NR6/125.13/1996/Winter (Last) 1996 WINTER COMPENDIUM OF WILDLIFE APPRECIATION Colorado's Wildlife Company COLORADO CATS by Mary Taylor Gray

At this moment, somewhere in Colorado, silent killers stalk their prey. Equipped with sharp eyes, sharp claws, sharp teeth and innate stealthiness, these hunters are consummate killing machines, superbly designed for their role. They kill with speed and grace, with perfect symmetry of form, intent and motion. They are Colorado's wild cats—the mountain lion, bobcat and lynx—and you may live your entire life, even spending many hours in the outdoors, without ever seeing one of these shadowy hunters.

Though we tend to regard predators with awe, and some degree of dread, they are neither good nor bad, neither devils nor noble beings, but merely animals pursuing the way of making a living for which they are designed. Cats are wonderfully specialized hunters, the most carnivorous of the animals classified as carnivores. Coyotes, foxes, raccoons and weasels all eat a mixed diet of prey, carrion, eggs, insects and varying amounts of berries and other vegetable matter. The diet of black bears is as much as 90% vegetarian. Cats alone eat almost exclusively fresh meat. Vegetable material lacks sufficient nitrogen to keep pace with the cat's metabolism. In layman's terms, plants don't give cats enough nutritional bang for the bite. And so cats must hunt.

Cats are well-built for their job as hunters. Their teeth are very sharp, the large carnassial molars capable of a greater scissors-like shearing than any other carnivore. A cat's canine teeth are particularly dagger-like, long and pointed, able to inflict severe wounds. Cats can open their jaws to nearly 90 degrees. The muscles of the head and neck provide tremendous jaw strength and stabilize the cat for delivering the powerful killing bite. Retractile claws are designed to grab and hold prey, curving out, around and in like giant barbs. Lithe and muscular, with an especially supple spine, the feline creeps along "catlike" in a low crouch, then springs suddenly with great agility. So honed are they for the hunt that a cat's life has been described as having two activitieshunting and resting.

The timing and accurate deployment of this hunter's tools are guided by extremely acute vision. The design of a cat's head is not unlike a human's for they, like us, rely upon vision above other senses. Cats have round heads, fairly small ears, and lack the long muzzle and powerful nose

of canids. The cat's large, forward-facing eyes provide it with binocular vision, with which it gauges the movements and position of prey, in preparation for a carefully-timed pounce.

The long-held belief that mountain lions spring down upon deer from a tree or ledge is a myth, speculates mountain lion researcher Harley Shaw. Cats can't risk injuring themselves by leaping from a great height or struggling with prey. Thus they pounce only when the situation is optimal, and the chance for success high. Cats wait in ambush, or sneak up on prey, rushing in over the last 10 to 50 feet, rearing

up to grasp their quarry over the shoulders. As the overpowered animal collapses, the lion bites deeply into the back of its neck, breaking the neck and killing the prey.

Do cats instinctively know how to hunt and kill, or must they be taught? A bit of both, it seems. Captive-reared mountain lions that had never hunted escaped from a zoo, killed several goats and small animals, then concealed the carcasses beneath soil and leaves. In a study, six-month old captive mountain lions with no previous exposure to hunting killed a mule deer fawn. But another captive mountain lion had to be fed potential prey before showing interest in killing it himself. Cats, then, seem to instinctively chase and kill, but they must be taught by their mothers what is appropriate prey, as well as the finer skills of hunting.

Cats are generally solitary animals. Their only society is that between a mother cat and her kittens, and among the kittens of a litter. These interactions can be surprisingly playful and, to our eyes, affectionate. Adults come together only during mating, then they part and the female rears the young alone. Kittens remain with their mother, learning to hunt and live a cat's life. Once leaving their mother and littermates, they begin a solitary existence in the shadows.

Colorado, where they inhabit high country forests above about 9,000 feet. Lynxes look very similar to bobcats, though they are a little larger, their tails are shorter, their ear tufts more noticeable and their coats less patterned. Lynxes have very large paws, the better to pursue their favorite dinner item, the snowshoe hare, which comprises some 80% of the lynx diet. Lynxes depend so heavily on this rabbit species that lynx distribution follows that of the hare.

MOUNTAIN LIONS, like lynxes, specialize in

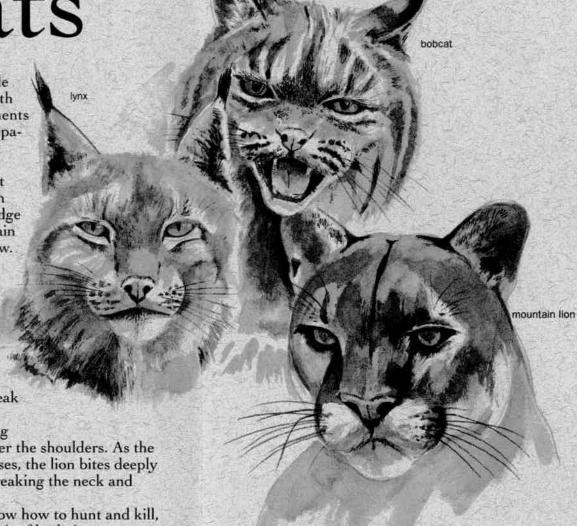
MOUNTAIN LIONS, like lynxes, specialize in eating one particular prey animal—deer. Lions are like the ballplayers in Field Of Dreams; if there are deer, they will come. When deer are scarce, lions will seek other prey. Shaw's Arizona study found that cattle made up 30% of the diet of lions in the study area, which happened to cover two ranches. The study revealed that while deer were the lions' preferred food, calves offered critical food when deer numbers were low.

Mountain lions are big animals, adult males averaging 150 pounds and females 100 pounds. They can measure up to eight feet long, tail included. Like the young of domestic cats, lion kittens are born with their eyes closed—small, vulnerable and completely dependent upon their mothers. In times of scarce resources, many kittens die from starvation. As a kitten grows, its coat parallels that of its primary prey, deer, for the kitten, like the fawn, begins life spotted, gradually losing its spots and gaining the signature tawny coat of the adult lion.

Shaw's mountain lion research found that lions kill on average once a week. Females with young kill most frequently—they have many mouths to feed. Lions hide their kills, pulling carcasses into brush and burying them with leaves and debris. Shaw once found a lion-killed deer on a barren rocky slope which was devoid of vegetation. The lion had placed one lone twig atop the carcass.

While lion attacks on humans remain rare, the impact of humans on lions has long been significant. Of 57 animals captured in a study of mountains lions on Colorado's Uncompander Plateau in the 1980s, 39 eventually died of human-related causes. Between 1929 and 1965, mountain lions were classified as predators in Colorado and the state paid a bounty on them. Today the lion is a managed game species. Estimating lion populations is guesswork; nobody really knows how many lions might live in Colorado.

We have more than 40 names for the mountain lion, among them cougar, puma, panther and painter. These names conjure images of animals dangerous yet seductive, beautiful but beyond our reach. For to see a cat in the wild, be it lion, bobcat or the elusive lynx, is to glimpse a remnant of a wild world where humans are still no more than visitors.



BOBCATS are the most abundant and widelydistributed of Colorado's three cat species. They are about twice the size of a domestic cat, but their thick tails are short, or bobbed, hence the name. Bobcats are found throughout Colorado. They prefer broken country with good cover-canyons, foothills, pinonjuniper woodlands and mountain montane forestsbut are found in all habitats in Colorado except open prairie, farmland and urban areas. They tend to lie up during the day in rocky or wooded areas that have dense cover vertically, but little ground vegetation - the better to stay concealed while watching for prey on the ground. Bobcats hunt mainly at dusk and dawn, their prey usually in proportion to their size rabbits, squirrels, mice, small birds—though bobcats will sometimes kill deer.

LYNXES are primarily animals of the northern forests of Canada and Alaska. A slender finger of their range extends down the Rockies into Colorado. Lynxes have probably never been common in

## LIVING IN LION COUNTRY

The lion, while perhaps physically difficult to study, is actually a relatively simple beast in its lifestyle.

But its lifestyle conflicts with some human lifestyles, and this in turn creates conflict in the human population as a whole, for not everyone agrees on how to deal with the lion.

In fact, the lion, along with a few other large carnivores, has become a symbol of the contentiousness that surrounds dwindling wildlands and wild species on our planet. Few symbols will more rapidly disclose the basic philosophical differences in people.

ountain lions have always been a part of Colorado, hunting and living largely unseen by people. But as formerly rural areas are developed and more people move into lion country, conflicts between humans and lions are increasing.

Boulder County reported a twenty-fold increase in human-lion encounters between 1970 and 1987. Homeowners in foothills and mountain areas increasingly report lion attacks on their pets, even large dogs such as German shepherds. In 1991 a jogger was killed by a lion near Idaho Springs.

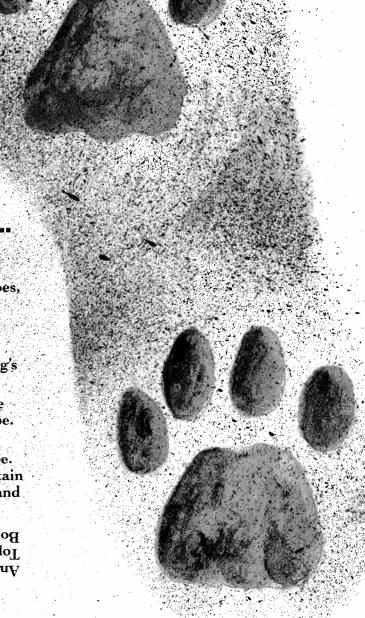
Most "problem lions" are transient young animals that can't find quality hunting territories. They are forced into marginal habitat, where they come into conflict with humans as they search for food. Lions that become habituated to humans may be less likely to avoid them.

Mountain lions inspire widely differing attitudes. Many Coloradans regard the lion as a valued symbol of wildness. Residents of newly developed rural areas enjoy the idea of wild cats living in the neighborhood, but don't want a lion eating their dog. Ranchers consider lions as enemies because they sometimes prey

## Mountain lion or large dog... which track is which?

- Both cats and dogs walk on their toes, rather than on the soles of their feet.
- Both leave a four-toed track.
- Cats have retractile claws, dogs do not. Claw marks always show in a dog's track, rarely in a cat's.
- Dog tracks are longer than they are wide and roughly rectangular in shape.
- Cat tracks are wider then they are long, appearing almost round in shape. The large, central footpad of a mountain lion track has two lobes at the front and three at the back.

Answer: Top - dog track Bottom - mountain lion track



upon livestock. Deer nunters often consider lions competitors for big game.

For anyone living in lion country, the chance of an encounter with a lion always exists, but there are ways to live with lions, not in conflict with them. Lions hunt most actively at dusk and dawn. If you come and go at these times, make noise to discourage them. Install outdoor lighting, especially along walkways. Prune or remove vegetation to eliminate lion hiding places. Don't feed wildlife, particularly deer - where deer are, lions follow. Keep pet foods and garbage indoors; if left outside they may attract raccoons and other prey animals and, in turn, lions.

Keep children indoors after daylight hours, bring your pets in at night, and put livestock, particularly small and young animals, in a closed barn if possible. Lions are more liable to attack small children and animals because their size, quick movements and high-pitched voices make them seem like prey.

If you meet a lion, stay calm. Slowly pick up small children so they won't run. Facing the lion, back slowly away but don't run. Running can stimulate the cat's chase instinct. Try to appear as large as possible - stand upright, raise your arms, open your jacket. You want to convince the lion that you are a bad choice for prey and that it may be hurt itself if it attacks. If the lion acts aggressively, throw rocks or branches at it, but don't bend down or turn your back. If the animal attacks, fight back, using sticks, rocks or whatever is at hand. You may be able to drive the lion away.

In all likelihood, even those who live in lion country will seldom if ever glimpse a lion. But knowing the big cats are out there, haunting the shadows in places still wild, speaks to the spirit in all of us.



## **DOW WORKING FOR WILDLIFE**

The Lynx

Since 1979, the Colorado Division of Wildlife has been looking for lynxes. Missing It's been 22 years since the last undeniable evidence of lynx in Colorado came to light—an animal illegally •••••• trapped near the Vail Ski Area. The

lynx was afforded protection as a Colorado endangered species in 1972; previously it could be trapped legally in the state. But whether many lynxes remained in Colorado, and where they might be, was unknown.

The lynx was probably never common in Colorado. Lynxes are animals of high altitude, northern forests. The Colorado Rockies are at the southern end of the lynx's range, essentially an isolated island of habitat.

In 1989, a statewide search detected nine sets of lynx tracks in the back bowls of Vail (some may have been made by the same animal). The next year, the tracks of a female lynx and kitten were found near Pagosa Springs. Between 1990 and 1993, DOW attempted to trap and radio-collar lynxes. Though tracks that were very likely those of a lynx were found in the area, no lynxes were trapped. In 1992 another intensive statewide search encompassing more than 2,500 square miles turned up only one probable set of lynx tracks, in the Gore Range near Williams Fork Reservoir.

Searching for lynx in Colorado's remote high country in winter is tedious, time-consuming and dangerous. The primary evidence—tracks in the snow—is transitory and easily destroyed or obscured. New, more sophisticated survey techniques may offer better tools. Hair snags, which gather hair samples as animals brush by, may render solid proof of lynx through DNA analysis of the hairs.

"We're positive lynxes are native to Colorado," says Gene Byrne, DOW wildlife biologist overseeing the lynx surveys. "But we're not sure they're still here today. They probably are, but they're extremely rare." With limited funding for lynx research, DOW is looking to private citizens - snowmobilers, cross country skiers, hunters—as a source of sightings or evidence of the rare and shadowy lynx. "With all those sets of eyes out there," says Byrne, "we hope somebody will see something."



Colorado's Wildlife Company; published quarterly; mailed free of charge. Permission granted for reproduction for educational and non-commercial uses only, with credit to writers, illustrators, Colorado's Wildlife Company, and the Colorado Division of Wildlife. Printed on 75% recycled paper. Send letters to the editor c/o Mary Taylor Gray, Editor; P.O. Box 37351, Denver, CO 80237. For subscription changes or additions or to request back issues contact Jeff Rucks, Colorado Division of Wildlife, 6060 Broadway, Denver, CO 80216; (303)291-7262.

Roy Romer, Governor

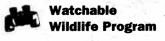
DEPARTMENT OF NATURAL RESOURCES

James S. Lochhead, Executive Director



## **COLORADO DIVISION OF WILDLIFE**

John Mumma, Director 6060 Broadway Denver, CO 80216



Postmaster, address correction requested BROWN. ALIAN STATE PUBLICATIONS DEPOSITORY 201 E COLFAI. ROOM 314 DENVER 80283

Bulk Rate
U.S. Postage
PAID
Denver, CO
Permit 1533