

# Bobcat Bill of Fare

*Whether stealthily stalking a tiny vole or catching a wild ride on the back of a deer, this little predator is after just one thing—red meat*

Text by Gary M. Koehler • Photographs by Michael S. Quinton

In central Idaho's River of No Return Wilderness, winter lasts for half the year. In the mountains, snow can pile up to six feet and temperatures drop to twenty below zero. The 10,000-foot-high peaks of the Salmon River Mountains and the canyon valleys lying some 6,000 feet below seem quiet, as if all life is waiting patiently for the long, cold months to give way to a gentler spring.

But the appearance of peace is deceptive, for everywhere small creatures are working hard to eke out a living from the ungenerous land. Mountain voles scurry about under the snow, searching the hummocks of grass for a succulent blade; flocks of mountain chickadees and juncos flutter among the firs, inspecting each crevice for a seed or insect; and ruffed grouse burrow under the snow to insulate themselves from the bitter cold. And wherever one of these animals is busying itself in search of a tidbit, chances are good that a bobcat is lurking nearby, preparing to pounce.

The bobcat may catch a mere flicker of a wing or the slight rustle of dead leaves. With its eyes riveted on the prospective lunch, the cat slowly crouches, its tufted ears lowered, its gray-brown and black dappled fur melting into the shadows, its short, black-barred tail twitching. Without so much as a whisper from its furred feet, the cat slips to within a pounce of its quarry. Although such a small morsel as a junco may not provide much of a meal for a twenty-five-pound male, or even a fifteen-pound female, every tidbit helps the bobcat survive the harsh Idaho winters.

For four years, I followed radio-collared bobcats in central Idaho. I have tracked them stalking prey that range from tiny voles—the cats' main food in my study area, though each one is worth no more than a bite or two—to deer five times their weight. And I have tracked several bobcats for months only to discover that they themselves have fallen prey to their much larger cousin, the puma. Of the eight bobcats that died during my study, five were killed—though never eaten—by pumas.

In the course of my study, I have also learned how bobcats in my neck of the woods differ from bobcats elsewhere in



*Weighing no more than an ounce or two, a songbird is not much of a meal for a twenty-pound bobcat. But during the harsh winters in central Idaho, the cats rarely find bigger prey and subsist largely on small birds and voles.*





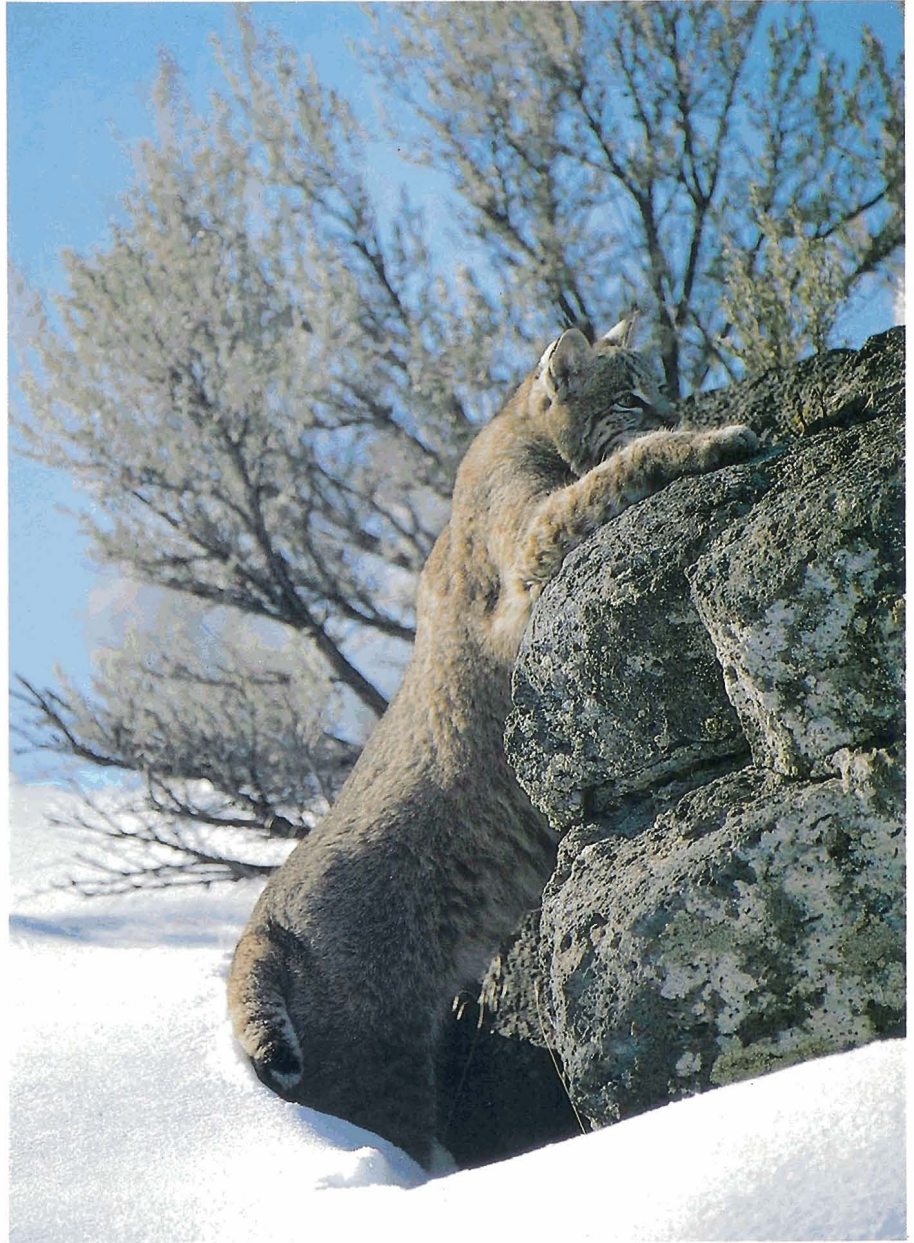
North America. Bobcats prowl almost every corner of the United States, from the subtropical jungles of Florida to the high mountains of the West to the woodlots of eastern suburbs. Using radiotelemetry, wildlife biologists have determined the travel patterns of this small cat and the space and cover needed to satisfy its secretive and solitary life style. In the forests and brush fields of the central and south-

ern United States, prey—mainly cottontail rabbits, cotton rats, and sometimes a muskrat—is plentiful, weather conditions are generally mild, and bobcats are relatively common. Each cat may need only one to two square miles to provide it with enough food and cover. A bobcat may prowl its home turf, or home-range area, for its entire life, seldom venturing beyond its boundaries. Although females seldom

share their turf with other females, they will share it with perhaps a couple of males, and they seem to tolerate the occasional passing of a juvenile that may be looking for a home turf. Since these home ranges overlap, a single square mile in the southeastern United States may support three or four bobcats. In logged areas of western Washington, where bobcats prey on mountain beaver, density is about one



*Like all predators, bobcats spend most of their waking hours on the alert for prey. The cat at left, for example, is not stalking anything in particular, but its semicrouched posture and alert ears indicate the animal is ready to spring into action. Much more intently focused, the cat below presses its body tight against a rock to avoid detection by a hoped-for meal.*



animal for every one to two square miles—comparable to the densities in the Southwest, where rabbits scamper about the sagebrush. Bobcats also do well where farming has left fencerows, home for cottontails and snowshoe hares, and woodlots, where females can raise their kittens.

In Idaho, the story is somewhat different. Whereas a bobcat in Missouri might only need to catch a single rabbit to fill up

its stomach for the day, a bobcat in Idaho might be obliged to catch two dozen voles to do the same. In my rugged study area, I estimate just one cat per ten square miles, a mere fraction of the density of other regions. In some parts of the mountains of central Idaho, bobcats may need up to thirty square miles to find enough food. Similar large home ranges and sparse populations are reported for northern

Minnesota, where the deep, fluffy snow may make it difficult for bobcats to capture snowshoe hares and deer—their main prey there.

By following radio-collared animals, I learned that bobcats in Idaho also supplement their vole, grouse, and small bird menu with larger fare: a doe or fawn; a bighorn ewe or lamb. Reading tracks in the snow can be almost as revealing as



observing the animals themselves. I have "seen" a cat stalk to within a leap or two of a deer by crawling among the cliffs for a strategic position behind a rock or bush. Lying motionless as a rock, the cat suddenly erupts, hurling itself with a leap to the back of the deer.

When a cat does pursue a larger animal, a rodeo is likely to develop. One cold wintry day I surprised a female bobcat and her kitten at a freshly killed deer. Although at first reluctant to leave their prize, both cats soon vanished into the bluffs as I approached to inspect the kill (they returned after I left and after several days had consumed the entire carcass). By following the tracks of the bobcat and deer back up the snow-covered slope, and by piecing together signs left in the snow and wounds on the deer carcass, I could tell that the bobcat must have had a wild

ride straddling the back of the deer. In a desperate attempt to dislodge the cat, the deer bounded down the rugged slope, dodging around bluffs, bolting through bushes and up against trees. The ride ended some 300 feet below at the foot of the slope, where perhaps the deer stumbled, giving the cat time to grasp the deer's throat in its mouth for a suffocating bite. At other kills, I surmised that the bobcat may have delivered the *coup de grâce* by severing the deer's vertebrae or puncturing the skull with its canines. At other times the deer may just collapse, worn out by its struggle.

If a bobcat is successful in its hunt, the deer may provide dinner for a week to ten days. Unless, of course, coyotes, pumas, magpies, or ravens usurp its hard-won prize. To conceal it from marauders, bobcats often scrape snow, dirt, or branches



over the carcass. But my experience with tracks suggests that more often than not, the deer gets away. Unlike more sociable predators, bobcats are solitary hunters. The coyote, for example—a predator that has flourished where the bobcat has just managed to survive—frequently hunts in small packs. Such a pack can chase a deer down a steep mountain slope to the frozen, slippery creek below, where the exhausted

*Muskrats—not a regular part of an Idaho bobcat's diet—often spend the winter burrowed in stream banks, coming up periodically in search of edible grasses. The muskrat at left apparently surfaced just in time to encounter the bobcat, which was most likely hunting for rabbits and mice along the streamside. The muskrat did its best to discourage the bobcat, lower left, but had little chance against the cat's formidable canines and fast paw action, below.*



animal will be exposed and helpless.

In extremely severe winters, some bobcats may starve. Females and juveniles are particularly vulnerable. In Maine, biologists found that during especially severe winters female bobcats had less body fat than they did in milder winters. The body fat of males showed less variation, suggesting that females may have been having a harder time finding enough to eat.

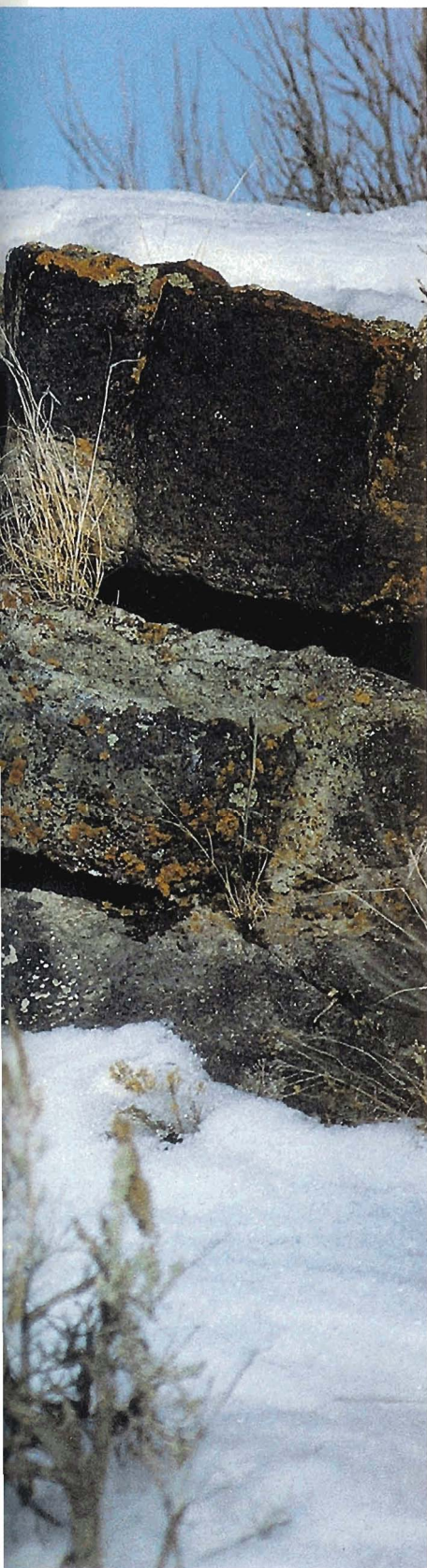
Throughout the year, females tend to take smaller prey than males do, but as the winter progresses, their survival, too, may depend on occasionally killing deer. Young animals, lacking the hunting skills of adults, are also vulnerable to starvation.

The abundance or scarcity of prey also affects the number of kittens produced and their chances of survival. For the mother bobcat, kittens are a tremendous

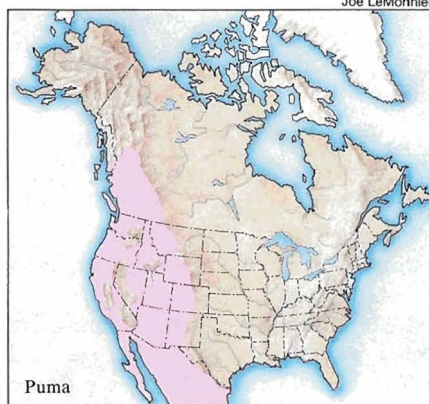
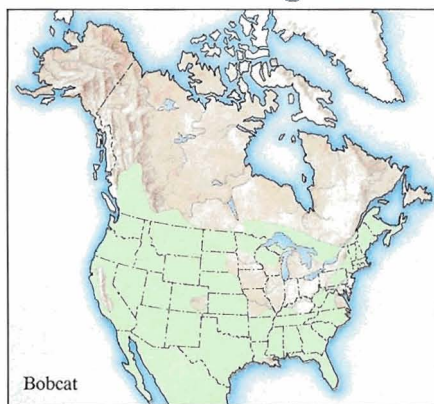
investment. Her association with her mate ends after a brief courtship and breeding period in February or March, and she alone rears the young born two months later. The kittens (generally three per litter) will stay with the mother well into winter, leaving her care and tutelage only at nine or ten months of age. Again, coyotes provide a useful comparison. With larger litters (four to five pups are not

*Sunning itself on a bluff and looking for all the world like the Cheshire cat, this bobcat provides a striking demonstration of how well it can blend into its rocky terrain.*





### Current Ranges of Four North American Predators



Joe LeMonnier

uncommon), help from the father and often from older offspring in feeding the young, and earlier dispersal of the pups (when six months old), coyotes have a greater potential for population growth.

Ted Bailey (see *Natural History*, October 1972) studied bobcats in the semidesert sagebrush region of southeastern Idaho and found that few kittens survived when cottontail and jackrabbit populations were low, while when rabbits were plentiful there were lots of kittens. But in the mountains of central Idaho, rabbits are rare. Here, where bobcats depend on voles and the occasional deer during the winter, I found few kittens in the population. Although bobcats fare nicely during summer on the abundant ground squirrels, birds, and mice, the skimpy winter menu may affect the females' ability to reproduce. Studies of lynx and coyotes have also shown that when prey is scarce, some females—particularly younger adults—may not reproduce at all, and of

kittens that are born, few may survive through the summer.

Bobcats are found along the southern edge of the Canadian provinces, but seldom north of 50° latitude. Bobcats are not adapted to cope with deep snow and it is here the bobcat's domain gives way to that of the lynx. Although bobcats and lynx weigh about the same, lynx have feet as big as a 100-pound puma's—twice the surface area of a bobcat's. These large feet and longer legs allow lynx to snowshoe over the surface of the snow in pursuit of prey. Bobcats must expend much more energy trudging through the snow. In northern Washington, where I have tracked both lynx and bobcats, lynx stay up in the mountains above 5,000 feet when winter arrives, while bobcats move to lower elevations, where snow is not so deep. When the snow leaves in late spring, bobcats again hunt the mountaintops where the lynx roam. I have never observed bobcats and lynx together in the



*Not much more than a few weeks old, these kittens, below, will stay close to their crevice home, waiting for their mother to return with a bird, mouse, or rabbit to supplement their milk diet. Right: Calmly sniffing grass (perhaps to detect urine sprayed by another bobcat as a territorial marker), this cat could have been the inspiration for early twentieth century naturalist Ernest Thompson Seton's description of the animal as "just a big pussy with a bob-tail."*



wild, but the experience of researchers in Nova Scotia is suggestive. In the mid-1950s, bobcats moved onto Cape Breton Island, probably via a newly built causeway from the mainland. Until then, lynx were common over much of the island. The bobcats, however, soon laid claim to the lower elevations where snow was not so deep, and the lynx retreated to the higher plateaus.

Like all other cats, and unlike many other mammalian predators, the bobcat and lynx occupy a relatively narrow niche at the top of the food chain, their survival dependent on flesh. Other predators in the same regions—canids, bears, mustelids—also eat flesh but can do quite well scavenging carcasses or feeding on fruits and insects. Many of these other predators also have a better sense of smell than do cats, further enabling them to seek out a variety of food sources. Coyotes, for example, can even subsist on a melon patch if need be.

With their reliance on a meat diet, their generally solitary nature, and often a need for large home ranges, many felids are less able than other predators to cope with changes in their environment, especially

those brought about by humans. Their relatively low reproductive rate—producing fewer young but investing more energy rearing each one—is also better suited to stable conditions. (Felids are best represented—both in numbers and in species diversity—in tropical regions, where prey and cover are relatively constant owing to mild seasonal differences and few natural, large-scale disturbances, such as fire.) For the most part, cats do not cope well with change, and as a result, trapping, trophy hunting, and habitat destruction have pushed many of the world's cats to the brink of extinction.

But for the moment, the little bobcat seems to be in good shape, at least in some parts of its range. Debate exists over the effects of trapping, and perhaps no definitive answer is possible until more is known about actual population numbers. In the meantime, while not as ubiquitous as the raccoons that rattle garbage cans across the country every night or as often seen as the coyotes that sometimes visit suburban back yards, bobcats are teaching us that humans and predators can live together as neighbors. □



