

Bear essentials

How to handle yourself in bear country
by Gary Rolfe

One of the first people to teach me anything worth knowing about bears was Trapper Mack. We met in the Yukon. Isolated, he'd been on his own a very, very long time. I listened to him intently as he stared at me. I didn't want to upset this man. His thick black hair was wild but I sensed he wanted to tell me something important.



In the early 1980's the Canadian government hired him for his tracking skills to help look into the disappearance of several hikers in his trapping area. He worked alone for weeks then hit the headlines when he returned with human heads, hands and other body part remains from bear attacks.

It's tragic that every year 'nuisance bears' become a threat to humans and are destroyed. And whilst some situations can't be avoided most can. There are roughly 6,500 grizzlies (brown bears) ranging the Yukon to the Arctic coast. 10,000 black bears span the British Columbia border to the same coast and 15,000 polar bears roam the Arctic Ocean within Canada. These polar bears constitute just over half of the world's total population. To journey safely I've learnt to respect bear behaviour and their habitat.



Black bears spend their entire existence in forests, grizzlies prefer open country and polar bears follow open water on the Arctic Ocean in order to hunt. With varying dispositions all bears are unpredictable and when we humans enter the same habitat, encounters are inevitable. From my experience there are absolutely no hard and fast rules for getting out of a collision course with a bear. The best strategy by far is to try and avoid them. Most will attempt to remain elusive but if they're surprised, defending cubs or guarding food an encounter can become life threatening.

Grizzlies and black bears

In the Yukon and Northwest Territories grizzlies and black bears are generally dormant throughout the winter months from October to April. Once out of their dens a tremendous sense of smell and hearing enables them to feed a legendary constant drive for food. In the spring they love chomping on fresh deciduous aspen and poplar shoots. Trapper Mack still fears the grizzly. He taught me to be cautious in areas like berry patches where their favourite food grows. Between July and August when the blueberries and tundra cranberries begin to ripen, grizzlies go into a state of frenzied rampage to consume a colossal amount of food. They need 40,000 calories daily to lay down enough fat to survive their seven months in hibernation.

Grizzlies thrive in the open tundra and bolting moose or caribou can indicate hunting bears. I watch for high circling ravens or eagles indicating a bear kill. You'll rarely ever see black bears in barren expanses. Soccer pitch size open sunny glades are their favoured territory since denser forest has little vegetation to feed on. But even if all appears clear I keep a wary eye for sleeping bears. They sometimes nod off after feeding.

Both bear types hunt on the alluvial flood plains for fish and scavenge for carrion. If I see salmon in a stream I think bear. Spawning periods on rivers will attract them during July to October, and fast torrents of river water or windy conditions will drown out noise increasing the risk of surprising them.

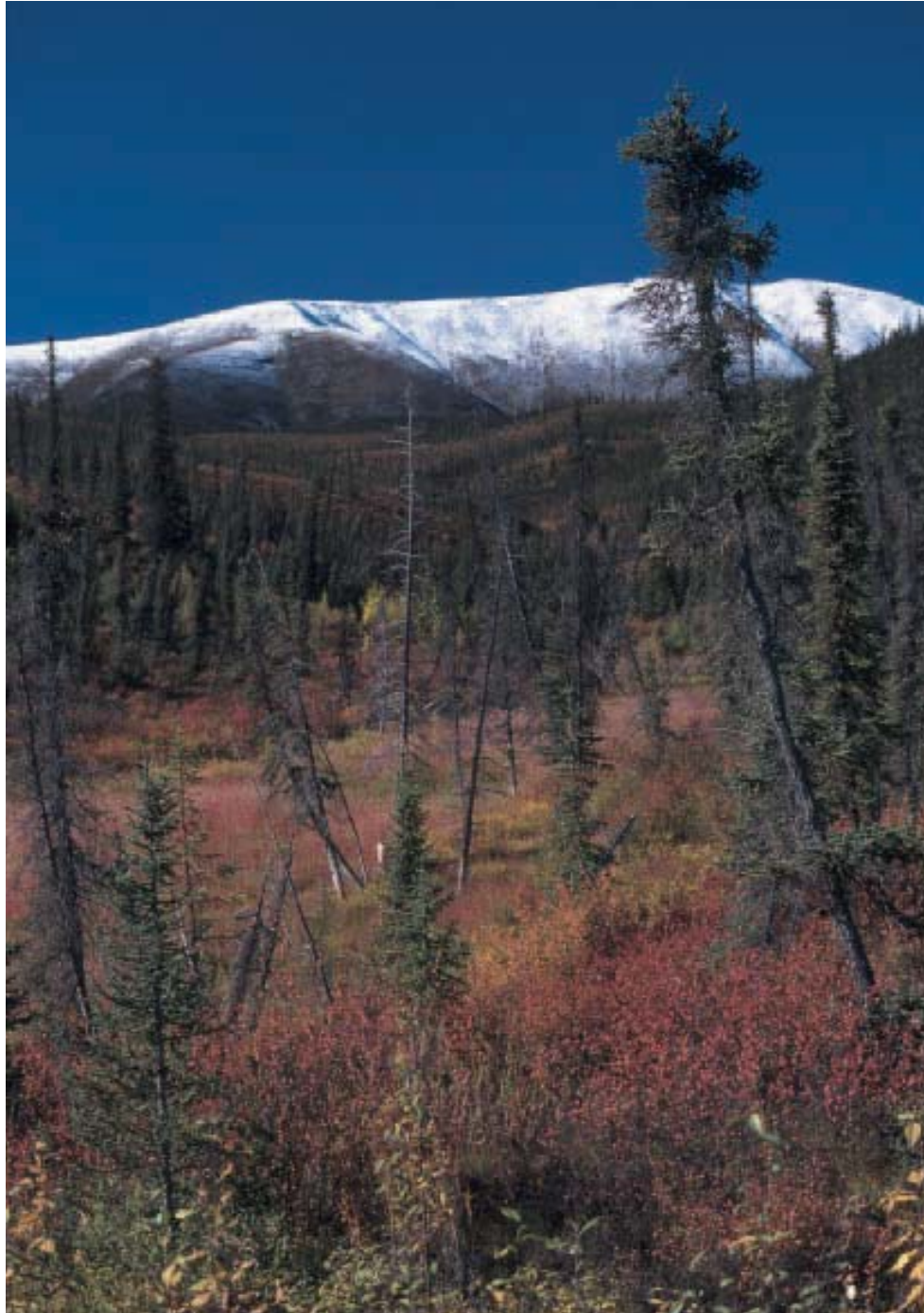
Bright red clusters of soapberries ripen in late July in the Yukon and for bears they're recognised as the top seed along shores and streams. On approach walks to mountain ranges during July or August the Arctic tundra is ablaze with a surprising number of

(MAIN) Gary with his dogs share the Canadian Arctic Ocean with 15,000 hunting polar bears. All credit: Gary Rolfe

(FAR LEFT) Shot by a Gwitch'in Indian friend of Gary's this black bear tried to rip off the roof of his log cabin while he was inside.

(LEFT) With paws the size of a man's chest polar bears are capable of taking off a human head with a single blow

(ABOVE RIGHT) Bear country



Ripped up tree stumps or rotten logs with claw marks are ominous bear signs

stunning looking plants. Flowers such as tiny Arctic lupins, arnicas, forget-me-nots and vetches mingle with bear favourites like yellow cloudberry and scarlet cranberries.

Travelling in bear country

I'm constantly aware of the environment. If vegetation is closing in, the chance of surprising a bear rises. Sometimes you can hear a distant clatter through vegetation and birds lift as a bear stumbles through. At other times there will be no such warning. I'm rarely without dogs and talk loudly to them or clap hands in areas of limited visibility.

Depending on their fare, fresh bear turd can vary from resembling human faeces with

fur and twigs to looking like messy tar. Ripped up tree stumps or rotten logs with claw marks are ominous bear signs too. I don't approach fresh piles of soil or branches either, since bears protect fresh kills. It's also a bad idea to investigate bad smells since they cache and protect surplus food in shallow graves.

If I see a feeding bear I try detouring down wind undetected. I realise this isn't always possible so I let the bear know I'm there by moving upwind. They then usually stand on their hind legs and sway nosing the air. I've inadvertently walked into a situation and had bears stand up only feet away. It can be unnerving. It's a good idea to speak slowly enabling the bear to identify you as a human. At this they usually clear off, sometimes not.

Never store food in your tent, that's simply *asking* for trouble

Aggressive bears chomp their jaws and turn sideways to display their size. The best thing then is to talk in a calm non-aggressive manner, avoid eye contact and back away, very slowly. If this happens to you don't run. Trust me, you'll never make it. Black bears, all cubs and some grizzlies are excellent tree climbers too.

Responses vary. A bear may move downwind, walk slowly to you or charge. Most grizzly and black bear charges are bluff. They simply veer off at the last second. If you're without bear deterrents and being mauled, curl into a foetal ball face down to protect your guts and clasp your hands behind your head. Practise with your backpack as this will help protect your back too. It's then vital to remain motionless. Most people survive.

Cubs complicate things. If I see them I back away slowly and make a huge detour. I never ever come between a sow and cubs. If you do, the sow will head straight for you and boy she'll be mad. As she gets closer avoid eye contact and start talking calmly. At the same time back up, ever so slowly. If she charges assume the mentioned curled up position and remain totally motionless.

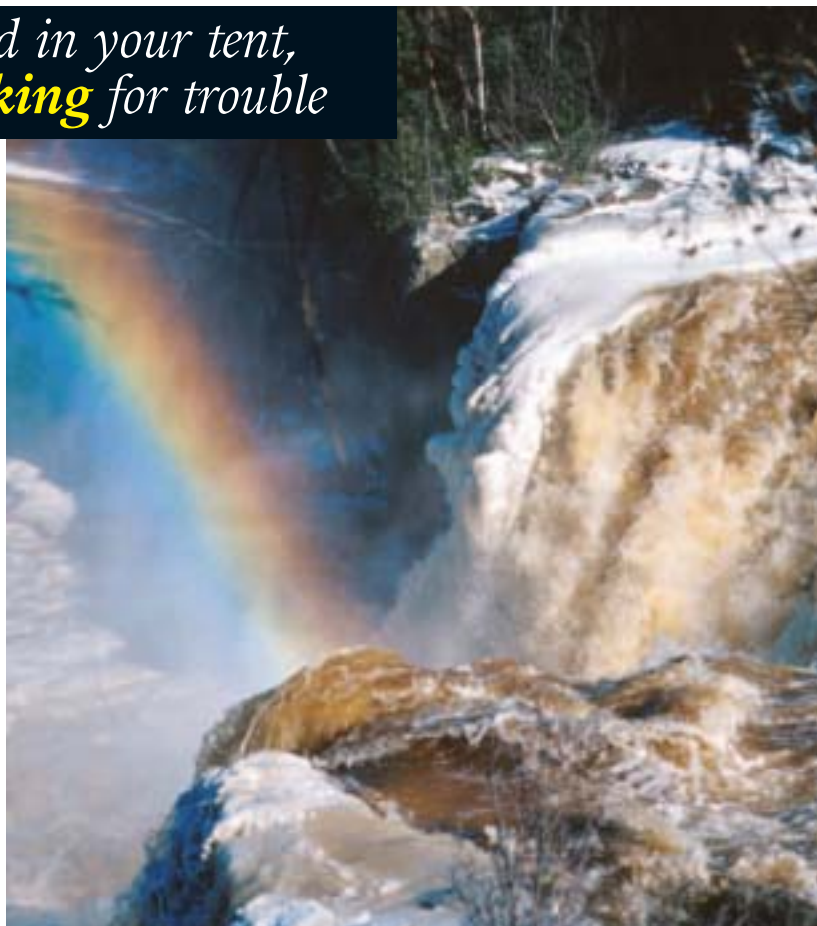
Man killers

Old, wounded or yearling males unable to lay down enough fat for winter display no fear and will follow you. Early bears out of hibernation are bad news too. They may stalk a human being as potential prey. It's best to stand still. If it carefully circles, be prepared, since from a fast walk they will attack. If you're armed be prepared to shoot, if not you could be very unlucky.

Other considerations

Think before making camp and avoid setting-up near fresh signs of bears. Place tents in a line rather than a semicircle to give any bear an open escape. It's vital to organise a clean camp by keeping gear and tents free from food odours. Do this by cooking at least 200 metres away and downwind from where you intend sleeping a safe night. A designated toilet should be 200 metres away from sleeping areas too. It's debatable if menstruating women actually attract bears, but all the women I've travelled with in bear country take the Pill continually to stop their periods or use tampons rather than external protection. All sanitary materials should be burnt.

It's a good idea to cook in a set of clothes separate from those you sleep in. Make sure all food and toothpaste is sealed into airtight containers. Freeze dried or dehydrated food is best as it's fairly odourless. Leave the garlic sausage at home. Like all true omnivores bears are infamous for eating petrol cans, so avoid wearing unnecessary artificial smells like deodorants. In Yosemite National Park



(ABOVE) Torrents of water drown noise increasing the risk of surprising bears.

law requires proper storage of "food". By this they mean anything that smells like food to a bear, irrespective of packaging. Items like soap, your lipstick and if you're driving, engine oil are all on the menu for bears.

A few designated wilderness campsite hotspots like those found in the Little Yosemite Valley and popular trailheads provide static food lockers, but check first, don't assume their availability. It's no good storing food in vehicles either. Windscreens don't deter bears. With power tools for paws, bears fist windscreens as if they were made of cling film. In Yosemite you'll also be breaking the law by storing food in a vehicle. You're best using your own 'kegs'. And if this all seems too much hassle, motivate yourself by imagining your bear shredded tent with you quaking inside.

Never store food in your tent, that's simply asking for trouble. Burying food is futile. The counter-balance method, bagged food hung from a tree, is permitted in some National Parks. To do it, find a tree with a branch four metres long and five metres off the ground. Ideally the branch must be able to support the weight of your food but not that of a cub. Split food equally in two and throw a rope over the tree branch. Then tie one end of the rope to one of your food and hoist it up to the branch. On tiptoe tie with a loop the other end of the rope to the other half. Make this as high as you can. With a trekking pole push the second stuff sack until both halves

are roughly the same height off the ground. Both must be high enough off the ground where at least you can't reach them. This is one place where Velcro attached bear bells to your rope could warn you of trouble. In some areas of the Sierras you'll be breaking the law by doing this, so check out legalities otherwise this could mean a double blow.

Minimising odours attractive to bears is a sure way to reduce unnecessary confrontation. You can lock six days food into a single hard-shell Model 812 Backpackers' Cache without fuss. These neat 'kegs' can be fastened to a backpack, pack animal or hand carried. Another storage option is the blue rigid plastic barrel with watertight lid secured with a metal band clamp often used by paddlers. They come in two sizes. The 30-litre size will secure food for small groups for 4 days. Stuffed with grub the 60-litre is a decent weight to burden anyone with, though you can get padded harness carry systems. These barrels are good for storing cooking clothes and kitchen paraphernalia too. The only drawback with them is that metal band clamp. Bears tend to use this to grip and separate.

Polar bears

The entire Arctic coast is a hunting ground for lone males at any time of the year. Of all bears, it eats meat exclusively. Males will try eating their offspring by separating cubs from their mother. They're top of the food

Bear bells make a cheery jingle, but have a deterrent value of zero



(ABOVE) Pingo models the latest fashion in bear bells.

(BELOW) Boiling water instantly freezes then falls as ice in the great white north.



chain and fear nothing. Females emerge from their dens by May with usually two cubs and are extremely dangerous.

During the summer what they don't kill, they supplement with carrion. Beached whales are vulnerable and as expert long distance swimmers these bears will kill beluga by launching themselves from ice floes as these whales emerge to breathe. Polar bears protect critical space around themselves. This space varies in size from animal to animal, but whatever invades that area they seek to eliminate.

I look out for their kills and determine male footprints from protective females with cubs. I also watch for stalking bears attacking from downwind. In poor light they appear yellow. In bright light they blend in perfectly to their white surroundings. On a bearing I've headed for prominent far off snow cov-

ered sea ice only to look away and see it move, on all fours. In chronic visibility the only warning signs are from my dogs.

Most polar bears remain with a kill until it's totally eaten. When food is plentiful they'll feed off grim stuff like seal fat and move on leaving behind an almighty bloody mess. They don't cache food like grizzlies or black bears. Scavengers such as Arctic foxes then busy themselves like beggars with minimal effort. Polar bears don't do anything unless they really want to, and one charging at full tilt on all fours is rarely a bluff.

Now the only solution is shoot to kill. By law killing a polar bear in Canada must be reported to the Department of Renewable Resources. They'll then fly in to the incident. A life threatening explanation is required for your actions.

Deterrents

There's absolutely no point being armed to the teeth. Firearms demand respect and carrying one is a decision not to be taken lightly. Leave well alone unless you're planning to be alone hundreds of miles from civilisation in known bear country during their active months. If you will be carrying a firearm, and would like to learn more about how to defend yourself from a bear attack, then see the Summit section on the BMC website for an addition to this article. Take the trouble to find out the legalities in National Parks too. They all vary. Here are other options.

Bear sprays

The most important effect a commercial bear pepper spray has is temporary asphyxiation. These sprays are measured in Scoville Units, a heat measurement indicating the irritant's intense heat capacity on exposed skin. If aimed into the eyes, nose and mouth a spray will stop a charging grizzly or black bear although it's a matter of luck as to whether the bear is inhaling or has its mouth open when the spray hits. The ones with an oil rather than water based propellant linger in the air and a fog spray is more effective than a straight stream. I've seen them available with an added red dye to improve accuracy. If you're in a group I'd suggest everyone carry a can. They can be carried in a holster on the hip. I favour a military style chest rig. Don't stuff sprays deep inside a backpack. No licence is necessary for possession but you'll have to sign a notice to prove you've made the purchase and how many.

Bear sprays are limited because of their short effective range of eight metres so it's important to practice by firing three short bursts while stepping away from an imaginary bear. Consider wind direction before firing and if you get a dose yourself don't go hysterical, stay calm, move to fresh air, don't rub your eyes and if you wear contact lenses remove them. Flush your eyes with water and symptoms will disappear within an hour. It's worth noting that commercial bear sprays are intended for grizzlies and black bears and not polar bears.

Useful websites

Gary's website:	www.garyrolfe.com
Bear proof barrels:	www.backpackerscache.com
Barrel harness systems:	www.rutabaga.com
Bear sprays:	www.guardalaska.com
Dog panniers:	www.canine-spirit.com
Chest rigs:	www.arkitild.co.uk

Bangers and bells

A pencil-sized launcher with rim fire screw-in flares will fire 50 metres into the sky and burns red, green or white for 5 seconds. Bear bangers can be fired from one of these too. But be warned, they're not accurate and are more likely to provoke an already miffed bear. Throw bear bangers, also known as thunder-flashes, in front of a bear. A salvo detonating behind will either be ignored or bring a bear closer. I don't bother with these as deterrents.

Bear bells come in various sizes. Attached to a dog's collar, a set of panniers or your backpack they make a cheery jingle but have a deterrent value of zero. Clapping, talking loudly or rattling stones in a can are as good as anything to avoid surprising a bear in restricted visibility areas. Some canoeists use air-horns.

Dangerous goods

In Canada and the US bear sprays and thunder-flashes require no documentation for possession. You won't need a license to purchase them either but they're considered potentially dangerous goods under all airline luggage jurisdiction. They cannot legally be packed on board any regular international and internal commercial flights. It's best to purchase explosive and potentially dangerous necessities within the host country ahead of time. It's also best to seek specific assurance that these critical items can be purchased within the Province or State you wish to journey. Once in, chartered flights and bush pilots to obscure destinations expect to see bear sprays secure. Then when you're dropped off, the rest is up to you. ||



Gary Rolfe is one of the few people consistently and successfully to make solo expeditions on the Arctic Ocean with huskies. You can read more about how he survives in extreme cold in Issue 33. Look out for the next issue when Gary covers the use of technology in demanding environments, including sections on IT, photography, rescue beacons and radios.