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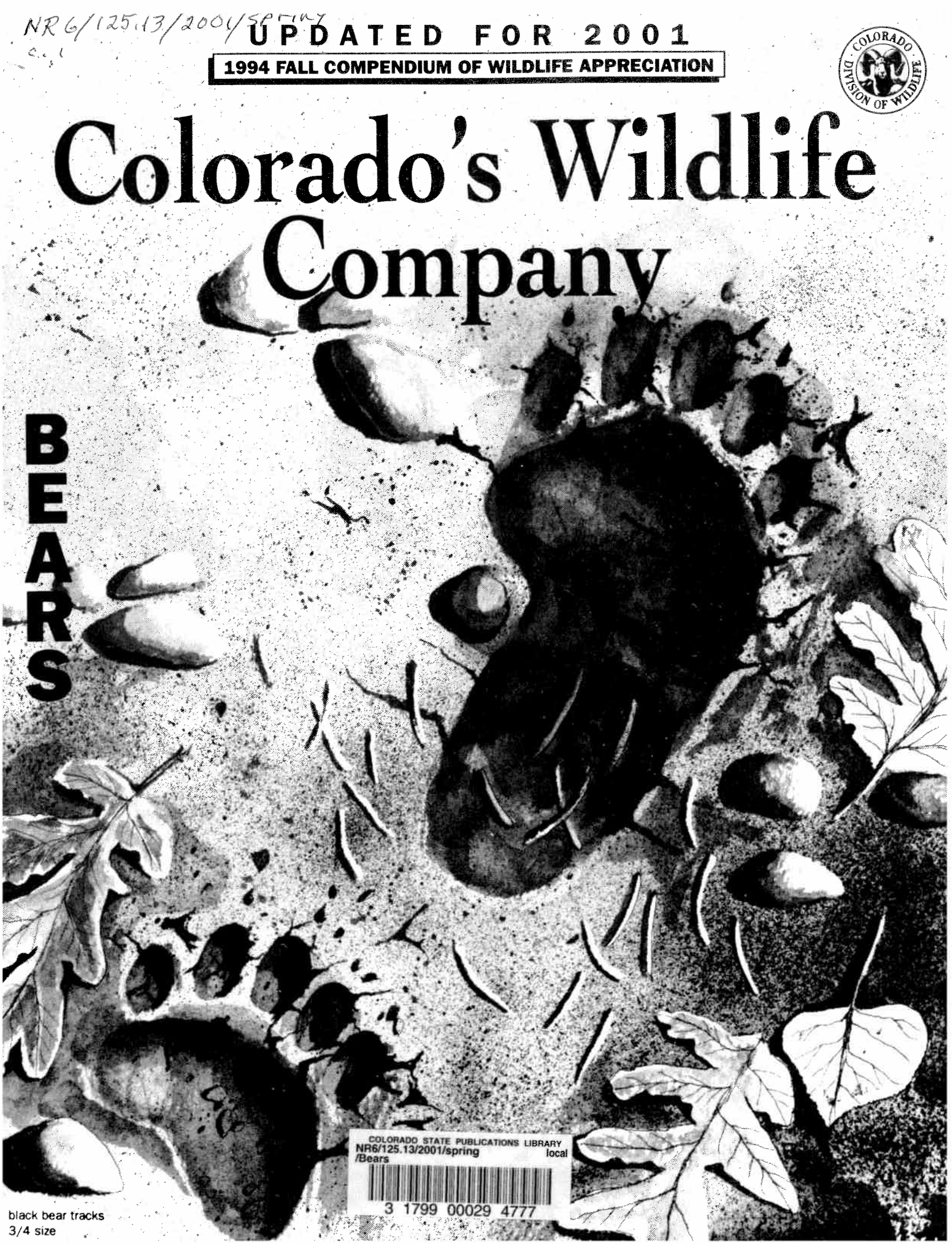
1994 FALL COMPENDIUM OF WILDLIFE APPRECIATION

Colorado's Wildlife Company

BEARS



black bear tracks
3/4 size

Living With BEARS

Since the days when Daniel Boone "kilt a bar" and carved his triumph on a tree, humans moving into bear habitat has meant conflicts between the two species. Bears used to be feared as ferocious wild animals, and despised as killers of livestock. Not until Yogi and Boo Boo came along did we begin to soften our image of wild bears. That change coincided with an increasingly urban population, one which has a minuscule chance of ever encountering a bear in the wild. Yet ironically, bear-human conflicts are increasing in Colorado as the expanding human population also moves into desirable mountain areas, and into bear habitat.

Farmers and ranchers traditionally regarded bears as pests to be destroyed by any means. Wildlife management reflected that attitude for years until 1935, when Colorado declared the black bear a game animal and afforded it protection under state hunting regulations. Over succeeding decades Colorado's human population changed. From 1950 to 1990 Colorado's urban population more than tripled. By 1990 only 17.6% of the state population of 3,294,394 lived in the country. As city-dwellers outnumbered rural populations, Coloradans adopted an increasingly humanistic attitude towards bears. Today fewer people are raised with a hunting tradition; there is rising interest in wildlife conservation and animal welfare among the general public, and some segments of the population oppose hunting outright. Reflecting these changing attitudes, in 1992 Coloradans approved Amendment 10, banning the spring bear hunt and outlawing the use of dogs and bait in hunting bears. "It's not that most people are opposed to hunting," says DOW bear researcher Tom Beck, "but they want it done in a humane and fair manner." Using dogs and bait to hunt bears, and killing females while they still have dependent cubs, conflicts with many people's sense of fair play. "This new group places a high value on bears," Beck adds, "more in line with the reverence afforded bears by Native Americans."

As the population booms, formerly rural areas —like those around Durango, Telluride and the foothills of the Front Range —are developing at a rapid rate. As we develop our state, and humans encroach on bear habitat —both to live and recreate —the chances for bear-human conflicts increase. **High numbers of problem bears coincide with concentrations of humans, not bears,** says Beck.

During late summer and fall, bears feed ravenously — up to 20 hours a day — to put on enough fat to survive winter hibernation, which may last six months. Bears are opportunists; they'll take food where and when they can find it. When people leave garbage out in campgrounds or around their homes, it attracts bears. **Once bears associate people with food, they often become problem bears, usually an eventual death sentence for the bear**. These very strong animals may tear into campers and enter homes seeking food.

Unless they have learned to associate humans with food, bears are generally shy and wary, avoiding people as much as possible. Bear attacks are rare. For every death caused by a black bear, there are 17 deaths from spiders, 25 from snake bites, 67 from dogs, 150 from tornadoes, 180 from bees and hornets, 374 from lightning and 90,000 from homicides .

We have a responsibility toward Colorado's bears to protect them from becoming "humanized"— that is, attracted to places of human activity in search of food. "A fed bear is a dead bear," is an unfortunate truism. If a problem bear is still a nuisance after all garbage and other attractions have been cleaned up, it is trapped, tagged and moved to a new location. But a bear is only relocated once. If it is trapped again, it is destroyed. District Wildlife Manager Bob Holder of Trinidad, who has had to trap and kill numerous problem bears, wishes the thoughtless people who leave out garbage had to "look into those brown eyes and squeeze the trigger."

Calling the Division of Wildlife to remove a bear is not a good option, say DOW bear experts, because a relocated bear carries its association of humans with food wherever it's moved. "The need to prevent bear conflicts through education, proper trash storage, control of bear attractants, etc., is critical," says DOW biologist Kathi Green. DOW personnel answer hundreds of inquires and complaints about bears, to which they send out information outlining specific solutions. These complaints are also entered into a statewide database detailing bear problems. The Division uses billboards, signs in campgrounds, public talks and media interviews to educate the public on how to avoid problems with bears. But, Green stresses, it is ultimately the public's responsibility to prevent problems.

We cannot expect bears to change, and we don't want them to. Black bears, wild and wary, are a wonderful part of Colorado's natural heritage. It is up to humans living and recreating in bear habitat to alter their habits and activities. We must learn to live responsibly in bear country, not the other way around.

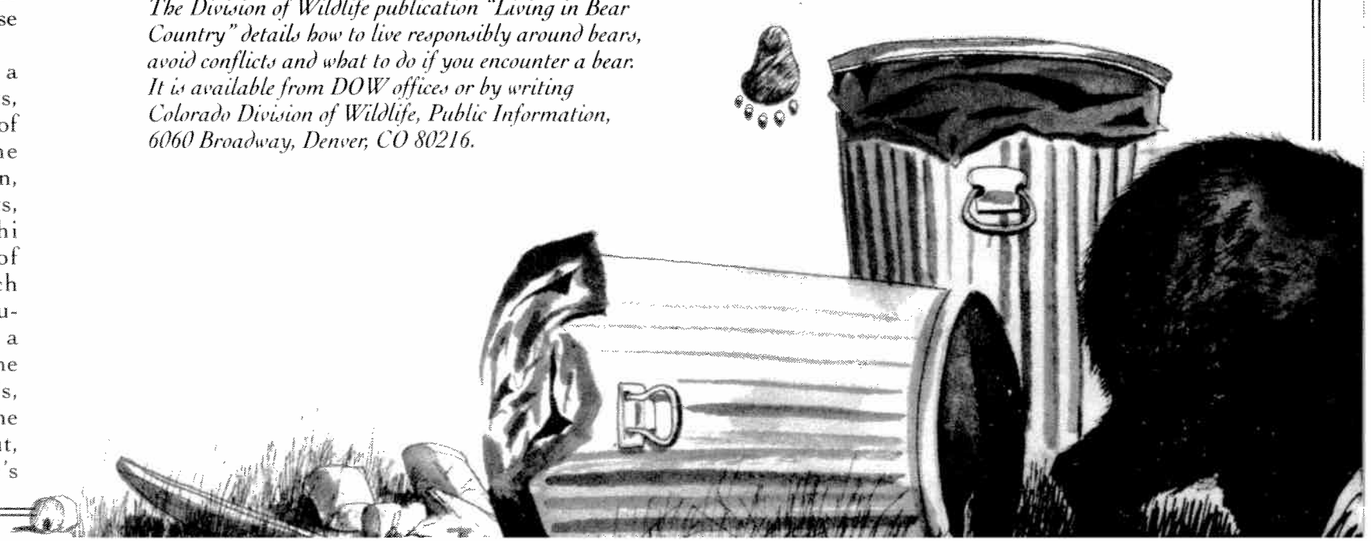
HOW PEOPLE GET BEARS INTO TROUBLE

- ... Trash left out around homes and campsites. This includes trash set out the night before trash pickup.
- ... Feeding pets outdoors.
- ... Hummingbird feeders filled with sweet-smelling/ tasting liquid.
- ... Suet/peanut butter /bacon grease feeders for birds and squirrels.
- ... Greasy barbecue grills left outside.

The Division of Wildlife publication "Living in Bear Country" details how to live responsibly around bears, avoid conflicts and what to do if you encounter a bear. It is available from DOW offices or by writing Colorado Division of Wildlife, Public Information, 6060 Broadway, Denver, CO 80216.

People who live in bear country will almost always tell you so. While it is sometimes presented as a warning, it is in reality an effort to describe some ephemeral value of the land. Most people will never see a bear in their mountains, yet the mere possibility of doing so imparts some vital uncertainty, mystery, danger, need for respect and greater depth to the landscape. We need bears in our mountains.

- Bob Hernbrode, CDOW



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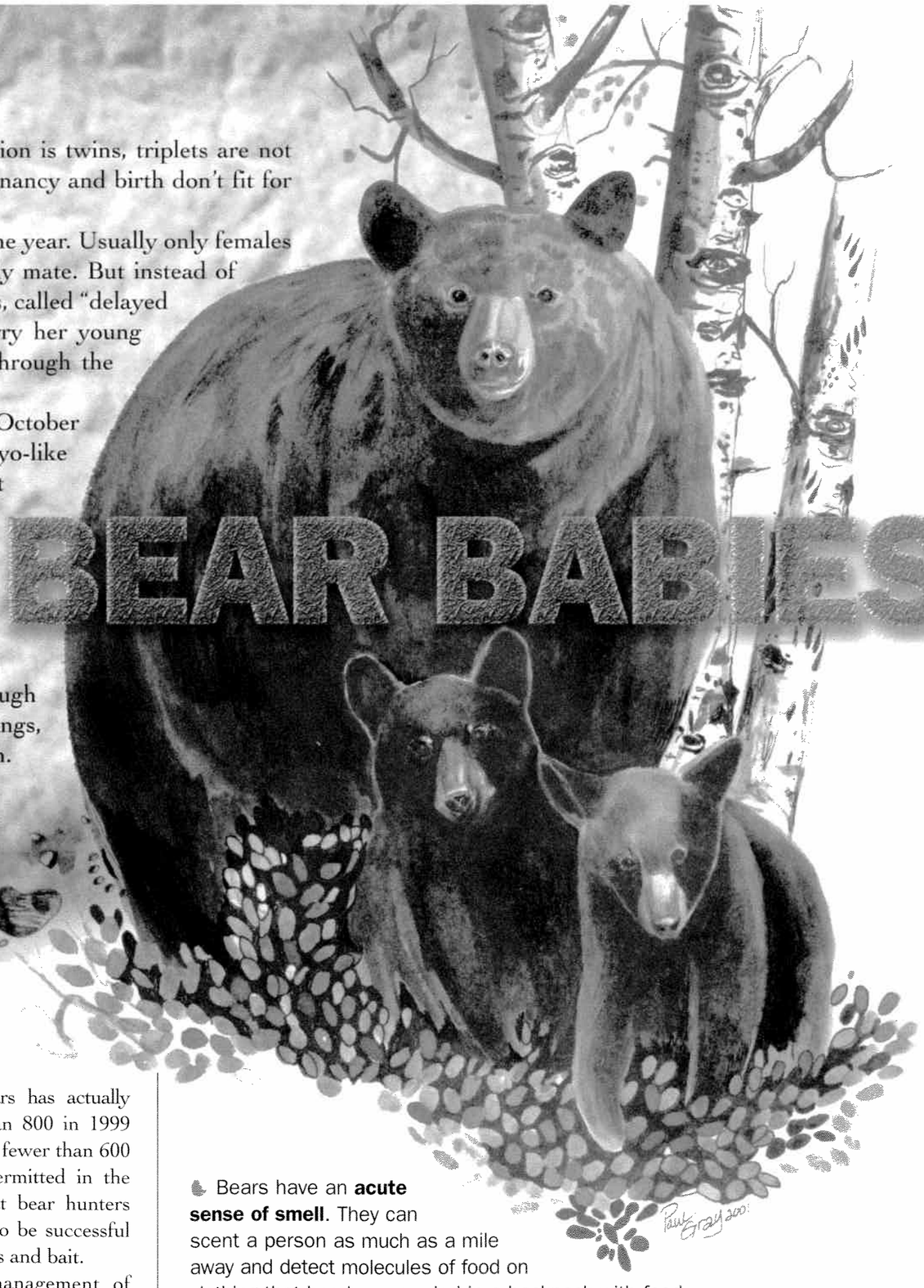
BEAR BABIES



Female black bears are used to being mothers of multiples. While the most common cub combination is twins, triplets are not unusual. But that's not the only intriguing fact about bear family life. Our assumptions about pregnancy and birth don't fit for bears. They have their own way of having babies.

Black bears truly must make hay while the sun shines, since they hibernate five to six months of the year. Usually only females without dependent cubs will come into heat—in May and June—and remain so until they successfully mate. But instead of implanting in the uterus, the fertilized egg is carried in the female's body for several months. This process, called "delayed implantation," ensures that the female bear is in good enough physical condition to successfully carry her young through winter. She must have enough stored body fat to support herself and her growing young through the fasting time of hibernation.

The fertile eggs implant in the uterus about the time the females enter her hibernation den in late October or November. The cubs are born in a few months in the darkness of the hibernation den—pink, embryo-like and very undeveloped. Adult black bears are so large, strong and sturdy it seems hard to imagine that they start life helpless, naked and blind. The newborn bear looks more like a rodent than a creature destined to become a mighty ursus. Newborn bear cubs weigh only about half a pound, yet will grow into adults weighing 200 to 350 pounds (adults range from 120 to 600 pounds). Compare that to the average birth weight of human babies of six-and-a-half to seven pounds.

The mother bear suckles her tiny young and keeps them warm in the den through the rest of the winter. When they emerge with her in spring, they are the size and shape of large St. Bernard puppies—the fuzzy, roly-poly cubs we find so endearing. They grow rapidly through the summer and though weaned by fall, the cubs will den a second year with their mother. Emerging from the den now as yearlings, they may still travel with the mother until she drives them away or they begin life as adults on their own.

RESEARCH CRITICAL TO UNDERSTANDING, MANAGEMENT OF COLORADO'S BLACK BEARS AND PUBLIC AWARENESS CAMPAIGN

The successful management of Colorado's black bears and the Division's ongoing effort to inform and educate people about our native bruins is based on biological research conducted over three decades.

And the Division's understanding of bears grew dramatically in the 1990s through studies conducted in different areas of Colorado. Hunting regulation changes brought about by political events also provided new

hunter harvest of bears has actually increased to more than 800 in 1999 and 2000 compared to fewer than 600 when hunting was permitted in the spring. Beck said that bear hunters quickly learned how to be successful without the use of dogs and bait.

The Division's management of black bears changed in other ways during the 1990s. In 1994, a new bear directive was approved that changed the way wildlife officers handle public

- Bears have an **acute sense of smell**. They can scent a person as much as a mile away and detect molecules of food on clothing that has been carried in a backpack with food.

- The **strength** of bears is also legendary. They have been known to tear into freezers, rip into vehicles and campers, and smash down doors and walls to get to food.

insights into bear management and bear hunting. And the agency adopted a new directive on dealing with people/bear encounters that has resulted in far fewer bears being trapped and relocated.

A major factor in the successful research was the development of a new tool essential for bear research. Division biologist Tom Beck, one of the nation's foremost black bear researchers, developed a new, highly efficient and humane method of live-trapping bears in the 1990s. Biologists have traditionally used leg snares to capture bears, and the snares sometimes inflicted painful injuries that limited the bears mobility and chances for survival.

Beck decided there had to be a better way. And despite prediction that bears would never walk into traps, he developed a cage-type live trap that proved to be one of the most successful tools ever designed for bear research. Traps were set in two different areas for two-year periods, the Uncompahgre Plateau in western Colorado and Middle Park near Kremmling.

The Uncompahgre, rich with berry and acorn bushes that provide plenty of nutritious high-calorie food bears need and love, proved to have lots of bears, 101 for every 100 square miles of habitat.

In the aspen forests of Middle Park, Beck found only 20 bears per 100 square miles, a result of less nutritious food. Not surprisingly, the Middle Park bears were about 20 percent smaller than their Uncompahgre cousins. Beck's research also helps explain how continued growth impacts our black bear population.

Oak brush and aspen stands are Colorado's two primary types of bear habitat. And both are declining. Oak brush usually occupies sunny mid-elevation hillsides, ideal habitat for bears—and condominiums and vacation homes. Rapid human growth into these areas means less bear habitat.

Aspen stands have diminished by 50 percent over the past 40 years due to fire suppression and the resulting encroachment of conifer forests. The result, Beck points out, is less space for bears.

Less habitat and more people inevitably results in greater opportunities for people/bear encounters.

Regulatory changes, including voter approval of an initiative prohibiting spring bear hunting and the use of dogs and bait to hunt bears, forced changes in Division regulations for bear hunting. And the new regulations proved bear hunters can be more successful in the fall than they were in the spring. Though bear hunters may now hunt only in September and during the regular big game rifle season, the reports about bears. Prior to 1994, Division officers routinely trapped and relocated bears. But continued growth has decreased the undeveloped habitat where bears can be relocated.

In many cases, relocation doesn't work very well anyway. Once bears have learned to associate people with food, they're likely to return to humans, sometimes traveling more than a hundred miles back to the area where they were trapped. Relocated bears suddenly dropped into a new territory will likely encounter other bears that already consider the location home, resulting in the new bears being killed or being pushed out of the woods and closer to people.

The new policy emphasizes information over trapping. A homeowner who leaves garbage or pet food lying about that attracts bears will be advised to fix the problem before a wildlife officer even considers trapping. "Aversive conditioning," from a stinging blast of non-lethal rubber buckshot to loud noises and stinging sprays, are also used to convince bears to stay away from people.

If a bear continues to be a problem even after an area has been cleaned up, the bear might be trapped and relocated. If it has to be trapped a second time, the bear is destroyed.

No wildlife officer wants to kill a bear that's become a problem because of the actions of humans. But the old adage "A fed bear is a dead bear," is too often true. A bear that keeps returning to people is only going to become a growing problem, increasing the likelihood of more property damage and even human injury.

With rapid human growth continuing, Beck says Coloradans must learn to live with bears and other wildlife species if we're to continue to perpetuate our wildlife resources for future generations. The alternative is the steady elimination of wildlife habitat and wildlife itself, a consequence few Coloradans want to occur.

What Color is a Black Bear?

Individual black bears vary in appearance depending on sex, age and time of year. Lighting conditions, the animal's posture, length of observation and other factors can influence the appearance of the following characteristics. Color ranging from black and dark brown to cinnamon or even blond. Sun exposure can lighten a bear's coat through the summer. Straight or flat face. Large, erect ears. Ears appear larger and more prominent on young or small animals, smaller and more rounded on large adults. Dark-colored claws rarely more than 1 inch long. No shoulder hump. The back is the highest point of the body. No cape or grizzling pattern on the coat. A straight line drawn across the top of the main pad of a front foot track will intersect the smaller toe pads. Hind foot track has a rounded heel and a wedge in the instep.

BEAR FACTS

- Bears are very **intelligent and curious** and have good memories. A bear which has learned that ice chests contain food may curiously approach a car, peek through the window, see an ice chest and break into the car. A female black bear learned to use rocks to trigger traps. She would wait in a nearby tree for the traps to be set, coming down when the humans had left to trigger the traps and eat the bait.

- During **hibernation**, some of a bear's body processes slow, but its temperature only drops a few degrees, unlike hibernating small mammals, whose body temperature drops nearly as low as the surrounding environment. A bear roused during hibernation can be alert and ready to run instantly.

- Hibernating bears may go more than 200 days without eating, drinking, urinating or defecating. Their bodies "recycle" protein by-products, thus lean body mass (muscle tissue) doesn't change appreciably. Energy for body processes comes from fat accumulated before denning. Bears emerging from hibernation have little interest in eating or drinking. This **"walking hibernation"** lasts about two weeks.

- About 90 percent of a black bear's diet is **vegetable** material. Much of the meat they eat is insects and carrion.

- Black bears **mate in May and June** but the embryo does not implant in the female's uterus until she enters the hibernation den in November. If food is scarce and the female has not put on enough fat, the embryo will not survive.

- **Cubs are born in mid-January or February** during hibernation. The mother bear nurses her cubs, though she does not resume eating or drinking until after leaving the den in late April or early May.

- At birth a black bear cub weighs only about half a pound. Adult males average between 180 and 300 pounds, but may weigh 500 pounds or more. Adult females range between 120 and 250 pounds, but may weigh under 100 pounds and up to about 300.

- On average, 40–50 percent of black bear cubs die by one year of age (from a variety of causes), even when food is abundant. Cub survival can be much lower when food is poor.

- **Mortality caused by humans**—hunting, poaching, killing of problem bears—is the leading cause of death among most black bear populations.

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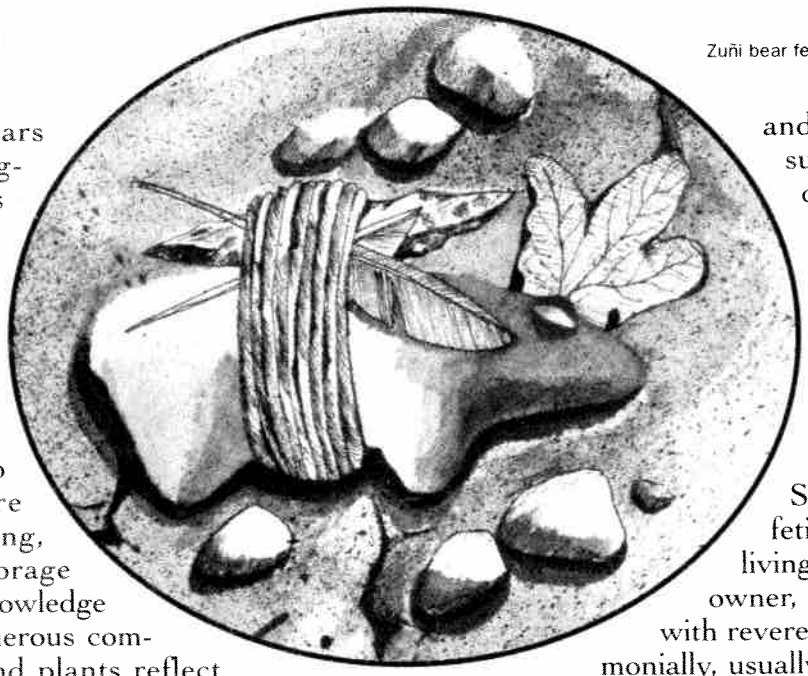
SPIRIT BEAR



Zuñi bear fetish

Since ancient times, bears have held a spiritual significance for cultures throughout the world.

Humanlike in their ability to walk upright, bears are often considered a link between people and animals. Myths from Asia, Europe and the New World refer to "bear people." Bears are strongly linked to healing, perhaps because they forage for plants, implying a knowledge of herbal medicine. Numerous common names for herbs and plants reflect this: bearberry, bear's paw, bear tongue, bear clover. Finally, because they hibernate, these special animals experience the ultimate magical transformation — they "die" and are "reborn" each year.

Many Native Americans hold a reverence for bears. The oldest dance of the Utes of western Colorado is the Bear Dance. Traditionally, the Bear Dance was celebrated in spring before the winter camp broke up and families went out to gather food and hunt game through the summer. Dancing the bear dance secures the animal's blessing and signals a time of rebirth and renewal.

The bear fetish, a stone charm carved in the shape of a bear, holds special power for the Zuñi Indians of the Southwest. Because the fetish is thought to contain a living power which can help its owner, it is treated carefully and with reverence. The fetish is fed ceremonially, usually with cornmeal, and kept in a special jar. Offerings of beads and feathers may be tied to it. Though much of the meaning of this talisman is secret to Zuñi medicine societies, the bear fetish has healing power — the power of the bear.

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