CHOS DOES THE GREAT BEAR STILL HAUNT COLORADO? -EY DAVID PETERSEN PLUS: BEARS OF AUTUMN GRIZZLY ATTACK BEAR GALLERY AND MUCH MORE!





To Thirty-Five:

How Fast Do Bears Walk? -by Judy Norris -

The rickety, old school bus skidded to a halt on the side of the gravel road. A bear! My first wild grizzly bear!

The dull, gray sky had been spitting rain all morning. Everything was damp, except our spirits. We sat huddled inside the Denali National Park tour bus, bundled against the chilly air with our cameras on the ready.

Our driver had spotted the lone grizzly bear, about one hundred yards from the road, foraging among the grasses and low-lying blueberry bushes. The bear's fur was wet and matted, giving it a bedraggled, almost forlorn look. Its body seemed massive. Its powerful shoulder muscles were accentuated by its every little movement. The bear lumbered toward us, its head gently swaying from side to side, in rhythm with the movement of its front paws. It paused every few steps to eat, lowering its head to take a choice mouthful of something green.

Inside the bus, there was an audible hum of excitement as the bear drew near: the murmur of anticipation, the rustle of people fumbling with cameras, the click of window latches, the secure slam of the forward door.

Plodding ever nearer, the bear eyed us cautiously. The closer it came, the more carefully it inspected us. When it reached a distance of twenty feet, it stopped. Standing there, on all four, it surveyed us from front bumper to taillight. Then, unceremoniously, it plunked itself down with a thump and fell asleep.

One of our passengers questioned the driver: "Eric, how fast can that bear go from zero to sixty?"

Since that time, my husband and I have traveled North America in search of bears, he with his 35 mm camera and I with my camcorder. There is nothing romantic about spending a vacation in a sanitary landfill, but it can be an excellent place to watch bears interact with other bears. In one such British Columbia landfill, twenty-seven bears were visible at the same time. Though bears are occasionally reported to run at speeds surpassing thirty miles an hour, I noticed that, at that landfill, most of the time they just walk. While not exactly graceful, they move with a certain rhythmic fluidity of motion that can be almost hypnotizing.

When bears are browsing, they stop every step or two, inspecting all things within reach of their noses. When not in the middle of a berry patch or some other delectable bear food, bears spend much of their time roaming from place to place. They

it from a reasonable distance. When we spy a bear ambling toward us from the nearest hillside, choosing a safe viewing spot and reaching it in a timely manner are of utmost importance. An accurate estimate of the bear's speed could be a key ingredient to a successful bear watch.

Information on a bear's maximum speed is the stuff of legends. Perusing books about bears, I found thought about using a radar gun, but any movement of the bushes that separated me from the bear could cause data integrity problems. And I had so hoped to have thick underbrush, a raging river, anything of substance, between me and that bear. We also thought about working with zoo animals.

The solution to my dilemma appeared one winter evening while





WALKING SERIES OF GRIZZLY PHOTOS BRAD GARFIELD

walk at a relatively steady pace, traveling in a fairly straight line, as if they had a destination in mind. While walking, their legs move independently of each other, with only one foot being completely off the ground at any given time. As a hind foot comes down, it seems to push the front foot out of the way, sometimes landing directly in the same footprint. When a bear needs speed, it gallops like a horse, its legs moving in an almost scissors-like fashion. Its front legs stretch out then pull back, the hind legs lunging forward to meet the backward swing of the forelegs.

Watching bears has provided plenty of time for contemplating bear speed. Such thoughts are prompted, in part, by a concern for safety. I like to feel that, should an encounter with a bear occur, I would have time to climb a tree or to point and shoot a can of pepper spray. As a photographer I also like to anticipate a bear's movements and to be able to observe

that black bears can run up to 25 and 30 miles per hour, with one report of a 200-pound Wisconsin black bear clocked at 33 miles per hour. Numerous sources record top grizzly speeds between 30 and 40 miles per hour. Polar bears aresaid to run at speeds of 25 miles per hour or more, using short bursts of speed as high as 35 miles per hour. I even found data on the speed of a polar bear's walk: from 1.5 to 3.5 miles per hour, with an average speed of somewhere between 2.5 and 3.5 miles per hour, depending on the source of the data.

Still, I could find no answers to my burning questions about the walking speeds of black bears and grizzlies. Could walking black bears and grizzly bears be as fast as polar bears? Faster than humans?

Trying to devise ways of measuring these speeds proved to be entertaining. One way to compute a bear's walking speed would be to drive down the road following a bear and check the speedometer. I watching TV. My video library contains countless hours of bears in motion. Many of these I shot on location in the far corners of North America. Watching tapes of the Kermode bear, British Columbia's white-colored black bear, brings back fond memories. So do my tapes of Rocky Mountain grizzlies, Glacier blue bears (the rare blue-phase of the black bear), Alaska's brown bears, and the polar bears of Hudson Bay. So, I pulled out a stopwatch and started feeding video-tapes of moving bears to my VCR.

I found out it takes a walking grizzly or a black bear, on average, almost 1.5 seconds to rotate all four of its legs. This single rotation of all four legs can be called one stride. Translating the numbers from elapsed time per stride to number of strides per minute, I found that the average for black bears was 40.9 strides per minute and the average for all grizzly bears, regardless of age or size, was 40.3 strides per







bear did seem to exclude the faster limb rotations from its motion repertoire. Speed can be determined by multiplying the frequency of the stride by the stride length. The average frequency was now available, expressed as the number of strides per minute. To estimate the speed of a "typical" walking bear, I

also needed to know the length of

its stride.

minute. An adult bear's average

rate of locomotion while walking

was little different from that of a

juvenile bear, however, an adult

Several books on animal tracks provided statistics on the stride length of a walking bear, as did expert advice from Dr. Jim Halfpenny, an authority on the subject of tracking mammals. Published data on the length of a bear's stride is scarce, and tracking books disagree. A single bear's stride length can vary considerably, just as a human's can. The same bear can shift from slower, shuffling steps to a longer, more agile stride all within a mile. Averaging the available data on walking stride length produced a "typical" walking stride of 40 inches for black bears, and 48 inches for grizzlies.

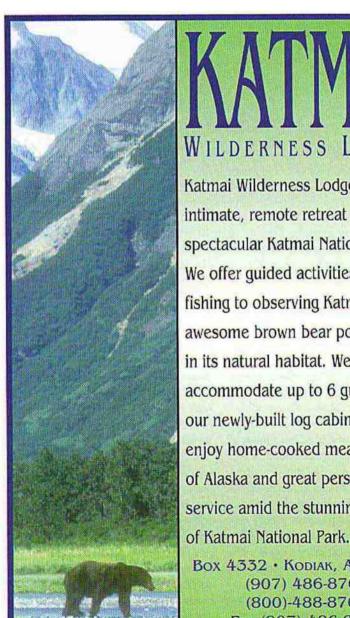
Upon doing the math, I computed a walking speed for black bears of 1.55 miles per hour. The casual walk of the grizzly covers distances in less time than the black bear because its longer legs produce longer strides. Yet the grizzly too is slower than I had expected, a mere 1.83 miles an hour. That's about the same speed as you or I walk and a far cry from the lightning speeds used by bears when they are in hot pursuit of their quarry or running from a perceived threat.

Thoughts of bear locomotion and perceived threats were far from my mind on our last morning in the wilds of Kodiak Island's National Wildlife Refuge. Our

troupe of bear watchers had taken the skiff upriver to a point where we had previously seen bears. Landing at a wide bend in the river, we climbed a steep embankment to reach a favored vantage point. Wishing for one last glimpse of bears as they feasted on salmon in the stream, we set up our spotting scopes and cameras among the tall grasses there, training our lenses on the flowing water and gravel bars below. Well hidden amid the thick vegetation on the hillside, we had waited almost as long as we dared. It was nearing time to pick up our gear and head back to camp.

Suddenly a shout shattered the still, somber air: "Bear! Behind you!"

Our heads spun around in time to see a Kodiak brown bear, less than fifty feet away. Ambling down the hillside, he was following a path that would lead him directly to us. At his casual walk of 1.83 miles per hour he would reach us in 18.6 seconds. At a brisk trot of six miles per hour he would plow through us continued on page 44



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in 5.7 seconds, in an angry full bore attack at 35 miles per hour he would be upon us in .97 seconds, less time than it would take to say "Kodiak brown bear."

The spoken warning alerted the bear to our presence as well. He came to an immediate halt, stood up to his full height, and pointed his nose squarely in our direction. Then he bolted. Wheeling around, he beat a hasty retreat, retracing his steps up the hill, his hindquarters jiggling like a bowl full of Jell-O. Nearing the top, he paused momentarily to look back over his shoulder at us, then he galloped over the crest of the hill and out of sight.

Our hearts were pounding. Adrenaline was pumping. Breathing was audible. The bear encounter had been closer and more personal than any of us had ever dreamed. Packing our gear into the skiff for the trip down river, we came to realize that we had quite a story to tell.

From time to time I think of that Kodiak brown bear when I am in bear country, and I ponder the speed of bears: Just how fast can a bear accelerate from zero to thirty-five miles per hour? What can be considered a "safe" distance from a bear, given an average speed of just under two miles per hour and a top speed of thirty-five miles per hour? If need be, would there be time to reach that can of bear repellent holstered on my belt?

There is something to be said for the adrenaline rush brought on by being near a bear that is moving at top speed, even one that is running in the opposite direction. I'm the first one to admit that I'd rather watch a bear running away from me than one racing toward me. If given a choice, however, I would rather spend hours watching a bear go slowly and deliberately about its daily business, oblivious to my presence.

Author and ursophile Judy Norris is currently collaborating with Jim Halfpenny on a technical paper concerning the speed of bears. An amateur videographer, Judy has journeyed from the Rocky Mountains to the shores of Hudson Bay to the wilds of Alaska to capture the images of bears on tape, and to explore dens of all three species of North America's bears: black, brown (grizzly), and polar. When not in the field with her Panasonic AG-3 video camera, she resides among the rolling hills of southern Indiana with her husband Gary and pursues a career as a computer consultant.