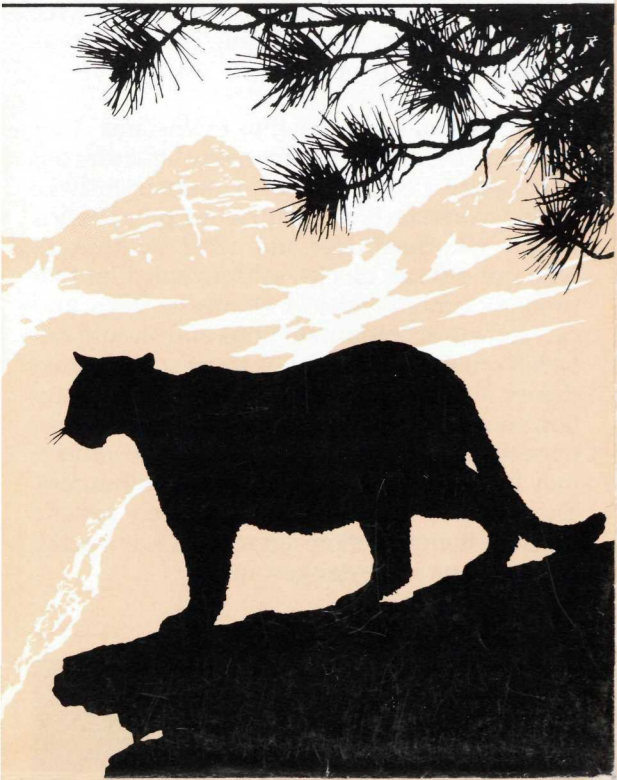
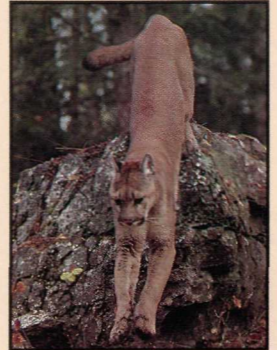


BIG CATS

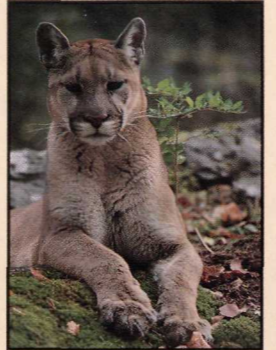
IN GLACIER NATIONAL PARK



Rick McIntyre



Erwin & Peggy Bauer



Erwin & Peggy Bauer

Glacier National Park is a unique place. Its location, far in the northwestern corner of Montana, has allowed it to remain wild much longer than areas in more temperate climates. Glacier has long, wet, and often bitterly cold winters and short, glorious summers. Towering cliffs, exquisite crystalline lakes, thick forests, open meadows, rushing streams, and waterfalls mark the landscape. A wonderful array of wildlife thrives here. Grizzly and black bears, gray wolves, bighorn sheep, mountain goats, elk, and many other animals inhabit the park.

Mountain Lions

Elusive, sometimes dangerous, yet always beautiful, the mountain lion is at home here. As human developments have continued to fragment wildlife habitat, Glacier and other national parks have become more important to wild animals that require space, prey, and human tolerance. Not long ago, large predators were systematically eliminated as settlers moved west and homesteaded the land. Except for remnant populations in south Florida, Arkansas, and Louisiana, mountain lions were virtually



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eliminated east of the Mississippi River. For many years even national park policy attempted to protect prey species like deer and elk by eliminating the predators. In recent years public sentiment has begun to change, and people are now more accepting of large predators like wolves, grizzly bears, and mountain lions. People are willing to accept the occasional risk that predators present in order to preserve a few truly wild places where animals can live as they did in the distant past. The National Park Service no longer works to exterminate entire

populations, although individual animals are removed if proven to be a danger to people or livestock. California has passed a law granting absolute protection to the mountain lion, and most states at least regulate hunting. Texas alone still allows unrestricted hunting of the great cat.

Mountain lions are known by many names, including cougar, catamount, puma, painter, and panther. Their scientific name is *Felis concolor*, which means "cat of one color." They are usually tawny in color but can vary from gray to auburn. The big cats are found as far north as the Yukon and as far south as Argentina. The U.S. population has been estimated at 16,000, but numbers are extremely difficult to assess.

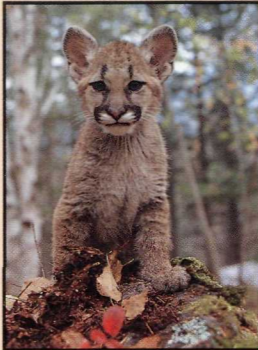


Life History

Most adult mountain lions weigh between 90 and 150 pounds, and males typically outweigh females. Mountain lions have long tails that comprise about one third of the total body length of six to eight feet. Adult lions can readily spring forward 25 feet and can safely jump from remarkable heights. Their paws are well padded, and their tracks look somewhat like wolf tracks. The prints are about the same size, but claw marks are usually not visible in mountain lion tracks (cats can retract their claws while members of the dog family can't). The back paws are smaller than the front, and lions often place the back paw in the print of the front. Single animals stake out territories from 15 to over 175 square miles and can travel more than 25 miles in a single day. Territories are marked by "scrapes" of earth, leaves, urine, and feces.

Lions are polygamous, with males breeding with females whose ranges overlap their own. Unique among large mammals, mountain lions breed, give birth, and care for young year-round, although climate and availability of food do have some influence. In nearby Idaho, births peak in spring. In Nevada and Utah, the peak occurs in the fall.

First mating at about age two and a half, lions usually give birth to one litter every two years. The gestation period is typically 90 to 96 days. Litter size varies between one and six kittens, with two or three being common. Birth sites are isolated from other mountain lions and can be in caves, in dense foliage, or under uprooted trees. Dens are sometimes reused. Young are cared for exclusively by the mother, who hunts alone and brings meat to the kittens until they



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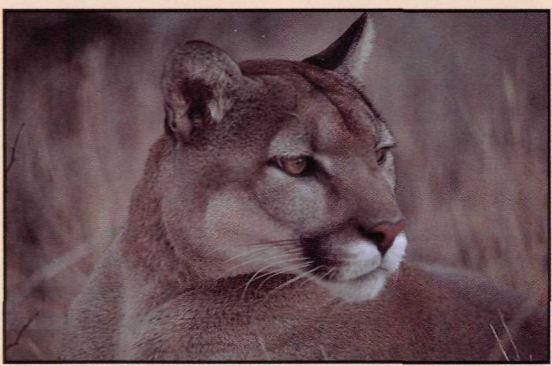


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approach weaning age at about six weeks. Soon after that, some of the kittens may accompany the mother on the hunt.

At birth, kittens weigh about one pound and are about one foot long. They are spotted and have tail bars. Markings begin to fade during the first year. Kittens stay with the mother until they are 12 to 24 months old, learning to hunt and survive in the wild. Mother mountain lions are protective of their young, but often will not protect them against man. There are documented cases of lions reacting aggressively to the presence of people near their offspring, but such incidents are rare.

Distemper and rabies are potentially deadly diseases, and the *Trichinella spiralis* parasite (a nematode also known as "pork worm") has been found in many animals tested. Trichinosis infections cause symptoms similar to those of food poisoning. Mountain lions are also subject to fleas, ticks and mites. They may avoid some diseases and parasites because of their solitary, mobile life-style. They also use dens for only a short time, don't use bedding, and won't eat spoiled meat, all of which offer some protection.



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Mountain lions produce some interesting sounds, including hissing, spitting, purring, growling, mewling, and chirping. Other sounds have been described as throaty growls and birdlike whistles. Mountain lions rarely scream and seldom roar like the African lion, although both have been documented. Females sometimes scream during estrus. Because of research with other felines, it is assumed that mountain lions have strong senses of vision, smell, touch and hearing.



Art Wolfe

Mountain lions prefer to eat deer, but will take whatever is readily available. They can prey on elk, small mammals, and sometimes domestic animals, including pets. They can hunt during the day as well as at night. They typically stalk their prey and launch a short charge, which results in a tremendous impact, and then bite into the head and neck of the victim. They don't pounce from trees or ledges, but will climb in search of food or to escape from pursuing dogs. They can swim when necessary - to cross rivers or elude pursuers - but normally avoid swimming.

Mountain lions are extremely powerful. There is a reported case of a single cat killing an 800-pound cow and moving it over 100 yards before beginning to feed, and another of a mountain lion hauling a 560-pound heifer out of a waterhole and up a mountain slope. Mountain lions can eat a great deal at one time or go without food for extended periods. Adults without young can eat intermittently because they have a tremendous capacity for storing fat.

After reaching maturity these big cats are solitary and do not live in prides (family groups) like African lions. Little information is available on their average life expectancy, although some have been known to live 13 years in the wild and up to 25 years in captivity. Accidental deaths, including drowning and falls, claim the lives of many lions. More die while attempting to take down prey, and a large number are hit by cars. Many are killed by hunters. At least 66,665 were shot between 1917 and 1974. Economic conditions, a market demand for fur, and an attractive bounty caused a peak in the kill numbers between 1930 and 1955. Bounties were removed in British Columbia in 1958. Most states quickly followed and the last, Arizona, removed its bounty in 1970.

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Credits

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Humans and Lions

Glacier National Park is mountain lion country. For the safety of visitors and employees, many of the same precautions used in bear habitat are recommended **with a few notable exceptions**. Although mountain lions rarely prey on humans, such behavior does occur. Children, small adults, and pets may be at risk. Mountain lion attacks are seldom fatal, but serious injury can result. A child was attacked and wounded in Glacier National Park in 1990.

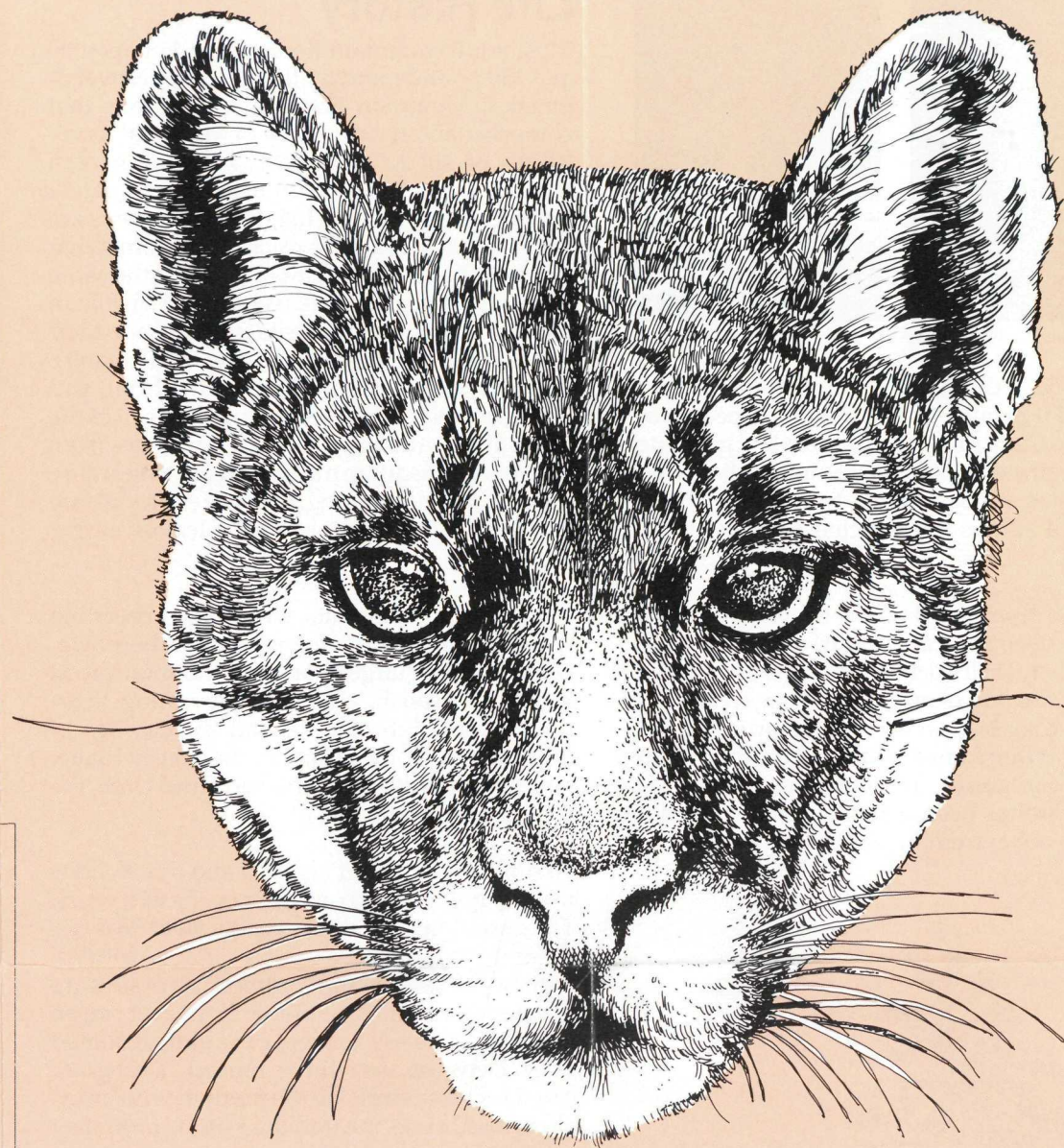
Recommendations include:

- Make noise when hiking to avoid surprising a mountain lion.
- Do not hike alone and keep children nearby.
- Place all food, garbage, and pets in secure areas.
- If a mountain lion is encountered, **do not run**.
- Talk calmly, avert your gaze, stand tall, and back away.
- Do not crouch and do not turn away.
- If an attack seems imminent, **act aggressively**.
- Pick up small children and attempt to appear as large as possible.
- **Unlike bears**, mountain lions may be frightened away by being struck with rocks or big sticks, or by being kicked or hit.



Rick McIntyre

Mountain lions are usually nocturnal, but hunt when hungry and may attack humans in broad daylight. Most of the mountain lions involved in incidents have been found to be young, and most attacks have been listed as unprovoked. A study published in 1986 documented thirty-three attacks on humans in the United States during the period 1750-1986. Twenty-five were in or west of the Rocky Mountains. Statistically, mountain lion attacks are much less likely than domestic dog attacks, or even shark attacks. In fact, more people are hurt by deer than by mountain lions. But statistics do not decrease the need for caution while in occupied mountain lion habitat.



Art Wolfe



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Art Wolfe

Bobcats

A relative of the mountain lion known as the bobcat (*Lynx rufus*) also makes its home in and around Glacier National Park. They are rare here, probably because of the presence of the more common mountain lions and lynx. They are just as elusive, very rarely seen, and much smaller than the mountain lion. The bobcat has a short "bobbed" tail that is usually about five inches long and probably earned the animal its name. The name may also be related to its running style; lacking the fluid grace of many cats, the bobcat "bobs" along. Bobcats are usually spotted tan and brown, but color can range from dark brown to white. They have tufts of hair on the tips of their ears. Bobcats range throughout most of the contiguous United States, southern Canada, and much of Mexico. Between 700,000 and 1.5 million bobcats live in the U.S., and thousands more live in Canada.

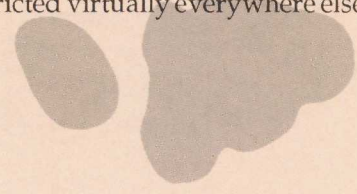
Bobcats usually weigh 18 to 25 pounds, but wide variations occur. Some adults weigh less

than 10 pounds, and a very few have been recorded at over 50 pounds. Bobcats live an estimated 10 to 14 years in the wild, and sometimes longer in captivity. Bobcats are carnivores. They hunt rodents, rabbits, deer, antelope, birds, reptiles, insects, and occasionally domestic animals. In an odd turnaround, bobcats have been chased and thoroughly trounced by does protecting fawns. Bobcats have been known to be aggressive toward people when cornered or when defending their young, but even then did no physical harm. They present no known threat to people.

Their tracks are shaped like those of other felines, and are usually about two inches in diameter. Ranges vary widely - from 5 to 50 square miles. Female bobcats are extremely territorial and rarely overlap ranges, while males are less exclusive. Bobcats breed from mid-February until early April. The gestation period is 50-60 days. The average litter size is two to four. Newborns weigh between 10 and 12 ounces and are blind. The mother protects the young

from all others, including the father, until the kittens are old enough to accept solid food. At that time the father is allowed to offer food. Young kittens are vulnerable to many predators, including raptors and coyotes.

Bobcats were once considered a threat to livestock and game animals, and bounties were imposed in the 1700s that were left in place until the 1960s and 1970s. Before 1970, bobcats were rarely trapped for fur, but as many as 80,000 per year were taken in the 1980s for use by the fashion industry. Pelts became quite valuable for a time, but current demand is believed to be dropping as public attitudes toward the wearing of furs change. The bobcat now has total protection in ten states, and hunting is restricted virtually everywhere else.



Bobcat Track - Life Size

Lynx

A close relative of the bobcat is the lynx (*Lynx canadensis*). The lynx and the bobcat are sometimes hard to tell apart. Lynx are about the same color and size, have similar (but longer) ear tufts, and have short tails. The lynx is usually somewhat larger, but not always, weighing about 20 pounds. The lynx often appears bigger because of its long back legs and dense fur. The feet are a distinguishing feature. Bobcat feet are sized in proportion to the rest of their bodies. Lynx feet are approximately twice the size of a bobcat's, about four inches in diameter, and are fur covered. This enables the lynx to run over snow as if on snowshoes and is part of its adaptation to snow country. Bobcats normally do not overlap ranges with lynx, and they actively avoid each other when in proximity.

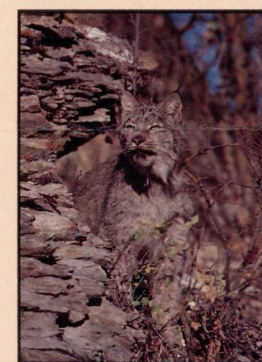
Lynx have a short breeding season in early spring. The gestation period for lynx is 63 to 70 days. Kittens weigh about 7 ounces at birth.



Rick McIntyre

Livestock depredation almost always gets the big cats into trouble. Data from California, however, indicate that losses to mountain lions (5%) were much less than those to domestic and feral dogs (11%) or coyotes (78%).

There has been an increase in the number of mountain lion/human incidents in recent years. Three attacks have been recorded in Montana, which had not documented a single case prior to 1989. A jogger was killed in the Colorado mountains in early 1991, and incidents have occurred recently in British Columbia, California, Arizona, and Texas. There are many theories about why mountain lions have been getting



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They are blind and helpless, but when food is abundant they mature rapidly. Their eyes open at about age two weeks, and they are weaned by about 12 weeks. They weigh about 10 pounds and are ready to live on their own in time for the following breeding season. It is believed that lynx are usually solitary, but females with young sometimes hunt together. Their range varies a great deal - from 5 to 94 miles.

The lynx is not very fast, and even humans can outrun a lynx over a long distance. They are usually nocturnal, but will hunt at any time of day if hungry and hunts have been unsuccessful. The lynx eats snowshoe hare almost exclusively. Its life cycle is dramatically affected by the availability of hares. When hares are abundant, the lynx produce three to six young per year with little kit mortality. When the snowshoe hare population drops off, the lynx decline dramatically.

Lynx live in Canada and Alaska, and a few are known to live in the northern United States,

into trouble more often in the last several years. Some people believe that there are simply more of the animals now. The favored prey, white-tailed deer, have been abundant in recent years, and more mountain lion kittens may be surviving as a result. As the kittens mature, they are forced out of the adult's territory and sometimes move into adjacent populated areas. The loss of habitat caused by expansion of cities, towns, and suburbs also forces the big cats into areas where pets and people live.

Mountain lions wander into towns and cities occasionally, and sometimes may be acting out of curiosity. People may also inadvertently be baiting mountain lions by attracting prey species. People who feed deer and other wildlife, or who put out salt blocks, seldom consider that predators might follow. Domestic dogs and cats can attract mountain lions and should not be left outside overnight. A more complicated theory about the recent increase in mountain lion attacks is that the less aggressive animals, those that ran and climbed trees to avoid humans, may have been eliminated by human hunters. Those left to mate and pass on their genetic traits are therefore more aggressive, less fearful, and perhaps more dangerous.

especially in the northern Rocky Mountains. Lynx are extremely shy and are not dangerous to people, although they have been known to take chickens from farms. They are widely trapped because their fur is very valuable. The best lynx coats are made from the belly fur of kits, and sell for over \$20,000. Lynx meat is considered a delicacy in some places.

Glacier National Park is a haven for the lynx. The safety Glacier offers is important to all the wildlife here, and the wildlife is important to the park, as well. Keeping a sense of wilderness is vital. Wild animals should not be approached or fed. Feeding diminishes their natural behavior. Animals that lose their fear of man can be the most dangerous of all and must be removed or killed. Observe all wildlife from a safe distance to assure their safety and your own.

Lynx Track - Life Size