



Safety in Bear Country Society

Script of the Video Module

WORKING IN BEAR COUNTRY

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Working in Bear Country, provides advice and illustrates techniques for industry managers and supervisors. This video is not a stand-alone educational tool. It is essential to be familiar with the content of Staying Safe in Bear Country before viewing Working in Bear Country.

We cannot ensure the advice in these videos will prevent you from being harmed by a bear but the content may help you reduce your risks. If people understand and apply a few safety principles a much greater degree of co-existence with bears is possible.

While this video provides knowledge and planning tools for working in bear country, it should not replace site visits by qualified wildlife personnel who can provide specific and detailed advice regarding site planning, attractant management, and deterrent and firearm training. When working in bear country, your actions can either prevent or possibly create problems with bears.

This program is divided into the following sections:

1. Field Safety, including
 - a) Employee Responsibilities
 - b) Helicopter Support
2. Camp Safety, including
 - a) Location & Design
 - b) Attractant Management
3. Detection Systems,
4. Bear Deterrents,
5. Firearms, and
6. Bear Response Planning.

Field Safety

Employee Responsibilities

First, let's take a look at field safety and employee responsibilities. All camp and field personnel should be familiar with the content of Staying Safe in Bear Country. You may choose to have some personnel watch relevant sections of this video as well. Get everyone thinking about bear safety so they can take responsibility for their own actions.

Keeping everyone aware and alert is your best defence against bear problems. Consider the

following when planning for employee safety in the field: Communication is important. Establish a system where employees must report where they will be working and when they are coming back. Check out and check in. Use portable communication devices such as a radio or satellite phone. Get people in the habit of recording and reporting bear sign and sightings. Share this information with others working in the area.

It's advisable to have field crew's work in pairs and watch out for each other. Lunches should be carried into the field in airtight containers and garbage packed back to camp for proper disposal.

Make sure no one shares their lunch with the local wildlife.

Equipment noise won't always keep bears away, and in some cases may even attract a curious bear. Workers should be extra cautious in logging slash and recent burns. The thick new growth of fruit-bearing shrubs, during the early stages of regeneration, can produce excellent food and cover for bears. Consider having field crews carry bear deterrents and make sure they know how to use them.

Helicopter Support

Helicopters have become an important part of fieldwork in remote areas and can be used to increase personnel safety in bear country. During the pre-flight briefing, employees must tell the pilot if they are carrying bear spray or deterrent devices. Ideally, bear spray should be stored in an airtight container and transported in the baggage compartment. Accidental discharge of bear spray inside the cabin could disable the pilot. When dropping off field workers, have the pilot fly their planned ground route, from pickup point to drop off point, so they can look for bears and potential problem areas. Above the drop off point, the pilot should circle the area to look for bears. Crews should work in an alternate area if a bear hazard is identified. If field crews can not avoid working near a potential bear hazard, the helicopter must stay with them. Have the pilot exit drop-off sites along the field crews planned route, keeping an eye out for bears. If a bear is spotted, the pilot must alert the field crew. It is illegal to harass wildlife with aircraft, but, occasionally, and only for reasons of human safety, it may be necessary to "push" a bear using a helicopter. To stress the bear as little as possible, the pilot should stay well back from the bear, not fly over it, and only push it until it moves off.

Camp Safety

Location and Design

Now let's talk about preventing bear problems around camp starting with camp location and design. Camps can range in size from a small two-person camp to a substantial industrial installation. Although different in scale, potential problems and their solutions are similar. After consulting with local wildlife personnel, scout a camp location with bears in mind. Identify and avoid natural wildlife travel routes and bear feeding areas. Choose as open a site as possible that does not have excessive natural sound, which can make it difficult for bears and people to detect each other. Once the site is selected, camps should be laid out so tents or buildings are well spaced, in a straight line or a semi-circle. This gives a bear an avenue of escape and allows you to use deterrents or firearms more safely. Cooking and food storage sites should be separate, yet visible from sleeping areas and preferably downwind. Try to prevent surprise encounters with bears. Eliminate places that may conceal bears, such as blind corners or clumps of vegetation.

Skirting attached to buildings and elevated walkways will prevent bears from taking refuge under them. Provide lighting at building exits, along pathways and at outside work areas so people can move about camp more safely after dark. A window in a door, or next to it, allows people to check for bears before exiting. Larger buildings should have more than one exit.

Attractant Management

All camps, regardless of size, have to deal with the management of substances that might attract bears, especially food and garbage, grey water, sewage, and petroleum products. Most bear problems and encounters occur around camps that fail to manage these attractants carefully ... the consequence is usually a dead bear. Bears can smell odours at long distances. Minimizing odours makes camps safer.

Food Odours

In small camps left empty during the day, store food in bear-proof containers. If possible, hang food containers or store them in a cache at least 4 meters above the ground. In larger camps food should be stored indoors. Bears and other wildlife will easily find food stored outdoors. Defrost meats inside the fridge, not on the counter top. Cooking grease is a powerful bear attractant and requires special attention. Do not store excess cooking grease; incinerate it immediately after a meal.

Garbage Odours

Discarded food waste and packaging is a strong bear attractant. Badly managed garbage has resulted in human injuries as well as unnecessary bear deaths and extensive property damage. Proper garbage management is crucial to camp safety. High temperature incineration is the most effective way to destroy garbage and its odours. An ordinary 45-gallon drum with the top removed is not an incinerator! Without excessive amounts of fuel and constant labour, garbage burned in these drums is simply scorched and odours are sent far and fast to bears in the area. 45-gallon drums can be converted into small-scale incinerators using a simple conversion-kit, which produces an effective burning chamber with a proper fuel and oxygen supply. Semi-permanent camps should use oil-fired, forced-air incinerators located close to the kitchen. In permanent camps, such an incinerator should be located in the same building as the kitchen. Regardless of camp size or type of incinerator, incinerate garbage after every meal. If you can't incinerate garbage on site, store it in a bear resistant container and transport it to the nearest facility for proper disposal. Do not bury it, bears will only dig it up.

Grey Water Odours

Many people give little or no thought to grey water as a bear attractant. This waste water from kitchen sinks, showers, basins, and washing machines combines the odours of cooking grease, food particles and soaps. To a bear, the smell of untreated grey water... advertises your camp as a potential food source. Grease traps are simple devices added to your grey water discharge lines that allow the recovery and incineration of food particles and cooking grease. A regular sprinkling of chlorinated lime in the sump can help mask odours. Long-term camps should treat grey water along with sewage in approved waste treatment systems.

Sewage Odours

Consult with local health, land and water authorities for advice on which sewage treatment system will be most effective for your situation. Whether outhouses or commercial sewage treatment systems are used, proper maintenance is required to prevent these from becoming bear

attractants.

Other Camp Odours

Bears are attracted by many odours such as lubricating oils, anti-freeze and other chemicals. Store them to minimize odours and where bears and other wildlife cannot get into them. Any fuel can also be a bear attractant. Check for leaking drums and clean up any spills immediately. Before closing a camp for a portion of the season, clean the kitchen thoroughly, treat grey water pits and latrines with lime and inspect the entire camp for attractants. Don't leave food in the camp unless it's properly stored in bear-proof containers.

Detection Systems

An effective detection system sounds an alarm and warns of a bear's approach giving you time to assess the situation, and take action. The bear alarm must sound distinctly different from a fire alarm or any other warning signals. Three common detection systems are trip-wire fencing, motion alarms, and dogs.

1. A trip-wire fence is portable, and easy to set up around a small camp. A distance of 10 metres from all sides of the camp is recommended for adequate response time.
2. Infrared beams or motion detectors can create an invisible fence linked to lights and alarms. These sensors can detect bears up to 10 metres and the alarm may be enough to scare a curious bear away from a small camp left vacant for the day. Trip wires and motion detectors can be set off by smaller animals, a warning of potential attractant problems.
3. A trained dog working with an experienced handler can be useful for detecting and deterring bears. These dogs must be on a leash or chained. A dog roaming miles away is of little use if a bear shows up and the dog may harass local wildlife or aggravate a bear. Be realistic about the dog's training and behaviour. Dog food can be an attractant. Do not leave uneaten dog food out overnight. Don't over feed the dog... it will cache extra food around your camp.

Even with a reliable detection system, stay aware of your surroundings. Every system is prone to human error and technical failure. Maintain your efforts to minimize the attractants in your camp.

Bear Deterrents

Deterrents have two basic purposes: 1) The short-term protection of people and property, and 2) The long-term goal of teaching bears to avoid humans and areas of human activity.

Air horns and explosive devices fired from specialized launchers and 12 gauge shot guns produce loud noises that can deter a bear. One example of a noise-making device is the 12 gauge Shell Cracker that travels up to 65 meters before exploding. Make sure that the bear is not closer than 65 meters. If the explosive lands behind the bear the blast may drive the bear toward you.

Noise-makers may become less effective with repetitive use. Sometimes it takes more than a noise to deter a bear. It may be necessary to use a non-lethal projectile designed to inflict pain but not penetrate the hide or injure the bear. Two types of non-lethal projectiles fired from a 12-gauge shot gun are rubber slugs, effective to 40 meters, and bean bags, which are limited to 20 meters or less. Load deterrent cartridges directly into the chamber of an open-choked shotgun. Do not place them in the magazine or use them in a semi-automatic shotgun. Before using these deterrents, let the bear know your location. Be careful not to startle a grizzly bear at close range.

Be sure the bear has a clear path of escape and have an experienced person with a loaded firearm as backup. Aim projectile deterrents at a large muscle mass such as the shoulder or rump.

Training and practice is necessary to use deterrents safely and with confidence. Read and follow the manufacturer warnings and instructions. Be prepared to deter any bear that approaches camp and deter the bear every time it returns. A bear that has obtained human food or garbage may be difficult to deter. Eliminating the food reward that attracted the bear is critical to the success of deterrent efforts.

A well-maintained electric fence is an effective method for excluding bears. Both light gauge temporary and more permanent high tensile fencing can be used in a variety of applications. Multiple strands of alternating positive and negative charged wires deliver a shock to a bear even in very dry soil conditions.

Even with the best prevention measures in place, remote camps should have at least one firearm on site capable of killing a bear that presents a serious and immediate threat to human safety. One person should be responsible for firearms and their maintenance. A short-barrelled, 12-gauge pump or hinge action shotgun can provide reliable bear protection at close range when used with slugs. A high powered rifle – 30 calibre or larger, with 200 grain soft point ammunition is also an option for those who are competent with it. A firearm is not a substitute for other preventative measures or proper camp management.

Bear deterrents and firearms have regulations governing their use, storage, and transportation. Plan in advance of your field season; find out from local authorities what is allowed in the area you plan to work and what permits you'll need.

Bear Response Planning

All work sites should have a response plan for dealing with bears. Everyone on site should understand the plan and know their role. At large sites an assigned response team may be necessary for handling bear problems. Good communication is critical. It's everyone's responsibility to immediately report a bear's presence to the response team. The response team would then be responsible for letting others know and, if necessary, restricting activities in the area. Other team duties can include:

- the maintenance of detection and deterrent equipment,
- monitoring bear activity in the vicinity of camp,
- compiling and reporting bear problems to the nearest wildlife office, and
- deterring, and if necessary, destroying a bear. If a bear must be killed in defence of life or property, follow the legal requirements. These vary so check with local authorities.

Conclusion

Plan to work safely in bear country. The wisest and most economical approach is to actively practice prevention. Remember when working in bear country everyone has the responsibility to prevent conflicts; for reasons of human safety as well as for the conservation of bears.