun, which can be very bright up there and comes in at a low angle in winter. Your icefield hat should have a chin-strap to keep it from blowing away in the wind. This kind of cap looks old-school, but it works way better than a tuque.
- Balaclava**, to prevent frostbite on nose and cheeks if winds are strong and cold. Get the kind with eye-holes and a mouth-hole, not just a big face-hole. Also good for robbing convenience stores. If you can't find one like this, bring a scarf to tie over your nose.
- Tuque** (note correct spelling of this truly Canadian word) for milder conditions, to wear in your sleeping bag, and to have as an extra in case you lose your hat in the wind.
- Something to wear on your feet in the hut**. Lightweight down booties—the kind with stiff insulation under the foot—are a real joy in the hut, with its cold floors, and they can be worn outside to go to the pooper or fetch snow for melting. Meanwhile your boots can be drying out. If you're wearing double boots, you can wear the liners in the hut instead of booties, provided that the liners are made with a thin rubber sole, which

they usually are. However, you might still want to bring booties anyway, so your liners can be placed aside to dry.

- Sleeping bag.** For most people a three-season bag is fine for use in the Alpine Club of Canada huts on the Wapta and Waputik icefields. The temperature in the sleeping quarters of these huts seldom goes below – 10°C regardless of how cold it is outside. If the night becomes very cold, wear extra clothing and your booties in the bag, and put on your down jacket. If you sleep cold, bring a winter bag. A foam pad is not required; these huts all have thick foam mattresses. They also have propane stoves and lighting, so you don't need to bring white gas. Nor cooking equipment, dishes or cutlery. All is provided. Except for food.
- Headlamp, not flashlight.** You'll be skiing, so your hands won't be free to hold a flashlight. A tiny, featherweight headlamp is okay, but a larger, more powerful one is better. The new LED lights are terrific: lightweight and powerful, with exceptional battery life. Make sure your headlamp has fresh batteries.
- Trash bag.** If you packed it in, you can pack it out.

Small items

- Toilet paper, in case there is none at the hut or if you have to poop elsewhere.
- Wide-mouth one-litre water bottle. Water is gained from melting snow in large buckets on the hut stoves. Nasty fecal organisms have been found in old snow around the Bow Hut, but if you're careful to bring in only freshly fallen, uncontaminated snow, boiling or pump-filtering your drinking water is not required.
- Lighter, carried in your pocket where it's kept warm (butane won't burn in cold conditions) and always handy.
- Small first aid kit. Item most frequently used: blister pads. Most popular drug: Advil taken with dinner to combat stiffness in the morning.
- Alpine Club of Canada hut-reservation receipt and Parks Canada back-country permit ("Wilderness Pass"), available from the ACC when you make your hut reservation.
- Credit card, bank card, driver's licence and some cash.
- Small binoculars.
- Small camera, with a power source that you know will work in the cold.
- Sun-block lotion with high UV-blocking value.
- Sunglasses. Brownish-yellow view is best for snow. Your sunglasses should be large, to provide good protection around the edges. Some people use goggles, which also protect the eyes from wind.
- Small pocket knife.
- Handkerchief or bandanna.
- Comb, toothbrush, floss.
- Compass and (way better for icefield use) a GPS receiver. Know how to use these essential tools.
- Map: *Touring the Wapta Icefields*, by Murray Toft, available at bookstores in Banff and Lake Louise, and at MEC.
- Any medications required.
- Over-the-counter sleeping pills if you tend to lie awake at high elevations.
- Ear plugs to shut out snorers. Sort of.
- Tolerance for the weird, arrogant people one sometimes finds in mountain huts.

Food

I usually carry freeze-dried suppers on multi-day ski trips, to save weight. Most of these meals are single-dish glops, very handy because you just pour in boiling water and eat out of the bag. If the label says "feeds two," it lies. You'll eat the whole thing yourself.

Most people eat insufficiently at breakfast (a little porridge, etc.) and are soon hungry again. To avoid this, eat heartily in the morning. My favorite breakfast: a couple of cups of instant bean flakes and instant rice mixed

50/50, with mild salsa, cheese and crunched-up corn chips for topping. Get the kind of instant bean flakes that have no spices added. Sometimes I just eat the same sort of freeze-dried meals for breakfast that I eat for supper.

Other good icefield eats:

Cup-size packets of instant soup

Instant Japanese noodles

Dried fruit, fruit bars, granola bars, candy bars, hard candy

Tea, coffee, cocoa, Postum, Lo Han Quo (a tasty, sweet, non-caffeine Chinese drink)

Sausage, jerky

Cheese, which can freeze very hard, so cut it up into bite-size pieces before you go

Crackers

Tough, squish-resistant bread

Jam in a crush-proof container

Butter mixed with olive oil, so it spreads easily when cold

Soft-style cream cheese. Honey not recommended; it always seems to escape.

Cookies

Great pick-me-up: chocolate-coated coffee beans

Gorp (stands for “good old raisins and peanuts”). I like to make gorp of cashews, almonds, Smarties, sugary fruit chunks, banana chips and sunflower seeds.

If your mum were along she’d want you to take your vitamins. And don’t forget your meds.

Fresh fruit and vegetables usually freeze on these trips, so I don’t bring them.

— *February 2010*