

BACKCOUNTRY SKIING SAFETY IN THE EAST

**By Bill Scott
ACC Ottawa Section, January 2007**

INTRODUCTION

The backcountry can be a magical place in winter, with Mother Nature at her finest. That is why we go there. At the same time, Mother Nature and Lady Luck can be cruel. The backcountry does not suffer fools. A magical trip can turn into a fight for survival in a moment after an accident or injury. The days are short, the nights are long and cold, the weather can turn suddenly and there is no ski patrol to quickly rescue the unprepared or incompetent. Anyone traveling in the backcountry should be properly equipped, be responsible and self-reliant, and have at least basic skills in navigation, bushcraft and wilderness first aid. The wise backcountry skier has the ability to handle a range of hazards, including the most challenging – an equipment failure or immobilizing injury requiring the group to spend the night in the bush taking care of an injured person whilst organizing a rescue.

BACKCOUNTRY SKIING HAZARDS

Some of the hazards and challenges encountered in eastern backcountry skiing (mostly below treeline) include:

- Changing weather
- Widely varying snow conditions
- Equipment failure
- Blisters
- Hypothermia
- Tree skiing
- Crossing lakes, ponds and streams
- Descents

The more advanced style of backcountry skiing and ski mountaineering practiced in the west and in some locations in the east (both above and below treeline) introduces additional hazards. These include avalanches, ice fall and glacier crevasses. This aspect of backcountry skiing requires additional training, equipment and expertise beyond the scope of this article.

TRIP PLANNING AND PREPARATION

Start the good habit of always leaving a simple, written trip plan with a reliable person. This should include the start/end location and times, the route, your car licence plate number and a time by which they should contact the authorities if you have not returned or made phone contact. Without this information, rescue agencies have nothing to work with.

Snow conditions can be highly variable, resulting in a wide range of travel times for any given trip. Choose a turn around time and stick to it whether or not you have reached the day's objective.

A group of 3-4 is best until you have gained a lot of experience. Solo backcountry skiing can be a liberating experience - obviously, only in non-avalanche terrain. However, solo backcountry travel requires a level of skill, knowledge and self confidence that comes only from years of experience.

SITUATIONAL AWARENESS

Backcountry skiers need to be 100% self-reliant. There are no set trails and no ski patrol. Develop good situational awareness regarding the terrain, your location, the snow conditions, the weather and your partners. Be aware of the skier ahead of you and behind you. If you have to stop or go off trail for some reason, let someone know. Also, leaders will get annoyed if some people go zooming off away ahead of the others. Be conscious of when conditions are changing and plans ought to be reconsidered. Don't be shy about asking the awkward question about why a certain course of action is being proposed. If you don't feel comfortable, speak up. Others may feel the same but are too shy to speak. If the proposed course of action is sound, more experienced participants should be able to give a convincing explanation.

NAVIGATION

Navigation in winter can be more or less difficult than in summer. Sometimes it is as easy as following a track that has already been broken (although tracks don't always go where you want to go). While following your access track back out will often be a successful retreat strategy, don't be lulled into complacency. This is how a lot of novices get sucked into the backcountry and subsequently find themselves lost and in trouble. Wind can fill a track with wind-driven snow in a matter of minutes in exposed terrain.

In winter, ground clues for obscure trails are hidden under snow cover and route finding requires more subtle observation skills. Often, the terrain we use is quite different from what you may be familiar with. Whereas lakes, swamps, ponds and marshes are obstacles during the rest of the year, they become winter highways to be linked by winter portage trails.

Map and compass skills are a prerequisite for backcountry travel. An altimeter can also be quite useful in terrain with a lot of vertical variation. Every member of a backcountry ski party should carry a map and compass and know how to use them. If you don't already have these skills, a basic navigation course should be high on your list of training priorities. Almost everyone wears a wrist watch. Use yours to develop an appreciation of approximate travel speeds for various conditions. With practice, this will provide a good estimate for distance travelled, something a compass cannot do.

A GPS is unnecessary for almost all backcountry travel in the east. It takes a big bite out of your wallet, adds more weight to your pack, chews up batteries, requires yet another set of skills and is useful only to those who have mastered map and compass work. A GPS can also give a false sense of security to unskilled navigators who become totally reliant on technology and are lost when it fails, such as when the batteries run out or when tree cover or the terrain obscures satellite coverage.

It is good practice to be aware at all times of where you are, regardless of who the official trip leader or navigator may be. The trick to not getting lost is to stay found – that is, to maintain situational awareness on a continuous basis rather than getting out the map only when you are truly lost. If you get separated from the group, and it happens, you need to have the skill and confidence to be able to find your way back to the group or to navigate your own way out of the bush.

Low cloud, fog and blowing snow can cause whiteout conditions making navigation difficult. This can be a serious challenge above treeline, on large snowfields and glaciers. If you are heading into such terrain, learn and practice the advanced navigational techniques required for whiteout navigation.

BLISTERS

Blisters can be more of a problem than they might seem. On a day trip, they can be merely painful and inconvenient. On a longer trip, they can be show stoppers and put the afflicted individual out of commission for a week or more.

Prevention is the answer – starting with good fitting boots and proper conditioning. While 3-pin bindings and boots are still entirely suitable and quite robust choices for backcountry skiing, be aware that they require more flexion across the toes and greater movement of the heel with potential for blister problems in these areas. Modern backcountry bindings such as NNN-BC and SNS-BC with matching boots offer greater freedom of movement around the binding pin, with a reduced likelihood for blisters. With any boot system, using two sock layers may help – a thin inner pair under a thicker wool sock. Avoid over heating and sweating of the feet as this is a formula for blisters. For this reason, be careful not to buy boots with too much insulation in them. If you are prone to blisters, a technique which is usually quite effective is to tape the afflicted spots (usually toes and the heel) while the feet are dry with standard white medical adhesive tape prior to the trip.

If blisters do occur, early treatment is the answer. As soon as you sense a “hot spot”, speak up and stop for treatment immediately. You are not being a burden on the group by doing so. Experienced companions will know that the time to treat the problem is now while it is minor, before a real blister develops and causes problems impacting the entire group. An experienced leader will also invariably stop the group only a short distance into the trip to check for hot spots and to adjust clothing.

The best blister treatment by far is “Compeed” which is manufactured and sold under various brand names, such as the companies who make bandaids. Some people swear by moleskin and even duct tape but, in my view, neither comes close to Compeed. When properly applied to dry skin, Compeed will adhere for several days, won’t catch on your socks and will even handle a shower. With any blister treatment, clean and dry the foot thoroughly and take time for the skin to cool. An alcohol swab may be necessary for this. No blister material will adhere to hot, damp or sweaty skin.

EQUIPMENT FAILURE

Modern backcountry skis, boots and bindings are highly reliable e.g. 3-pin, NNN-BC and SNS-BC gear. Properly maintained, this type of BC gear seldom fails. Nevertheless, failures do occur in the backcountry. The simplicity of 3-pin bindings makes them more easily field-repairable. NNN-BC and SNS-BC failures, while uncommon, can be difficult to address in the field. These bindings are also prone to freeze up. Choose the manual version of the binding over the automatic alternative, keep them clean and carry a small container of automobile lock deicer. Prudent backcountry skiers carry a micro-repair kit with wire, strong cord, strong tape, a multi-screwdriver, a knife and pliers. In the worst case, this will allow the boot to be lashed to the ski.

Ski mountaineering equipment (telemark or alpine touring) is subject to much higher forces from plastic boots and, consequently, is not as reliable. Telemark and AT skiers will normally carry a much more comprehensive repair kit with a variety of spare parts and binding-specific tools.

Properly maintained skis, bindings, boots and poles will give fewer problems and last longer. Clean and dry all of your gear immediately after each trip. Metal ski edges which are left wet will quickly rust and pit and lose their edge. Before each trip or at least once a month, check binding screws and

tighten them as necessary. Periodically check bindings for hairline cracks, particularly around screw holes and high curvature and high stress areas. Older style 3-pin bindings with only three mounting screws are particularly prone to loosening and developing stress cracks. Small stress cracks are not a problem, at least for short trips. Keep an eye on how they develop and replace the binding when the cracks exceed your comfort level or before any major trip. From time to time, a professional edge grinding and base repair will rejuvenate your skis but take care that the base is not overheated as this will destroy its wax retention capability. If you use adjustable poles, it is good practice to take them apart between trips to dry out the internal parts. The surface of the internal plastic locking mechanism may become glazed over time, making adjustment difficult. When this happens, roughen the plastic surface with some light sandpaper. Wrap a few turns of hockey tape around the base of each section of your poles – this will make adjustment much easier when the poles are snow covered and slippery.

HYPOTHERMIA

Hypothermia can be a killer at any time of the year. In winter, the hypothermia threat comes not so much from the below freezing temperature but from a perfect storm of damp clothing, low temperatures, chilling wind, dehydration and exhaustion. The experienced backcountry traveler knows how to recognize the symptoms of hypothermia in himself or herself or others and how to treat it. More importantly, they know how to prevent it in the first place. If you haven't yet taken a Wilderness First Aid course, don't put it off any longer. It is one of the best training investments you can make. Hypothermia will be one of several important topics that will be covered.

Prevention is the key. It is all about regulating body temperature and humidity. The trick to not getting cold is to stay warm and dry. Once chilled, the body begins to shut down circulation to the extremities to protect the core vital areas. Reversing this process takes time and energy. Understand that it is dangerous for your clothing to become damp or wet. Choose backcountry clothing carefully:

- Follow the layering principal with wicking, insulation and weather layers.
- Select a set of layers appropriate for the forecast overnight temperature and weather conditions; then add one more for insurance.
- No cotton in the backcountry, not even underwear. Period!
- Go with synthetics, light weight wool and down.
- Select layers you can add and remove from the outside. Size them accordingly.
- Select adjustable layers with zippers for easy venting or heat retention.
- The head and neck radiate a lot of heat. Add or subtract layers in this region as necessary.
- Start the trip pleasantly cool. You will warm up soon.
- Don't sweat. Delayer first.
- Stay dry. Brush snow off your clothing as soon as you notice it. When it's snowing, wear a weather layer to keep dry and compensate by opening zippers or removing an insulation layer.
- Protect your gear and extra clothing layers by lining your pack with a garbage bag. The weight is trivial and in an emergency, there are multiple uses for a large plastic bag.
- Your first action upon stopping should be to add another layer or two before you cool off.
- Carry a couple of chemical hand warmers in your pack. Someone in the group may need them.
- Carry some emergency high calorie food such as chocolate bars, energy bars or gorp.

Be aware of your surroundings and be proactive rather than reactive. For example, if you are about to leave the protection of the forest to traverse a wind-swept lake, put on a weather layer and button up in the shelter of the trees.

Always keep an eye on the weather – in some areas, it can change dramatically in a few minutes. Mount Washington is a classic eastern example. Don't let trip goals overtake common sense. The objective will still be there another day.

A SCENARIO

You can tell a lot about experience levels in a group by what happens at a lunch break. Consider this scenario, variations of which are a rather common occurrence.

One fellow arrives at the designated lunch spot eager for a break. We'll call him Jack. He drops his pack in the snow at the first place catching his attention, brushes snow off a fallen tree, sits down on the frozen log and immediately digs out his lunch and water bottle. "Strange, I feel parched" – he says to himself, having already gone through more than half his water supply. His fleece jacket, one of the few items of clothing he brought along that he is not presently wearing, is tied to the outside of his tiny pack. It's already snow covered from a couple of falls and snow dumps from passing trees, so a little more doesn't seem like an issue. A couple of times on the trail when he felt uncomfortably hot from pushing himself a bit "for the fitness value", he'd thought about stripping off a layer. However, that seemed like a hassle and where would he put it anyway, as the external ties on his pack were already occupied. So, he just wiped the sweat and sun screen from his eyes and carried on. Now, apart from his hands which are a bit chilled from wet gloves, he's rather warm, in fact almost hot. Other than being uncomfortably sticky, his damp clothes don't seem to be a problem. His position in the sun is pleasant but exposed to a moderate, steady breeze. Without Jack realizing what is happening, the breeze is stripping away body heat by convection and evaporation from his damp clothing, just as his body's heat production is rapidly dropping off.

A gal in the group arrives just after him – we'll call her Jill. On the trail, she has maintained a steady, not too strenuous pace – her cruise mode, as she calls it. She looks around and chooses a spot in the lee of some trees sheltered from the breeze, yet catching the afternoon sun. She stamps down a platform for her skis, takes them off and stamps down a foot well in the snow for her feet. Earlier on the trail, she had stopped to remove several layers and put them inside her pack. It is simply constructed and large enough to hold all her gear and clothing. She has since been skiing with only a couple of layers, maintaining her body temperature in a pleasantly cool-to-warm zone without sweating by constantly adjusting zippers on various layers, rolling her sleeves up or down, and a few other temperature regulation tricks she has learned. The few times she got snow on her clothing, she was quick to brush it off. None of her clothing is damp except for a patch on her back adjacent to her pack but she's aware of that and there's not much to be done to avoid it. Now, she does up all those external zippers and puts on a tuque and that puffy down jacket she carries near the top of her pack. She also gets out the butt-sized piece of foam she always carries. This she places across her pack which she has arranged on her ski platform. Comfortably seated and well-insulated from the ground, Jill pours a cup of tea from her thermos. She chuckles to herself that her lunch packs more than twice the calories she would normally eat at the office, with the knowledge she will burn off all that and more during the day. Her mind wanders as she contemplates the beauty and serenity of the meadow at her feet.

About this time, Jack is beginning to become chilled, uncomfortable and agitated. His hands in particular are starting to get stiff and awkward. Every now and then, a shiver runs up and down his spine. His skin feels clammy. For some reason, that makes him think about what the instructor said in the BC ski clinic about being able to spend the night in the bush with the gear in your pack. At the time, he dismissed the suggestion as overly conservative. What's the point in carrying all that stuff? Now, the thought makes him shudder and he pushes it from his mind. The group has only just stopped but he is getting anxious to get moving again before he "freezes to death". He asks the leader a couple

of times how long it will be before they start once more. He'd start off early by himself, if only he knew where they were and which way the trail led. The leader, comfortably set up not far from our heroine, is not in a rush – preferring to allow everyone sufficient time to rehydrate, top up their energy levels and enjoy the scenery of this beautiful hidden meadow they have discovered. After all, they're already half way into the trip and the good snow conditions have made for fast traveling.

A few minutes later, Jack is getting panicky. Thoughts of lunch and water are now far from his mind. Adding that snow-dampened fleece jacket didn't seem to make much of a difference, so he dug out the one remaining item of clothing from his pack – some polypropylene long johns. Desperate now, he begins to dance on his pack with no thought for modesty, removing his boots and gaiters and stripping off all his outer layers as fast as possible, wind-be-dammed, pulling on the long johns and reversing the process with fingers that fumble with zippers and other closures. By now, the leader has finally got Jack's message and reluctantly calls everyone's break to an end in order to get the group moving again before they have a real crisis on their hands.

Jill puts her down jacket away, replaces it with one of the thinner layers removed earlier and keeps the tuque on for the moment. She is pleasantly warm and intends to stay that way for a kilometer or two when it will be time to once more remove a layer. She is looking forward to the next section of the trip which is renowned for its scenery and the technically demanding descent from the high country.

Damp, chilled and beginning to shiver uncontrollably, Jack has no more interest in his surroundings. His only thought is "Dear God, just get me to my car alive and I'll give up this crazy sport forever."

IMMOBILIZING INJURY

Most ski trips go without a hitch, with the most serious medical problem being a blister or maybe a bruised ego from falling too many times. However, the backcountry in winter does pose hazards and injuries do occur. If we were to list them all, we might be too afraid to crawl out of the comfort of our beds. Most hazards can be avoided through common sense, good situational awareness, a conservative approach to backcountry skiing, some training such as a Wilderness First Aid course and an ethic of self-reliance. Most of the more serious injuries can be treated on the spot and the casualty assisted in making their way out of the bush for follow-on medical care. The one realistic, albeit infrequent, medical event that all responsible backcountry skiers need to be prepared to handle is the case of an immobilizing injury – one that requires a rescue to be mounted to transport the casualty to a medical facility. We can call this the "broken leg" event, but a number of realistic injuries could render a skier immobile. One of the side effects of such an occurrence is that it will often be necessary, due to the short length of daylight in winter time, for the party to spend the night in the bush taking care of the casualty while a rescue is being mounted. This brings us back to the first rule of backcountry travel – everyone being equipped with the minimum essential gear to survive a night in the bush. Anyone not so equipped is a hazard to both themselves and their companions, who now have two problems to contend with – the accident victim and a poorly equipped participant. Apart from adequate backup clothing layers, the single most important item of gear in your pack is that miniature headlamp. With the ability to see once the sun sets, you have some options. Blind in the dark and cold, options are few.

TREE SKIING

Tree skiing – to be clear, skiing around and between the trees – is one of the essential skills and joys of backcountry skiing. It comes in many forms: sliding by evergreens heavily laden with snow, the freedom of skiing an open glade, popping in and out of a hidden meadow and the frustration of fighting

through alder or thick spruce. Whether going uphill, traversing the flats or heading downhill, there are some things to be aware of.

First of all, there are a lot of pointy things just waiting to snag you, including an abundance of sharp branches at eye level. Eye protection is a good idea. If you have glasses, wear them. Expect to encounter bushes and small trees bent over from their snow load and frozen into the snow, especially in thin snow packs. These delight in catching the basket on a passing ski pole (a good way to dislocate a shoulder if you have forgotten to remove your hands from the wrist straps) or to catch a ski and pull you off balance. These small branches are amazingly tough once frozen into the snow pack.

Other obstacles lurk hidden under the snow pack. These include rocks and logs which will give your skis some battle scars early and late in the season. This is when metal edges pay for themselves. Also hidden are horizontal logs and branches halfway down the snow pack – not deep enough to ski over but high enough that your ski runs the risk of sliding under. If moving at any speed, such an event will result in a sudden, unexpected forward fall with the strong possibility of fracturing an ankle or lower leg. Pay attention to patterns on the snow surface. Be particularly cautious about horizontal ridges which could hide this sort of obstacle and make sure your ski tips ride over them or to one side. Of course, this is possible only if you're not going too fast.

Lastly, trees retain a lot of snow after a storm. Some of this is waiting to fall on the head of the unwary skier passing underneath and brushing against some branches. It can be either a laugh or a nuisance to get a bunch of snow down the neck – the former if it happens to your buddy and the latter if you are the victim. In either case, the snow will get your clothing damp if you don't take a moment to brush it off. It sometimes helps to use a ski pole to whack snow from a branch before passing under it, but not while the person ahead is under it. You should understand that is dangerous to have wet clothing in the backcountry. It takes a conscious effort to stay dry.

TREE WELLS

There is another hazard related to tree skiing you should be aware of. While the hazard is not generally an issue locally, it is something you may encounter in regions with deep snow packs. That hazard is tree wells. As strange as it may seem, every year there are a couple of fatalities in North America from skiers falling into tree wells. Trees, particularly coniferous varieties, act like umbrellas, shedding snow in a donut-shaped ring around their base. In big snowfall years, this results in deep, funnel-shaped cavities slightly smaller than the diameter of the foliage, running to near ground level. The hazard comes from falling into one. The victim soon ends upside down, wedged into the funnel up against the trunk of the tree. The more he struggles, the further he sinks into the unconsolidated snow, eventually hanging upside down from his skis which bridge the top of the tree well. It can be utterly impossible to move. Unless assisted by a companion or able to claw his way out, the victim succumbs to suffocation or hypothermia. For this reason, experienced skiers always tree ski in pairs, stay in visual or auditory contact, give tree wells as wide a clearance as possible and carry a whistle within easy reach, for example attached to the shoulder strap of their pack. Lest this sound too scary, note that the hazard occurs mainly in areas with deep snow packs. Regardless, tree wells are to be avoided, as even shallow ones risk tripping you up and injuring you. Treat them with respect.

CROSSING LAKES AND PONDS

Lakes and ponds are not such a big deal in winter as some people seem to fear. Whereas lakes, beaver ponds and swamps are obstacles to the summer backcountry hiker and can be a nuisance to

circumnavigate, they become highways for the backcountry skier. This makes the rash assumption that skiers exercise common sense. Let us try to codify the required common sense:

- check the ice thickness
- realize that larger bodies of water take much longer to freeze over than do smaller ones
- leave space between skiers
- take hands out of pole straps
- undo pack hip and sternum straps

A skier has a great advantage over a hiker or skater on ice, in that skis distribute their weight over a much larger area. However, if you have the slightest doubt at all about the strength of the ice, you shouldn't be out there. In the highly unlikely event of breaking through ice on skis, ditch your pack immediately and use your ski pole tips as picks to claw your way to safety. And, of course, you should know how to make a fire under just about any circumstances.

Early in the season, while the ice is relatively thin but safe, the weight of the snow can cause the ice to sag in the middle. Cold temperatures cause the ice to shrink, cracks form and water percolates up, to be soaked up by the snow like a sponge. This leaves a layer of water and slush just barely under the snow surface. Slide your ski into this and lift it for the next motion forward and, bingo, the super-chilled slush freezes instantly to all surfaces of your ski. Within a couple of strides, you can pick up more frozen ice and slush than you can lift. There is rarely any danger of falling through as the slush layer sits upon a solid ice base; it's just that the snow has depressed the ice surface a bit. What to do? Just struggle to shore with all the unwanted weight (more is usually added as the slush gathers snow along the way), take your skis off and start scraping. Since icing up is quite common, you will want to have your scraper handy when skiing on lakes.

Slush can make a mess of your skis in seconds and is a nuisance best avoided. Suspect lakes and ponds are a good place to demonstrate courtesy – by all means let your buddy go first! This is otherwise known as the probe technique. Sometimes the presence of slush will be obvious, such as when you notice the ski tracks you are following across a lake suddenly sprout branches all over the place around a certain area and then join back up. Other times, the clues will be much less apparent. With practice, you will be able to discern slight changes in shading or texture of the surface snow that are telltale signs. The slush problem diminishes over the course of the winter as the ice thickens, the snow pack consolidates and the days get longer. By spring, it is rarely a problem any more.

CROSSING STREAMS

Moving water can stay unfrozen in surprisingly cold weather. When encountering a stream, it pays to do a bit of scouting for the safest place to cross. Look for regions where the stream widens out. The ice will normally be much thicker there. Look for natural bridges formed by snow-covered rocks, hummocks and logs which can support part of your weight. Distribute your weight evenly between skis and move quickly. The telemark stance can help span the gap between the banks. Areas to avoid are inlets and outlets to lakes, ponds and beaver dams. The precautions listed for lakes may also apply.

DESCENTS

The descent is usually the most exhilarating part of a ski trip. This is the time to ski conservatively – wait until you're at the local ski hill to wow everyone with your daring. Develop a repertoire of survival skiing techniques. In the backcountry, it's not so much style that counts – rather it's your

ability to descend just about anything safely. Stay in control and keep your speed down. There are a number of techniques for controlling speed, none of them very showy, yet they are effective:

- use snow resistance i.e. make fresh tracks
- snow plow
- half snow plow – one foot in the track, one foot out
- pole drag
- hockey stops
- side stepping or side slipping steep bumps
- combining traverses with kick turns

Avoid using trees as brakes. Not only is it bad style but it is 100% probable you will eventually get injured. Instead, work at your descent technique, all at a controlled speed. If you are out of control and can't otherwise stop, just sit down to one side - not on your skis, please. In some cases, putting skins on for the descent can help but expect a jerky ride that can throw you off balance at awkward moments. In the worst case, do not be so proud that you are afraid to take your skis off and walk down. And, of course, leave the hands outside the ski pole straps – a dislocated shoulder is really painful.

SKI MOUNTAINEERING

While ski mountaineering is outside the scope of this article, it deserves brief mention. In this aspect of the sport, the skier is using more technical ski gear (telemark or alpine touring) and venturing into much more demanding terrain with substantially increased hazards. The greatest of these, by far, is the danger of avalanches. Secondary hazards come from travel in glaciated terrain. All of these hazards require a new set of knowledge, skills and equipment. Do not treat these hazards lightly. People die regularly from them in backcountry ski destinations close at hand, such as the White Mountains and the Chic Chocs. If you intend to branch out into these aspects of the sport, get the proper training, the proper equipment and advance your experience slowly in the company of more experienced skiers.

ANOTHER SCENARIO

Finally, it's a blue bird day and those last two storms have dumped enough snow for some backcountry skiing in the Laurentians. On the drive up, you listened to the weather forecast with interest. Montreal was calling for -5C as a high for the day (perfect skiing weather), with an overnight low of -12C and another fast moving storm promising more snow early tomorrow morning. Things are looking up!

By early afternoon, the group is comfortably ensconced at a sheltered lunch spot on the top of the mountain with stunning views in several directions after an approach ski of about 12 kilometers. It's a pity to have to leave such beautiful surroundings but the leader looks at his watch and announces that it's time to go. The general plan is to return by the same route.

A short distance into the descent, an open hardwood glade comes into view and various members of the group press the leader for the opportunity to make a few turns – after all, they earned them on the long climb up! After sounding out participants on their comfort level, the leader decides to take four skiers, himself included, down through the glade while the remaining two, who are less adventurous, stick to the uptrack for descent. Everyone will meet up again in a few minutes at the base of the pitch where the uptrack doubles back. It's not far.

The leader starts off. After impressively linking several turns, he appears to catch a ski on a branch frozen in the snow which yanks him off balance. He almost regains control but then loses it to fall heavily downhill, colliding with a tree in the process. When you arrive a few moments later, he is groaning and lapsing in and out of consciousness. There is some blood oozing from his nose and you are not sure whether this is just a broken nose or something more serious. The two other advanced skiers arrive seconds later. With a hint of panic in their voices, they look to you and ask – “What do we do now?” You look at your watch. It's a bit after 2:00 PM.

(And now, Dear Reader, we break for a word from our sponsor. When we return, you will be asked to complete the scenario. Recall that your companions have just nominated you as the new trip leader.)

CONCLUSION

The purpose of this discussion has not been to have the reader think that the backcountry is a mine field waiting to gobble them up. Rather, the goal has been to sensitize the reader to the environment and to encourage an approach to backcountry skiing based on appropriate equipment, appropriate training, conservative skiing style, situational awareness, self-reliance and respect for the environment. The backcountry truly is a magical place in winter. Let's go out and enjoy it safely.

ACKNOWLEDGEMENTS

This article was prepared with inputs and comments from Jim Whitteker.