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Black Bear Conflicts and Safety at Utah Campgrounds

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Introduction

Utah had its first black bear attack in June of 1992 when a young girl was dragged from a camper at Strawberry campground. Subsequent litigation in Utah and Arizona, following a bear mauling in 1994, has changed our awareness regarding alleged negligence. With escalating bear problems, Utah, the U.S. Forest Service and various campground personnel will need to understand their responsibilities and act more preventively. Recent court decisions under the Federal Tort Claims Act - too extensive to detail here - have affected the way employee directives are worded and the discretionary roles that those employees maintain for inspecting and detecting violations, for implementing operations, and for maintenance plans in organized campgrounds.

This paper is intended to assist State and USFS employees and all those leaders (Boy Scouts, Girl Guides, church groups) who educate users to improve the handling of food and garbage, actions that directly influence the occurrence and nature of black bear conflicts with people. A central issue in many lawsuits is the standard of preparation of those managing for risks from black bears in campgrounds. Since the early 1990s Utah has seen a growing incidence of bears and people coming into contact, frequently in public campgrounds.

Likewise in Yosemite National Park, in 1997, increasing problems from black bears searching for food caused $2.3 million in damage to vehicles and other property. The author, a Utah State University wildlife professor and an expert witness in the case defending the state and federal agencies in the 1992 legal action, has prepared these guidelines. With this article we wish to share an action plan for maintaining safe public camping areas by avoiding attracting black bears in Utah, Wyoming, and Colorado. An understanding of the biology of the black bear and a commitment to prevention can reduce the risk of runaway bear problems. A successful program based on reliable information can assure safe camping in bear country.

Black bear mother and cubs foraging normally in wild.

Some Bear Biology and Behavior

Learning New Foods: Bears are long lived, intelligent animals whose variable and complex behavior is guided largely by learning throughout life. Their feeding patterns in particular are learned, based on long association with their mother. Bears regularly explore new foods and will eat just about anything that is digestible. A black bear's diet is typically plant materials, but they will prey on beaver, deer, or domestic sheep when available. In arid areas, natural foods are often seasonally limited, so bears search out any interesting odor, including our food and refuse.

Bears learn about new foods from single experiences and develop strong habits or traditions. This causes them to return to these places to seek seasonal foods. Young bears observe their mothers closely, and learn food locations, thus continuing the tradition. This leads to individual food specializations, usually keyed to the particular familiarity that they have with an area of land. Transporting problem bears off-site to deal with damage places transplanted bears at a significant disadvantage and is expensive and ineffective. It is better to prevent the problem in the first place and not to punish the victim.

Since young bears explore, dig in the ground, and tear rotting stumps in their ravenous search for food, it is not surprising that they approach attractive camp foods. Stealing food from other cubs is natural. So when bears begin to explore our food or garbage, they are learning to develop new food habits, but are also on a track to becoming "problem" bears. Although this is how all bears find foods, they are starting a life of "crime" and may be a risk to life and property. Current research suggests that they will eventually be killed.

Artificial or supplemental food in the form of garbage can increase local densities of bears over time. However the consequences of this are widely considered to be negative for people, property and bears. When bears are redirected from natural food, they become nuisances and negative public attitudes toward all bears may result.

How Problem Bear Syndromes Develop

The long history of bear management shows how small changes in behavioral adaptation of bears lead to an association with people (food-conditioning), often resulting in an epidemic of damage and risk. Bear problems in Yellowstone, Yosemite, and state parks in the USA and Canada are common examples. We can find similar situations in the Intermountain West. It is abundantly clear that these developing problems need to be nipped in the bud. Problems with bears can be expensive, time consuming, and dangerous. A brief review of the predisposing ecological and behavioral conditions may be useful. They are really quite simple. Those with an interest in biology, outdoor enthusiasts, or those who have trained a dog, can readily grasp the issues. The crucial point for managers is to begin planning and to go into action before any sign of a problem.

Preventive Management

Bear prevention may appear as a solution looking for a problem -- "If it isn't broken, why fix it?" In this case we need to prevent it from breaking! Responsibility falls to the campground operator to explain to campground visitors what the risks and outcomes can be; not an easy task but a crucial one. Bears become problems for the following reasons. The scenarios are based on real situations from Minnesota (black bears), Manitoba (polar bears), Yellowstone (grizzlies), and our experience in Yosemite and Yellowstone National Parks. Scientific studies of bear-human relationships have also been consulted. The causes are presented in a series of stages:

Stage 1. Ecological Priming Factors

Black bears commonly experience food shortages that cause them to roam and explore new food sources. Sometimes the new foods are garbage; sometimes bee yards or livestock. As opportunistic feeders, bears are naturally attracted to food odors, even when they are well fed. In Yellowstone National Park, food scarcity results in bears moving toward people and structures. Elsewhere in the USA and Canada, when the berry crops fail, newspapers may report widespread bear problems. What could be more natural than to have wildlife coming to another, richer food supply even if it is one that we have raised or stored?

Stage 2. Biological Priming Factors

Bears are significantly different than mice or deer when foraging for food. As well as being larger and more dangerous, they are nutritionally preparing for hibernation. They need to accumulate a huge surplus of fat to survive up to six months in a winter den. Physiologically their imperative is to eat enormous amounts of food. So dramatic is this shift that biologists label the process hyperphagia, literally "excessive eating." Interestingly, guided by a taste system, bears are obsessively attracted to oils and fatty compounds. When bears gorge on fat-rich salmon, they can consume over 15 salmon per hour and over 100,000 calories per day!

Consider black bears with huge appetites faced with little natural forage. Why would rich, plentiful concentrations of garbage, camp, or pet food not attract them? It does! That is why we need to be prepared to predict these occurrences and head them off with education and management. This is our task as managers and caretakers in the public interest.

Stage 3. Triggering Situations for Bear Problems

Not all bears develop into problem bears. Usually a crucial experience, like access to an overflowing dumpster, initiates behavioral changes. First, a bear needs an opportunity to learn where to get rich food from people; not so different than your dog at the table. Give him a tidbit once, and he waits for that time when you will repeat the reward. This is known to animal trainers as "single-trial learning" in which animal behavior changes to track reward.

Stage 4. Transmission of the Learned Behavior (Social Learning)

Once a bear begins to feed regularly on food from people it will likely be observed by its cubs or other bears, and the habit is passed on to larger numbers of bears. This is like a

behavioral epidemic because the trait spreads rapidly through a bear population. Parks like Yosemite National Park have experienced a number of these cycles with campground bears. Even though the scenario is well known, it is often not controlled unless advance management to anticipate the behavioral spread is in place.

Stage 5. Consequences of the New Trait (Population Feedback)

As bears concentrate and specialize on new food sources their populations prosper. With more food available, more young are produced. This is largely because of earlier breeding ages in bears, shorter intervals between births, and larger cub litters. Where bears feed on abundant garbage, more young bears survive to adulthood. For example, during our research in Yosemite National Park, campground bears that were thoroughly food-conditioned to backpacker's food and garbage were very large. We captured a male that weighed 500 pounds, something of a record. Such a bear mates with more females because it is more aggressive and dominant, thus passing on the genetic basis as well as the learned aspects of this successful feeding syndrome.

The combination of new behavioral traits, adapting to people and food-conditioning, opens up a new feeding niche in which the animal excels and the trait spreads. This process parallels natural selection and is well-known to biologists.

Stage 6. Populations of Problem Bears

What begins as a seemingly minor aberration among a few bears, through learning and the consequent physiological, reproductive, and population payoffs, becomes an expensive and potentially dangerous problem to managers. Although the problem develops slowly, the solution may require destruction of the bears that become a threat to humans.

"When fed garbage, black bears become problem bears."

Through no fault of their own, the bears around small communities or parks were trained by people and their management becomes a drain on budgets, diverting biologists away from productive work to address chronic animal damage situations and human fears. Inevitably, the responsible agency is asked to destroy these animals, which accounts for the slogan, "garbage kills bears."

Big Picture Issues for Proactive Planning

•Know something of the ecology, behavior, and management of bears.

•Prepare a written plan for potential bear problems. A responsive reaction is not adequate with bear learning. Behavior cannot be "unlearned," but may be deterred with punishment and then only weakly and temporarily.

•Build on the experience of others through consultation, e.g. state and federal committees (agriculture and wildlife).

•Involve and educate people at all levels about management and legal responsibility. If only a single technical approach is tried, then the problem may recycle and be costly.

•Solutions should be integrated with overall planning at all levels of operation. The Utah Black Bear Management Plan (June 2000) took this opportunity.

•What constitutes a "problem bear" (i.e. bear behavior warranting destruction of the bear) requires careful definition. The Utah Division of Wildlife Resources policy paper (No. W5WLD-3, May 2003) presents guidelines for employees with bear situations with appropriate actions.

Some Solutions

•Recognize that bear problems are a fact of life in bear country; have preventive programs ready in preparation for inevitable problems. In view of the extensive bear habitat in the Rocky Mountains and surrounding areas, recommendations for better preventive bear management need to be incorporated in all structures, sites, and food storage plans.

•Promote public understanding of the relationship between loss of wild foods and security to bears (be specific with details about nutritional needs and habitat) and triggering of bear problems. Graphic handouts and posters in many obvious places are important, as are personal contacts.

•Develop "bear awareness" programs that sensitize people to the relationship between stored food and garbage and consequent risks to humans and bears. Include information on the development of garbage handling techniques, transfer processes, containers, fencing, and other types of mechanical protective techniques for food sources.

Observing black bears from a distance can be safe.

•Regular communication among wildlife representatives, enforcement officers, police, public relations personnel, and other agency representatives who share responsibility for handling nuisance bears is important to deal quickly and professionally with individual situations. In Utah, Utah Division of Wildlife Resources (UDWR) has primary responsibility for these situations.

•Develop an information system and a written management plan. Outline preferred actions to guide behavior, but have sufficient flexibility to avoid inappropriate legal action in cases where personnel could not have been reasonably expected to foresee and prevent damage or injury.

References

Perry, Gerald L. & Michael J. Rusing. 2001. The Changing Dynamics of Bear Management: Arizona's Experience with Litigation from a Black Bear Mauling. Western Black Bear Workshop 7:1-8. Oregon Department of Fish and Wildlife, P.O. Box 59 Portland OR 97207, May 2-5, 2000.

If you have further questions or to obtain copies of the reports mentioned in this publication, please contact: Utah Division of Wildlife Resources; 1594 W. North Temple; Salt Lake City, UT 84114; Phone: 801-538-4700. Or online at: www.wildlife.utah.gov

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CAMPGROUND BEAR BASICS

•Black bears usually avoid people, but drought and extreme hunger may make them bold and potentially dangerous.

•Bears pose risks when they learn to associate people with food rewards and lose their fear of humans. Therefore, prevention of problems depends on sanitation, and reducing attractive odors and foods of all kinds, including garbage, smelly liquids, and pet foods.

•Preventing access to potential food and garbage by bears is the first line of defense. Permitting bears to obtain food rewards is a bear-training program and will endanger unsuspecting people.

•When a black bear enters a campground, all efforts should be made to notify campers, to prevent it from obtaining food, and to discourage it from staying.

•A campground attendant should be called to chase the bear away, but if none is available, shouting and throwing objects at the bear from a safe distance will likely cause it to abandon the area.

•Few black bears ever make predatory attacks on people; most bear attacks in campgrounds result from bears becoming habituated to obtaining garbage or human foods. These bears act aggressively toward humans to gain access to nearby food, rather than to treat humans as prey. Nevertheless, aggressive campground bears can inflict serious injury.

•Bears that remain near houses and campsites searching for food should be viewed as threats and dealt with immediately and assertively by experienced people.

•Never run from a bear as that can incite chasing behavior. Children are particularly at risk and should be kept near adults when bears are present.

For More Information:

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