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Elk Summer

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Elk summer

by

Callae Mignon Frazier

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

MASTER OF FINE ARTS

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Debra Marquart, Major Professor
Stephen Pett
Kevin de Laplante

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OCTOBER

Chapter 1 – Two Elk Lodge



I awoke into that strange blur of confusion about place and purpose that so often happens when sleeping in an unfamiliar bed. Yet the bed and the room should have been instantly recognizable. I grew up here, the only place I had known as home for twenty-two years. Though I had been away at college for over four years, and would complete my degree in wildlife biology from Colorado State University at the end of the fall semester, when I spoke of “home” it was with the image of a warm, inviting, brown-sided house tucked into the pines and aspens at 8,500 feet in the Colorado foothills outside of Denver. Not the stark, brick-walled, dark apartment in Fort Collins shared with my best friend from childhood. Megan and I valiantly tried to make the garden apartment cozy and inviting, and after more than two years memories had seeped into the unforgiving brick to make it something more than just a place we happened to be at the time. Even so, my strongest memories, the place I felt most safe and secure, remained on the land my parents named Dovestring for an early romantic moment in their twenty-seven year history together.

Dovestring is a nearly ten-acre homestead on a diverse sliver of foothills landscape where wide-trunked, red-barked ponderosa pines keep company with proud lodgepole pines, classically shaped spruce, fir and a smattering of pale-skinned aspens. It lies on an acreage bisected by a gentle ravine whose shallow hands gently cup a narrow perennial spring for a few amazing weeks during the winter snowmelt. A land my parents fell in love with, and settled on at a time when access from Denver meant winding up a little-used, two-lane highway in their VW bus, with all the groceries needed for several weeks since the only store in the immediate vicinity was a tiny stone-walled gas station. A land my little brother and I had free reign of as long as we were able to “see the house at all times.” We agreed that as long as one of us could see even a teeny bit of the brown siding, we were following the rule. Often, we forgot about the house entirely as we explored, lay on or crawled over every inch of the property. We turned over logs and moss clumps, nibbled on sweet wild strawberries

and engaged in deadly Ponderosa pinecone wars. In the fall we helped with gathering firewood, making sure to run far away from the creaking tree when Dad yelled out, “Timber!” In the winter we followed the tracks of squirrels, coyotes and the occasional elk. We chased each other on hands and knees in the snow, pretending to be rabbits or bobcats, and took shelter in tree wells. We never got too cold, or too scared, or too hurt. Even if we did, the quick course of hot fear, or pain quickly dispersed. We knew we always had a safe place to return. A warm home with warm arms ready embrace away the chill, the pain, the fear.

The home my parents envisioned and eventually built in 1973 came into existence in the thin air of the mountains thanks in large part to friendships that grew and blossomed around my amiable parents during those heady days of the early 1970s. A close friend helped draw up the architectural plans. More friends, old and new, arrived to help with the framing and initial construction. Dovestring is a single-story floor-plan, oriented to fit into the existing, sloped landscape with as little disruption as possible.

A minimum number of trees were removed, and to avoid digging out a basement level, the foundation rises higher on the north-eastern side. Sturdy stilts support the deck, part of the living room, parts of the study, and a master bedroom added in later years. The east side of the house soars some distance above the ground giving the impression from inside of being on a second story. Even with their careful planning, some land obviously had to be disrupted to install the septic system and well.

For several years after its completion, my mother carefully transplanted native grasses and plants from the surrounding forest to cover the blemish left where the septic tank was installed. A flower garden rings the scar made by the well drill. Birds bathe in a shallow dish standing in the middle of the flowers, splashing in water pumped from deep under their tiny toes. With a homesteader’s desire to take responsibility for everything they created, my parents took charge of the interior work, drywall, electrical, plumbing, without professional help. Some switches are installed upside down, and overnight guests quickly learn that the shower taps are swapped, so they get cold water when they turn the faucet for hot. Easily forgiven small quirks of a home built in love and resonating with character.

The end result is a modest ranch-style house, with wide, wrap-around porches, a high-ceilinged living room, and enough windows and skylights so sunlight can find its way in somewhere every day of the year. The forest around the home abounds with life. Chickadees, nuthatches, juncos, grosbeaks, red cross-bills, Stellar's jays, pine siskins and many other birds regularly visit seed feeders placed around the house. Tufted eared Abert's squirrels, now increasingly rare, and hard-to-miss small and noisy chickaree squirrels share the forest with foxes and coyotes. Raccoons climb up on the deck and dip their paws in the bird's water dish. Porcupines scrape bark, and chomp needles from high perches in pines, and leave scattered piles of sweet, piney-scented scat in the duff below. Bears have destroyed hummingbird feeders accidentally left out overnight, and ripped into the compost bin next to the garden.

Once, a young black bear wandered through the small courtyard my ground-level window looks out onto. I could have reached out and stroked him as he passed. Cougars occasionally drift down from their haunts higher on the mountain, though I've never been lucky enough to see one. For the longest time we rarely had deer. As more people took up residence in the area, bringing the perhaps necessary evils of the city with them in the form of commercial centers, deer have become more common. Though we don't always see them, long-legged elk pass through regularly, and did so long before our family renamed the land Dovestring.

Back in my familiar, yet not familiar room at Dovestring, I climbed out through a blurred awakening, confused until the wafting scent of waffles seeped into my awareness. Waffles! A weekend morning treat. A treat made more special since they were whipped up by my father, who vocally decries an inability to make anything edible in the kitchen unless it is related to breakfast or bread.

I stirred from the bed, the same skinny, twin mattress I slept on since junior high. Years later my parents would finally substitute the narrow bed for one that would better hold two bodies instead of one. Eventually it would see two bodies, gently curled together in the place I knew as a sanctuary. At the time of this story I awoke alone. I reached behind my head and slid back the delicate floral curtains my mother made years before. The view

through the low-lying window was engulfed primarily by a tall chokecherry tree, some branches nearly pressed against the glass, cloaked in a cascade of red, yellow, green tinged leaves. Then I remembered why I had returned to Dovestring. Autumn meant it was firewood season.

I wandered down the hallway toward the kitchen with an eye out the windows wondering if something interesting might emerge. Since the age of six when I first saw elk through foggy, fading dusk, I peered out windows quietly hopeful for a similar reward. After the last summer though, my senses had become even more attuned to changes in the landscape. For six weeks I perched in the open alpine for hours at a time squinting down the barrel of a spotting scope trying to discern brown lumpy rocks from brown lumpy elk in distant meadows. Now I could not shake the habit of looking into the forest, through the forest, for slender legs, bulky heads, perhaps a flash of creamy rump. I scanned the landscape for an out-of-place shape, a movement, a flash of radio collar, though none of the elk in Conifer were tagged in the way the elk on the study had been. Elk haunted my dreams, my visions. They became ghostly beasts living on the land, and in my head. They filled the space where my fears lived. I ached to see one again.

I stood at the bar separating the kitchen from the rest of the house thinking about how the room had changed since I was a child. Certainly it had grown smaller in the intervening years. The original bright pinewood panels installed twenty-five years previously had aged to a warm, golden hue. Windows lined the two exterior walls. Dishwashing could easily be disrupted by watching birds at the feeder hanging outside at eye level. Pots needing to be stirred on the stove could become momentarily neglected when deer walk down the driveway, or a family member swings around the d-shaped, down-sloped drive to maneuver into the detached barn. Usually the radio was on in the morning, except on that autumn day the small television in the corner was active, sound turned low.

The steamy, rising aroma of waffles and my father's presence filled the warmly-lit kitchen. My father, narrow-waisted, round-shouldered was stationed in front of a mixer, his back toward me. Even today I remain somehow surprised to be nearly his height, though I've been 5'9" since a wicked growth spurt the summer after I turned thirteen. Despite his grumblings, my father's hands, adept with chainsaws and woodworking awls, delicate when

tying flies or creating pen and ink drawings, and deliberate when coding computer programs, can also whip up wonderful breakfasts. Like our home, they are made from scratch. Batter, made exceptional from the effort of folding in egg whites hand whipped to stiff attention is poured deliciously onto a blackened waffle iron. The lid closed gently, only to be lifted when the steam stops curling up.

“About time you were about, sleepy head. That firewood isn’t going to cut itself.”

Firewood cutting is a yearly event at Dovestring and involves the entire family. First the logs from the previous year are split and stacked. It can take a weekend or two to move all the split wood onto the decks. Then another weekend or two of labor in the forest, where standing dead trees are selected, felled, and cut into manageable lengths. These get carted out of the forest using a tractor and trailer hitch. The tractor is a red and white 1959 Ford 8N. Her back tires are as tall as my shoulders and when running she smells deliciously of warm oil. I learned how to work a clutch for the first time with the rumbling beast under my control.

Once out of the forest, the felled logs are deposited in the driveway, where they are moved and stacked chest high and nearly a person’s length deep in a long line between two trees. Over the next year the stack of logs will continue to dry. Chipmunks will flourish in its crevices and hidey-holes, and the dogs will occasionally knock over sections in their pursuit of the striped rodents.

Since moving to college my brother and I tried to return every year to help with some aspect of the yearly chore. Firewood season was one of my favorite parts of the year. I loved the excuse to be outside in the forest, and the sweet scent of fresh wood chips from the cutting. I loved the power of wielding an axe to de-limb felled trees. I savored how the cool whip of a brisk autumn morning gave way to sun-warmed afternoons. Years later, living hundreds of miles from Colorado, the growl of a chainsaw still brings memories of firewood weekends at Dovestring.

We had made good progress the day before. Not much work remained on the Sunday I awoke to waffles, so Dad felt free to splurge on a tasty morning treat. He also missed his children, and wanted to please us while reveling in how much we fawned over the success of his efforts.

“Say, you just gonna stand there? I’m doing the hard part already, how about a little help?” Dad goaded me, not unwillingly, into helping. I sliced plump, juicy, crimson strawberries, began heating the maple syrup, and waited. I learned early on to be patient with waffles. My mouth watered despite itself.

Typically the kitchen is my mother’s domain. Surrounded by pottery and herbs, she inspires with her savory and sweet creations. Even as a young woman I liked to keep her company from a bar stool, watching and learning. We talked about school, life, the birds coming to the feeder. Occasionally we slipped away on small meal missions. She might ask me to pluck sprigs of basil or sage from the greenhouse off the master bedroom. We might walk together to collect something fresh and crunchy from the garden, or take out the compost. All the while her pots bubbled away merrily inside while their thick aromas soak into the walls of the house.

Neither of us needs much of an excuse to go outside on these small errands, especially if it means a trip to the garden. From my mother I learned the art of planting seeds as a young child. We kneeled in the narrow rows between beds together. She gently brushed out my long tangled curls and wrapped her dirt covered fingers around my own small pudgy ones, helping push round crinkly pea seeds into cool, dry garden soil. She showed me how to collect lettuce leaves without taking an entire plant. Together we tittered while we “diddled” pollen from tomato and squash blooms to ensure fertilization. We protected the young delicate cauliflower heads by bending its own leaves around it in a sheath of green. She taught me to relish the feel of the cool air settling over the garden, while the delicate odor of flowers draped across our shoulders as the sky changed from magenta to purple.

When my father takes over the kitchen, as he sometimes does on weekend mornings, my mother makes herself scarce. Likely she can be found visiting the garden, enjoying the last few days before the final harvest of root crops, before winter drapes white, snowy cover over the mounded garden beds.

On the morning of October 19th, 1998, while I sliced strawberries, Dad asked me questions about school, and doing most of the talking, when an image of fire suddenly filled the small square of television on the counter. On screen, hot, shooting flames licked up the interior

skeleton of a massive building. The outer walls, already ashy memories, lay silted on the glowing foundation, or fluttering about in the smoke rising from the hungry blaze. The announcer's voice was tight with restrained excitement. I hardly heard the words at first. My focus was drawn first to the dancing inferno, then the white letters glaring across the caption banner. "Two Elks Lodge, Vail." My heart skipped a beat.

"Well" my father gestured toward the television. "Some nutcase finally decided to put Vail in its place, looks like."

"But...I've been there." I did not know why I sounded surprised. "This summer. My last field site was practically just around the corner. Kirk and I walked over there together one day." And I was again hiking along the wide ridgeline with my crew leader, chatting, humbled by the expanse of surrounding mountain peaks, beautiful and inspiring even after six long, often lonely weeks in the field.

The news announcers were describing the fire and the predicted destruction. They breathlessly explained how five additional structures were engulfed including part of a ski lift. Clearly, none held the fascination for the cameras except the giant ski lodge in an inferno. I wondered if the tiny shack used by the Rat Girls had been burned. I couldn't remember when their small-mammal field season ended. Surely they were no longer on the mountain. On screen, a microphone was thrust into the face of harried official. No, they didn't know why or how yet, and yes, indications suggested arson.

"I've been there." I said again, feeling that immediate connection with an event simply on account of a recent proximity to the area.

Raging flames filled the television sky. For a moment I was twelve years old again and Yellowstone was burning. That pivotal summer of 1988, when Forest Service policies regarding fires in National Parks was intensely scrutinized and television news covered the fires on a daily basis, my dreams filled with images of flames flicking up out of trees, smoke drifting across acres and acres of spikey pines, and plumes of sickly orange retardant plouffing like dairy creamer through the air.

The fires fascinated me, though my daytime interest translated into nightmares of our own small wooded, mountain acreage bursting into flame some hot, dry summer. I repeatedly imagined the house, my security and sanctuary, engulfed. My family lost. Such

nightmares led me to make a mental check list each night before falling into sleep of the important things I wanted to grab in case of emergency; eye-glasses, shoes, writing journals, and my three favorite stuffed animals. I constantly reviewed which few of the multitudes of books on the shelf were most important to save. One night it might be Louisa May Alcott's *Little Women*. Another night L.M. Montgomery's *Anne of Green Gables*, or any number of other childhood favorites.

While my rational side clearly understood these books were not irreplaceable, my heart couldn't bear to lose the familiar feel my own well-worn, spine-bent copies of these treasures. Years later, when fires really did threaten the area, I was older, and tried to believe I was less attached to stuff. Even so, once when I was home in between jobs, I packed a box with those things I would hate most to lose. It remains on the floor of the closet with a note attached to remember the few stuffed animals I still can't bear to either cram into a dark box or leave behind.

Outside, the morning slowly grew into a glorious autumn day in Colorado. My family, including my younger brother Remi, gathered at the sturdy, wooden table in the living room where the paper was ready to be doled out in sections. Since the Vail fire began in the pre-dawn, it was not front page news. I wanted more information. We sat at my father's hand-crafted table, worn smooth by the passing of plates and stories, and sank our teeth into toasty crusts and hot, fluffy innards of waffles. Sweet strawberry juice puckered my tongue, and cloying amber maple syrup stuck thickly in my throat. I could not shake the image of a burning lodge.

I wondered if the elk knew something. Might I have missed something in my last weeks in the field when I camped out just a couple miles from the lodge? Some sign that something this dramatic was afoot. I felt a mixed reaction of guilty pleasure at the brazenness of the action, and a concern over the rest of the forest. Where, I wondered, were my elk?

JULY

Chapter 2 – Elk Magic



My '88 Toyota Camry gained life as it spat out onto finally flat terrain at 11,000 feet with the entrance of the Eisenhower Tunnel in sight. Waiting until the last moment, I gulped in air, clamped my lips around it. Years of opportunities, and I had not yet held my breath through the entirety of 1.7 mile-long tunnel. I don't know how the superstition of holding your breath through a tunnel began. Probably a clever ploy by parents hoping to keep their noisy children quiet while they adjust to the sudden change from daylight to street light in a long, closed-in space of a tunnel. I did it to take my mind away from the exciting, scary thrill of what awaited me on the other side.

The Eisenhower Tunnel, bored in the late 1960s through the ancient granite and quartz of uplifted mountains along the Central Rocky Mountains, is the highest vehicular tunnel in the world. It bends and twists ever so gently so that within moments of entering either portal the natural light from the entrance disappears in the rearview mirror. Eerie, orange overhead lights, the kind that hardly seem to be on until passing nearly under them, painted strange shadows on flat concrete walls. I had gone through the tunnel many times as a passenger and rarely as a driver. I focused hard ahead, hands tight on the wheel, checking the mirrors only briefly to see if any trucks wanted to pass me in the two lane claustrophobic space. My lungs strained for oxygen. I slowly let out a tiny stream of carbon dioxide rich air through pursed lips. Speeding at 55 miles an hour under the heavy weight of the continental divide I imagined elk soft-footing across open alpine passages hundreds of feet overhead. In three months the invisible highway there, home to the largest elk migration corridor in that part of Colorado, would be thick with long-legged ungulates, their no-longer spotted calves by their sides.

A pale dome of natural light appeared around the final gentle curve. It grew as my car rushed forward until daylight glared brightly ahead. It can be impossible to predict what kind of weather to expect when finally exiting the tunnel. Even in July, bright sunny skies on

one side may lead to near blizzard conditions on the other. On that early July day, the skies in Summit County shone crystal blue, and the distinguishing rounded humps of Buffalo Mountain gleamed with late-season snow as I barreled out of the darkness. My only-pretending-to-still-be-held breath escaped in a burst and I took in deep, relieving mouthfuls of air.

Tourists are easy to recognize on the west side of the Eisenhower tunnel. They give themselves away with the persistent flash of brake lights during the entire seven mile, 2,400 foot descent into Silverthorne. I liked to pride myself on knowing how and when to downshift, and the lesson learned from my father to never, ever ride the brakes on the downhill side of a mountain. I zoomed past semis and RVs. I felt free and exuberant with the heady energy of my forward motion. A grey jay winged across the road just over the nose of the car. I imagined the bird flapping wildly as it got caught in my updraft.

Down and down through the Silverthorne valley. Lake Dillon glimmered on the left, sun sparking off waves made by weekend boaters. Cars exited the interstate here, stopping to shop at the Silverthorne outlet stores, or continuing south to Breckenridge, or back east toward Keystone. I continued, straining up and up once more as I-70 took a subtle, south-westerly direction and followed the contours of the million year old glacier-scooped valley between Frisco and Copper Mountain. At Copper Mountain, the highway made a slow ninety-degree turn, turning west and then north. By the time the Camry crested Vail Pass at 10,666 feet, I-70 ran almost east-west once more. In early July, with afternoon storm clouds just hinting on the horizon, it was difficult to imagine how Vail Pass could cause more winter road delays than any other in the state on account of its fickle weather. Finally, I found myself making the long, leisurely 2,550 foot drop into the Eagle Valley. The elevation there averages 8,000 feet. By journey's end, I dropped nearly 500 feet in elevation from my home in Conifer. Yet for much of the summer I would live and work above tree line searching out elk in open spaces and valleys below.



I first learned about the Upper Eagle River Valley Elk Study during a meeting of the student chapter of The Wildlife Society (TWS) at Colorado State University. At the time, I was in the spring semester of my fourth year, and planned to complete a wildlife biology degree half-way through my fifth. Since joining TWS my junior year I slowly began getting involved. After several years of what felt like drifting in the giant university community, it was nice to finally feel like I belonged to something.

The TWS meetings were held in one of the newer, remodeled rooms of the older building housing the Fisheries and Wildlife departments. I shook wet heavy snowflakes from my shoulders when I entered the Wagar Building the April evening I learned about the elk study. The space probably seated one-hundred, though the meetings drew, at most, a third of that. I guessed there might be twenty people that night. Even so, we were spread out.

Glancing around the room before the meeting began I picked out several people I had begun to know as friends. In the front row, affable, friendly-faced Brett was grinning something someone said. Next to me Melissa, the first to introduce me to the Society, spoke comfortably with others around her. Dale lounged in his usual seat at the back with his long legs stretched and his arm draped easily across the back of the chair next to him. His dark hair curled at his neck, and I didn't have to stare to know his eyes were the color of the sky reflected in the ocean. He acknowledged me with a slight grin, and I turned before he could see the flush rising. Early into our still-new friendship I felt there was something more to him, and to us, than either of us fully recognized. In time my suspicions and hopes would come to fruition.

Before the meeting began, Kirk, a graduate student who might have doubled as a rock-star, slender, with a sharp, hawkish face and white-blond hair that flowed in waves to the middle of his back when loose, stepped to the front of the room. His demeanor was usually casual though once I had seen him drink too much at a party, and watched his corn-blue eyes become wild, his body whipping about the dance floor like it was trying to shake out some deep, unresolved pain. It was one of the few times I felt like I had seen Kirk really express himself, and it made me uneasy.

He put a well worn cowboy boot up on a chair.

“Well it's that time of year again,” he began, “to think about summer field positions.”

As a student in the Department of Natural Resources, I knew about the variety of field projects taking place all over the country every summer. I had been told many times in the course of classes that it would be an important step for my future career to have a few field experiences before graduation. I had gone only as far as to scan through the thick binders of dozens of field crew openings in the tiny office of the Natural Resources Career Center. Intimidated by the equally long list of preferred requirements for each position, I only ever stayed a few minutes.

Kirk glanced over at a slight, wiry and well muscled professor sitting sprawled back in his chair at the end of an aisle. “As many of you here know, Dr. Alldredge has been involved with a series of elk demographic studies in the Vail and Beaver Creek ski areas. My master’s work will continue some of that research.”

Bill Alldredge, professor, mentor, and advisor of sixteen years to CSU’s TWS chapter genuinely enjoyed his multiple roles. He was well liked in the department by both colleagues and students and respected in his field. His career as a professional wildlife biologist was made on the backs of ungulates. His primary research included studies with mule deer, pronghorn, and beginning in the late 1980s, elk in two of Colorado’s more elite ski areas, Vail and her smaller sisters to the west, Beaver Creek and Arrowhead.

The initial investigation on elk along the I-70 corridor in the burgeoning ski areas began in 1988 when Bill Alldredge examined the effects of ski area expansion on elk behavior.

Building ski runs is really a form of clear cutting that includes ripping out stumps, logs, boulders, soil mounds and bulldozing the topsoil in order to reshape and smooth the landscape. Initially the land will appear as a giant open wound of bare, uprooted soil. In time the open wound will revegetate, seeds will blow in and sprout, and eventually the clear cut becomes an open meadow resplendent with grasses and multitudes of flowers. Often the open slopes are reseeded with nonnative plants, and periodically mowed to discourage trees from sprouting. Snow becomes packed down over groomed slopes in the winter which impacts how quickly the land becomes exposed to sun in the spring. Entire habitats, both obvious and too small to see are drastically altered in ski runs. Perhaps surprisingly, no

research had yet been done to quantifiably determine how the presence of ski areas might affect wildlife, including elk, despite the recent growth in many winter resorts around the country. Vail and Beaver Creek were undergoing major expansion projects at the time of the initial study which made them prime candidates for Alldredge's work.

Vail, celebrating its 25th anniversary in 1988-1989 was also in the middle of developing nearly 2,000 acres of its already popular back bowls in their Category II expansion project. Beaver Creek was just beginning construction on the skiable land that would become the new Arrowhead Ski Area. At the same time the resort developed its own exclusive recreational opportunities by building an elite mountain get-away cabin and picnic area in the McCoy Park area. The private cabin would be available in all seasons which would help support the ski industry's growing efforts to encourage year-round tourism.

Alldredge's initial elk research in the late 1980s examined the effects of both physical disturbances such as road construction, timber removal, and chairlift installation, as well as human disturbances due to increased recreational use. Results indicated elk initially responded negatively to increased ski area development, specifically when experiencing an increase in human caused disturbances. In other words, when people took over the landscape, the elk disappeared.

In the mid-1990s Bill Alldredge returned to the Vail and Beaver Creek areas to continue his work studying elk populations. This time the study focused on the effects of increased backcountry recreational use on elk calf survival rates. The first phase of the project, begun in 1995 asked the question, "Will cows successfully rear a calf if disturbed by back-country recreation during the calving season? Will the disturbance result in lower reproduction rates?"

The first phase of the study hypothesized that elk reproductive success would decline under disturbance from humans. It consisted of two parts. One pre-treatment year (1995) when data was collected without disturbing the cows, followed by two treatment years where the cows were disturbed during the sensitive calving season in late May into June. Treatments in 1996 and 1997 involved field technicians sneaking up on radio-collared cows to intentionally startle them during the calving season. The intent was to mimic intense back-country recreational use. After collared females were exposed to such stress, the techs

retreated to the high mountain meadows to observe from a safe distance for the remainder of the summer to see if the same cows had successfully maintained their calves.

The initial data analysis at the time of my involvement indicated there seemed to be a correlation between cow disturbance and decreased calf success. Later it proved conclusive. Calves whose mothers are disturbed during the sensitive calving season will be less likely to survive.

The next season of research, the one Kirk's thesis revolved around, began the second phase of the study which asked the follow-up question, "What will happen to elk reproductive rates if human disturbance during the calving season is removed?" Will calf success rates return to pre-disturbance levels? Kirk needed some new field techs to help him gather this data over the summer.

In the suddenly too-warm room of the Wager Building, Kirk described how he needed four or five techs to continue to gather data on the effect of back-country recreational use on elk. His crew would spend six weeks in July and August locating marked cows on their high altitude summer ranges, and observe the radio-collared females to see if they had successfully produced a calf.

"Expect to sit for long hours looking through a spotting scope watching elk." Kirk grinned, "Your ass will get sore, but the view will be worth it."

During the six-day work week, techs would camp in the backcountry, and observe elk from sites above tree line. They would often work alone.

It had been clearly pressed on me that in order to be considered a candidate for any job after graduation, I needed to have some field experience. I had one more semester left of school, and little to no field experience under my belt. For some years I helped a blue-bird banding project near Dovestring in the Evergreen area that involved leisurely day-hikes in well-used open space parks to check on nest boxes. I doubted it alone would impress many prospective employers after graduation. I needed a field experience and I dreaded it.

Looking around the room I tried to gauge people's reactions, wondering who might consider applying for the elk study position. I had little to no chance against most of my fellow wildlife students, many who had more field experience. I had already been impressed

by one of the quieter, shier women who shared stories about a summer wrestling pelicans nearly twice her size. Kirk and I had gotten to know each other vaguely, and he knew I had little field experience. I wondered if he would be surprised if I actually applied. I wasn't even sure if I wanted to, except a little nougat of anticipation had landed in my gut.



The inspiration for Vail Ski Resort began when Earl Eaton, a local uranium prospector came across the area known today as Vail's back bowls and saw the promise it held. In 1957 he brought his friend Pete Siebert to the area and the concept of Vail Mountain was born. The men gathered support from friends and interested investors and Vail Associates, Inc. came into existence in 1961. They applied for the appropriate permits, leased the land from the U.S. Forest Service and in 1962 began construction on the north-facing slopes along the lazy two-lane highway running through the undeveloped Vail Valley.

On opening day in December 1962 there were three lifts and a handful of runs. With hardly enough snow to ski on, the lifts saw few skiers and more locals who wanted the novelty of riding to the top of the mountain. Tickets cost \$5.00 for the day.

As skiing became more popular in the late 1960s and 1970s thanks in part to the exposure provided by the 1964 Winter Olympics held in California, and in part due to improved gear technology, more Americans began investing in the sport. Access to Vail became easier with the opening of I-70, which cut a faster route through the mountains from Denver and expanded the original Highway 6 into a super-speed four-lane interstate. In 1962 Vail opened the Lionshead Gondola and began construction on one of its base villages. The Vail Valley, which had only housed a handful of houses and a single telephone at beginning of the Vail construction, began to grow rapidly as well. What had once been a quiet summer cool-weather retreat for Utes, then used by ranchers and miners was rapidly changing into a highly developed residential and commercial center whose focus was recreational.

While the 1970s and 1980s saw a pattern of ups and downs in Vail's popularity, financial stability, and several changes in ownership, by the 1990s the company was on a

strong upward swing. The new decade also found Vail in a maelstrom of social, political and environmental activity and controversy.

The Category II expansion project of the mid-1980s, coupled with increased world-wide promotional efforts due in part to hosting the 1989 World Ski Championships skyrocketed Vail's profile to national and international acclaim. Skier days increased twelve percent. Readers of *Ski Magazine* voted Vail the top resort for three years running beginning in 1989. Gone were the eight-dollar all-day lift tickets and the 55,000 skier days of the resort's opening years. By the early and mid-1990s Vail was seeing over one-million ski-visitors a year. Lift tickets increased from \$30 a day in 1986 to nearly \$50 a day in 1994 (a price that would nearly double again a decade later).

Vail's expansion did not focus on the mountain improvements alone. Vail Associates, the parent company in charge of Vail, opulent and luxurious Beaver Creek and the newly developed sister resort Arrowhead, also expanded into private and commercial real estate and other developments along the Vail Valley. The ski resort developed European-styled community replete with mountain chalets, condominiums, restaurants and what would become a high-end shopping district. During the dot.com financial boom of the 1990s the real estate arm of the company made a killing selling and developing second homes for part-year visitors to the state. The term "winter ski resort" was becoming a misnomer as companies like Vail recognized the economic possibilities in year-round recreation. Lifts and gondolas provided quick and easy access to stunning views of summer mountains, ski runs could double as mountain bike trails, access roads and other forest service roads promised exciting Jeep tours, or hiking opportunities, village squares provided excellent venues for summer music festivals, golf courses sprang up everywhere and retail opportunities abounded.

The money and power that followed the commercial and social success of Vail and Beaver Creek's growth deepened the rift between the mountain and the long-time residents along the I-70 valley corridor. Vail's wealth and its increasing influence spread all along the Upper Eagle River Valley impacting the local communities who felt increasingly overwhelmed by Vail's financial shadow. The population of full-time and part-time residents grew not just in the growing town of Vail, as well as neighboring towns. Retail

sales soared along with rental costs, land prices, and costs of basic necessities like food and toilet paper. As the cost of living increased in Vail, so did the cost of living in the neighboring communities of Eagle, Minturn, and Avon. A single bedroom apartment might lease for \$900 a month, a single family home could sell for nearly a half-million dollars and the hourly wage of employees remained at just under \$12 an hour. The area was quickly becoming a divided community of those who could afford to play in Vail, and those who struggled to live there.

What began in the 1960s as a small three-lift ski area on the south side of a two-lane highway in the Eagle Valley had grown into what some considered a corporate power and money hungry behemoth. Certainly in this Vail was not alone. Other all-season resorts rode the wave of the increased wealth, or perceived increase wealth of the 1990s and burgeoned into recreational tourist centers. Bill Alldredge once suggested the I-70 corridor was becoming the Disneyland of the West. He was not the only one to think, or voice that opinion. For years a general sense of overwhelming growth and corporate-style tourism in Colorado's wild spaces had put many on edge.

Emotions spilled over in 1996 when newly renamed Vail Resorts, under new management from a New York holding company, took over nearby Keystone and Breckenridge ski areas after contentious legal battles. The merger turned Vail Resorts into one of the largest ski conglomerates in the world considering revenues and skier days. At the same time, the company was moving forward with its long-planned Category III expansion project. The plan called for developing an additional 885 acres of the White River National Forest in the Two Elk Roadless Area. Upon completion Vail would see a twenty-five percent increase in size. With over 5,000 acres of skiable terrain, Vail would become the undisputed leader in skiable terrain in the nation.

Wildlife biologists, conservationists, locals and hunters concerned with environmental issues were uneasy about the expansion due in part because of the area's known importance as elk calving ground. Individuals on Vail Resorts' leadership groups who were wildlife advocates expressed concerns about how the projected back-bowl expansion would impact wildlife. Additionally, members of the organizing board recognized that elk are a valuable attraction. As a business based heavily in winter and summer

recreation and tourism, the company saw the benefit in having charismatic mammals around. These arguments along with the company's attempt to demonstrate to the public a sense of environmental ethics helped insure Vail's participation, along with the Rocky Mountain Elk Foundation and the Colorado Division of Wildlife to fund the five-year Upper Eagle River Valley Elk Study.

Despite their size and majesty, elk were not the catalyst for much of the controversy swirling around Vail's back bowls. That honor belonged to a small feline, the Canadian lynx, who sprang back into the picture in the early 1990s.

The lynx is a wildcat similar in size and appearance to bobcats except for its much larger paws and longer hind-legs. Their specialized anatomy helps them move across deep snow fields in their high elevation, snowy habitats and chase their preferred prey, snowshoe hares.

The lynx's historic range covered all of Alaska, Canada and most of the United States north of the fortieth parallel. Colorado represented the feline's most southern range where a long, skinny arm of lynx territory stretched down along the Rocky Mountains into the far reaches of Colorado's San Juan Mountains. Trapping, poisoning and development during the late 20th century led to their endangerment in the state. While biologists confirmed lynx tracks in the Vail area in 1989, no physical sightings occurred after the last known Colorado lynx was trapped illegally in 1973, also near Vail. In fact, the trapped animal is mounted and displayed in a condominium at the base of Beaver Creek.

Since the lynx had arguably once been an important part of Colorado's ecosystem and natural history, wildlife biologists began seriously considering a reintroduction effort for the felines in the early 1990s. They believed the state still housed lynx, though in such low numbers as to be invisible. Reintroduction efforts would reestablish a balance of power to an ecosystem stripped of its predatory regulation, while also amending for past decisions about how the wild, native lands had been treated by European settlers.

Reintroduction plans went into high gear in 1996 when the Federal Government considered listing the animals on the endangered species list. If that were to happen, the state would lose some control over the reintroduction efforts which could get tied up in federal regulatory red tape. There was a general sense that leaving the issue in the hands of the state

would be better for everyone, so the Colorado Division of Wildlife moved reintroduction efforts forward.

Based on years of habitat study, biologists determined the best habitat for the animal lay in the San Juans, a range of mountains in the southwestern region of the state. There they found enough snowshoe hares to support a population of cats, as well as the appropriate space, elevation, and old-growth timber necessary for lynx survival. However, a corridor of potential habitat reached north up into the mountains just south of Vail, CO.

Lynx and skiers share the same habitat niche, which posed the question of compatibility. Both cat and skier require elevations ranging from 8,000 feet to above timberline, corridors through forests and plenty of open space. While lynx stalk snow-white, camouflaged hares through sub-alpine fir, skiers seek out the next thrilling downhill slope. Both required exactly the habitat found in Vail's proposed Category III expansion area.

So while there had been no discussion of bringing lynx into the Vail area specifically, the wildcat became the symbolic figure in the fight to stop expansion. Even after its contributions to wildlife research, both for the Elk Study, a small mammal study and several thousand dollars given to the Lynx project, Vail Resorts found itself hung over a pot of boiling unrest, unease and anger about corporate expansion, incursion into wild spaces and loss of habitat. Mostly those who fed the fire against Vail did so in words, through editorials or in public meetings. They came from local mountain communities, Denver and elsewhere. It would not be until just before work began on the Category III expansion that Vail would literally go up in flames.



The controversies, concerns and debates swirling about Vail and lynx reintroduction were not even a blip in my mind the day I drove into the Eagle Valley three months after Kirk's initial announcement about the Elk Study. I was still surprised Kirk had offered me the position as I passed through Vail on a strangely warm day in early July with a knot tightening in my chest.

Vail, famous in winter for its deep powder and vast back bowls, lies sprawled in a narrow valley just inside the east boundary of Eagle County. Here spindly lodgepole pines are usurped on southern hills by wide stands of pale-barked, green-topped aspens. With no easy way to build up slope, the town has spread linearly along the I-70 corridor into three sections of town, East, Central and West Vail. There is a distinct change from east to west sides of town. Central and East Vail house incredibly beautiful and expensive homes, hotels and condo complexes. The town's original architecture is designed to mimic famous ski areas in Europe, with distinct chalet peaked roofs, narrow inviting streets, and confusing roundabouts.

The west side of town, it seems, is where Vail hides the folks who actually do most of the work. Here are the persistent ski bums who, in winter, rip down the mountain in search of un-skied powder pockets by day, and tend bar by night. Come summer they run Jeep tours, or become river rat raft guides, and dream of snow as they tear up the slopes on mountain bikes. Here are migrant workers, the quiet, invisible force behind the success of Vail's many hotels, restaurants and ski lodges. Here, for the fourth summer, resided a small group of researchers, who would be away for most of the week observing elk in the backcountry.

Bill Alldredge looked forward to summer field work as much as teaching, and had already set up base camp in the middle of the Beaver Creek study site. He and his wife, also avid outdoor enthusiast, used horses to pack in everything they would need for a month or more at a time. We would see them only occasionally. I arrived nearly a full week ahead of most of the remaining crew, acutely aware of being the only woman officially part of the summer staff. Two other crew members, Rick and Chris would be arriving at the end of the week. Dale, finishing up a required summer course, would not appear until the second week of the study.

I drove through the length of Vail to meet Kirk, at the crew's summer apartments provided by Vail as part of the research funding. Our first official elk observations would begin the upcoming Saturday. Until then I would help Kirk with some as of yet undefined preliminary work. I suspected the sweat forming under my arms was not just from the non-air conditioned car. Reaching over, I grabbed a water bottle from the passenger seat. I tried not to notice the slight tremor in my hands as I opened it.

Upon pulling into the parking lot, I was immediately unimpressed with Vail's choice of accommodations for our crew. The apartment complex was worn, abused, and uninspiring in its banal design. The forest green trim worked to brighten it up and blend into the surrounding pines. Even so, on my way through town, I had seen far more engaging buildings. Structures with warm natural wood siding, tall lofty windows, and intriguing architecture tempted me enticingly. Somehow I held onto a notion our crew might be housed in something finer. In the end, the boxy structure I parked in front of was too reminiscent of seventies style apartment complexes. The windows facing the parking lot were cloaked in blinds, several slats bent or cracked. I sensed it was the kind of place that could too easily remain uncared for by transitory non-owners.

I pulled next to the white official-looking Jeeps Kirk said to look for, becoming acutely aware of the sudden deadened silence turning off the car brought after roaring along at interstate speeds. On the road for less than two hours I felt as though I had driven much further. I sipped warm water, sitting in the greenhouse-hot vehicle as though I might delay the future and all its unknowns and uncertainties by leaving the door closed. Safe in my car cocoon I could still drive away.

I thought of what this experience would mean for my future career. I remembered the rush of excitement and happiness when I was unexpectedly offered the position after initially being turned down. I considered my duties as an employee, the promise I made to Kirk when I accepted the position. I also thought about Dale's help to prepare me for the experience, and grew warm thinking of how our relationship had changed since he first encouraged me to apply for the elk position.

In the three weeks since last seeing Dale, letters had arrived weekly and I wondered, happily, how he found the time. Having taken the summer field course the previous year, I knew how busy they kept their students. Dale's most recent letter included a small enclosed envelope reading, *Field Notes: To be opened in the Field*. Knowing I wouldn't hear from him while in Vail, I followed its directions and tucked it away for later.

The car became stifling, and in the way my brain makes decisions almost before I know to control my body, I reached for the door handle. Cracking the door brought a welcome rush of fresh air. Suddenly, I couldn't wait to be free of the steering wheel.

Kirk's voice greeted me almost immediately. "Hey! You made it. Any problem with the directions?" He leaned over a second-floor railing, grinning widely. His white shirt was bright against the grey-paint and forest green trim of the apartments. I felt my face flush. How long had he been waiting there?

"No problem." I reached up, stretched, and closed the car door too hard. The engine ticked audibly. I took a deep breath.

"Come on up, and get a cold drink. Then I'll get you a key and you can settle in." Kirk turned to go back through a door I could see had been left open. The air seemed suddenly chilly, a reminder I was at elevation. I opened the trunk to grab a layer.

"Hey, Callae?"

I jumped, swung my head up a little too fast. Kirk was back at the railing. "How do you feel about small spaces and flying?"

"What do you mean?" I called out as he disappeared again. I closed the trunk and took the stairs to the second floor. The open door showed me into a spare, dimly lit apartment. The kind where the entryway, dining room and living room all blend into one with a closet-sized kitchen tucked into one corner. Later I would find a bathroom, also closet sized and two bedrooms. I recall a general brownish theme with brown carpet, brown tile, brown cabinets and various shades of brown and green and puce furniture. Other details fade into irrelevance. The one benefit to these apartments was they came furnished. In Kirk's apartment, this apparently included boxes and boxes of gear strewn about. The place seemed livable, if not exactly homey.

I found Kirk standing in the tiny hall of a kitchen, dropping ice cubes into a glass.

"I just got off the phone with my pilot," He handed me the cool glass. "He said the weather would be perfect to go up tomorrow. Want to come flying with me?"

"Hush, sure." I didn't really know what he was talking about, and felt unable to disagree as I focused on the cool glass in my sweaty palms.

"So I think we talked about how we keep track of the elk from the air sometimes. I've got a contract with a guy from Rawlins, Wyoming who flies down here so we can check on the location of my collars. It'll help me know where to send you guys on observations."

“Yeah, that sounds great.” I found it difficult to place myself firmly in the present, much less think about the next day.

“Cool. Here, let me show you around.” He waved an arm casually indicating the living room, “Sorry about the mess. I’m bunked down in here, and Rick and Dale will have the apartment next door. You’re downstairs a couple doors over.” He grabbed a set of keys from the kitchen counter and I followed him outside. I wondered why I was separate from the others.

Kirk spoke as though reading my mind.

“We’ve never needed three apartments before so we couldn’t get them all together. I also thought you might like a place of your own.” He was almost apologetic, though at that moment I loved the idea of my own space.

“No, that’s great. Thank you.” I said.

Kirk tried a couple of keys before finding the one that fit into my first-floor apartment. “Here you go.” He slipped the key from its ring before opening the door for me to go in first. “It’s nothing too exciting, really, except it’s furnished and you have a bathroom with running water.”

“Yeah, that may be my favorite room in this place, huh?” I thought about the weeks I would spend digging cat holes in the woods, without running water, or a certain supply of toilet paper.

The apartment was a duplicate of Kirk’s, furnished with an unmemorable couch and 1970s style Formica breakfast table and chairs. I could see the foot of a mattress through a half-open doorway at the back. Our voices bounced in the empty space. I found myself wishing there was already boxes and boxes of gear strewn about.

Kirk offered to help me bring things in from the car, and I assured him I could get it on my own.

“Okay, if you need anything, or have any questions I’ll be upstairs.” He hesitated, “Maybe we could do something together for dinner, since it’s your first night.”

“Yeah, okay. Thanks.” Did Kirk notice the slight pause before I answered?

It didn’t take me long to get my stuff into the apartment. A few back and forth trips to the car, consciously aware of the nearby presence of Kirk in his upstairs apartment.

Should I have let him help? Would my independent streak, and need to prove myself create a distance between those I could call friends during the long, sure to be occasionally lonely summer? Was I feeling awkward because I had gone out with him once and now he was my boss and my heart was with another?

I really hadn't brought much, as most of my time would be spent in the field, and I didn't see the need to bring any extras. I had borrowed most of the necessary backpacking gear from my aunt and uncle, and what they didn't lend me the elk study provided. It heartened me though, to shake out the bright quilt I brought to cover the bed. Nothing special, it was bought from some box store years ago. Its rich brick red, gold and forest green tones cheered me against the drabness of the space.

When I was done, I sat for a long time in the nearly empty living room. The apartment seemed dark, hollow. The long, lazy light of a summer afternoon through the west-facing window was neatly cut off by other wings of the apartment complex. I didn't quite know what to do with myself, yet felt uncertain about knocking on Kirk's door. The first flush of loneliness swept over me, and I recognized it only as self-conscious doubt. I considered opening Dale's note, and thought perhaps I should wait until I was actually in "the field." I had not yet recognized my field experience began the moment I pulled away from Dovestring.

Dale.

I first became aware of him more than a month into the spring semester. Sitting in class, my mind already wandered. The lengthy, late afternoon course on the Design of Wildlife Projects was often difficult to focus in. Not because the subject matter was sometimes dry, just because it came at the end of a long day of lecture classes. The clock hands moved excruciatingly slowly as terms like, "Sherman traps," "point-counts," and "Capture-Recapture Analysis" slipped unsteadily into my brain. During a brief break in the middle of lecture, it happened. I heard him laugh.

It washed over me from the back of the room, deep, sonorous, thrilling. I twisted in my seat and saw him with head thrown back in mirth, strong jaw and smoothly shaven cheek. For the briefest of moments our eyes met, and I spun forward nearly gasping aloud. The pounding in my chest pressed me back into my seat. I couldn't move. My heart raced ahead

of the clock for the rest of the class. I took notes in a shaking hand without knowing what was being said. I had to resist the repeated urge to spin around and stare at him. Who *was* he?

Later I learned his name. Dale. It seemed an odd, almost old-fashioned name at first, and it did not fit with the image of the long legged, square-jawed, soft-lipped handsome man I had begun surreptitiously watching. Over time though the name, and the man grew on me. I could not shake him from my thoughts. He began to haunt both my dreams, and my waking moments. The paradox lay in how we would be working together, yet not together for the entirety of the Elk Study.

Kirk and I ate dinner together. We must have. I think Kirk even came to my apartment to get me. I don't remember whether we ate in, or went into town. If Kirk offered to pay for the meal I certainly did not let him. At some point he suggested going to a movie. I wanted the company, and also felt painfully awkward. Dinner with the boss was one thing. Dinner and a movie suddenly seemed too much like a date.

Even in my discomfort, I must have realized the irony of finding myself, a secretly boy-crazy, publically boy-shy girl, ending up on an all male crew without any idea of how to handle real or imagined sexual vibes. Add to that the discomfort of spending the first days alone with the leader of the crew, who had courageously asked me out once to a concert – only the second concert I had been to with a boy. I went, and had a fine time. I tried to pretend I was a confident, happy-go-lucky woman. By then, though I had already lost my heart to Dale. So who can blame me for feeling both strange and excited and uncomfortable to suddenly find myself in that most auspicious of date places, a movie theater, on my first day of the job. Watching, of all things, *Saving Private Ryan*.

The war film is an intense, heart wrenching, adrenaline filled, manly movie. It is a film that elicits the kind of shared experience that makes you wish to not be alone afterwards. Not a movie I would typically choose. Of course I did not suggest another when Kirk brought it up. I told myself I was showing my mettle in the first days of the season, even if it was just to sit through a violent drama. Similar to the way I agreed to see *Braveheart* on the first date

with a boy I had met during my first summer home from college. A boy who became the first I let unbutton my shirt if not my pants.

Later, Kirk walking me to my door in the soft July night shyly suggested I could come up for some coffee or something. I detected, or thought I did, a hint of hopefulness in his eyes. Or maybe it was just an echo of deep loneliness. I had learned only recently that Kirk had been married until his wife had picked up and left him without any warning at all. One day he literally returned to an empty home. Was there even a note?

No wonder he danced like he had something painful to shake out. He was handsome, in his own exotic, intense way. Yet my walls were already up. My oldest-child behaviors and tendencies showed themselves in a desire to please, to impress, and to not disappoint. Always I found myself worried about impressions, and consequences. Not worried enough about living in the moment. All reasons why I didn't know how to ask Kirk what, if anything, he felt about me, or whether he was actually as lonely and uncertain as I on the first long, slow days of his first season as a crew leader directing others to collect the data imperative to his research.

I politely declined the invitation to Kirk's apartment. Was there a flash of disappointment in his eyes? Maybe he only wanted the company and nothing more. Was I reading too much into the situation? I hated not knowing, and I hated the thought of asking about it more.

Kirk reminded me when to meet in the morning for our flight for elk. We said good night and I let myself into the hollow space of a temporary apartment.

I lay in bed a long time, eyes open, watching unfamiliar shadows play across the naked walls of the bedroom. There were no memories seeped into these apartment walls. Megan, my childhood friend and college roommate was not there to make them with me. Wrapped in my heads-up cheery flowers, I tried to quiet racing thoughts. Thoughts of flying for elk, of my ineptness at talking openly with men, about my desire to please everyone, about how it may actually be nice to not have to share the bathroom with anyone, about the upcoming summer spent camping alone when I had hardly camped before, about how Kirk was only a few doors away and later, it would be Dale.

I likely would not see Dale much even though we were on the same crew. We both shared concerns about professionalism on the job, and how we didn't want the fragile newness of what was becoming an "us" to impact our performances. We talked about staying professional. I thought about Dale so I wouldn't think about the real reason I couldn't sleep. That the summer of elk had begun now, and there was no backing down. Only when I imagined Dale's weight next to me, his hand slowly rubbing my back did the tightness in my chest began to loosen enough to allow sleep to creep in.

One afternoon several days after Kirk's announcement about the Elk Study, and long before Dale knew how attracted I had become to him, I found myself in the Natural Resources building furiously trying to memorize the difference between fifteen fish species for an upcoming ichthyology quiz. I liked to sit in the atrium where sunlight filtered in through a wall of windows at the entrance. A shadow appeared on my note cards, and I looked up into Dale's contagious grin. He leaned over me, a towering, friendly giant.

"Hey. How are those fishes treating you?"

"Oh, fine. They all look sort of alike right now." Though Dale and I had become friends, his nearness still befuddled me. I stumbled to say something. "Have you taken this class?"

"Nope. Not yet. Say, do you have a few minutes?"

I paused, conflicted over wanting to continue to study and wanting to keep his attention.

"Sure."

"Great. I won't bother you for long." He settled on the bench next to me. "I hadn't seen you since the meeting, and wondered what you thought about the job with Kirk's crew?"

I hesitated. "Oh, it sounds really interesting."

"Have you thought about applying?" One of the things I had learned about Dale in the six months since meeting him was that he enjoyed encouraging people to try new things.

"I've thought about it. I don't think I have enough experience." We had talked before about how I grew up in the mountains. I had not yet told him that I had never been

backpacking or set up a tent or spent multiple days alone in the wilderness before. Instead I shuffled the note cards in my hands.

“Have you talked to Kirk? To find out more information?” He asked evenly. I had yet to learn Dale’s very direct approach to conversations never hid any underlying meaning. He simply said what was on his mind. It was not a form of communication I grew up with, and I searched for any undertone to suggest a reason why he might really be asking the questions. I did not think to simply ask why he was asking though he would have told me.

“No. I only know what he told us at the meeting the other day. Are you applying?”

Dale nodded. “Kirk and I have talked about whether I’d like to work with him this summer. He likes that I’ve already had some field experience.”

“I didn’t know that. What did you do?” I knew he lived in Alaska for a time, and had been backpacking in the Olympics. I had not heard about actual field studies. There was so much I wanted to know about him. Though we had become friendly, I felt like I had only been given a generic overview. I knew he was from Seattle, that he grew up a child of divorce, with three siblings and a weekend father who moved out of the country when Dale was not yet a teenager. His mother worked long, hard hours to make sure there was food for her growing brood. He only recently came to CSU, and had spent several years working full time and attending community college before deciding what educational path he wanted.

Dale explained how he had worked on a spotted owl project in Arizona the previous summer. As he talked, I realized his background, so different from mine, was part of what drew me to him. Yet I was also envious, that he already had experience, already was considered a possibility for the kind of job I had yet to muster courage to apply to.

Dale looked down at the cards that were now slightly wrinkly from all the fidgeting I had done with them. “Well, I know have things to do, but seriously, think about talking to Kirk. Find out a little more about the summer.” He placed a hand on my shoulder and stood up, pressing down as though I was a support to help him stand up. “You may change your mind about applying.”

Alone again, I tried to go back to studying. I didn’t know if my elevated heart rate was because of the memory of Dale’s long fingers on my shoulder or the tantalizing idea he planted in my head.



Thirty miles west of Vail the terrain changes drastically from Aspen-flushed slopes and uplifted granite peaks to low lying, dry-sloped hillsides. The elevation drops to 6,600 feet in Eagle, the county seat and home to the Eagle County Airport. Kirk and I pulled into the parking lot of the single-building, single-runway regional airport just outside Eagle at 7:00 a.m. I had been up for hours already, nervous excitement churning in the pre-dawn. A small white sausage with wings sat on the tarmac.

I turned to Kirk, “Is that the plane? It’s so little.” The wings of the single-engine, fixed-wing Cessna barely reached over my head, and I could touch the roof by just standing up tiptoes. We greeted the pilot, a confident, bronzed man who shook my hand firmly. His callused grip was not unpleasant against my own soft palms. I folded my body in half, bending awkwardly through the door under the wing, and squeezed into the narrow back seat behind the pilot. Kirk sat up front, a field book open in his lap with each female elk’s collar number and frequency indicated. The plane was equipped with a built in radio receiver, and antennas were attached to one of the struts. After a round of brief safety instructions, and encouragement to use the oxygen mask overhead if I started to feel light headed or nauseous, the pilot turned over the engine. I slapped the protective headphones over my ears. I wouldn’t be able to communicate very well with the others, as I did not have a microphone. The drone of the engine covered everything, though I could still pick up some of the conversation in the front.

“Where to?” The pilot flipped switches and scanned dials.

“I haven’t been able to locate H5 or L36 for a while. I think they’re hiding out over by McCoy Creek.” Kirk yelled, clicking his seatbelt into place.

“Sounds good. We’ll head over there first, and then circle around to Grouse Creek and Two Elk Creek. Don’t you usually have a posse in there too?”

Kirk nodded, signaling his approval with his thumbs.

The engine noise reached an increased pitch. The plane jogged forward. It didn’t take long to get off the ground, and I pressed close to my small window watching the ground

shrink away. The ride felt remarkably smooth for a small plane. I expected it would be bumpier even though we got started before the air warmed and thermals started to rise. We banked and rose out of the relative flatness of the Eagle Valley airport, the mountains around Beaver Creek rising to meet us.

As the plane rumbled north toward McCoy Creek the land below appeared untouched by man. A patchwork of dark green tree covered slopes, paler green open expanses of alpine and large splotches of snow created a vivid, textured canvas. The steepness of river drainages and uplifted mountain peaks seemed less daunting from this view. Contour lines flattened by an eagle-eye perspective. I marked the wide green swaths of ski runs, and skinny black lift lines breaking the otherwise continuous blanket of darker green pine trees. The patterns made by the runs were actually quite lovely and reminded me of an artist's measured brush strokes. Then it occurred to me those lines were actually a kind of clear-cut. In many ways they were no different than the enormous scars left on similarly tree-blanketed slopes in Oregon and Washington.

Kirk picked up a faint signal from H5, and the pilot turned the plane in hopes of getting a better line on the animal. The beeping from the radio receiver gathered strength. Even though I could not see the animal deep in the trees below, my heart give a little jump. Elk. Suddenly the field summer seemed to take on a sense of actuality. There *were* elk in those trees, and I would be the one finding them. Waiting. Watching.

Kirk gestured off to the north. "Let's check out Grouse Creek. We had good numbers in their last summer." The pilot maneuvered accordingly.

As I scanned the impressionistic canvas of mountain and valley in vain search of a tiny splash of brown rump, I began to realize my presence would also be a mere speck upon the landscape, and that I might easily disappear once the summer observations began. This pleased and unsettled me. The teenager-self of my past often stared out on drives through the mountains, wanting to jump out and climb through the trees to the top of the peak, to see what lay beyond and to explore it. I wanted to disappear into the woods. That same teenager was never brave enough to actually try it, the rational side of her brain kicking in, both refusing to believe in the magic she felt from the invisible trails up the mountain and frightful of what she might actually find if not the beauty and grandness of her imaginings. Coupled

with her doubts of being able to actually survive if she took off on a whim, she never did set off through the trees alone. Yet the older self smashed in the back of a single engine airplane was about to do exactly that.

The land below would look so different from the ground. If I got into trouble out there, how would they ever find me? We carried no radios, no cell phones. Neither device was used as often then, and what signals we could get would be spotty at best. The best I could hope for might be to find a collared elk, wrestle the collar from her neck and stay put causing a mortality signal to raise some kind of alarm.

Also, it was generally assumed that if you wanted to work in the backcountry, you had sufficient expertise to take care of yourself and perhaps did so because you wanted to get away from those very things which cluttered every-day life in the front-country. I understood, and agreed with these sentiments. My parents did not like the idea of their little girl out alone without technological help, yet said little in protest. The only caution I got from my mother was, “Just don’t tell your Grandmother.”

I briefly made out a blue oval dome of a tent through the trees. If something happened to me, I suppose I could be seen from the air. Spotting the tent relieved me though I also felt like an intruder. As much as I needed the security that I could be found in an emergency, I also held a strong desire to blend in, melt into my surroundings. I wanted to be discovered only on my terms. While I was willing to do the watching, I did not want to be watched in return.

Kirk continued to flip dials. He held up four fingers suggesting the number of collared elk in the area. Maybe Kirk would send me into that region sometime soon. I didn’t yet know what Kirk had in store for me, and somehow in those early days I never thought to ask. Like a passenger on a plane, I was just along for the ride.

The plane banked sharply again. A bubble rose in my belly, and settled back into my gut. The warm air in the cockpit felt close, stifling. I suddenly needed to feel the coolness under the trees, and the open exposure of a windy alpine slope. I wanted to stretch my legs and walk until I could walk no further. Dizziness overtook me. A gentle nausea brought a thick rush of saliva to my tongue. Stubbornly, I refused to reach for the oxygen. I

swallowed hard, pressing my stomach back to its usual place with sheer force of will. I refused to throw up.

Instead sleepiness took over. It took all I could muster not to press my cheek to the cold pane of window and close my eyes. I inhaled deep breaths, not wanting to miss out on a thing during the flight. Kirk turned in his seat and looked back at me. I saw the words more than heard them, “You o.k.?” I gave him two thumbs up, and smiled weakly. When he turned away I shook my head, rubbed my temples and bounced my legs a few times. As my lethargy and nausea slid away I imagined standing on a long ridge of the mountain below me. Barefoot. Tiny alpine plants brushed gently against my ankles. A crisp wind caressed my cheek. Below, under the dark shadows of pine trees elk gathered quietly. Invisible to my Eagle’s Eye. Nothing like the looming shadows of ancient beasts I first met as a young child.

I was five, in the study warmed by the small log-burning stove, watching my father draw. The light over the drafting table illuminated one side of his face. His mustache twitched with every stroke. The rest of the room was dark, except for the pale grey light coming in the picture windows I was too short to see out of. I could see up through them, and the sky looked strange, all grey and wispy. I asked if the clouds had fallen. Dad chuckled, and lifted me into his lap.

“Well, sort of. When the clouds fall like this it’s called fog.”

I stared at his drawing. It was done in pen and ink, partially completed. On the page a dark castle rose out from the jagged walls of a cliff, with tall mountains in the background and a moon partially obscured by clouds. It reminded me of the book he was reading out loud to my brother and me. *The Hobbit*. The trees in the foreground were still in pencil, waiting to be inked in. I liked his trees. When I looked outside I could see a similar outlines of limbs and needles, grey in the fading, foggy light. Dad’s breath tickled my ear when he spoke, “You know what makes foggy nights magical, don’t you?” I shivered a little, shook my blonde curls. “This is the time for elk. If you are lucky, and look very hard, they might let you see them.”

I knew about elk. There was one every year on the calendar in the kitchen. They looked a little like a horse on stilts with big wet-looking noses and large round brown eyes.

They had big bony heads on top of thick, dark chocolate necks. Their fat bodies, except for their behinds, were the color of mom's peanut butter cookies. They looked like they sat in a bucket of creamy paint. I thought they must spend a lot of time lying down because their long, skinny legs would get tired quickly. I thought they must feel soft like rabbits. Dad told me they are rough like carpet. I didn't believe him. I had never seen a real, live elk before.

“Do you think they'll come? Do you?”

“Oh yes. They are waiting. They are watching you. They want to make sure you can be quiet for them.”

We sat together quietly. I tried not to fidget. Dad saw them first.

“There they are,” he breathed.

Three large shapes emerged as black shadows in the grey light. Goose bumps rose on my arms. Were those the elk? They were so big! They moved like dancers. I was surprised. Oh, they were getting closer. They could reach up and touch the glass with their noses if they want to. Their eyes were dark like the coming night. I had never been so close to something this big that wasn't in a zoo. My chest hurt. I stared and stared until they disappeared in darkness.

“How did you do that?” I asked, jumping down from dad's lap. He just grinned.

“No, really, how did you do that?”

“I told you. It's magic.”

Magic. In the same way I knew elk roamed those mountains around Vail, I knew they were down there, hidden under the matchstick trees below the airplane's belly. Knew they were there because of an invisible radio signal beaming up through thick layers of pine needles. A signal we alone could hear.

Chapter 3 – Elk Search



On my third day in Vail, Kirk decided we ought to spend a night at one of the observation sites before the rest of the crew arrived. We prepped gear in the morning, and after lunch we loaded the Jeep and at 1:00 p.m. we pulled out of the parking lot. We drove west out of Vail, before turning south onto Highway 24, heading toward Leadville. Some miles before the old mining town we pulled off the highway into the winding maze-way of dirt roads at the remains of historic Camp Hale.

Established in 1942, Camp Hale was home to a thriving WWII military training camp for the 10th Mountain Division and other military battalions. Development of Camp Hale began in April 1942, and almost overnight the valley filled with infrastructure necessary to support 16,000 soldiers and 3,900 animals. The founder's of Vail Mountain, and the namesakes of two of the proposed Category III expansion bowls, Earl Eaton and Pete Seibert, both had connections to Camp Hale. Earl helped in the construction and Pete trained with the 10th Mountain Division.

Over the years Camp Hale varied between 5,000 to nearly 250,000 acres. The growth came at a cost, mainly to the valley. In order to best get supplies to the camp, Highway 24 was redirected. The Eagle River had to be rechanneled to help drain the marshy, swampy bottomland. The ground, once drained, was dug into for wells, 13.5 miles of sewer systems and a landfill. Dozens of structures were built on top of the newly drained, mineral-rich topsoil from material and supplies brought from Denver via the Rio-Grande Railway. Coal energy kept the camp well lit and heated, while the frequent winter air inversions choked the valley in a low, thick cloud of smog.

Thirty years later when Kirk and I pulled into the “Camp Hale Memorial Campground” entrance, the skies were clear and the air crisp. Hardly any signs remained of the once thriving military base save a few unrecognizable concrete structures and a maze-way of dirt roads, marked by a periodic historical marker describing some aspect of Camp

Hale history. We did not explore the valley or the memorial signs and instead turned up one of the many forest service roads leading onto the mountain.

The road became less friendly as it wound up through lodgepole pine and then into subalpine spruce and firs. Kirk easily handled the car and I don't remember if we said much to each other. I expected to be asked to drive at some point, and did not relish the thought. I had ridden up plenty of questionable roads in the family truck when we went on excursions to explore old mines. Once Dad made me drive down part of steep Argentine Pass outside Georgetown. When we came to an exceptionally difficult turn, I insisted he take the wheel. Doing anything for the first time, especially when it meant going downhill, gave me the shakes. For the moment I was glad for Kirk's sure hand on the wheel.

More time passed and the road became steeper and bumpier. Then, on the flank of an open slope, the road disappeared.

"Is this supposed to be a dead end?" I asked.

"Yeah, I think so. I haven't been up here since last summer." He looked around carefully, "This looks right."

We followed the two ruts marking the road until they widened into a cul-de-sac and disappeared.

Kirk nodded. "Yep, this is it."

I was eager to escape the closeness of the vehicle.

First the chill air, then the view took my breath away. Since I had been focusing on the road ahead, I did not realize that the land falling away steadily behind me was completely open. Some time ago the Jeep had broken through the last of the *krumholtz*, the German word for "crooked branch" that described the small, ancient trees twisted by wind and weather, and had been climbing up through treeless, shale strewn alpine terrain.

The colors in the mountains stunned me with their varying shades of green, grey and russet. The sheer number and variety of alpine flowers blooming on the surrounding slopes astounded my senses. They carpeted the high altitude meadow in an artist's palette of yellow, pink, blue, red and whites and came in textures smooth and fuzzy, speared and spiky.

The car was parked on a flat spot on the side of a valley between two mountain peaks. Snow-draped mountain ridges stretched as far as the horizon and for a moment it felt like I

was back in the airplane. Turning, I looked up the slope to the top of the ridge, about a half-mile away. Surely the view would be better from there. I was ready to find out. Kirk opened the hatchback, and I shouldered, for only the second time in my short backpacking and camping experience, the nearly full weight of a pack.

The first time I ever donned a backpacker's pack had been back in May when Kirk, Rick, Dale and I spent a several days camping over the long Memorial Day weekend in preparation for the summer field season. We drove to a wilderness access point near Vail, hiked in a few miles, set up a kind of base camp, and spent a couple nights together. I followed the men who strode purposefully uphill, all long legs and unspoken contest. I watched from behind, enjoying the view of Dale's well-defined calves. It had been a congenial, respectful and entertaining weekend that made me feel only slightly more prepared for the summer field experience.

During that weekend trip the men kept each other entertained by quizzing each other on song lyrics from the 1980s. I enjoyed their banter, though I could contribute little. The others had been in their early teens at that time. Though I reached puberty by the time the decade ended, I only vaguely remember big hair, big shoulder pads and neon. Other major world events that may have impacted these men were also not part of my social consciousness. The Chernobyl disaster, the erection of the Vietnam Memorial, and 'Star Wars' the military program were not events I had stored in memory. Reports of the hole in the Ozone, and the newness of AIDS were vaguely more familiar. It's not until the Yellowstone Fires of 1988 that sparked an intense, ongoing discussion of how to manage the nation's forests that I have stronger memories of the decade.

I had little time to reflect on the Memorial Day experience as I began following Kirk up the long incline toward the ridgeline. Within moments of starting up the slope behind Kirk my legs and lungs were on fire. Each upward step was painful, and painfully slow. Lift right leg. Plant foot. Pull body up to meet leg. Breathe. The pack on my back, bursting with sixty-five pounds of gear, threatened to pull me backward with each advance. Lift left leg. Plant foot. Pull body up. Breathe. I felt like a very large, awkward turtle. Right leg. Lift. Plant. Pull. Breathe. I dared to look up and saw only more up. I didn't dare to look down. The ridgeline that was the goal lay just a half-mile above. It seemed like ten. Maybe

if I didn't look at it, I would get there faster. Lift. Plant. Pull. Breathe. I stared at the tiny alpine plants under my feet. I should try to avoid crushing them. I just didn't care. Breathe. Lift. Plant. Pull. Breathe. Breathe. Breathe.

After many pauses, and scant conversation, Kirk and I crossed the ridgeline breathlessly. The half-mile hike took almost forty-five minutes. The ridge stretched generally north-south and marked the boundaries of Eagle County to the west, and Summit County in the east. To the north, the ridge continued in a gentle, inward curving swoop. To the south, the terrain rose and peaked at 12,700 feet before gradually declining. To the east of this peak the land sloped deliberately into a draw, and climbed up again to a long stable ridgeline curving north and east. The connection of ridgelines looked to me like a giant "C" in the landscape. Two creeks flowed northeast out of the middle of the "C". Kirk described how the waterways merged with Ten Mile Creek at Interstate-70 several miles west of Copper Mountain Ski area. I was surprised to see parts of the interstate. In the distance, I made out the marked characteristic brush strokes of ski runs.

"Kirk, are those the runs at Copper Mountain?" I asked.

"We're facing generally north east, so that sounds right."

It surprised me, so easily picking out signs of humanity after the long drive up narrow, isolated forest service roads.

I stood at the top of the saddle, taking in the expansive view. The long, wide valley was speckled with dark grey-green spruces and firs that stretched up toward the ridges. Rounded, abstract snow patches intermingled with the trees and flowed up into the wide open alpine meadows above. Looking down into the forest below, I saw small clearings, hints of animal trails, and the pattern of boulders strewn about. The world appeared so different when looked on from above. Details blended into the wholeness of a picture. I got the sense the whole world might actually make sense, that the slender threads holding everything together in complex, interdependent webs may actually be visible. I could see everything. I felt exposed, and powerful and free. For a moment, I forgot the scared, uncertain girl Dale met the day he visited my apartment to convince me to apply for the position.

I had been folding laundry when the knock on my apartment door came. I'm sure the surprise registered on my face when I opened it. I hoped he did not see the flush that accompanied it.

“Dale...Hi.”

“Hi Callae. Sorry to drop by like this. Do you have a few minutes? I wanted to talk to you some more about Kirk's field study this summer.” Dale smiled comfortably, casually handsome in my entryway. It had been a week since our brief talk in the atrium.

“Uh, sure. Come on in.” I stood back, holding open the door for him, conscious of my rumpled sweats and the unwashed dishes in the sink. He ducked slightly to get in the door, and I smelled on him soap and the faint scent of ocean breezes. His dark hair shone as though recently washed. I thought it must be silky to the touch. I thought about the bra thrown casually on the bed in the room we surely would not visit. Dale stood on the square of brown, 70s style tiles in the entryway, and looked around as I closed the door.

“This is a pretty cool place. Better on the inside than out, I think.”

I had to agree. My roommate Megan and I had worked hard to make the austere, single-story, brick-walled two-bedroom apartment homey. We called it the “The Gallery.” Not that we had any real artwork to speak of. Instead we posted pictures, mostly from calendars, in every room. I recall a series of impressionist work on one hall wall, a grouping of modern-art on another, fuzzy animal and scenery shots in my room, and a whole series of Disney posters scattered throughout. Though Megan and I were college students, trying on new personalities and tastes, in many ways we were not yet willing to leave childhood behind.

Whenever anyone came to visit we subjected them to a gallery tour of our “collections.” With Dale's unexpected presence, I felt suddenly self-conscious of our sometimes silly, even childish ways. I did not offer him a tour.

“Well, have a seat,” I said.

I sank into a wide, hand-me-down easy chair, holding my legs tightly against my chest. Dale flopped easily on the couch across from me. Even having seen him often, I continued to marvel at how his long legs could stretch out into the space between us. I could rest my feet on his, if I wanted.

“Do you want some water, or something?” I started to fidget with a loose thread of the chair’s upholstery.

“No thanks, I’m fine.” Dale gestured to a plant stand in the corner, “I like the plants.”

“Thanks. The big window lets in a lot of light. I love having plants in the house.” I realized I might start be babbling and fell silent, not daring to ask why he had come. I imagined it so often I could hardly believe he was really there. Knew it probably was for some other reason than the one I had long hoped for.

He draped one long arm easily across the back of the couch. I thought I might fit nicely into the crook of his body.

“Hey, so I won’t take up a bunch of your time. I just wanted to ask what you had decided to do about applying for the elk study.” He stared at me questioningly. This time I met his gaze and held it.

“Um, I still don’t know. I’m pretty convinced Kirk wouldn’t hire me.”

Dale’s gaze deepened, “What are you afraid of?”

I blinked, surprised, and dropped my eyes. Was I that transparent? “I don’t know.”

“I really think you should apply. Like we talked about, it would be such good experience for you. I think Kirk would give you a chance.” I could feel him staring at me.

“I just don’t know. Can’t you tell me anything else about it first?”

“I think you know everything you need to at this point. Seriously, Callae,” Dale leaned forward, intense in his sincerity, “You are a wildlife biology student, and you know you should have a field job or two under your belt before you graduate. You know how competitive the field is. Employers look for people who have experience. This is a great chance to get it. You’ll be with good people who know their stuff, who can teach you good outdoor skills.”

Like you? I thought not very kindly. *Don’t act like my big brother.* I pulled my legs tighter to my chest. He was only trying to encourage a young, inexperienced colleague so she would be successful in her field. Only I didn’t want him to tell me what to do. Instead, I wanted him to wrap me in his long arms, hold me against that lean, sturdy body and tell me I could do it, that I would learn how to get over my fears. I wanted him to say he would love to spend the summer with me in the mountains.

“Had *you* had much outdoor experience before doing that work with the owls last summer?” I asked, trying to ignore my own turmoil of emotions.

“I have, some. I had to learn it on my own.”

“What do you mean?”

Dale settled back into the couch. “So you know I grew up in a suburb of Seattle,” he said. “Well, my family couldn’t afford to take many trips out to the ocean or forests. Mom had her hands full enough with several jobs and us four kids. I remember a few weekend trips to state parks. We never had much of a chance to get out of the house for those kinds of things.” He paused, remembering. Then he said, “You had a very different childhood. You had the land.”

I did not yet fully grasp the difference that lay between my childhood and Dale’s. I still took for granted the landscape of my youth. I had full reign over our nine-acre property to explore as I wished, to observe, to learn in the hands-on, tactile sense the way nature’s clock ticks. There were long day hikes in the mountains, weeks spent summer camps, exploratory car trips. Because of where I grew up, I never thought of other kinds of extended wilderness experiences. I came home every night to a home in the woods. It was good enough for my parents, and I loved it there. My world view was slow to expand out of the seclusion of the foothills and the comfortable arms of home.

I argued that even though I liked being outdoors, I had not spent much time camping, and knew nothing about backpacking.

“Yet you spent a lot of time outside, and I bet your family encouraged it.”

I nodded.

“You are very lucky. I didn’t have that opportunity.”

“So how did you get interested in the environment, then?” I asked, wondering how this child of suburbia had found his way into a passion for wild places.

Dale explained how he had a realization at fourteen, looking out over the neighborhood subdivisions and seeing only manicured lawns and houses. No natural vegetation. He recognized then how much impact people could have on the landscape. “It occurred to me we were losing touch with what the land had been, and where we came from.”

Dale's eyes had grown cloudy, fixed on a distant memory. I stared at him, entranced. Here was a side of Dale I had not yet seen, a window into his intensely personal side. I sat still, afraid to break the moment to tell him how he was putting into words concerns I also recognized. He continued.

"Are you old enough to remember when Greenpeace was getting all the media attention for their attacks on whale boats and harbor seal harvests? And people were getting all hung up over saving cute little harbor seals and whales?" I nodded. "Well, at the time I could have cared less about those high profile incidents. What I saw all around me was loss of whole chunks of landscape and no one was doing anything about it. I felt like there weren't any successful efforts to control the development."

"I know how you feel. The area around Conifer is growing up like crazy. It's like the suburbs are starting to climb the mountain. Every time I go home now they've taken down another mountain to widen the highway, or build a school. We never used to hear the highway from the house. We can now. I hate it and feel so helpless at the same time." I felt the emotions welling and stopped. It was safer to let his rolling bass voice fill the space between us.

"So how long after you had those realizations did you start getting more involved with the environment?" I asked.

It had taken Dale a long time until he started getting more hands-on experience in wild places. He eventually moved to Alaska to escape the growing suburban landscapes around Seattle. Later, after a month-long NOLS experience he felt he had the skills to go out on his own and spent as much time as he could on the Olympics, camping and thinking. His desire to get involved with a field that would have some impact in conservation brought him to Colorado State's wildlife program.

I envied his experiences, and his willingness to try new things without knowing what to expect. I wanted to learn how to live for the moment.

My thoughts drifted to summer. Could I really do it? Could I spend the summer watching elk in the mountains? Maybe it was just the fear of the unknown holding me back. Maybe it was the fear of failing. I didn't like getting into things I felt I couldn't control. Yet it would be a great experience. One that I knew I needed. Applying for the elk job might be

an opportunity that I would be foolish to pass up. Maybe I did need someone to push past my doubts, and take a chance.

I did not know how much time passed before Dale made motions to leave. “I’d better get going. Thanks for letting me in, and taking the time. I know it was unexpected.” He stood up from the couch, filling my living room.

I unrolled my legs. “No problem. I’m glad you came.” I said, and hoped he believed me.

Dale put a hand on the doorknob, and then turned and looked at me.

“Seriously, Callae, think about applying for the job. Think of it as an excuse to get your resume in order. Go talk to Kirk, find out more about it. Talk to me. I am available anytime. Really, there’s no harm in applying.”

The latch clicked softly behind him.

Kirk seemed perfectly at home on the rock-studded alpine, and made his way down the slope easily like a mountain goat. I, on the other hand, stumbled and faltered. My fairly new hiking boots felt heavy and clumsy. The weight of the borrowed pack threatened to tip me forward. I wasn’t even carrying as much as I would the next week when the added weight of five days of food would make a huge difference. Plus, except for the tents, we split-up some of the shareable gear like the water filter, camp stove, cooking pots and a few other things. The upcoming weeks would see me in charge of all my own gear, as I would often be working alone. The sheer weight of anticipation made me squirm a little.

My more sure-footed hiking companion slowed when we moved some distance down the slope. We hadn’t really gone very far, and the ridgeline loomed up behind us. I tried not to think about the upward hike out again tomorrow.

Kirk spoke. “This looks great. Flat and wide. Should be no problem setting up tents here. Then we’ll check the telemetry for animals and get ready for a test observation. It’ll be good practice for you and for me, actually. I haven’t done this for a year now.”

I felt a little better knowing Kirk would appreciate extra practice, too. Kirk had worked with the study the previous year, since Bill Alldredge wanted him to get some experience on the project prior to running techs for his research. Later I came to realize he

also loved the quiet observing moments, and would come to miss them since as the crew leader he held slightly different duties than those of his field techs.

We set about preparing camp. I dug out the tent and began pulling out tent parts. Rain fly. Stakes. Tent. Poles. Wait. What poles? There were no poles in the tent bag. I peered in my pack, thinking maybe I put them in separately. I stuck my arm down, rooted around. Nothing.

“Kirk,” I called out weakly, “do you happen to have my poles?”

He looked over from where his personal, caterpillar-like two person tent had been quickly erected on the clumpy alpine grasses.

“I don’t think so. They should be in the same stuff sack as the tent.”

I looked down at the empty bag in my hands, hoping the sinking feeling in my gut did not show on my face.

“Uh, I don’t think they are here.”

Kirk’s brows furrowed

We searched a little for the poles, and it became quickly apparent they simply had not made the journey with us. Kirk apologized profusely and genuinely, I think. Though I’ll never be entirely certain it was an unintentional mistake that on the third night of my first ever field job I spent at 11,000 feet with my crew boss and no tent poles. I learned a valuable lesson. Always, *always* be the one to check out borrowed gear before taking it into the field the first time.

Since the purpose of the trip was to, after all, find elk, Kirk and I tried to do exactly that. With trimmed down packs, we moved out across the bench walked southeast from the tents. I enjoyed the lighter weight without the sleeping bag and pad and other gear. The afternoon sun had been fairly warm on us as we prepared camp, though I felt the first sliver of chill when clouds passed over the sun. Our tents perched on an east-facing bench backed by tall spindly piles of shale up thrusts along the high western ridge. We would get good light across the valley for the evening observation, though I suspected we would sit in shadow while we watched elk bask in the setting sun. I moved to catch up with Kirk. “So do you think we’ll find any elk?”

“I hope so. We got good signals from several of them from the airplane. Last year I found a good observation site just to the south, so we’ll see if we get any telemetry signals from there first.”

“Do you ever see them on these slopes?” I asked, wondering if they might be somewhere hidden just below us.

“Not often. They tend to spend less time on this side of the mountain, and there’s not any easy way to get to an observation point on the other side.”

Kirk continued to chit-chat about the study, and I was grateful as it kept my mind off the upcoming problem of sleeping arrangements.

Elk drop their calves between late May and mid-June. It is a delicate time for the cow. The calf she carries, conceived seven months before during the musty, sweaty brawls of the autumn rut, requires a great deal of her energy. If she successfully finds enough food during the winter to sustain herself and her fetus, she will birth her calf early in the spring. Then she will be gorging on fresh greenery as fast as her calf sucks it from her. Repeated disturbance by recreational hikers during this time may cause her to desert her calf.

A surprised elk usually responds to danger by fleeing the scene. The move is partially selfish. The cow can survive to produce another year. Her calf, which requires so much attention and energy, is not worth the cost. The cow will often return to her calf, though each time she flees, her offspring has a greater chance of falling victim to predation, or succumbing to hunger. The treatment groups in the Elk Study were exposed to additional stress to replicate human disturbance

Two distinct elk populations around Vail and Beaver Creek each had 200 to 300 animals. The groups were physically separated by Highway 24 which allowed for clearly defined treatment and control groups. The elk in the Beaver Creek population underwent the planned, “simulated backcountry disturbance” in the first phase of the study. The Vail animals, the controls, did not.

Each population contained approximately seventy-five collared females who had been marked in harrowing, adrenaline-filled helicopter net-gunning events. Each year the mortalities were tallied, and additional animals collared to maintain an equal number of subject animals. The cows were fitted with a frequency-specific radio collar marked on

either side with a unique alpha-numeric code in large black markings. Every animal also received a unique combination of colored livestock ear tags. Each characteristic mark would prove invaluable when trying to identify an individual from more than a mile away through a narrow scope in the dusk.

Kirk and I had moved slightly down slope from our tents, and passed through a narrow stand of tall Engelmann spruce before entering another open expanse of alpine bench. I liked how the trees seemed in places to send scouts marching up the steep slopes, as though challenging the very conditions which prevented their growth at high, cold, windy, elevations. When Kirk decided we had come far enough, we pulled out an antenna, radio receiver, topographical map, tripods and spotting scopes and notebook. Kirk supervised as I set up my tripod and spotting scope. He showed me how to screw together the H-shaped, collapsible antenna and attached its long cord to the leather-bound, dictionary-sized receiver.

We spread out the topographical map and I knelt down next to him trying to interpret its maze of curvy lines. Kirk pointed to the often-folded paper. "Here's the road we came in on, so we must be about here. The aerial survey yesterday suggested L7 and J4 were somewhere here." Kirk indicated a second location to the southwest. I looked for the close together dark lines that might indicate the ridges I could see across the valley. If I understood the squiggles right, there might be collared elk just down slope of the highest of them.

I needed to spend more time with these maps. Drawing concentric circles around children's flattened knuckles so they could see how the flat lines would transfer into three-dimensional "knuckle-mountains" when they made a fist was one thing. It was harder for me to interpret the flat spaghetti-like mess of lines on full topographical maps into the three-dimensional figures they represented.

"Let's see if we can bring L7 up on the radio. What's her signal?"

Kirk handed me a metal, waterproof field notebook. I flipped up the cover, and found a chart full of numbers inside. Call signals for all the collared animals in the study. I traced down the list until I got to L7. I read out her call signal, 534.6.

"Those other numbers and letters for her ear tags, right?"

“Yep.” Kirk didn’t look up as he turned the small radial dials on the telemetry box to match L7’s signal. A buzzing static filled the air. He stood, antenna in hand, and slowly spun it. Still static. I knew to listen for the steady beep, beep, beep that would indicate a signal from a collar. The beeping grows louder or softer depending on the direction you face. The louder the beep, the more likely you are aiming the antenna in the direction of the animal. The strength of the signal has little bearing on distance, though very strong signals may indicate you are very near an animal. Most researchers take multiple bearings in order to triangulate and get the exact locations.

After a minute or so, we tried J4’s number and got more static.

“They might have moved.” I suggested.

“Or maybe there’s too much interference here, and the signal is bouncing off those peaks.” Kirk said, nodding to the south. “We’ll keep trying and maybe they’ll pop into range.”

We sat. We looked through spotting scopes, scanned open spaces in the trees across the valley. We tried telemetry. We waited. The sun sank behind us. It got chilly. Then cold. We talked to warm the air between us.

I asked Kirk about his role in the previous year’s research, when he had been part of the crew that mimicked increased backcountry use by intentionally disturbed cows in the Beaver Creek study area during the calving season. I wondered if it had been hard to sneak up on the cows.

Kirk grinned. “It could get tedious, though it was actually pretty fun. I liked the challenge. You know, once I got so close to the female she almost trampled me when she finally realized I was there. I about jumped out of my boots when she came barreling toward me.”

“I can just see the headlines,” I said. “Barefoot researcher rescued from tree top, barefoot.”

Kirk smiled. “Let’s see how you react with a full-grown elk charging toward you.”

“Oh, I’d be pissing my pants, no question. I can’t imagine doing that multiple times all summer. I’d come up with some other way to scare that cow again. How often did you disturb them?” I asked.

“Sometimes up to eight times, actually.”

“Isn’t that a lot?” I asked, surprised. It seemed a bit excessive.

“Yeah. Remember though, we were trying to replicate heavy backcountry hiking. Presumably if a lot of hikers were going through the calving area, each cow might be disturbed many times. We could get a better sense of how they would react if we really stressed them.”

I felt better that I would be watching animals who had been left alone during the calving season.

When it became clear there would be no elk, and talk could not keep our teeth from chattering, Kirk unscrewed the antenna, I took down the spotting scopes, and we packed it in. It seemed to take a long time to return to the campsite through the slow blue-grey light of dusk. By the time the single, lonely cigar-shaped dome of Kirk’s tent rose up in pale contrast to the rest of the landscape, even I was happy to see it.

I did briefly consider sleeping outside. I probably suggested as much. Kirk made it absolutely clear I would be welcome to share the tent, no funny business. In the end I was not so stupid as to refuse. We took care of evening business, moving in opposite directions with toothbrushes and water bottles in hand. I walked some distance from the tent and still felt totally exposed squatting on darkened, treeless alpine. I did not hurry back, though by then the night chill had sent splinters of ice under my winter hat, seeped through my layers, and settled in my toes so they felt wooden. The warmth of a sleeping bag called enticingly. The prospect of sharing that space with a man, a man I hardly knew, slowed my return.

During the Memorial Day hike with Kirk, Rick and Dale, I experienced a similar uncomfortable sleeping situation with a very different outcome. The men and I had hiked in several miles and found a fantastic boulder outcrop with long views of the mountains and a wide, fairly flat surface for camping on. The hill supporting the large rocks and rising up behind provided some relief from the wind. No plants would be smashed with our tents or sleeping bags if we set up on the rock itself.

It occurred to me we only had a couple of tents, which meant I would have to share with someone. When we had the discussions about what to bring when planning the trip, I hadn’t wanted to bring it up. These men had all backpacked, they knew the value of saving

weight on a hike, and were comfortable being close for a night or two. I had never slept in a tent with a boy before.

At camp, Rick and Kirk started unpacking gear. Dale was still standing on the rock, gazing out, away from the group. I think at that time he also had begun to sense the mutual attraction straining between us though he did not yet fully know how much his presence affected me.

He turned and spoke up, "Hey, Rick?" Rick looked up. "Before you set up that other tent, I think I'll just sleep out here, on the rock."

"Yeah, that's an idea."

"It's flat enough, and I don't think it'll rain tonight."

"Yeah, okay. I'm okay with that. Callae, we could set up this tent for you."

I turned to Dale, "You don't think it'll rain?"

"Nah, look at it." Dale looked up into the skies. "It's clear. We'd have clouds by now. You know how most storms around here work, Ms. Colorado Native." His voice was friendly, and I didn't mind the tease. I was getting used to the joshing going on. "Kirk, what do you think?"

"I think I'm sleeping in the tent. If it starts to storm in the middle of the night, don't be crawling in with me." Kirk was already pulling his tent out of its protective nylon bag.

Rick stood there, holding the second tent. I made a decision. "I think I'll try out on the rock too."

"Okay. Then why don't you help me get dinner started."

Darkness had fallen by the time we were done with the meal. I remember being envious of Dale's headlamp as I used a flashlight to help with the cleanup. There wasn't much conversation. The stars were blinking overhead and we respected the quiet of the surrounding forest. I rolled out my borrowed sleeping bag and pad. Dale and Rick's bedrolls were already set up. I tried to casually find a spot not too far from Dale, hoping my intent was not conspicuous. It did look flatter near him than over by Rick. I pulled off my boots and nothing else before I squirmed into the sleeping bag. I carefully folded my glasses and set them in one of the boots. The swooshing lullaby of wind through the lodgepole pines, and the twinkling of fuzzy stars overhead soothed me to sleep more quickly than I expected.

Back on the mountain alone with Kirk, it took me a long time to settle myself into a restless, scattered sleep. I have no idea what, if anything, Kirk and I talked about while we slid into sleeping bags one at a time, making great effort not to touch. I turned my back to my boss, squished down in the bag and curled my knees into my chest. I could sense our shoulders nearly touching. I tried to stay very still. My head throbbed. I could not settle my mind. I hated being so uncomfortable. I wished for the open air space of a rock, and the nearness of a different man.

Earlier in the summer, maybe a month before I was to report to Vail I had picked up the phone to call Dale. The end of a tough spring semester and a feeling of being trapped in the college town motivated me. I wanted to escape Fort Collins and breathe the fresh air of a place lacking the memory of semester-end stress.

That I had even considered asking Dale to join me was exhilarating, frightening, and left me feeling shamefully guilty. We were both in relationships. I was spending time with an honestly wonderful man who was sweet, fun, handsome, respectful, and a little too predictable. I liked him a great deal, and was slow to realize the initial spark I felt was one that comes with anticipation and potential. We had been friends for a while first as we navigated the role of a third wheel among our already committed friends. Our romance began slowly, and grew in part from respect and attraction, and also a bit out of convenience and loneliness. While the physical energy between us was real enough and exhilarating, I never truly felt at home in his arms.

While I felt, if not acknowledging my cooling romance, Dale's partner at the time fully expected to marry him. She worked to make sure all the single or clearly undecided women knew this as well. While she sensed Dale was serious when he told her that marriage was never his intention, she didn't really believe him. I did.

Without ever intending to hurt anyone, Dale and I cultivated a friendship. We greeted each other warmly in the halls. We shared a few meals, usually breakfast or lunch in the name of collegiality. Dale liked to meet with members of The Wildlife Society who were involved in committees to connect with them and find out how things were going. He had been an avid supporter of my efforts with the education committee since the beginning. He

wanted to touch other's lives, help them push past their insecurities and doubts which is why he encouraged me often to apply for the Elk Study position. Once I got the job, he took time to meet with me to help prepare me for what gear I would need in July and what I might expect from the experience of working and living in the field. I truly valued his help and his friendship. I could not shake the deepening attraction.

Once the phone was in my hand, I didn't think I would have the nerve to follow through until I found myself dialing the number from memory. The phone rang twice, three, then four times. I almost hung up.

"Ello"

"Uh, is this Dale?" I stalled, scared of what I was about to do.

"Yep."

"Hi, it's Callae."

"Hey, how's it going?"

I plowed ahead, "Good. Uh, I was wondering if you wanted to go get dinner sometime this week?"

A brief pause.

"Okay. What were you thinking?" He said neutrally.

I swallowed. "Well, I know this great little place down in Denver."

A longer pause.

Could he hear my heart thudding across the line?

Dale's voice was still carefully neutral when he answered. "Dinner in Denver. Sounds intriguing. Shall I drive?"

We walked down the Sixteenth Street Mall in downtown Denver, our bodies barely brushing. I badly wanted to feel my hand in his. It was a warm, damp early summer evening, unusual in the typically dry climate of Colorado's high plains. Dale commented on the smell of moisture. It reminded him of Seattle, and the ocean. Cherry blossoms lightly scented the air, and glowed in the gleam of wet street lights. Few people were out wandering around in the light mist. The sky glowed orange with low lying clouds. I hardly noticed anything except my pounding heart, and Dale's nearness. I found it ironic to be spending an evening in the heart of the city when we would be living in the wilderness for the summer.

Sitting on a low wall across from the 16th Street Clock tower, our shoulders touched. We made up stories, imagining alien ships materializing from the eerie orange clouds and circling the tower. Dale draped his long arm over my shoulders. I rested my hand close to his thigh. The clock in the tower becomes obsolete. At some point we stood, and began walking again. My fingers brushed his, and he opened his palm. I slipped my hand into the warm comfort of his grip.

Later, in the truck on the drive back north to Fort Collins, he held my hand tight. Rain spattered gently on the windshield. Van Morrison played on the radio, "*It's a wonderful night for a moondance...*" We were silent, each afraid to break the spell. My head spun, yet I felt exactly in the right place. I wanted him to keep driving, to ignore the exit to Fort Collins and go straight on until morning. Instead the turn blinker came on, *click-click, click-click, click-click*. We veered onto the exit ramp, and the truck slowed and stopped, hesitating. Dale's voice cracked when he finally spoke, "I'll do whatever you ask. Please don't ask me to take you home." And I didn't.



Even with our combined body heat warming the small interior tent space, I shivered most of the night. Daybreak eventually arrived. Kirk left the tent first, after a brief and friendly, "Good morning." I plucked my glasses from an interior mesh pocket and slipped the cold metal frames over my ears. As expected, they fogged up immediately. I told myself to remember to bring a handkerchief the next time. I worried about the state of my thick, unruly hair. I imagined it had to be sticking up every-which-way. I quickly fought it into two thick braids, likely unevenly matched, before exiting the tent myself.

Kirk and I started after the sun rose, though that would not be the regular schedule the rest of the summer. Elk are crepuscular, meaning they are most active at dawn and dusk. For the rest of the summer we would need to be at the observations sites before light. That morning, Kirk really didn't seem too concerned about following an exact observation schedule, and allowed a more leisurely start to the day. There would be plenty of time for pre-dawn rising starting next week. We tried to find the elk again, and while this time we got

good signals, we saw nothing. Four days now on the Elk Study, and I had yet to see an elk. Kirk was not disheartened. The strength of the morning telemetry signals solidified the data from the aerial survey. This would be a good site to return to. We broke camp and returned to Vail in time for lunch.

After a hot shower, food, and a nap, Kirk and I headed back out into the field. We hoped to find some elk in the Beaver Creek study area. This is where the animals had undergone the treatment phase of the research, and for the previous two years crew members had intentionally snuck up on and disturbed cows.

McCoy Park lies between Beaver Creek and Arrowhead, both exclusive ski areas accessed through formidable gate houses where neatly uniformed guards check through visitors. Kirk handled the white Jeep deftly up the steep ski area roads bounded by thick stands of aspen and extensive, dark-logged homes. Beaver Creek was designed to be a ski-in, ski-out community, so the roads we drove past decadent condos and under, and sometimes over, bridges or passages intended especially for skiers to continue their plummet down slope without interruption. There were signs of further construction at nearly every turn. Colorado was experiencing a frenzy of growth consuming not only Vail and Beaver Creek but all ski areas and small communities including my home in Conifer. The pace, and expansion of construction and people into my own community had already bothered me. To see it happening across forest service land was equally disturbing.

Kirk and I reached the end of the paved road only to be confronted by a locked “Personnel Only” gate. Though we had been given access permission on account of our research, Kirk struggled with the code, and we had to return to the Gatehouse to get the correct numbers. The process delayed us enough that the sun’s afternoon light lay slanted across ski slope meadows as we drove through the finally open gate. It was a little like passing the bridge to Terabithia. The crush of construction and opulent buildings fell away behind us as the Jeep jolted along more rutted forest service roads and into a wonderland of lush, green meadows ringed by pine and aspen.

At McCoy Park we quickly fell out of the Jeep and set up the telemetry gear. The fresh mountain air was rich with the warmth of sunlit soil and pine needle pungency. The landscape straddled the ecotone between the lodgepole pine and mountain meadow

dominated montane-zone and the spruce and fir rich subalpine. A wide meadow full of blooming flowers stretched out beyond our Jeep and faded into trees in the distance. Beyond lay grey-blue peaks still heavily snow covered.

We moved through a band of thick old-growth aspens and I silently named the flowers underfoot. The small, five-petaled mauve blooms were wild geraniums. The dark green plants with very toothy triangular leaves and spiky, small yellow sunflower-like blooms were a type of *Senecio*. Heart-shaped basal leaves cupping the stems of taller sunflowery blooms I knew as *Arnica cordifolia*, or heart-shaped arnicas. The frilly silver-tinged basal leaves of yarrow had yet to send up their main stalks, and the tips of Indian paintbrush showed the barest blush of red or pink. I barely refrained from excitedly pointing out to Kirk the linear, slightly folded leaves of a purple penstemon.

I had learned many of these flowers the year before at an intense four-week summer course required for all Natural Resource students. The class is held at CSU's mountain campus in Pingree Park, and brings together students in wildlife biology, forestry, range management and natural resources management. Its intent is for students to gain skills in a variety of field research methods. The program creates an interdisciplinary, hands-on setting for students, while also providing a venue to discuss the various philosophies and content of each discipline. The official name of the course is Natural Resource Ecology and Management. Most students simply refer to the ordeal as Pingree.

In the late July afternoon at McCoy Park the sun hung precariously behind tall lodgepole pines, and would quickly move into view which would make it difficult to see elk. We turned on the telemetry to see if any collared females were in the area.

Beep. Beep. Beep. I swiveled my body slowly, holding the H-shaped antenna over my head. H5 was out there, possibly just beyond that low grassy knoll to the west, right where the sun waited to jump out and blind us. We waited, squinting into the slant of evening sunlight. H5 stubbornly refused to show herself. I began to wonder if I was actually going to have an elk summer.

Beep. BEEP. BEEP. As I turned my body, the beeping got louder though there was no sign of an animal. Then the sun moved, or rather the earth spun, and a wash in a blaze of hazy golden light swept across the meadow. Even if H5 came out of hiding, we would never

see her behind that blazing curtain of golden sunlight. I imagined they chose that exact time to come out of the trees. The angle of the sun meant they would be able to clearly see us while we were blinded. I wanted to shout out, “But we’re supposed to be watching *you!*”

Defeated, Kirk and I returned to the Jeep and drove around to Gobbler’s Point, hoping to catch H5 in the open from a new vantage point. We thought we might catch her with the sun at our back instead of hers. By the time we got there, it was nearly too dark to see elk in the valley even if we found them.

Gobbler’s Point was lovely. All aspen and open meadow literally bursting with wildflowers – purple lupine, yellow sunflowers, fuzzy little pussy toes, delicately hued wild roses, chokecherries, large softly toned sage brush, fairy trumpets, and classic blue and white columbine. The stunning evening light made calf-high grasses throw long shadows, and the pale skins of a thousand aspens were awash in rose and gold hues. The air went crazy with bird song. Robins and mourning doves, chickadees and finches sent their twitters and churrrps cascading from the trees. Some songs I would not recognize for years to come, though at the time their summer serenade filled me with a gleeful energy.

A sleek mule deer doe and her dark, spotted fawn moved lazily through the meadow only a couple hundred yards away. The fawn practically bounced through the meadow, prancing ahead of its mother before it turned and high-stepped back to her side. The young deer nursed briefly in the evening glow and for the first time I got a hint of what the summer could bring. An emotion greater than the fear and uncertainty I had been clinging to welled up from somewhere deep inside my chest. I swallowed hard, and turned my face from Kirk.

I wanted to lie down among the purple lupine and softly scented wild roses, sky blue columbine and delicate white daisies and let my concerns and worries melt into the soil. I was overwhelmed with a sense I might actually be in the right place after all. I began to believe I would, in the end, see elk. I experienced a sudden urge to feel the soil under my hands.

Slowly I began to kneel, and the doe’s enormous ears stood up like flags. Her fawn followed the example. The doe lifted her nose to test the breeze. I could see her eyes widen slightly before she and her fawn turned and bounded away in high, Tigger-like bounces.

“Oops. Sorry,” I said apologetically, the moment broken.

“No worries. We won’t see any elk with the light like this. Let’s go find a place to watch the fireworks.” Kirk led the way back toward the Jeep.

Avon is famous for its July Fourth fireworks display. The small community draws spectators from miles around, tourists and locals alike. Kirk and I bypassed the crowds, and drove the best seats in town at the base of a ski lift near the top of Beaver Creek. While waiting we talked about random things; school, experiences at Pingree, wildlife, drugs. Kirk had experimented. I had not. I thought maybe my discomfort would be lessened if I did try to loosen up more often. Before I could berate myself further, the darkness of the northern sky lit up unnaturally. Brilliant blue and red sparks burst like sky-bound weeping willows and rained down over the horizon. Twenty seconds later, a deep rumbling carried up the mountain and my blood throbbed with it.

Another splash of sparking fire illuminated the dark sky. I adjusted my position on the ground, and wondered how the sound and smoke from the pyrotechnics affected the animals in the area. Did they cower and hide during this ruckus? Would nocturnal hunters like owls go hungry, unable to see or hear their prey scurrying through the grass below? Perhaps we didn’t see any elk because they got a hint of the upcoming disturbance, and retreated further into the backcountry.

“Hey Kirk,” I asked between explosions, “there are actually elk out here, aren’t there?”

He turned and smiled, “Yeah, they’re just being stubborn. We’ll go out again tomorrow and see if we can’t track some down.” His voice was quiet, gentle in the evening air. The coolness of evening was just settling over the slopes. With the right companion it was the kind of night that could be electric with more than fireworks. I ached for that companionship. I ached for it with someone who was not Kirk. Yet I felt a kind of bond with this man I had shared such close personal space with the night before.

I didn’t know if or how to say anything about my suspicions, or about my feelings for Dale. I hated not knowing what to say, my cowardliness a shameful weight on an already overwhelmed heart.

I wished I knew how to open up, to relax, to not be so uptight. These were traits learned from years of practice of never letting anyone too close. Yet I wanted to be the

woman I wouldn't know for another five years. I wanted to be the woman who over time eventually became comfortable in her own body, confident with men, and able to share a close space with them. In my early twenties, still painfully underexposed to life despite all the fantastic experiences afforded me by a loving, middle-class, supportive family, I remained a scared and uncertain little girl. When did I learn to be so cautious? Why did it take so long to strip those hard outer shells away? My older self rolls her eyes now and wonders what might be different today if my younger self had been more adventurous.

An exploding flower of red and white sparks filled the entire southern sky. In the darkness between flashes I could make out the white puffs of smoke drifting from the Eagle Valley below. A faint waft of gunpowder drifted over the mountains on a faint breeze. I was relieved for the distraction of fireworks as the final cacophony of explosions filled the valley with light and sound, unaware that in only a few months a fire atop Vail Mountain would again fill the mountains with smoke.



I interviewed for the elk crew position on a beautiful sunny day in April. I arrived I arrived at Kirk's office to interview for the field crew position with sweat prickling under my arms. My throat was dry and I licked my lips, swallowing hard. Taking a deep breath, I knocked firmly on the door. I could hear movement inside, and Kirk appeared, comfortable in shorts and a t-shirt. I felt a little overdressed in dark slacks and a blouse. I thought maybe I had spent too much time staring at my closet, wondering what to wear. I had wanted to be professional for the interview, and was afraid of overdoing it in a profession where jeans were the common business attire.

"Hi Callae. Come on in." Kirk led the way through a maze of graduate student desks and I was glad none of his officemates seemed to be around. He pulled out a chair next to a desk cluttered with papers. "Sorry about the mess. Make yourself comfortable, and we'll get started. I was just reviewing your application." I perched on the edge of the chair, and tried to look calm. Kirk leaned back in his chair, casual. He seemed to be trying to quietly put me at ease. I scooted back in my chair an inch.

Kirk shuffled some papers in front of him. “Alright, let’s begin. First I’ll remind you what to expect this summer, and then I have a series of questions for you, and at the end you’ll be able to ask me whatever you want.” I nodded, forced a casual smile. Kirk briefly reviewed the study and the field work, mostly telling me things I knew already.

“Okay, let’s start.” Kirk looked down at a paper in front of him. “First off, tell me something about yourself, and why you want this job.” He picked up a pen, and looked at me expectantly.

I thought it would be hard to loosen my tongue. Once I began though, it flowed pretty easily. I told Kirk about my Colorado upbringing, living in the foothills, how my parent’s encouraged my outdoor exploration, and how this fascination with nature led me to the College of Natural Resources College at CSU. As I spoke, I realized I did actually want to be involved with a project that would help with future management decisions in the future. The skills I would learn would be invaluable. A vision of an elk standing in the trees behind Dovestring came to mind.

“I would be really excited to spend the summer watching elk,” I said. I was surprised at how much I meant it.

Kirk smiled. “What field experiences do you have?”

I was certain this one question would prevent me from getting the job. “Well, honestly, I have never had field job like the elk project, though I have volunteered for five summers on a bluebird nest box monitoring project.”

I didn’t really think walking through meadows checking on bluebird boxes and banding chicks would hold much weight against a field job requiring a week’s stay in the backcountry. So I kept my explanations brief, focused on skills and personality traits I thought could cover for not having backpacking experience, or having been on an actual field-crew before. I talked about reliability and being a quick learner, and how I looked forward to walking through meadows in the early mornings.

“I suppose the other reason I liked it is that usually I was the only one out there. I enjoyed the solitude.”

I was surprised when I realized I meant it. I did like being alone. So why was the thought of spending a summer alone with the elk so discomfoting?

“Good,” Kirk said. “Most of the elk field techs work on their own during the week. Let’s talk about some of the practical skills.”

We discussed my experience, or lack of it, with the kinds of gear the study required. I had used most of it, if only briefly, including the telemetry gear which I last used when tracking someone’s pet dog in a wildlife method’s class. I grinned, remembering how the dog wiggled and bumped into the people attaching the radio collar around its neck. Someone then walked the dog away from the group, out of sight, so we could practice homing in on its signal.

Kirk went on to ask me additional questions. Just about the time I settled down from my initial jitteriness, the interview came to a close. Kirk walked me to the door. “Thanks for coming. I should have an answer for you in a couple of days. If you have any other questions before then, let me know.” He held out his hand. I resisted the urge to wipe my palm on my pants before shaking it.

Kirk called several days later to tell me he had found enough people for the positions and would not need me. I was not surprised. What did surprise me was the real disappointment I felt. I knew I had lost out on a chance to do something incredible. If only I believed in myself more, I thought, the interview would have gone better.

A week later, the phone rang again. It was Kirk. Circumstances had changed, and would I still be interested in the position? My heart started pounding. He suggested I think about it and let him know. I did not need the time.

“Absolutely!”

Ironically, the first elk I would see in my official capacity of elk observer was almost a dead one. The morning before the rest of the field crew arrived, Kirk and I went out tracking a mortality signal. Kirk had picked up the characteristic double-beep mortality signal emitted from a stationary collar from the airplane several days before and wanted to collect the collar. Radio collars can be fairly expensive, and even with Vail footing part of the bill the equipment was worth reclaiming. Recovered collars will be refurbished and reused on future animals.

We were also curious about how and why the animal died. As with most wild animals, the very young and very old are most at risk for predation. Many of the collared elk cows in the Upper Eagle River Valley study did not fall into either category. Perhaps the cow we tracked had been caught unawares by a bear, had been injured, or suffered from an illness.

Recent years had seen a rise among Colorado ungulates in the mysterious, brain-damaging disease known as chronic wasting disease. The disease, a fatal neurological affliction in the same category as mad-cow disease, changed the infected animal's appearance and behaviors. Infected animals became emaciated, disoriented, and uncoordinated. Though biologists did not believe the ungulate version of the prion-illness could be transferred to humans, hunters were strongly encouraged to take precautions with their game meat. Recommendations included using gloves when field dressing, avoiding consumption of nearly all internal organs, and of course, avoiding those animals physically appearing ill.

In addition, the Colorado Division of Wildlife asked hunters to deposit the heads of their kills into various "drop boxes" around the key hunting regions. Over the course of the hunting season, someone from the Division, often an underpaid intern, came and collected the heads. The bodiless heads would be returned to research labs for dissection to look for the characteristic signs of lesions in the brain. My fellow wildlife student and friend Melissa had been a "head-hunter" for part of a summer, and found the duty disheartening at times, though she knew it was for science. Driving around with a trunk full of decapitated elk heads was not one of the more glamorous aspects of being a wildlife biologist.

It did not even occur to me at the time I stumbled across a rocky meadow with Kirk in search of a dead elk that we may be on a mission to remove its collar, as well as its head. Fortunately, I never found out if that was part of the plan.

The road we had jostled up reorganized my internal organs, though the discomfort proved well worth while when we reached our destination. After parking in a rutted pull-out, Kirk and I hiked through a thin stand of pine trees before breaking out into a huge, wide meadow. Trees ventured into the meadow like fingers reaching out to caress the softer face of meadow grasses and blooming pea-family flowers. The legumes blanketed the ground in

tints of pinks, purples, reds. Much of the lower hillside was covered in aspen. The understory of aspens glowed yellow with sunflower-like arnicas, and blue spiky lupine.

I would have enjoyed the beauty more had there not been fresh tire tracks running straight through the meadow. The tires, from a Jeep or maybe an ATV had smashed flat the legumes and other plants leaving a permanent mark. It was too easy to forget the closeness to humanity when lost in the open meadows and gently rustling aspen grove canopies.

We bushwhacked across a steep slope and I struggled with breathing and setting my feet in the right place. I had a hard time keeping my balance on the rocky, uneven ground. My thighs ached and I kept tripping. The repetitive beeps from the radio did nothing to calm my irritated nerves and I could not shake myself from a strange daze that enveloped me. It felt like I was still wrapped in a cocoon of sound and smoke from the fireworks the night before. Everything felt slightly out of kilter. I hoped Kirk did not notice.

Kirk stood slightly uphill from me, spinning slowly with the radio antenna held up high. Nothing. Our weak beep went silent.

“Well, let’s try from a new angle,” Kirk said in a voice not quite hiding the frustration I also felt about not finding any animals. He led the way up the slope toward the flatter crest of the hill. I kept an eye on the ground ahead of me, trying to avoid rocks. The terrain was pockmarked with holes, stumps, and uneven ground. I had already learned the meadows that look so smooth and flat from the distance of a highway or airplane are as difficult to negotiate as alpine slopes. Kirk looked back briefly, “I think we’ll head over to...”

He was interrupted by a tremendous whumphing as a flurry of feathers exploded from the ground just in front of his feet. We both jumped. My heart thudded hard in my chest. The ball of feathers didn’t go very far, disappearing from view in the thick carpet of flowers a few feet away.

“What the hell was that?” I gasped. The minor expletive sounded strange in my mouth. Not that I was adverse to strong language, just that I typically tried not to use it around my bosses.

“Yeah, startled me too. Let’s go look. If we’re slow, she probably won’t flush again.”

We walked carefully toward the landing spot. I held my breath, ready for another explosion. It didn't come. There, flattened against the ground among the purple lupine and red paintbrush squatted a bird I recognized as some kind of grouse. She sat perfectly still, except her black beady eyes which rotated to stare up at us. An odd purring-clucking sound rose from the ground. I looked at Kirk sideways, questioning.

"Blue grouse," he said in a low voice.

Oh, right. I knew they were up here though I had never seen one before.

"She's not exactly blue, is she?" I whispered. One bright eye rolled in my direction, and was briefly hidden by a blue-tinged eyelid. Her feathers were more of a brownish-grayish color and her oval head and diminutive beak looked disproportionately small compared to her round, feather-puffed body.

Kirk spoke softly, "She might have a nest nearby. Maybe chicks. Let's not bother her anymore."

I nodded and stepped carefully away. There was no sign of movement behind me, even once we reached the top of the slope, and walked out of view.

"Hey Kirk," I called, "Shouldn't it be pretty easy to find a mortality, since they aren't moving?"

Kirk nodded. "Sometimes they die in really difficult to reach places. Or if it's a predation mortality they may be dragged into some crazy place."

"Where is the strangest place you have found one?"

Kirk grinned. "That's a funny story. I had gotten a mortality signal from this cow up one of the trails outside of Vail, and was going to pick up the collar when she seemed to start moving again. That was weird, though sometimes the collars send out the wrong signals. Anyway, I couldn't find her. At the time I thought it was kind of odd that she seemed to be heading into Vail. I lost her signal for a while, and tuned into it again when I got closer to town. I tracked it to some guy's pickup in a condo parking lot. He'd found the collar while out hiking, and packed it out. I'd been tracking a truck!"

Kirk's chuckle was contagious. I grinned. The motion helped briefly lift the cloud that had settled heavy on my shoulders since morning. It also helped quiet the increasingly active butterflies in my belly. Tomorrow marked the first day of the official observation

periods. Tomorrow I would walk out of the apartment with everything I needed for a week in the field on my back. I didn't feel ready.

Kirk decided we spent enough time trying to find dead elk, and we turned back to the vehicle. As we drew near, another sudden explosion of noise and feathers from the grasses a few feet ahead of us again brought my heart into my throat. This time a male grouse that rose and flew somewhat awkwardly into the branches of a nearby tree. I was surprised. I didn't know they could fly into trees. I had so much to learn and I could not quite reconcile the conflicting emotions rising in my chest. On one hand I felt excitement to be outside, to learn more about this habitat, to experience and be part of a field crew. On the other I sensed a deep insecurity coupled with a fear of not knowing, and perhaps, a fear of knowing.

Kirk and I returned to Vail in relative silence. Maybe the lack of elk disheartened him as well. Or possibly he too was feeling the pressure of the upcoming weeks and was preoccupied with thoughts of where he would send his crew members to acquire good data. My thoughts were amorphous, cloudy bubbles, and I could not grasp onto any one of them securely. Like an animated cartoon, images against the fragile skins of bubbles floated through my head.

One misshapen mind-bubble blurrily reflected a backpack with unfamiliar gear strewn all around it. Another bubble-image depicted heart-wrenching beautiful landscapes. Then an image floated through of a blue tent perched on the peak of a mountain with lightning strikes bouncing everywhere. Long-legged elk wafted through my head teasingly, appearing and disappearing into a hazy background too quickly for me to really see them. A cloudy scene taken as though from wide-angle camera passed by and I saw myself sitting at a spotting scope, looking intently through the eyepiece. I was oblivious to the bear lumbering up behind me. As the bear approached it stood on its hind legs, aggressively and morphed into the figure of an unknown man. The man-bear image floated away only to be replaced by a new bubble reflecting my own face. The particularly cloudy image cleared and I saw my expression, lips tight with doubt, hazel eyes wide with fear and the real-time me had to swallow hard against the rise of bile in my throat. I willed the frightened face out of sight and would have popped the wavering skin of the offensive globule had I been able to reach it.

The imaginary bubble settled down on the floor of my consciousness where it would stay for many long weeks to come.

That evening sitting on the floor of my shabby West Vail apartment, I allowed myself to acknowledge the eve of departure had finally arrived. Gear lay strewn around me in a random assortment of brightly colored, lumpy nylon bags. The only sound in the room was my shallow breathing and the tinkling of pipes behind the refrigerator. Tightness in my chest held back hot tears. At nearly 10:00 p.m. I had yet to successfully fit everything into my backpack.

The Gregory pack, was as long as my torso and boasted an internal compartment of 4,700 cubic inches. I thought there should be ample space, except every time I filled it to capacity a half-dozen things remain scattered about.

I had all the regular gear necessary for a week in the field; tent, sleeping bag and pad, cooking equipment, water bottles, water filter, first aid kit, rain gear, warm clothes for high altitudes, and toiletries. Additionally, I would carry extra gear necessary for the job of watching elk; a spotting scope and tripod, binoculars, telemetry radio receiver and antenna, a tarp and a field journal. I also planned to stuff in a book, journal and a camera. I needed to leave room for food, too.

I didn't know why I was having problems, especially since I had been through a similar routine when preparing for the overnight with Kirk. Of course then we split some of the gear and carried less food. This time, even though I planned to work with both Kirk and Rick for the first week, I was responsible for all of my own effects.

I had no idea how to pack in the tent, or radio receiver and antenna or high-powered spotting scope with its heavy tripod. The binoculars I planned to hang around my neck. My relatives also kindly lent me a sleeping bag and pad along with a cute little candle lantern I was determined to use. I didn't know if I could to lift the pack if I did figure out how to fill it. If getting to my observation site proved as frustrating as packing, the elk would hear my cursing long before I arrived and I still wouldn't see any.

“Why won't this sleeping bag fit?” I grumbled into the empty room.

There, almost got it! Somehow there is more space in this pack this time. Maybe I'll be able to fit the tent inside after all.

“Oh damn it. Where's the sleeping pad?” My voice bounced back from the walls hollowly. I glanced around the room and found it next to the couch. I wanted to scream my disgust, and instead grabbed the pack roughly by its bottom and upended it, sending nylon bags flying. Time to start fresh. Again.

Collapsing disheartened on the ugly brownish couch, I thought about how Dale might pack. I knew he would have some good suggestions. I wished he was done with his summer class so I wouldn't have to wait another week to see him. My eyes felt dry and scratchy. I worried I might forget something, or would run out of food or a bear might eat it, or the water filter would break. I thought about leaving some clothes behind to make room for the sleeping bag. Then I remembered the chilly night on the mountain with Kirk and thought better. I wondered if I would ever be able to relax enough to relieve myself in a hole I had to dig in the ground. How many other people might I run into?

A part of me thought I was foolish to be more worried about meeting strangers than running into a hungry bear. Despite the empty apartment, I felt safe and somewhat comforted behind my own walls, bare and stark as they were. I even hesitated to go upstairs where Kirk's apartment was suddenly filled with most of the rest of the summer field crew. When Rick, Chris and the Alldredge's drove up to the apartments earlier in the afternoon, the dynamic of the summer changed within moments.

Long-legged Rick I knew from when we took the pre-season weekend camping trip over Memorial Day weekend. I really liked Rick. Where Kirk could be intense and reserved, Rick was easy-going, friendly, and had a wicked, dry humor that immediately lifted my spirits. A born and bred Indiana Hoosier, his voice contained the thick, subtle syrupiness of a near-southern lilt. Coupled with his winning grin, honest eyes, and quick humor meant I felt comfortable around him immediately. He was tall, slightly taller than Dale, and thinner of face and torso.

Shortly after Rick's appearance, Chris, the fifth member of the elk study crew arrived. Chris worked with Kirk the year before, was an avid hunter and outdoorsman, and a sort of lone wolf on the team. I interacted with him infrequently throughout the summer and he

played little role in my experience. Yet he added a new body and voice to our suddenly bigger team that night before the first day of the Elk Study.

Bill Alldredge and his wife Jo Ellen and daughter Jolie also came from their camp in the wilderness, with plans to be present for our first morning “staff” meeting the next day. Jo Ellen, a brilliant scientist in her own right, vivacious and carefree seemed a good match for Alldredge. Jolie, much like her father, was spunky and fit. I pretended differently around them even though I felt totally out of place around such confident, strong, smart women. Would I ever become the carefree, secure woman I saw in Jo Ellen and Jolie? Instead of admitting my concerns and asking them for advice, which they would have gladly shared, I felt I had to appear as suave and confident as the rest of the crew.

While I struggled with my gear, the rest of the crew was upstairs, talking, laughing, bonding. I wanted to put aside my insecurities, and go join the group. Instead I was hiding, not getting involved, and taking too long to pack for the next day as an excuse to hole up with my own thoughts. I didn’t know what to do with the myriad, swirling emotions I was experiencing. I should have been able to enjoy the new things around me, learn from them, and instead I was distracted, feeling out of control, and totally uncomfortable. The negative thoughts overpowered those that reminded me I was also truly excited about the upcoming adventure. I looked forward to seeing elk, to learn how to survive in the woods, to feel closer to the natural world. I wanted to prove to myself the ability to accomplish this challenge. I hoped I would get stronger, less frightened, less winded and drained.

After a couple more attempts with the gear and the pack, success! Finally, I was joined in the apartment not by a schizophrenic scattering of gear, but a single, complete entity. Somehow I found a way to shove everything inside the pack, except for the tent, sleeping pad, collapsible radio antenna and tripod. These were strapped in a variety of positions on the outside. If I managed to lift it to my back it would look like I was toting a lopsided child, arms and legs askew in heavy sleep. I tried to heft the pack onto the couch, and struggled to move it even that far. I guessed the pack weighed close to sixty-five pounds. Perhaps in the morning I would feel stronger.

I remembered Dale's note, sent before I left Conifer. His was the only voice missing from the upstairs party. The only reason I might have broken through my shell and joined the group. Maybe he would have some insight for me.

I retrieved the small, cream colored envelope from its place in the pages of my journal. On the front, in the small, scrawled letters that sent my heart racing still read, "*Field Notes: to be opened in the field.*" The envelope tore slightly as I opened it.

Dale did not write much. He said that I would experience a change over time. He knew from his own experiences that at first I would worry about survival, and the job itself. Later I would find my thoughts settling into contemplations of deeper subjects, allowing introspection to become part of the experience. He encouraged me to relax, and said he believed in my ability to be successful. He wrote he was eager to see me again. The last lines touched me the most. "*For now, know this. You are not alone in the field.*"

Not alone. I remembered to breathe. I read the words over again. I would not be alone.

I wondered, was it truly the fear of being alone that caused my chest to squeeze smaller on this eve of departure? Or was it merely fear of the unknown? I gently tucked Dale's note inside the journal going with me into the field. It was time to leave my fears behind. There would be plenty of time to worry about tomorrow, tomorrow.

Chapter 4 – Elk Mountain



Rick cheerfully broke eggs into a pan in the small square of Kirk's kitchen the morning of the first week of elk observations.

"Beautiful day for a hike, don't you think?" Rick called out when I arrived.

Kirk merely grunted as he snagged a sizzling sausage from the stove. Outside it was drizzling from sobering grey swirling clouds. I did not look forward to starting our hike in the rain, or to the possibility of setting up a tent in it.

"Hey Callae." Rick said, busy scrambling eggs. "There's a Tupperware container on the table next door. Would you go grab it, please? The door's open."

"Sure." I crossed the few feet between apartments and felt strangely invasive stepping into another man's living space. Rick's apartment, the one he would share with Dale looked just like the others. A tall, fat pack rested against the ugly couch. The open door into the bedroom at the back of the living room showed a bed covered only in a sheet and a few personal items. Despite my unease entering Rick's space, I felt strangely comforted knowing where Dale would be sleeping when he arrived the following week.

Back in the active kitchen I asked Rick about the strangely heavy Tupperware container.

"Go ahead, open it." He grinned. Inside I found a delicious, homemade-looking coffee cake.

"That's Katie's 'good luck' gift." Rick's smile broadened. "Made from scratch yesterday. Do I have an amazing wife, or what?"

Katie, Rick's beautiful wife, was as enthusiastic about backpacking as her husband. Unable to sacrifice her job, she would only be able to see Rick on the occasional weekend during the upcoming summer field work, and only if she came to Vail. Whenever she had the opportunity to visit, she inevitably brought something delicious to eat.

Breakfast became a community affair as Chris and the Alldredges joined us. The apartment became the center of bustling activity. I stuffed myself to bursting with eggs, hash

browns, sausage and coffee cake. Boisterous conversation filled in the space in my chest where food didn't fit. I moved into the living room where I felt better able to breathe.

One wall of the living room was entirely filled with pieced-together USGS topographical maps of the Vail and Beaver Creek study areas. The two study areas were outlined in different colored pens, bold against the otherwise pale greens and russet background. The boundaries of the larger Vail study polygon were designated by I-70 running west from Copper Mountain to the intersection with U.S. Highway 24, then south to nearly to Leadville and Colorado Highway 91 and north again back to Copper Mountain. The outline somewhat resembled an oblong, jagged human ear.

If the Vail study area resembled a severe case of cauliflower ear, the smaller Beaver Creek study area would be like the temple region between the top of the ear and the eye. It was also bounded on the north by I-70 from the Intersection with Highway 24 west just past the small town of Edwards. To the south the study area dipped into the Holy Cross Wilderness Area and its followed natural drainages on the east and west sides.

The maze of lines and locations and place names on the giant wall map meant little to me at the time. I could pick out the path of I-70 without being able to visualize anything beyond its narrow corridor. I wasn't even sure where Kirk and I had been during the previous week, and did not want to draw attention to myself by getting a closer look. In many ways, I did not fully comprehend the scope of the study until recreating the experience years later by scrutinizing maps in an attempt to rediscover exactly where I had been.

The group began to gather in gathered in Kirk's gear-packed living room for the first of six Monday morning meetings. Spirits remained high, despite the increased drizzle outside. These meetings gave Kirk a chance to check in with his crew, finalize our observation sites for the week, and update us on any new information he had received during the most recent airline telemetry survey. Once we brought in data from our week in the field, Kirk used that to determine our priorities for the upcoming week.

On a more subtle note, Monday meetings also acted as a kind of morale booster. Before beginning a long week in the field we were reminded that others were also out, getting cold or wet or frustrated. While we may be scattered across the map, working in isolation, we were in fact part of a supportive team. Happily, for the first week, I would be

working with Rick and Kirk. Kirk wanted us to return to the same site where a few days earlier I had uncomfortably spent the night in his narrow tent. This time I looked forward to sleeping in my own tent, and I hoped we would finally see elk.

Chris and the Alldredges left fairly quickly after the meeting for their week afield. The apartment felt emptier without their enthusiasm. Kirk thought the weather would clear a little later in the day and since it wasn't a very long hike in we could afford to take our time leaving.

I returned to my apartment where the chunky backpack weighed down the couch. I brushed my teeth and pulled my hair back into two tight braids wondering if I had forgotten anything. I had triple checked for tent poles yesterday, and thought I probably had plenty of food. All the gear for observing was strapped on, and my field journal and pencil were safely zipped up in a plastic baggie. Just to be safe, I rolled up a little more toilet paper and stuffed it in my pocket. I was glad I wouldn't be dealing with my monthly cycle for another couple of weeks, and hoped when it came it might be one of the lighter ones.

I disliked the nervous anticipation of waiting for action. It allowed my mind to dwell too long on the "what if's." I tried not to fidget while I waited.

I had gone to Colorado State with the intent and absolute certainty I would leave it as Dr. Frazier, D.V.M. Even after being in the college of Natural Resources for a few years, I was still adjusting to the realization that I did not, after all, want to be a veterinarian. Despite declaring at five that "I wanna be a vet-ra-nar-an," a voracious appetite for Doctor Doolittle and James Herriot books, and determination through high school which included weekly visits with a local vet, my desire faded considerably after the first semester at college. There were too many girls growing up with the same idea. I envisioned too many future hours in windowless rooms and the pervasive smell of latex gloves lingering on my hands for days. I was as surprised as friends and family when I finally realized I simply wasn't passionate about the very thing I once imagined doing the rest of my life. The only person who wasn't astonished was the local vet I spent every Friday afternoon with since ninth grade. Perhaps he was one of the few people who understood that James Herriot's and Hugh Lofting's influence had more to do with how they told stories rather than how they portrayed doctors.

I never expected to be someone who could be “weeded out.” I couldn’t believe my resolve had crumbled. I didn’t dare share my uncertainties with my parents at first, knowing they would support me regardless while also convinced of their disappointment. The shame and doubt sent me scrambling down a dark road, trying to decide what I would study in school. I had yet to understand that declaring a major did not mean signing a binding promissory note that carried horrendous consequences if broken. That passion for something is not a statement made at five that you try to grow into. Sometimes by letting go of the very thing you think makes up your mettle, you instead find something brighter underneath. All I knew then was I had to choose. I had never been good at making decisions.

Eventually, I strayed into wildlife biology, something that suggested animals would be involved. Though more women were coming to the discipline, the major at Colorado State University was still primarily dominated by men, a hunting culture, and big-game, wildlife management focus. The classes were fascinating. I especially enjoyed the big-picture ecology courses even when the material left me overwhelmed. The depth of the questions and philosophies about game management, land management, and field study methods swirled around me in denser and denser waves. I was intimidated by older students who had intelligent, probing questions. My brain was so full of terms, methods, processes and doubts I often spit back the wrong answers on tests. I found regurgitation wasn’t enough. Everything you learned or thought you learned was questionable, held in doubt. You were always challenged for your reasons, your logic, and your synthesis of ideas.

I also learned I really knew nothing about outdoor experiences. Never mind that I grew up in the foothills on nearly ten acres of land or that I hiked alone through meadows at daybreak, and had seen bear and elk from the house. It wasn’t anything like camping, or even backpacking in wilderness. I had no experiences on par with studying penguins in Antarctica, or counting fish in Alaska. I liked to think of myself as physically active because I enjoyed hiking until I met classmates who had mountain-biked along the canyons of Moab, run rapids in Montana’s wild Snake River, or free-climbed new technical routes in the Tetons.

Additionally in a field of study built on the backs of conscientious hunters, I had only ever shot my father’s .22 rifle a few times, usually into scraped away cliffs up around old

mines. I doubted I would remember how to unload it, and I wouldn't even know where to place a shot to fell a deer or elk. I had fallen into an outdoor enthusiast, hunting, biking, hiking, climbing, and rafting culture I knew little about. It was both uncomfortable, and surprisingly exciting.

It took me some time to feel at ease in my new collegiate "home." I stayed a shadow in the department as I attended classes without connecting many others. Those I did interact with were mostly women. Many of us were either cast off veterinary hopefuls, or field biology focused, interested in conservation or non-game and endangered species. Those with our interests were often referred to as bunny-loving tree-huggers, not always affectionately, and I liked to think not always accurately. What drew us together was a shared desire to make a difference in an increasingly shrinking and compromised environment. We were the changing face of Wildlife Management.

Melissa was one of those women who brought a new perspective to the field of wildlife, and it is because of her I found my place in the department. We both attended the Pingree Park class the summer of our junior year. We gravitated toward one another easily as we discovered our like interest in learning about wildlife biology, a shared joy in non-competitive hiking and memorizing plant names. By the end of our month in the mountains, Melissa convinced me to come with her to some of The Wildlife Society meetings.

TWS had been committed to conservation and management of wildlife through stewardship and education since its founding in 1937. The early part of that decade marked a distinct emergence of a game management; a conservation movement resulting from concern over dramatic losses in wildlife populations due to disappearing habitats and massive extermination of game species by "market" hunters killing animals for profit without considering the long-term consequences. Aldo Leopold, commonly called the founding father of the wildlife conservation movement, and others recognized the need to develop a sustainable plan for wildlife conservation, specifically in terms of game animals.

The first university programs in wildlife management began around this time and helped spur additional discussion and policy development regarding the need to better manage wildlife populations. In 1936 the First North American Wildlife Conference brought together many of those concerned about the state of wildlife in the country. Their meeting

led to the development of TWS, a central professional organization to encourage communication and develop common ethical standards for wildlife hunting. Not surprisingly, Leopold was one of TWS's early members and presidents.

The international non-profit organization recognized the importance of taking young members under its wing and sponsored student chapters at universities across the nation. With my friend Melissa's encouragement I attended one meeting, then another, and in time I realized I finally found a niche in the department.

When I looked ahead down the darkening road of the planet's environmental future, and saw how young people were becoming more detached from the wild world outside their front doors, a powerful desire to intervene rose up in me. I had always felt education was an invaluable part of conservation, and as I became more active in the student organization I began to revamp their tired outreach program. I threw myself wholeheartedly into developing a hands-on, interactive program for young people, frequently to the detriment of my own studies. The active involvement and support of so many of my colleagues and friends in TWS led to the program's success.

By April, when Kirk made his announcement about the Elk Study, I headed a thriving education committee that brought environmental programs to local schools or civic groups sometimes up to three times a week. I began to realize there could be a place for me in the wildlife field. A role that did not require me to pack a sidearm or enforce laws as a ranger, or make politically charged decisions about wildlife management or policy decisions. I began to see I could participate in a gentler, no less important educational role.

So, I started carving my own path through the traditions of wildlife management education which did not preclude me from needing an actual field experience.

Kirk finally knocked on my apartment door in Vail. "Let's get this show on the road!"

Finally!

As I suspected, the pack I had painstakingly filled the night before proved difficult to lift. I carried it with two hands outside and locked the apartment door. At the Jeep, I struggled to heft the heavy bag onto the tailgate.

"Callae, you want some help with that?" Kirk stepped forward.

“No, I packed it, I’ll lift it. Thanks,” I said.

“Hey, Kirk. Since you’re offering, I could use some help,” Rick joked. His pack looked even bigger than mine. I felt incrementally better.

The men and I reached the Camp Hale Memorial Campground area a little after one o’clock in the afternoon. We had driven through a few brief heavy spatters of rain and clouds continued to swirl darkly overhead though the sky had not yet cracked open. Most summer storms in Colorado break over the mountains by early afternoon and veteran hikers know to be heading off the peaks by 11 a.m. Yet there we were, just starting up into them right at the peak time for thunderstorms.

Kirk provided Rick with a brief history of Camp Hale as we pulled off the paved road and onto dirt roads once traversed by tanks and army vehicles. The 10th Mountain Division became the US Military’s elite alpine combat arm. They trained in the mountains surrounding Camp Hale, until deployed to Italy in January 1945. There, in the Northern Italian Alps, the 10th proved instrumental in defeating the German troops, though at great cost. The division suffered nearly 5,000 casualties before being deactivated after V-E Day.

Camp Hale continued to operate until 1965 when it was deactivated and the land reverted back to the Forest Service. The CIA had even secretly trained Tibetan soldiers in the area once. Kirk reminded us they used to test munitions in the area and we needed to be careful if we found old, metal objects. I was surprised he hadn’t mentioned this on our first trip to the area.

“Have you ever seen one?” I asked from the back seat.

“A couple shells, and once a burnt out mortar, I think. The most heavily used area is south of where we’ll be. Just keep an eye out and don’t pick up anything that looks like metal.”

Remembering long summer afternoons scouring old gold and silver mines with my father picking up all manner of interesting metallic odds and ends, I was grateful for Kirk’s warning.

I had a hard time imagining the wide, peaceful, empty valley alive with the sounds of military explosions, bustling activity of thousands of people and the infrastructure associated with keeping them sheltered, fed, clean, and entertained. Hundreds of buildings once stood

in the valley, empty now save for a network of dirt roads, a forest service campsite, and a few remaining structures, indefinable except for the informational signs throughout the area. Camp Hale had been an ephemeral community built to serve a particular need during a dark period in the nation's history.

Our small group of elk researchers also represented a fleeting community in this place. The difference was that our community intended to step gently and to leave no sign of our passing. Our goal was to carefully, and quietly observe the inhabitants of this place to better understand our impacts on their survivability in an ever-shrinking planet. I could not ignore the irony that in order to do our job, we profited from those who labored to drain the marsh, redirect the river and build the roads our Jeep traversed.

Two hours later in a car full of men and me, we rolled into the empty turn out where Kirk and I parked the week before. I tumbled out of the stuffy car where pungency from removed boots, and the subtle scent of male musk pervaded. I was also aware of my own scent, laced with the acridness of anxiousness. I didn't dare imagine what the drive home would smell like on our return.

The skies were lighter, and the rain stopped. Clouds spun in beautiful patterns, dark upon light, or light upon dark, reminding me of milk swirled into coffee. The sun began to break through. Kirk opened the back of the Jeep and dragged my pack forward.

“Ready to hike?”

Leaning against the tailgate for support, I slipped my arms into the straps. I enjoyed not having to pick up the pack from the ground, though even with the aid of the tailgate, standing proved more difficult than I anticipated. I rocked a few times before I gained enough momentum to carry my body and its additional weight to a standing position. I took one step and nearly fell on my face. I giggled, nerves and embarrassment escaping in a rush. I was not the only one having trouble. The men also struggled with their hefty loads. I bit back another silly laugh. It didn't help that Kirk, usually so restrained was cursing under his breath as he swung his pack onto his back and Rick was calmly peeing next to the Jeep.

Within moments of beginning the climb, I felt the burn. Every time I took a step my lungs strained to find enough oxygen at altitude to feed my trembling legs. My thighs and

buttocks stung. I hurt whenever Rick opened his mouth and reduced me to another fit of giggles.

“Hot-Diggidy-Damn. Could this thing weigh any more?” Rick panted, his long torso nearly covered by the bulky weight of his gear. “You know, by the end of the summer we’ll have asses even the mountain goats will envy.”

Rick kept up a running commentary as we climbed.

“Jesus Kirk, you trying to kill us on the first day?”

I found myself snickering at just about anything he said. My legs felt like jelly, my lungs ached, my head felt heady and light. I was, I realized, helplessly giddy and embarrassingly near-hysteria. I imagined another step or another ridiculous comment might careen me down the mountain in an out-of-control tumble. Yet somehow I found the energy to propel myself forward. By the time we reached the half-way mark, even Rick’s narration gave way to heavy, concentrated breathing. Kirk struggled silently, almost belligerently up the slope. I kept my head down, and tried to ignore the pain.

We finally reached the ridge in triumph.

“Thank goodness that’s over,” Rick said, panting hard. Kirk’s pale face was flushed from exertion, and I imagine my cheeks bloomed crimson.

The view from the ridge was even more beautiful than I remembered. The ridgeline gently curved to the south and north, snowfields draped down its north-eastern flanks. Tall granite outcrops stood watch over the sloping benches. The alpine carpet glowed with flowers and thick, green plants. In the distant valley two narrow streams sparkled briefly in the sun. This is where I would be living for the next week. I hardly believed it.

I found the trek down to the bench easier this time. A marmot whistled. I could not find his fat, butterscotch body among the piles of shale. Soft-ball sized, energetic pika, “mweeped” at us from the rocks. Also known as cony, rock rabbits and chief hares, I think the name pika suits them best. It is short and sharp, like the small, grayish-brown rabbit-relation’s warning squeaks.

We carefully set up our three tents on the tender alpine meadow at a site very close to where Kirk and I had been the previous week. While the men arranged their own living quarters, I impressed myself by figuring out my tent for the first time without any help. I

attempted to cover more rock than vegetation, and found it difficult to accomplish. I apologized to the tiny blue chiming bells and pink candytufts I covered with my tent's oval footprint.

When erected, the size of the tent surprised me. Much bigger than Kirk's, it seemed far too large for just one person. I could sit up inside quite comfortably, and there was plenty of space for two people to sleep without spooning. Later I would be glad for the extra space to store my gear.

Our little immediate community of tents formed a kind of wobbly semi-circle on the tundra. Our entrances faced east toward the stunning valley below. Behind, the tall rock faces holding up the ridge stared out stony and impassionate from craggy, old men's faces. I thought about how big we looked on the tiny world of the alpine where everything from plants to animals are small to survive the extreme conditions of temperature and wind at 12,000 feet.

At 2:30 p.m. we set about making a big afternoon meal that would get us through the long evening observation. I hadn't done much with a stove since the Memorial Day weekend and Rick talked me through the process of starting a MSR whisper-light stove, as Kirk went off to pump more water. I missed the days when you could drink directly from mountain streams. Today most rocky mountain streams are full of bacteria that will play havoc with your digestive tract if swallowed.

After a few initial struggles, I got the stove to light and we soon had boiling water. The evening meal became a backpacker's delight as we ate pasta with re-hydrated pesto sauce and as a special treat, real piñon nuts. The nuts were Rick's contribution. He even brought parmesan cheese in a tiny plastic shaker.

"You ready to watch some elk?" Kirk asked.

"You bet." I swung a slimmed down pack onto my back and feel like prancing across the bench the lighter weight felt so good. Maybe I would finally see the elusive animals I had been hired to observe.

We moved southward together searching for a good place where we could look over into the clearings on the opposite ridges. We passed through the same stretch of pine trees from my previous visit before Kirk broke out the telemetry gear. Strong signals came from

the trees on one of the slopes across the valley, a half-mile distant. Now began the waiting game. We set up our spotting scopes, aimed in the general direction of the elk's signals. Thick, dark clouds moved in from the west. I did not want to spend my first observation period in the rain. I pulled out a large, crinkly tarp from my pack, refolded it and sat on it with my legs stuck straight out in front between the tripod's legs. I fiddled with the knobs for a bit, trying out different heights and angles, swiveling the scope to get its feel. It reminded me a little of the large spotlights I used to handle during theater productions. I trained the scope on an opposite hillside and peered through, trying to focus on different objects.

It was more difficult than I anticipated. I could focus well enough with binoculars, and found the monocular scope surprisingly tricky.

"Hey Kirk, any suggestions about how to see through this without holding a hand over one eye all the time?"

"Try closing one eye."

"I can't."

Kirk looked from his scope next to me incredulously. "You can't close one eye at a time?"

"Nope."

"Really?" Rick looked at me too. "You can wink, can't you?" He winked first one, then the other hazel eye.

I scrunched up what I imagined was just the right side of my face, trying to close one eyelid to no avail. I had practiced in the mirror before, so I knew both eyebrows shot up, my mouth gaped open so my upper lip nearly touched my nose and both eyes went squinty.

"You're just fooling, right?" Kirk said. "Remember that time Dale had us all convinced he couldn't roll his tongue. He acted like he was trying so hard to get it to roll, and it turns out he could do it all along."

"Yeah, that guy has a tongue like a giraffe," Rick added.

I smiled. I tried a few more variations of what I imagined a wink felt like. "Really, I can't wink."

“Okay, stop. You’re making me hurt.” Kirk smiled. “Sometimes when one eye gets tired I can sort of use both eyes to look through the scope.” He bent down to his scope again, testing, “It’s kind of weird, but if both eyes are looking into the scope, the one further away sort of blurs out. Try it.”

It was an uncomfortable feeling, with one eye out of focus, and I had to resist the urge to bring a hand up to cover my face. I understood what Kirk meant, though. I swung the scope slowly across the landscape in front of me, passing through suddenly close trees and open meadows in a blur. It was hard to adjust to the sudden change in perspective, and my eyes had difficulty focusing. I tried again, more slowly. As my scope swept across a meadow and into the trees, I drew in my breath sharply. There, in those trees, a brown shape. Was that a rock? It wasn’t there a second ago, was it?

Oh! An elk. Another elk and another. My heart started pounding in my ears. Elk streamed through the trees, emerging en masse into the open meadow. The scope was focused on them so closely that they passed through my field of vision in a blur of skinny legs and brown barreled torsos. I lifted my head, and they suddenly shrunk to the size of collies. Maybe thirty of the ungulates stood in the meadow where moments ago there had been nothing. Where did they come from? My chest hurt. It was like magic.

The elk’s initial burst of energy slowed and the herd began to disperse on the meadow. Some animals stood about to browse and other lay down with slender legs tucked under them. I could hardly tell them apart from rocks, except there hadn’t been rocks there moments earlier. I pressed an eye to the narrow lens of the scope. As I suspected, they were all females. Beautiful. Most of the cows had lost their haggard winter coats, and were sleek and glossy; butterscotch and chocolate. Long, surprisingly graceful necks bent as they lowered their heavy triangular heads to graze. When I practiced zooming in I could see their long eyelashes against their dark brown eyes, and the thick vein running up their bony cheeks. I make out a flash of white around one female’s neck at the same time I heard Kirk inhale sharply. A collared elk!

“Looks like K,” Kirk said in a low, excited voice. It took me a moment to adjust the scope until the collared animal was in view and I clearly saw the large black K on its collar. Five other adult elk were in the view as well. It slowly occurred to me something was

missing from the otherwise tranquil scene when twelve arrowhead shaped ears stood to attention, and six large heads swiveled toward the trees. Calves, small, spotted replicates of their mothers, bounced, hopped, danced, pranced out of the trees. I felt my own legs twitching in response to their elk dance.

I wanted to keep dancing. The calves had something else on their mind. They immediately ran to their mothers who stood to meet them. A few rubbed noses before the young animals arched down and butted their heads into mom's udders. The calves did not nurse long, just long enough for each cow to reach around and give her calf a good sniff, perhaps even a quick tongue lap along its tawny flank. When the two ungulates stood next to each other the calves' narrow heads just barely reached above the adult's belly.

"Well I'll be. Isn't that just about the neatest thing you've ever seen?" Rick said quietly, enjoying the moment. I could tell Kirk was also energized to finally see the subject of his research in the flesh again.

"Did anyone see K nurse?" Kirk asked. I had been so entranced in the scene I forgot I was supposed to be watching one elk in particular. With a collared animal in view of the scopes, we needed to keep an eye on her to see if she nursed a calf. If a young elk fed for at least ten seconds, the animals were considered a cow-calf pair. The cow would be marked as successfully raising a calf and we would no longer need to officially watch her. None of us noticed a calf nursing with K, so we needed to continue to keep an eye on her. Each cow that did not nurse a calf right away would be observed for a total of 350 minutes of observation time before she was put into the "does not have a calf" category. K had plenty of time to prove to us she either had, or did not have a calf.

That first evening, I remained so hypnotized by the elk I did not at first realize the sun was sinking and the temperature dropping. A crinkling of nylon brought my head up from the scope. Rick was pulling on an outer shell over his fleece. Then I realized how stiff I had become, and noticed the evening chill seeping through my own few layers of clothes. I pulled on a sweater, and considered then rejected also putting on a raincoat. The low, grey clouds from earlier had again lifted slightly, and sunlight slanted through the landscape. It would only remain hovering above the ridgeline behind us for another half-hour at most and did not provide much warmth by this time in the afternoon. I took a moment to pull a hat on

over my ears, and readjusted my stiff bottom on the ground before returning to the view in the scope. I scanned the opposite slope for more collared females, and knew I could get lost in this elk world.

I felt a sudden longing to share the moment with Dale. Had it not been for his efforts, I would never have applied for the position.

When the sun sank, the elk began to disappear. Unlike their sudden, boisterous entrance into the clearing, their departure was subtle. Large bodies blended into the shadows of the trees, and poof, they were gone. I found it increasingly difficult to see the remaining animals through the scope as the light failed in the valley. With my naked eye I could barely make out the long-legged collie-like shapes on the hill. Yet the sun continued to bathe the higher ridges and peaks, turning them a deep red-purple. Especially striking was the shadow cast on the opposite ridgeline by the tallest peak on our side of the valley. As the evening lengthened, the shadow mountain grew. Elk melded into its darkness. Above it, a cluster of clouds turned shades of purple, mahogany and grey. A fattening moon shone silver through feathered grey clouds in the eastern sky.

It was nearly 9:00 p.m. when we packed up our gear and began the short walk back to camp with its promise of a hot meal and a warm sleeping bag. We had been sitting at the observation post for over five hours. The evening observation had chilled me, more thoroughly than I recognized sitting on the ground. My feet felt numb, and my legs tingled as they both woke and warmed up during the walk back to the tents. Tomorrow would begin early, as Kirk reminded us we had to be at the observation post before dawn. I hoped I would not be too sore to move in the morning.

Before we retired to our individual tents for the night I asked Kirk if he knew the name of the tall mountain to the south. The same peak whose shadow I watched climbing across the valley earlier.

“Sure. That’s Elk Mountain.”

I felt the smile break across my face. Elk Mountain. Perfect.

For a long time that night I sat in entrance of the tent, journal open on my lap, writing by pale light as clouds skittered across a moon-bright sky.



I slept cold. No matter that I tucked down into the sleeping bag wearing the same multiple layers of clothes from the evening observation, including a winter hat pulled firmly over my ears. I even kept gloves on. I woke mere hours into sleep with a deep chill, aching toes and an unmistakable urge to pee. It's very difficult to make yourself get out of the thin bubble of warmth your body has created in order to step outside and relieve yourself. I had not yet learned that holding onto your urine in fact makes you colder because your body is keeping all that fluid warm. Instead, I stubbornly refused to leave the tent and floated in and out of restless, uncomfortable slumber until the pale grey light of pre-pre-dawn when it was time to head off to the morning observations.

Our little crew of elk watchers was up again in the 4:30 a.m. pre-dawn gray light, preparing for a morning's observation. I woke to the rustling of nylon as the men stirred in their nearby tents. The night before when we wished each other goodnight it surprised me to hear how well sound traveled across the calm, open air of the alpine.

When I heard the low chuckle of male voices I stuck my head out the tent flap only to see the shadowed backs of my companions as two pale streams of urine arced out into space and disappeared off the bench. Kirk and Rick were participating in a male bonding ritual I could only observe. Stifling a giggle, I sank back into the warmth of my sleeping bag, fighting to ignore the pressure in my own bladder.

"Hey, sleepyhead, you awake yet?" Rick's voice was disgustingly cheerful for that hour of the day.

"Uhh...I'm up." I groaned.

I squirmed out of my warm cocoon. The air in the tent was damp with my collected overnight breathing. I had little to prepare as I was wearing the clothes I planned to watch elk in, and my pack was ready from the night before. I slipped on cold glasses and stiff, freezing boots, wiggling my toes furiously. Exiting the tent, I stood up, stretched down to my toes and raised my arms up high. It felt good to be moving again. I really had to pee, and felt intensely awkward finding a private place there on the exposed alpine. Later I

learned the dim light meant I wouldn't have to step too far away to disappear into the darkness. It was too early for a meal, and I grabbed a granola bar to tide me over until after the morning observation. I slipped the pack on over sore shoulders and followed Kirk and Rick across the dimly lit, grey landscape. When we entered the thin band of trees before the observation site I excused myself.

“I'll catch up with you in a minute.”

“Okay, we should be easy to find,” Kirk's responded.

I stepped into the trees, looking for a private place.

I wished I could have peed off of the edge of the bench too. I felt mildly annoyed that men had it so easy. I wanted to be more carefree. Too much time spent in classes. Too little time spent outside with boys. Despite being certain my companions were nowhere close, I worried I might be seen. I didn't know why it should bother me. They had all been camping with women before. They probably knew more about it than I did.

After some wandering about, I found a fallen spruce tree that looked promising. Under my feet grew a carpet of low-growing, springy vaccinium. The plants would soon be in bloom, small white blossoms nestled under the thumb-nail sized leaves. In the fall this blueberry relative produces miniscule purple berries that are usually picked off by birds and bears quickly. Looking around nervously, I unzipped my pants. My knees bent stiffly, and my thigh muscles burned in protest, reminding me of the hike up yesterday.

I put out a hand, steadied myself on the pokey spruce bark, before I felt the release of the previous night's pasta water splashing underneath me. A large black ant scurried away from the approaching flood and vanished under the log. My calves cramped, and it became a relief to stand. An eruption of chatter from a chickaree squirrel rattled the dim morning air when my head appeared above the downed spruce. I jerked, and sat down on the tree roughly, pants not yet zippered. I felt the flush in my face and I looked around as though nothing had happened before standing, rubbing my now bark-pricked bum, and zipping.

I rushed out of the trees, worried how it would appear to be late on the very first morning observation.

Rick and Kirk had settled on the tundra with spotting scopes at the ready by the time I caught up with them.

“Everything come out alright?” Rick grinned boyishly.

“Just swimmingly. I think I drowned an ant, though. Any sign of elk?”

Morning observations were the exact opposite experience from the evening. At the end of the day, elk disappeared into the dusk. I watched their bulky bodies fade either into the trees or into their surroundings as the light failed. By morning I didn't know what to find on the opposite hill. I wondered if elk would appear where you aimed the scope, even though the telemetry clearly suggested animals in that area. In the morning, I looked less for the movement of elk into an area as you searched for the appearance of elk through the lifted veil of night. They appeared slowly, dark shadows against a brighter backdrop as the sun slowly rose and grey light shifted quietly into color. It was like a slowed-down version of *The Wizard of Oz* when Dorothy's grey-scale world bursts into Technicolor-brightness.

On the first morning of observations the sun barely had time to peek over the cliff-tops before being swallowed by the grey clouds covering the sky like an army blanket. The edge of the cloud-blanket turned red, purple and yellow as the sun rose. Shafts of light streamed out to create a golden haze through the valley and the grey cliffs behind me glowed a warm orange-red. As quickly as it appeared the sun disappeared and we didn't see it again for two days.

During the observation we saw exactly six elk. One of them was K, and she moved in and out of the trees making it difficult to get any good information about her. She did not seem to nurse a calf. We sat there for four hours, and only logged K for two of those hours. Another three hours remained before we could say for certain she did not have a calf.

Kirk expected to find L7 and J4 as their signals continued to be strong on the telemetry. They simply did not show themselves. I found it difficult to keep my eyes focused through the scope and became increasingly frustrated with my inability to close one eye at a time. The view through the scope often seemed blurry. All in all it was an unproductive and disappointing morning.

I was more than ready to return to camp when Kirk suggested it. There we made a hot meal together. We chatted for a time. Then I didn't quite know what to do with myself. We had maybe four or five hours until we needed to head back out for the afternoon

observation. I contemplated going for a walk. Maybe I would find that marmot we heard yesterday. I felt strangely tired and longed for a nap.

“Well folks, I didn’t sleep so well last night. I think I’ll turn in for a while.” Rick said.

“Sounds good,” Kirk agreed.

The brief exchange from my companions came as a welcome relief. I gratefully clambered into my tent.

I awoke to the sound of a steady downpour and again, the unmistakable need to pee. I never really paid much attention to how many times a day I urinated when bathrooms were an easy convenience. I had been drinking more water than usual to help stave off the effects of high altitude. I hesitated to go out in the wetness until I decided it could be a chance to ask Rick if we would attempt to watch elk in the steady downpour.

I stepped out of the tent, and into the sky.

The valley below the bench was filled in entirely with thick clouds. It was as though the sky literally fell into the space between mountain ridges. It looked like I could walk across it to the other side. I imagined being able to step across the sky bridge to venture to the meadows where I had been watching elk. Thick strands of clouds swirled around my tent. I reached out, expecting substance. One tendril passed around my head, a waifish specter barely discernable through the pale light. A part in the ceiling at my feet briefly showed grassy knolls and gnarled trees below. It was cold. I wondered if I would see snow by morning. With luck, the water would not pool under my tent and soak through.

Rick and Kirk’s tents were grey bubbles close by and I still felt completely isolated. The sense of solitude was surprisingly not unpleasant. I was beginning to realize a certain joyous freedom existed when away from everyday connections to life. No television no radio, no phones or e-mail. It reminded me of the exuberant happiness that I experienced during childhood summers when I had no obligations and could read and draw and explore the woods as much as I desired. It felt like those days were so long ago and I was afraid I had forgotten how to rekindle that excitement after being caught up in books and school and social pressures.

We did not watch elk that evening. The fog was too thick, the drizzle too persistent, the wind too biting. The long cold afternoon dragged into a long evening.

Rick and Kirk opened their vestibules, sat in their tent doors and heated up water for hot drinks and a meal. I felt like I would probably start the tent on fire if I tried to light the stove in my vestibule. I chose to eat a cold meal of more tortillas and cheese. As we ate, we spoke across the space between our tents.

“Did you know the government allows a certain number of bug parts in jelly?” Rick said.

“What?” I asked. “How do you know that?”

“I used to work for Smucker’s. Yep, there’s a two percent chance you are eating a bug with your jam and toast.”

“That’s nothing. We probably swallow more bugs in our sleep than that,” Kirk said.

“I know I have just riding my bike around town.” I shot back, glad to be a part of something instead of alone on the grey, drizzly afternoon.

Time stretched, and the conversation wandered, became mellower, introspective.

“Rick, you and Katie want to have kids?” Kirk asked.

“Yea, someday. We’d like to have one anyway. Katie would be such a great mother.”

“Callae, how about you? Kids?”

“I don’t know yet. I guess I still want to do too much. I can’t think about kids yet.”

“You’re still young.” Rick said. “You don’t have to.”

“What about you?” I looked at Kirk.

His face darkened. “We talked about it. Before she, you know...”

Before his wife left him, he meant. I didn’t have anything to say. I could only peripherally empathize with what that loss was like by imagining it through my narrow window of experience. I did not yet fully understand how your life can so intertwine with someone else’s. I could not imagine what it would be like to have those roots ripped apart at the seams. I wouldn’t truly understand until many years later when I finally began my own journey into marriage.

I was grateful when conversation steered in other directions. As the men began cleaning up from their meals, I excused myself.

Unable to stand any more time in the tent I went out for a walk regardless of the rain. The intensity had lessened and I walked in a drizzle more than a downpour. Flowers at my feet glowed bright against the colorless backdrop of fog. The fog made seeing any long distance impossible and I felt like I was walking across what I romantically imagined ethereal, magical Scottish moors might be like. I found myself thinking about Dale, and wondered whether it was raining in Pingree. I missed his letters. I missed the idea of him. Our relationship was yet so new as to have little depth, little history together. I sensed though, deep down in a place in my heart I had held carefully for many years that something deeply lasting stretched between us. Not simply the initial flush of attraction and sexual energy. I believed, wanted desperately to believe, there something more lurked there.

Chapter 5 – Elk Rhythms



Before I left for the first week of elk observations I had gotten my hair cut. I found the way my long braids got caught in the backpack straps annoying and knew if they were shorter I would be more comfortable. I wish now I had been brave enough to cut more off. At the time I had never known anything except long hair and thick bangs and change did not sit well with me. I walked into a national-chain store and asked for just a few inches off.

It felt strange, having someone else cut my hair. My family never went to a stylist, electing, as with so many other things, to take care of it themselves. Cutting hair in our family was a kind of ritual, actually. Usually it took place on a Sunday afternoon after a day's work in the forest or garden, and before we all showered. Mom was the primary hair-cutter. My brother and I perched on a bar stool and felt her gentle hands on our heads, and in our tangled locks. Mom worked my father's thick, shaggy crop of dark hair with bold strokes of the scissors. On nice days we sat on the deck outside where cool afternoon breezes picked up strands of trimmed hair and swept them away to be discovered and used by some bird or rodent for their nests. In winter, we sat in the open space of the kitchen, surrounded by golden light and thick aromas of stew, or chili, or fresh bread. Once her brood was clipped, my mother sat in the chair, perfectly still, while my father ran his hands lovingly down her long golden locks carefully snipping away as little as he could.

I didn't venture into a hairdresser's until after I had been at college for nearly two years. I visited home often enough and still asked mom to cut my hair for me. So when I stepped into the chain store in Vail it still felt strange. The friendly, chatty girl with the perfectly manicured nails working on me quickly learned my reason for being in Vail for the summer. She asked me if I thought watching elk would get boring. I told her I thought there would be enough going on to keep it interesting.

So far, I had been right. I could already sense the tediousness of the job, and felt annoyed at the stiffness that came with hours of sitting in one place. The elk though were fascinating and the young were especially entertaining. I also could not think of the last time

I had been able to simply sit in one place and watch. School always brought with it a frenzy of activity, of learning and of doing. Preparing for the Elk Study meant lists of to-do's, uncertainty, and uneasy anticipation. Once I was on the mountain all that frenetic motion simply slowed. My slate of responsibilities and needs shrunk considerably, reducing to the basics: eat, drink water, sleep, and watch elk twice a day. In the sitting and watching I finally had time to soak in the things around me as a quiet observer. I found the rhythms of the planet's daily spin already settling comfortably into my sub-consciousness.

I sat alone under grey skies during the mid-week morning observation. Telemetry indicated an additional six animals in the area in addition to weak signals from L7 and J4. Kirk and Rick and I had spread out along the bench and looked down different drainages hoping different viewing angles would provide results. If not, Kirk thought he might pack up his gear and move to another observation site further north for the last part of the week.

The animals of course didn't exactly cooperate. About twelve elk kept me company through the scope, including K. She had yet to nurse a calf. The time passed slowly, and the elk finally moved out of view by 10:30. I snacked on the cheese and peanut butter tortilla I brought with me. The sun was deliciously warm.

I did not head back to meet the others right away. Instead, I sat with a map in hand and practiced translating the three-dimensional landscape around me into the two-dimensional squiggly lines on the paper. I found it easier to take my time with it than I had the time Kirk quickly pointed locations out to me in this area. I followed the ridgelines on the map with my finger, and translated them into the topography around me. When they matched up I knew where I was. No longer just a body sitting on an unknown bench looking across at river drainages, I was Callae, sitting on an elevation line of 11,840 feet to the east of Elk Ridge and a little over a mile north of Elk Mountain.

I was less than six miles as the crow flies from 1-70, at the point where it began its north-west curl toward Vail Pass. I had been watching elk on the open slopes above Stafford Creek and Smith Gulch. If Kirk went north a couple miles north along Elk Ridge where it began petering out he could watch for elk down the other side of Smith Gulch and the western Wilder Gulch. From his vantage point he would probably see across to Ptarmigan Hill. We had driven up Resolution road to reach this place. I was surrounded by named

things. In knowing the names, I had a measure of control. I recognized where I sat on the mountain. I understood others had been here who also watched carefully, and had seen elk and ptarmigan. Other who knew what I was only just beginning to understand. Naming provides markers, and a kind of ownership. Naming is power.

Encircled by stunning scenery, watching elk and elk calves through a spotting scope, camping, living on the wild alpine tundra, naming things, I felt like I could be part of one of a PBS nature program. I hoped to continue to marvel at the beauty around me as I stayed wet and potentially miserable. I felt it would become especially difficult in later weeks when I worked alone.

A few sprinkles of rain fell on the map to tell me it was time to go. I packed away the tripod and other gear and slowly worked my way back to camp. Along the way I stopped and refilled my water bottles from a shallow stream of water being released from a wide snowfield. Colorado's alpine slopes are riveted with these ephemeral streams, and early in July they provide enough snow melt to keep camper's water supplies fresh. By late August, the intensity of the high altitude summer sun shrinks the fields so finding water becomes more challenging. I had no problem finding a wide and deep enough stream that could easily hold the intake bobber for the water filter. Initially I found the need to find and pump water an annoying necessity until I learned the act proved strangely soothing. Crouched on the ground, with the gentle gurgle of snowmelt carving intricate ribbons through the rocky soil, I pumped up, down, and watched water slosh into the plastic bottle propped between my boots.

Since Dovestring's water came from an underground well whose bounty was unknown, my folks had instilled a strong sense of water conservation early in my development. My brother and I were told as children that if the well ran dry we would have no more water for showers, for cooking, or for the garden. We learned to take short showers. Since most of Colorado is basically a high-altitude desert, I understood the value of conservation. On the mountain, the responsibility of finding and carrying my own water for every-day necessities struck in me an even deeper appreciation for the availability of the natural resource.

When I was done pumping water, I knelt over the flow of water and cupped its cold liquidity in my palms before splashing it on my face. There is nothing as refreshing or

invigorating as washing your face in quicksilver chill of mountain snowmelt in the middle of the day as the sun just peeks through the clouds.

By the time I arrived at the campsite, Kirk was already starting to pack up his gear.

“Any new animals, Callae?”

“Not a one. I got another sixty minutes on K though.”

“Great. I think Rick watched her also from the other side. Neither of us saw any new animals, so I’m going to head out and see if I can’t find them down another draw.”

“Need help?”

“No thanks, I’ve about got it.”

Kirk was efficient and ready to hike out in under an hour.

“I’ll be back Saturday after the morning observation if I don’t get too lonely before and come back for a visit. Let’s plan to meet at the Jeep after morning observations.”

Rick and I waved goodbye and began preparing our morning meals as Kirk trekked back up to the ridge, beetle-like. When he reached the top I held up binoculars to better see him and waved my arm widely. He waved back and headed north, a steadily shrinking speck until he disappeared behind tall granite outcrops.

The slow drizzle of rain didn’t begin until after we started observations which meant Rick and I were able to heat up a hot meal before heading to the observation points. Mist drifted up from the valley, and the clouds overhead made a low white, mobile ceiling. I was glad to have warm food in my belly before sitting out in the open huddled under the tarp to keep myself and the scope dry.

Rick and I agreed to try to once again find elk from different vantage points. I made smarter decisions during the evening observations and put on more layers before beginning to watch elk. I also put on the raincoat to keep out the wind. I finally felt like I was getting the hang on the spotting scope. Initially seeing the elk had been thrilling. During later observations I became more frustrated with my inability to easily see elk moving across the valley below. My eyes got tired from staring through a tiny lens. For a time, the elk had been an annoyance. Then, I began to settle into the scope. Or the scope began settling into

me. I was beginning to learn how to keep both eyes open, while still managing to focus through the lens.

The drizzle didn't seem to bother the elk. Nearly two dozen cows and calves were scattered across an open space in the trees on the opposite slope. I laughed at two calves that ran circles around each other before returning to their un-collared mothers to nurse. Their long legs and bouncy steps made them so ungainly. As the young animals pranced and bucked, their white spots meant to camouflage them in sun dappled grasses stood out sharply in the soft grey light of a rainy afternoon.

Among all those animals I thought I might see one collared female. I didn't. It was as though they knew they were being watched and intentionally stuck to the trees just to irritate us. In just five observation periods we only catalogued two collared animals, and only one of those had nursed. Telemetry suggested at least ten cows in the area. I wondered where they were hiding.

As the elk disappeared into the darkness, the drizzle slowed. Despite the lack of data I felt calmer and happier than I had since arriving in Vail. For a few moments, a huge weight seemed to lift from my shoulders. With no elk visible through the scope, I lay down on the tarp, pressed my body close to the damp warmth of the ground and became very, very still. A crisp breeze swept across the exposed alpine meadow. Clouds swirled across the ever-fattening moon climbing in the east. The mountains seemed to shrink into themselves as the light flattened to deep purples and grays. I curled up on the ground, the sturdy legs of the spotting scope straddling my own, and felt comfortably embraced.



Rick and I fell into a predictable, comfortable pattern together. We rose before dawn, greeted each other warmly, and walked to our observation posts. We checked for elk using the telemetry. Sometimes we were stationed near enough to chat. When the telemetry suggested our elk were in different areas, we separated in hopes of finding an evasive animal from a new vantage point. For four or five hours we looked for elk, hoping to find a new collar nursing a calf. It gave me great pleasure to watch the entire group of animals. Calves

frolicked or chased after their mothers. Adults might become suddenly angry or mean or running down hills to chase others. Once during that first chilly week on the mountain I lost track of time and the collars in my view when a coyote appeared in the middle of the herd. Several adult cows pressed together and chased the loping predator away. Coyotes, typically solitary hunters, aren't likely going to take down an adult elk. The calves though are fair game. Even when my feet began to freeze and my rear became numb, I could entertain myself with elk.

After the third morning observation we returned to camp. There we made a hot meal, usually oatmeal chased by peanut butter tortillas. We took turns leaving camp with small trowels and plastic bags in hand to manage our daily constitucionals. Rick was far more blunt about the base need to relieve himself in the wild and had no problem announcing his intent. I felt more awkward about needing to dig a cat hole to bury my shit. I didn't enjoy the process at all. For one thing, it was hard to find a good place to dig out a deep enough hole in the rocky soil of the Colorado mountains. For another, I got stage fright. Peeing I could manage. It was faster, and less messy. The other seemed very personal and private. I could be deep in the woods, completely alone and still feel entirely exposed, even embarrassed by what is really a very basic bodily need. It was a problem I struggled with most of the summer and I came to dread the moments when my gut told me it was time to grab the shovel.

Late morning and early afternoon Rick and I spent resting. Sometimes we walked around the bench exploring. Sometimes we chatted. Mostly we retired to our tents and I napped, or read, or wrote in my journal. The rain dictated our movement most days. Usually by two in the afternoon we fired up the stoves again and made our one big hot meal for the day. Then it was off for the afternoon observation where we sat and watched elk from around 4:00 p.m. until too dark to see. Back at camp Rick often took time to make a hot drink and sometimes shared with me. In future weeks when I worked alone, I did not take the time to start up the stove in the dark. I did not like to make extra noise that might bring attention to myself. Some nights I slipped into the tent and used my precious flashlight to read or journal. Many nights I huddled into myself, trying to warm up and thought of Dale to

help ease me into sleep. After an often restless night, I awoke to start the process all over again.

When I wasn't napping I walked out onto the wet alpine meadows and marveled at the tiny preciseness of alpine flowers. I studied the crags of the cliffs, watched clouds and sunsets and ran across squeaking pika or sun bathing marmots. I was getting paid, moderately, to watch elk. A slow rush of realization began to wash over me. This was real. I was really camping at 12,000 feet, baked by the sun, and more often beat by rain. I was using a tiny gas stove to make hot meals that tasted delicious in their simplicity. The taste hardly mattered as long as the food gave me energy in the low-oxygenated atmosphere and kept me warm. I totally lost track of food in relation to specific mealtimes. There was no schedule. I ate when my body told me to. I ate because I needed to. I nearly lost track of time all together. Each day had been different, though the pattern remained constant. Getting up was difficult because it was dark, even when the birds helped with their early-morning serenades. I watched the sun rise, the elk eat, frolic, rest, scratch, lick, and prance gracefully down hills. I watched the sun move slightly higher in the sky, felt the air change around me and the light shift, shadows lift, colors deepen, and aromas sharpen.

At night I fell asleep because I was tired and it was dark and why waste the batteries in the flashlight? Eventually I found that perfect position between the rock under my lower back and the one under my hip and fell asleep. I woke chilled, and slept again. In the morning, the pattern began again. It made me exhausted, even though we really did little physical labor for the job. The chill, the altitude, the long nights, the newness of it all wore me down as much mentally as physically. I yearned for a shower and a flush toilet.

It pleased me to be in charge of my own actions. There was no one to do things for me. No one to cook or clean or make sure the rain fly was carefully staked out. There was no one to find the elk for me, or take notes while I watched. I liked being shown how to do these things, and then took great pride in being able to do it on my own. That was something I learned from my self-sufficient parents. Thinking of them I realized I somehow felt much further away than the one-hundred miles by road. I had no way to contact them, and I felt somehow entirely isolated even though I could hear I-70 and see the Copper Ski runs.

The rain slowly died down in intensity, then picked up again. I was grateful to be camping in July and not October when the rain would most certainly turn to snow by morning. For the first time I felt the truth to Dale's words in the short message he had sent with me into the field. I began to understand how, once I learned how to stop focusing on staying warm and alive, I might be able to let my mind drift, pick up loose strings and follow where they may go. I wondered where my thoughts might take me.



The rain that came the fourth afternoon did not fall in the even pitter-patter of the previous days. Instead it arrived as a hard angry BB-like pellets and left marks on the tent ceiling. I hoped it would be the last day of the intense weather for the week leaving the last couple of days beautiful for watching elk. Otherwise we would only watch rain pour off the tents. The wind picked up and I worried about the stability of my stakes. Thunder sporadically lumbered through the mountains and echoed forcefully off the cliffs.

Through the plopping of rain on the tent fly I also made out the singular, distinct chuckle-squeaking alarm call of white-tailed ptarmigans, small goofy grouse of the alpine. I had occasionally run across the little brown-mottled birds on previous summer hikes into the alpine and had never seen them in their white winter plumage. Until their call cut through the rain and my nylon walls I did not even considered they may be sharing the bench with us. Then I picked out other bird songs wavering through the rain. There was a burbling call of a white-crowned sparrow, and a higher-pitched trill I thought may be a kind of finch. The rain kept falling. I admired the tenacity of the birds who continued to sing.

The other sound that cut through the rain and my tent surprised and disturbed me. A low rumble of trucks passing by I-70 cut through the dense clouds below, and the occasional low roar of jets cut through the clouds overhead. Even though I could see parts of I-70 when the air was not full of storm clouds, I often ignored its presence, instead pretending we were truly isolated in the wilderness. While it provided some comfort knowing if I needed to I could walk down into the valley and follow the river out to meet the interstate (a distance of less than five or six miles by foot), I didn't want to think about the closeness of development.

If I was going to be a “backcountry elk observer” I wanted to feel like I was in the backcountry. As the summer progressed, I learned this goal would be increasingly difficult to attain.

At some point I reluctantly left my flimsy shelter to check the tent fly and tighten down the ropes as much as possible. Small hard hail pellets pummeled my exposed hands and neck. This storm was truly a doozy, like the ones I often watched from the safety of the window box at Dovestring. There I could sit indoors while rain spattered the decks. When the lightening came too close I could retreat down the hallway and huddle with the dogs. The tent seemed poor substitute for the stability of a home, and I did not even have a pillow to hold on to since I had been sleeping on a rolled up sweater. No, there was nothing to keep me safe except chance and my own willpower.

The rain took a short break around 2:00 p.m. I eagerly slipped on boots to get out of the constricting space inside the tent. Rick must have been getting stir crazy as well, and we both emerged simultaneously. I don't know why we never really hung out at each other's tents during the lull between observation periods. I never asked, and Rick seemed happy to have the quiet time. I had begun to understand that Rick's boisterous conversation, while genuine, belied a need for personal space as well. The valley was again completely fogged in and I really wanted to walk across the puffy clouds to the other side. It amazed me how the clouds literally capped at the same level as our bench. Snaking clouds streamed past our bodies, twining in and out of our limbs. We could only see the ones close to the ground. Others planted chill, refreshing kisses on our faces and played with our hair. At one point a window in the clouds overhead opened and revealed enormous billowing cumulous froths lit to a bright white by the otherwise hidden sun. I thought for sure a giant peach pulled by birds would float through the scene and I could watch mischievous cloud people making hailstones and snowballs to torment James and his insect friends.

Rick and I attempted observations that evening to little avail. A wet cold fog had settled over everything, making it very difficult to find elk. The rain continued. Rick's otherwise cheerful nature even seemed dampened. We headed back to camp some time before dusk, as both the light and our spirits failed. We said little to each other and we retired early. In the relative warmth of my tent I hoped some of my gear dried off overnight,

as the tarp and my poncho were soaked through. I told myself to bring less food and more clothes the next week.

It rained until 3:00 a.m. when a chill wind came up and swept away the storm. I woke when my tent lit up inside as though dawn had broken. I had to relieve myself, and when I went outside the full light of the moon shone down over Elk Ridge.

The moon's light brought snowfields into sharp relief. The last remnants of the storm blew away. Stars glittered in the early morning air. To the east the first hint of morning barely showed in dark red streaks above the mountains. I wondered if elk slept during these brightly lit nights. I wondered if Dale did. *It's a wonderful night for a moondance...* I smiled and ducked back into the tent.



The passing of the storm mean Rick and I actually saw some sun late Friday morning and early afternoon. I basked in the warmth and realized just how chilled I had become the last few days. The early morning observation began on a very frustrating note. I was cold and damp, and though there were elk only a couple sported collars and we had seen them all before. K had yet to show she had a calf, so I was still keeping tabs on her movement. We only had about 200 minutes of observation time on her, which left another two and a half hours to see if she nursed. I couldn't believe she had a calf that we had not seen yet. Cow L7, who had nicely nursed on the second observation period, stayed close to the trees at the edge of the meadow. Her calf continued to stray into view, though the two animals no longer garnered the attention we initially gave them.

Rick and I, sharing an observation spot, had been watching the elk below for hours without any new animals. Then as though by a magician's wand, a new collared cow appeared in my scope. My breath sped up. A new animal!

"Rick, you see that?" I asked and I felt the excitement in my voice.

"Yes siree. About time!" He seemed as excited as I did. "You keep an eye on her, and I'll mark the time, okay?"

"Sounds good."

Fortunately both the new cow and K appeared in the same round view through the scope, and I could keep an eye on both of them.

I carefully focused on the new animal's broad white collar to determine her call number. She turned slightly, and there it was, U5 in big black letters. I passed the information to Rick who tuned up the telemetry to confirm. It was easier to have two of us keeping an eye on a single animal like this. It ensured someone would see her nurse while the other took their focus away from the scope to note the animal and the time of sighting in the field journal.

"Think she has a calf?" Rick asked.

"I don't know. None of them seem particularly interested in her." I replied. The elk milled around in the meadow, calves and cows placidly keeping each other company without any sign of one belonging to U5. We didn't have to wait long to find out, as a small spotted calf bounced out of the woods and headed straight toward U5. In seconds, its small triangular head was beating on U5's udders in search of breakfast.

Rick actually whooped a little. I smiled into the scope and felt much the same. With all the rain and the cold and the lack of elk we were feeling pretty useless up there on the wet alpine ground. This small moment of activity related to our goals as elk observers was enough to erase away many of those long cold hours getting stiff on the mountain. We could finally check off another animal on the list. Watching collared elk nurse became one of the many tiny victories that made the long tediousness of the summer worthwhile.

Rick and I returned to camp in high spirits. We were surprised upon arriving to see Kirk making his way down from the ridgeline. We hadn't expected him until Saturday morning, except he returned to share the midday meal with us and swap information. I think he wanted the company and guessed the rain had probably worn on him as well. I couldn't wait to tell him about U5, and excitedly shared the news of the new nursing bout.

"That's great. I saw her last night also, and watched her nurse through a pretty heavy rain." He must have seen my face fall a little. I thought she had been our discovery. "That's great though, it was raining pretty hard, and this way we're sure it happened."

Rick spoke up, "They must be moving up and down that valley overnight."

“Yeah, I think that’s exactly right. I’ve found a good spot to watch them just north of here where this ridgeline peters out and they seem to be bouncing around between this side of the ridge and the other. I also got a sight of P6 and another who might have been J8.”

“Any nursing?”

“Yep! P6 is off the list. Keep an eye out for the other one, she may wander back this way by this evening.”

We cooked up a huge, hot, delicious meal together ate it sitting in short sleeves in the welcome sun.

After lunch I sat on the spongy clumped plants of the alpine bench and watched an enormous storm engulf Copper Mountain and I-70. The storms were different today, moving in from the southeast instead of the north. Usually clouds sank down onto us while we napped mid-day. In this storm I saw the rain front, sheets of water sweeping toward us like a grey wall. The power of these storms to entirely engulf mountains reminded me of the potential danger of our location on the open alpine. Kirk began his trek back to his tent only a short time before and I hoped he would not get too drenched before arriving. Sighing, I returned to the campsite and unzipped the tent door.

The rain let up just in time for Rick and me to complete evening observations. Neither of us trusted the weather, and agreed to share a spotting scope. We set it out between us so we could make a quick get-away. Our spirits were up, probably because it was our last night on the mountain. Tomorrow after the morning observation we would return to Vail and showers and flush toilets. I had really come to like Rick and appreciated his company on the mountain. His sarcastic wit sent me into hysterics at times while his thoughtful, insightful perspective on life, love and the natural world provided engaging conversation.

It turned into an absolutely beautiful evening as the sun occasionally broke through and lit up the meadows where J4 did not appear. We saw mountain peaks turn pink, a rainbow formed partway across the valley, and there were lots and lots of elk. They streamed out of the woods in a group. There were so many more calves than ever before. I wondered if the last few days of rain had dampened their spirits too, as they seemed more boisterous and energetic in the nicer weather. I said as much to Rick who nodded thoughtfully.

“They do seem to be moving tonight, almost like they are running away from something.”

Then we noticed the fog. Not just low clouds, real, honest fog. It crept along the creek bottom, moving inexorably toward the upper end of the meadow. It stretched thick, white filaments up into our basin and those around us. The entire field of vision was taken over by fog creeping up drainages. It was like something out of a dream, unreal and surreal. The fog slowly rolled up the river and into the valley only to spill out of its confining path where strands of white smoke reached through the trees and across the meadows. It was like a living creature in its forward movement. Tall pine trees became momentarily grey and lost in the grasping clouds.

“This is sort of creepy, don’t you think? Rick asked only half-jokingly. “It’s like something out of an old sci-fi flick.”

I sort of nodded, and found it more mysterious than ominous. I first knew elk in the fog. The two went hand in hand in my memory.

Just as the rolling mist threatened to roll over the entire valley it was beaten back by the clouds overhead that blew it out of existence like a candle being extinguished. It disappeared more quickly than it arrived.

“Crazy. I feel like I just watched some kind of ethereal battle or something.” Rick said.

That I could agree with whole-heartedly. By the end of the evening the high, thin clouds formed a substantial grey mass which descended on us ponderously. I looked forward to a couple of nights under the solid roof of an apartment where perhaps the sound of rain would not awaken me throughout the night.



Boy, did I stink. Six days in the same clothes and no shower. I was glad the last day on the mountain had arrived and looked forward to returning to Vail. In the morning, Rick and I saw more of K, and L7 appeared and no other animals. Kirk arrived early and hiked down to meet us had also not seen any new animals. He suggested one of us would be back to Elk

Mountain the next week. I was not quite ready to think about another week in the field while my mind contemplated the promise of hot water and soap.

As Rick and I packed up camp Kirk looked over our field journals. I was struggling to get the tent folded small enough to fit into the nylon bag it came out of when he approached me.

“Hey Callae, I was just looking over your notes,” Kirk held my field journal in his hand. “These are some great observations, only you don’t have to get quite so detailed here.” He pointed to the section on the page for “additional notes” section, which was completely filled in with my scribbles.

“Oh,” I grinned abashedly, “so you don’t need to know about the somersaulting marmots, or the gnats having sex on my arms?”

He smiled. “Let’s leave these for notes about the elk like if you see them doing something different. For example, sometimes the females allow a yearling bull to suckle, and that might be something we do research on later. Things like that. I like your observations, but since I won’t be the only one to look through here, you might want to keep it a little more professional.”

“Hey, that’s okay. Thanks for letting me know.” Truthfully, I thought I might be writing too much though I really did have flies doing it all over my shirt one morning. I supposed I would need to bring another kind of journal with me for those notes.

“Aren’t our packs supposed to be lighter on the hike out? I ate all my food,” Rick complained, good-naturedly as we struggled up toward the saddle to the trail that took us back to the Jeep.

“They are lighter, if you don’t carry your own shit out with you,” Kirk called back.

Rick was a true believer in the backpacker’s model of “hiking it in, hike it out.” I didn’t stare too hard at the contents of the plastic grocery bags flopping around on the outside of his pack.

We reached the crest of the saddle, and below us, parked right where we left it, sat our little white Jeep. Now the size of a matchbox car, it looked oddly foreign parked in the middle of all this mountain landscape.

“Last one to the car gets to buy the ice cream,” Kirk called out.

We did not exactly race down the rocky, steep slope. All the extra weight on my back threatened to send me plummeting head first down the slope if I should trip. I decided I preferred hiking up hill, even if it meant heavier breathing.

At the vehicle it was a relief to remove the pack, and slide it into the hatchback. A breeze chilled my sweaty back. I took another long look around and Kirk started the car. The engine seemed gratingly loud, and for a moment I wanted to cover my ears. A whiff of gas from the tailpipe caused me to cover my face. I had been so eager to get back to the car and civilization until reminded of the disconcerting noise and the odor of a vehicle.

Rick slammed the hatchback.

“So, Callae,” he asked, “What kind of ice cream are you getting us?”

At first, my body revolted at the jolting ride down the mountain in the Jeep. I felt claustrophobic being surrounded by unforgiving, hard-edged metal. The car got too hot on the drive, and I sweated uncomfortably. I should have reveled in the warmth.

It got better once we hit the pavement on Highway 24. Kirk rolled down the windows to let in some welcome fresh air and we were blasted by warm air. It had to be fifteen degrees warmer than when I woke up. I peeled off my sweater. If I smelled, I didn’t know it. If the men smelled, it was a clean sweat of honest work. I barely noticed their aromas. We sped toward Vail at a fast clip, the scenery rushing past in a blur. My sense of time and movement felt completely out of pace with the modern world. I had only been away a week.

Entering Vail brought new attacks on the senses. Traffic increased, buildings rose up, and I noticed areas of new construction and the scars on the landscape I had not seen before. There was a lot of activity in town. So many people! I was at first overwhelmed, then strangely proud to be returning dirty and disheveled – a mark of my accomplishment in a week afield.

We passed the grocery store. My mouth watered. I could not wait to buy fresh fruit. I imagined biting into a peach, the soft skin breaking under my teeth as sweet juiced flowed into my mouth. Oh, or an apple. I craved a fresh, crisp apple.

We pulled into the apartments, unloaded, and separated to our own apartments. We agreed to meet up later so I could fulfill my ice-cream debt. It felt strange to walk through a door and be surrounded by walls again. I headed immediately for the shower.

In the bathroom I tried not to stare at myself in the mirror. I had never been too comfortable looking at myself anyway, in a strange sense of not really wanting to see if the outside of me did not reflect the inner person I imagined. The image reflecting back surprised me. I was disheveled, and dirty, yes. I also looked....pretty.

In the shower I ran the hot water heater cold. I soaped up, twice, working hard to scrub between my toes. I made a fat hairball from the strands of hair that came away in my hands as I shampooed. After not brushing for a week, I had shed a lot of hair. Once I felt relatively clean, I simply stood there, letting the hot water cascade over my face, down my breasts, between my legs.

I put on shorts and a t-shirt, and let my hair hang loose. Feeling warm in so few clothes was a novelty, and my bare feet delighted in the freedom from wool socks and boots. I hoped to find some fruit in the kitchen. My toes loved the feel of the cool, smooth linoleum in the kitchen. There was no fruit.

A knock on the door surprised me. I made plans to meet Kirk and Rick for our ice cream treat later. This seemed too early, unless I had been in the shower longer than I realized. I was thinking about how tasty some grapes would be when I opened the door.

Dale swept into the room, caught me up in his arms, and pressed my back against the nearest wall, his body tight against mine. He reacquainted me immediately with his lips, his tongue, and the feel of his hands on my body. Oh I had missed it. I couldn't breathe. I didn't want to.

His passionate greeting ebbed to slow kisses. His wandering hands found mine, and clasped them.

"Hello." There was that voice I'd been dreaming of. "Miss me?"

"Yes. Are you real?" I asked.

"Pinch me," he offered.

"I can't, you're holding my hands."

He smiled. My toes curled.

“Think you can stand up?” He continued to hold me firmly against the wall.

“Only if you hold onto me,” I said. “My legs are all tingly.”

“Good.”

Dale kept hold of my hand, led me to the couch.

“So, elk girl, how was your first week?” His hands ran softly up and down my wrist.

I smiled widely. “It was good. Great, really.” All of the hardships and little pains I had felt for the last six days didn’t really seem to matter anymore. “I am so glad I am doing this.”

He smiled, moved his hand from my wrist to my thigh. “So you’re happy now I came and bugged you at the apartment that day?”

“Yes,” I agreed reluctantly.

“You hate it when other people are right, don’t you?” He was teasing, and he was right. I answered him with a kiss, which lingered.

“You know, I almost didn’t get this job,” I told him.

“I know. I’m the one who told Kirk you should be given this chance.”

“What?” I looked at him in surprise.

“Well, it was Rick and me, actually. We were Kirk’s office talking about the summer when he started telling us that his buddy had taken another job, and he didn’t know who to bring on to the crew.”

“Oh, so he *had* hired someone else.” I said.

“Yeah, a guy who had worked on the crew last year. Kirk was trying to figure out who else might know something about this study and bring them on.”

“And what did you say?”

“I said, ‘Why not take on Callae?’”

“Really? I didn’t have any experience or anything.”

“He already had Rick and me. We were plenty experienced. Rick told him it would be a great chance for you to get your start, and that Kirk would be the one to help you do that. I told him I knew you would do great.” Dale leaned in and kissed me. “Apparently, he believed us.”

I was glad to be sitting when he kissed me again.

Chapter 6 – Elk Rut



Modern elk stem from historic relations who likely crossed the grass-rich Beringia land bridge two million years ago during the Pleistocene. Spreading east, the animals adapted to nearly every habitat, from the topographically varied lands of the west, through the ocean of tall and short-grass prairies across the continent's midriff, and into the rich eastern forests. In this landscape, rich with resources, they survived for tens of thousands of years, reaching populations numbering perhaps as high as ten million. Native Americans were the first to name these large-bodied, hot-blooded animals. Shawnee called them "white rumps." Wapiti.

Wapiti were revered, respected, and hunted by natives for survival. Later, Europeans brought a new name. Elk. Seen as a threat to crops, and livestock, elk were killed for more than just food. In the late 1800s demand for a few prized parts like the hide, antlers, and ivory canine teeth caused a hunting extravaganza that nearly wiped out the species. Over the brief course of 150 years, elk numbers were reduced to as few as 41,000 in 1907. Their prairie habitats and migration corridors were no longer hospitable as cities and agriculture took over. They fled the prairies, and faded into the western mountains where they could more easily disappear. Today, these Pleistocene ghosts weave an invisible dance in the Colorado Rockies.

In winter, male and female elk group together in loose herds. They favor a location where food will be easy to access and winter winds less harsh. From their high altitude summer ranges in the alpine meadows they begin a downward migration into the safety of the montane, or even foothills. There they will take shelter in the trees, or venture out into wide meadows to forage for food. In heavy snows, they will paw the snow away and eat the dried grasses underneath. Their preferred foods this time of year are shrubs. They will browse on exposed sage, nibble the tips of gooseberries, or munch on aspens.

The soft, sweet flesh of aspen trees provides welcome and needed nutrients. It's easy to see where elk have been scraping their bark. They leave long, parallel tracks where their

lower front teeth have scoured the tree's living cambium. Adult fingers just fit into the furrows, and it is easy to imagine the lingering feel of an elk's hot breath against the tree's exposed tissue. Aspen respond to this treatment by forming thick black scabs over the wounds. In areas of high elk population, entire stands of aspen can be blackened a full six feet up the length of the trunk.

In winter the herd's actions and movement are determined by the older females of the group. They lead the herds to new feeding areas, and on longer migrations. They may even rally the group when danger threatens. The safety and survival of the herd is the biggest priority.

Though wintery snows can linger long into May (it's been known to snow on the first day of summer even in Denver), early signs appear by March. In many biological organisms spring is triggered by changing day length and not by weather. Such photoperiodism is what causes sap to rise in trees, birds to begin migrating northward, and hormones to flow in animals.

In male elk, an increased production of testosterone stimulates the growth of new antlers. After carrying racks through the winter, most mature bulls will drop their heavy loads by late February or March. Some of the younger ones won't lose their antlers until May. Within days, a new set will begin to grow, emerging from two bony knobs, or pedicles, attached to the skull.

Bones need oxygen and nutrients to grow and a lot of it. Elk's antlers can grow at the rate of an inch a day, and they will produce a full rack in twelve to fourteen weeks. The emerging antlers are wrapped in a blood-rich, furry skin which provides both nutrients and protection for the growing bone. The skin resembles velvet both in touch and appearance. A mature bull produces an average of twenty-three pounds of velvet each year.

The female elk have a different kind of hormonal urge. By late May or early June some of the cows will stray from the group, searching for a particular combination of cover, forage and water. There, under the newly leafing aspens, perhaps in a tiny glade, she will spread her legs wide and strain and push, push and strain until a slick, mucousy and bloody sack plops on the ground beneath her. She will turn and nuzzle the bundle, nibbling and pulling until the dark wet head of her calf pulls free from the birth sack. Soon its legs are

free. It will be trying to stand within minutes, kicking and rocking as the cow consumes the placenta and remainder of the birthing material. She continues to lick and nuzzle her calf as he stands on wavering legs and takes his first suckle from her swollen teats. As he dries, his fur brightens to butterscotch, and white spots scattered across his back emerge. He will rely on his mother for food and his ability to go undetected in the dappled forest light for safety. He will not meet another elk for several weeks.

The first flowers in the alpine often do not begin blooming until mid or late June. To survive the harsh climate they are short and close to the ground. The dwarf cousins of forbs growing at lower elevations. Many of them develop hairy stems and leaves to hold onto what moisture they can before it is blown away. Frost can form any time of the year on the alpine and the plant's shiny pubescence also protects them from the chilly nights. They commonly grow in clumps, to both trap heat better and to share a network of roots in the shallow soil. To make up for their short stature, these hearty alpine plants produce a stunning array of colorful blossoms. Some are big and showy, as in the creamy fairy primroses, or the sunset brilliance of short alpine Indian paintbrush. Other blooms are sweet in their smallness. Little forbs like tiny blue forget-me-nots and clustered, bright pink, five-petal blooms of moss campion. It is into this carpet of small beauties that the elk arrive at the beginning of summer.

Most of the herd reconvenes in the ecotone between alpine and subalpine. Here they can spend hours feeding on moss in the tundra, or in steep sub-alpine meadows. During the heat of the day they will retreat to the coolness of the trees. The young calves will soon learn the herd's patterns. They will be most active at night, or dawn and dusk during the crepuscular witching hour.

By now the calves are steady on their feet, and prance around their mothers with ease. They still sport white spots, and will for a few more weeks. They sniff at the air, and lick lichens from rocks. In solitude since birth, they are now surrounded by cows, yearlings, and perhaps one old bull. Calves will not meet other adult male elk until the end of the season since the males have left the herd and reformed a series of small bachelor groups. In these groups the bulls keep occupied by eating and occasionally sparring. They are gathering energy to grow antlers and prepare for upcoming autumn exertion.

In late summer, as the deepening light begins to hint at autumn's warm glow, a male elk begins to change. His antlers, growing steadily since spring, have mostly lost their soft, blood-enriched velvety coating. The bone has hardened, and emerges smooth and darkly shining from his thick skull. If he is a young male, two years old, he may only have two fifteen inch long spikes. If he is much older, the main beam of his antlers may be five feet long, sweeping up and back across his shoulders. They might weigh up to forty pounds. His neck begins to swell, as do his testicles which hang heavy between hind legs, big as grapefruits. His coat glistens. The dynamics in his small bachelor group change as well. Having spent the last months fairly peacefully with a small group of males, he begins to become cautious, even antagonistic toward his companions. He begins to thrash about in the brush, up against saplings, rubbing free the last shreds of his velvet and polishing his antlers. Soon he will return to the herd, and begin the complex ritual elk have taken part in every autumn.

It is the time of the rut.

Humans, of course, are not bound by seasonal guidelines on mating.



My third trip to the Camp Hale Memorial area and the Elk Mountain observation site took a very different timbre than either time before. My nervous excitement had less to do with anticipation of the work ahead, and more to do with riding in a car with both Kirk and Dale. Two men I admired for very different qualities. Two men I had slept with, almost entirely platonically. Sharing the tent with Kirk had come about from plain dumb luck and the necessity of staying warm. The one time I shared a bed with Dale had resulted in nothing sexual at all, and almost as little sleep as the uncomfortable night on the mountain with Kirk. How could these two men, both strong, strong-willed, handsome, driven, affect me in such different ways?

We travelled together at the beginning of the second week of full elk observations because Kirk wanted to make sure Dale was on track with the job by spending the first couple observation periods with him. Rick had been sent off to a different location for his

first week's solo observations. Probably Kirk was not yet ready to send me off alone. While I wanted to prove that I, too, could work without help, I was actually quite grateful for the company again.

I can't recall our conversation in the car and the drive went by in a blur. I likely worried Kirk would pick up on the buzz of electricity between his two passengers. I probably got lost in plotting ways Dale and I might be able to see each other during the week ahead when for the most part we would be working two different observation points.

High, fluffy clouds skirted the sun when we arrived at the now-familiar trailhead. Hefting the weighty pack out of the Jeep and onto my shoulders still made me stagger. Dale might have cursed quietly under his breath when he shrugged into his enormous pack. Not that he was carrying more gear than the rest of us, just that his broad, tall frame meant his clothes were bigger, more cumbersome. He also carried more food than I did. He knew he would need it.

We began to climb. For a while I tried to focus on something other than the burning in my legs and lungs. I started thinking about how I was spending three weeks at Elk Mountain with three different men. I thought about our names, and how they could fit together. Kirk, Rick, Dale, Callae.

The men had monosyllabic names that came off the tongue snappily. Kirk and Rick were sharp and pointed; Dale's was slower and smoother. My name stumbled on the lips until you capture its combination of sounds and syllables and blend them with your tongue. Callae starts with the sharp beginning of Kirk, and connects to the softness of Dale with a gentle sigh. Kuh-lay. People often ask me if it is French, though I don't know its origin. Like many French words, though, it's difficult to pronounce correctly when seeing it the first time.

I silently chanted my way up the steep slope, Callae, Dale, Kirk, Rick. Dirk, Kale, Kick, Rale. Cale, Dale, Kirk, Rirk. As I neared the crest I again became aware of my aching muscles and pounding heart, though it seemed less than in previous weeks. I thought I might be getting stronger. Dale's measured stair-step strides usually out-paced my own. This time when I looked back I saw both Dale and Kirk some distance behind me. I nearly crowed aloud as I waited for them to catch up.

We met just before the crest of the ridge. I expect my face was flushed red from exertion, though I intentionally steadied my breathing to appear unfazed by the climb. The others too, showed signs of having worked hard. Sweat had turned the fly-away blond hairs around Kirk's brow dark. A sheen of moisture glistened on Dale's exposed neck.

Wind, violent and persistent greeted us at the ridgeline. We didn't anticipate it during the brutal initial upward trek as the mountain provided a silent buffer, so we were nearly swept backwards when we crossed the ridge and faced strong upward blasts of air. The strength and surety of it startled me. I wondered what that meant for the rest of the week. Did the wind know something of what was in my heart already? Did it echo the electric buzz of being so close to Dale with the unspoken possibility of time alone with him a lingering tingle on my lips?

Quickly, though, such romantic ideas were swept away as more earthly duties consumed me. We camped on the same wide bench as the week before. We pitched tents on windy tundra, and struggled to keep camp stoves lit in between blasts of air. Again I faced the challenging necessity of peeing in the open with bared legs a perfect target for unexpected changes in wind direction. A particularly strong gust caused my tent to nearly fold in on itself while preparing for the evening observation. I found myself flattened under blue rip-stop nylon that moved and sounded like an angry ocean threatening to drown me. Good thing I was inside, I thought, or the tent might have picked up like an unruly kite and floated away across the alpine.

Kirk and Dale helped me move the tent to a more sheltered spot. As sheltered as you can get on the alpine, anyway. We also moved the tent around so the doorway and vestibule faced the ridgeline rather than the valley. This provided a better contour for the wind rising from the valley to stream around. I watched carefully to see how the men pounded the narrow aluminum stakes in on a more dramatic angle than I had originally placed them. Next time I, too, would be more deliberate and forceful when staking my tent to the delicate alpine terrain. A few holes here and there wouldn't, in the end, cause too much damage.

We shared a meal together before heading out to the evening observation period. Dale insisted on making a giant pot of pasta. We all chipped in something from our food stashes to make it a meal; sauce, tortillas, a few sun-dried tomatoes. By now I had no

problem setting up, starting and using the stove. I enjoyed keeping up with the others as I got water boiling for the pasta. We talked about other favorite trail meals or mishaps as we ate, and chuckled over Kirk's retelling of an unfortunate chocolate mousse experiment.

Dale chimed in. "Okay, since we're talking about food, what about the pasta water? What do you do with it?"

"What do you mean?" I looked into the pot of creamy water Dale insisted we save. "Don't you just throw it out?"

Dale scoffed, "No way. That there is some good drinking."

"Ewww." Kirk made a face, "That's disgusting."

"Why would you want to drink that?" I asked. There were bits of slimy pasta pieces floating on the surface.

"Hey, you make it, you drink it," Dale responded. "Seriously, it's a great source of water. Why waste it? You'll just pee it out later anyway." I realized he was really being sincere. "Here," Dale offered the pot to Kirk, "try it."

"No way!" Kirk screwed up his face.

Dale turned to me, holding up the pot. "Well, okay, I guess." I agreed to try it, only because Dale offered. I gingerly sipped some of the starchy water. It was still warm, and except for the slight sliminess, surprisingly didn't taste too bad. "I'd definitely need to add something before drinking a lot of this," I concluded. Dale grinned at me as he lifted the pot to his own lips, and gulped down every drop.



After an uneventful evening and morning observation period, my companions packed up and hiked north to the site Kirk found the previous week. Telemetry indicated a half-dozen collared animals in the region, perhaps in two different groups. Four of them had not been observed yet. Kirk hoped by spreading us out we could capture data on those cows. I recognized the efficiency of the plan, yet I worked to contain my disappointment when the time finally arrived for them to leave. I tried to stay busy and offered to help with what packing I could. Dale suggested I roll up his sleeping bag and pad, something that might

have felt deliciously intimate had I not gotten so frustrated about getting it to fit into the stuff sack. Both Kirk and Dale prepared their gear in smooth, well-practiced steps. I felt like the awkward, stumbling partner in a silent dance where the beat is known only to the leader. At some point I sat back and watched, hoping I could learn to break down camp as efficiently and effortlessly as my partners.

Within a half hour only my lonely blue dome perched loudly on the openness of the alpine terrain. The two men with me, one slender and fair, the other tall and dark prepared to hike their way back up and along the ridgeline.

“All righty then, are we ready?” Dale asked.

Kirk nodded. “Yep, I’ll walk you over to that site I found last week and then head out. Rick will be here Saturday by noon to pick you guys up. He’ll be ready for a shower by then, so don’t leave him waiting.” He grinned. “I’ll be flying that morning. Keep an ear out. I’ll have the pilot waggle the wings at you.”

Kirk meant he planned to be up in the plane with his pilot, checking on the movement of the study elk from the air. Though expensive, the occasional flight helped him plan where to send his crew each week.

Kirk looked at me, “Have a good week, Callae.”

I smiled bravely.

Dale winked at me when Kirk wasn’t looking. I ducked my face so the blush wouldn’t show. In a moment alone that morning, we had agreed to meet the next day on the ridgeline after our observations. I would hold onto that thought hard during the long, cold, lonely night ahead.

Kirk and Dale began the slow trek back up to the ridgeline we crossed only yesterday. I watched their strong, masculine forms shrink as they slowly climbed up to the ridgeline. I tried to ignore the quiet emptiness that seemed to fill the space around me and wondered what to do with myself until the evening observation. Dark clouds began rolling up over the western peaks. Saturday seemed a long time away.

I reluctantly set off for Tuesday evening’s observation in a slow, constant drizzle. The morning had been dry and consistent with the previous week’s patterns, thick clouds moved

in by 2:00 p.m. As I walked my boots darkened from brushing against wet alpine plants. I thought about Dale, and felt somewhat comforted that he would be working in the same rain. I hoped the weather would hold for our rendezvous the next day. I begged the elk to appear and keep my mind from my desires and the loneliness pressing in on me.

The elk were only partially helpful. Crouched under the crinkly tarp, pulled up over my head and the spotting scope, I did find two collared animals for brief moments. Telemetry suggested my calfless friend K and a new animal, P3. They kept slinking into the trees, and I could never get a good sighting. Both cows disappeared completely by 7:00 p.m. I continued to get strong signals from them in the area so I waited and watched some more, eager to get data on a new cow. I tried and quickly gave up counting the number of raindrop taps on my head. I passed time scanning the grey hills for signs of any kind of movement. I wondered if elk fur darkened when it rained on and if I could notice the difference through the spotting scope. I wished for even one leggy calf to prance into view and stomp puddles in the meadow. I imagined the ways Dale and I might make the most of the limited time we had together.

During the Monday morning staff meeting a couple days back Kirk suggested he had plans to send Dale and Rick out together in later weeks to the more remote sites in the study area. This would require longer hikes into the backcountry, and tracking down elk with telemetry and map and compass. Kirk had not mentioned if he would send me into these more challenging areas, and I suspected he did not feel I had adequate skills or experience. If my suspicions were correct, I grudgingly admitted Kirk was right to keep me closer to the front-country, and tried to ignore the subtle wash of relief that came with knowing that. Maybe by the end of the summer, if I proved myself he would feel differently. More importantly, perhaps I would feel differently.

It was agitating to sit there at the observation site. I constantly shifted to ease the numbness in my rear, listened to the rain tink off the tarp pulled over my head and the scope. There was nothing to look at. No elk, anyway. I imagined meeting Dale the next day. Imagined setting off across the mountain to find him half-way. We would see each other from a mile away or more, two small figures moving toward each other in the vastness of the tundra. Slowly, the distance between us would shrink. Each would be thinking of the other,

the memory of lip on lip, flesh on flesh quickening our steps. Each would take note of the hour, calculating how much time they would have before returning to their lonely posts in the afternoon. Two? Three? Four at most. With bodies still not acclimated to the 12,000 foot altitude, the distance between them would seem to stretch out into an eternity of dizzying breaths, pounding hearts and aching limbs nearly forgotten in the final moment of meeting.

Later, stiff and chilled I stumbled back to the tent. It was my first night returning to the promise of a truly empty campsite. I pushed aside images of finding a stranger in my tent. I ignored the tickle fear about mountain lions, bears, unknown unimagined predators tracking my movement. I couldn't quite ignore the unlikely possibility that Dale might be waiting for me in my tent. I rushed too quickly, ignoring the beauty of the slowly clearing sky and the sparkle of stars through weakening clouds. I never saw the way the emerging moonlight cast lumps of moss and bunch plants and trickles of water into beautiful accents. When the dome of my tent rose up in the grey light, I breathed a deep sigh of relief and dove inside. No strangers. No wildlife. No Dale.

Before I zipped the fly closed I did notice stars glinting over the darkened rise of the ridgeline. The opening sky meant I was in for a bitter cold night. I had on every layer I owned, and even wrapped in the sleeping bag I still felt cold. Faint moonlight gleamed through the tent's nylon skin. The air outside the tent weighed heavy with silence. Every movement I made caused irritating noise. I tried to stay as still as possible. I tried to read for a short time, though I felt self-conscious about the glow of my flashlight in the surrounding darkness. Even the gentle thwsh of turning pages seemed extraordinarily loud. I gave up, lay in perfect stillness and worked to calm my breath, my nerves. My ears warmed slowly under the winter hat. My cheeks did not. I tucked my gloved hands under my arms and curled into myself. A gentle breath of wind moved softly around the tent. A gentle quiet fell everywhere except inside my head. It took a long time for my eyelids to grow heavy.

I slept uneasily. In my head I instead of sheep I counted the hours until daylight.



Sometimes it seemed as though the only time I warmed up during the early weeks of the Elk Summer was on the pre-dawn walk to the morning observation site. On the Wednesday morning of my second week at Elk Mountain I was eager to warm up, and watch elk. I looked forward to meeting Dale later in the day, and hoped the animals proved as elusive as the night before.

Instead, the elk were extremely accommodating in their roles of “observed animals.” I never had a blank spot in the scope. The ungulates seemed to enjoy the rare clear morning and emerged into the meadows before I could fully make them out through the scope. They were mere shadows in my narrow view. As the day brightened, more animals appeared, lightly moving into the slowly sun-kissed meadows. Young spotted calves pranced and hopped around their mothers, nursing greedily. A new collar, L6, appeared briefly, teasingly throughout the morning. I never saw her with a calf. P3 lay in full view in a sunny splotch of grass. She also had not yet shown indication of having a calf. Three more collared animals appeared by 9:30. Elk moved in and out of the trees, in and out of sun-spots. Their movements were yet another dance whose steps I could not understand. I was content to watch and perhaps I would glean something from their display.

Time passed quickly and it was nearly 11:30 a.m. before the elk herd disappeared into the trees. I recorded 100 minutes on L6 and recorded three new nursing bouts. It would be one of the most productive observations of the summer. I couldn't wait to share my success. The night before I imagined I would meet him half-way between our sites and did not want to miss that opportunity. I rushed back to the tent, hurriedly choked down some food, and set out. The trek up to the ridgeline exhausted me, and I was glad to only have a light daypack weighing me down. I imagined being able to race to the ridgeline and run into Dale's arms amidst early summer alpine summer.

Our meeting did not, of course, happen exactly like a replayed scene out of *The Sound of Music*. We did meet crossing the alpine. We did not run toward each other. Dale had made it most of the way to my side of the mountain by the time I set out along the ridgeline toward his camp. He did lift me in a giant hug when we greeted each other among scraggly clumps of tiny blue sky-pilots on the rocky ridge. There was no rising background

music or ethereal singing, except perhaps in my head. The weather cooperated completely, and provided us a perfect afternoon of sun and little wind.

The mountain was different with Dale. Somehow it became less intimidating and more interesting. We wandered back down the bench near my campsite, and scrambled through boulder fields, admiring the colorful, slow-growing blocks of lichens on the ancient stones. We found a well-used pika haystack, where the animals store their food over the winter. The little fuzzy critters scamper all over their alpine talus slopes collecting grasses and forbs during the short summer season and stuff them into crevices. Their stores can cover a one hundred square meter area which gives them a pantry about as big as a four-bedroom house. I recently learned that among the plants collected by pika is one that acts as a preservative so their haystacks will remain relatively fresh during the long winter months.

Dale led the way across the bench some distance from my tent. I pointed out where I'd been getting water from a small trickling stream emerging from a steadily shrinking snow field.

"There's another one closer to camp, except it has a big patch of watermelon snow in it," I said.

I had been looking out for the reddish colored patches in the snowfield every time I chose a spot to get water. Formed by algae, the reddish discoloration, along with its distinct fruity odor, gives it the name. I had often been warned against eating or drinking water from watermelon snow.

"You don't really worry about that stuff, do you?" Dale said. "It can't really hurt you?"

"I always thought so," I responded, without being able to provide a sound reason. Later I learned that ingesting small amounts of the snow algae probably wouldn't be dangerous except in large quantities when it could cause diarrhea. Not something particularly pleasant to deal with at any time, and it would have been especially difficult, even dangerous, on the mountain.

Fat, tawny, sun-warmed marmots whistled at us when we came too close. Relatives of the eastern groundhog famously characterized by Pennsylvania's Punxsutawney Phil, Marmots are tenacious, loud-mouthed sentinels of the alpine. They live in loose community

groups and practice a characteristic habit of whistling loudly at the first signs of danger. While the piercing warning helps other marmots, the whistler has managed to draw attention to itself. This unselfish, altruistic behavior is a form of kin-selection in which a single animal is willing to sacrifice himself for the preservation of his fellow group members. Pika and other nearby animals also benefit from the marmot's alarm whistles.

Marmots are most often seen looking fat and happy while sunning themselves on rocks. Otherwise they are holed up in their dens. Scientists estimate marmots spend eighty percent of their lives in their burrows with most of that time taking place in hibernation. Marmots, like groundhogs, are a true hibernator, and some may spend up to 8 months in the deep, deep sleep of winter. During that time a marmot's breathing and heart rates slow to less than half their waking pace. They will not eat, sleep, defecate, or react if disturbed. No wonder Punxsutawney Phil looks half dazed when they hold him up to the crowds on the second of February.

Dale and I scared off a whistling marmot while crossing a particularly wide rock pile. My companion knelt down over the rocks and poked a stick at the scat that resembled pinched off cigar butts.

"You know, most animals up here won't bury their scat. Just leave it out on a rock and it'll break down in the sun. It's better than digging cat holes in this sensitive soil."

"You don't..." I started.

He grinned. "If I know I'm not where there's likely to be people for a long time, sure. It's best to spread it out over a rock so there's more surface area and it'll break down faster."

"Yuk." I struggled with defecating outside as it was and to consider spreading it out in the open turned my belly, even while the idea made good sense ecologically.

Then Dale got more serious. "It's hard to find a place where people won't be these days. I often feel like we've have stepped over every inch of the west. It's hard to find anywhere that's truly new, truly undiscovered." He stood, and we stared down along the slope, across the wide valley toward the distant ski runs of Copper Mountain as a passing airplane roared dully overhead.

Mid-afternoon found us soaking in the sun like marmots on an outcrop of rocks near the top of the ridge above my camp. Dale's arm draped across my shoulders and I rested my cheek against the softness of his fleece jacket. I would have explored the mountain with Dale the rest of the afternoon if he hadn't been the responsible one keeping track of our time. Mine was just a short walk back to camp to gather equipment for the evening observation. Dale had a two mile walk ahead of him. Time was slipping away in that slow seep of inevitable bitter sweetness that comes with the ending of a stolen moment between lovers. I pressed closer against my companion. I didn't want to be left alone.

Dale spoke, his voice rumbling up from the chest I lay against. "It would be nice to see you again before the week ends."

I smiled into his jacket, not daring to show him the raw desire in my eyes. Desire both for romance and perhaps more for companionship. I didn't understand the conflicting emotions that swirled up in my belly.

"Yeah, that would be great."

"I could come over tomorrow night."

"After observations?" Even I heard the incredulity in my voice. "In the dark?"

"Sure. I can come as soon as I'm done. We might have a few hours overnight together."

"Well, I feel bad having you come over here again, especially in the dark. You sure you won't mind?"

"I won't mind." Dale's voice had an edge to it.

"Well, okay."

What was I doing? Of course I wanted him to come. Why was I holding him off at arms length? I couldn't quite believe it was real. That he would actually hike across the mountain, in the dark, seemed like something out of a book. Yet instead of letting him court me, I felt like I needed to court him.

I had read my fair share of fairy tales with their predictable stories of prince meets princess, prince falls in love with princess, and the couple lives happily ever after. Except I always wanted to be the princess in those rare stories where the handsome prince is stunned by the beautiful girl's resolve, strength and cleverness. Those other girls, all flowery and

flighty seemed too tedious to me. Too predictable. In my fairy tale I wanted to be the one to hike across the mountain, and find the prince. I felt I had something to prove, when all I needed to do was let him in.

I put my hand on Dale's arm. "No, please come. I want to see you."

He pulled me in tighter. I felt his heart beating where my head pressed against him.

Later, after Dale strode away across the mountains back to his observation site, I set off across the landscape in search of a new watering hole before beginning the evening observation. The snowfield-fed stream we had been using since my first trip to Elk Mountain with Kirk had been steadily shrinking as summer came to the alpine. Even though it seemed I had been cold and wet most of the time on Elk Mountain, the decrease in snowpack had become noticeable. I set off along the bench in the opposite direction of my observation points in search of a fresh water source.

After some time, I found a thin, workable trickle cascading down across rocks, mosses, lichens. I pretended I was an alpine beaver and made a little pool deep enough for the cylindrical bobber at the end of the water filter's intake hose to float without touching the sediment at the bottom. Clogging up the intake hose with sediment did not sound like a good idea. I was in the process of digging out a pool, moving rocks around and generally re-adjusting the flow of the water when a weasel suddenly appeared on the rocks opposite me. He, too, had come for water, and had not expected to find me at his watering hole. Or, perhaps the naturally curious weasel knew very well I was there, and had come specifically to check me out.

I had never seen a weasel in the wild, and was surprised at his smallness. His cylindrical body was perhaps the size of a bratwurst, with a skinnier, black-tipped tail, and triangular, cattish head. What struck me most were his intelligent, shining little eyes. He was wildly adorable. We stared at one another for what seemed like minutes, though it was likely only seconds. When he turned and slipped into the rocks, I felt as though a spell had been broken. I thought perhaps I was in my own private fairy tale after all.

During the days I did not have company I felt isolated, solitary, a lone woman in the heart of wilderness whose senses were becoming more acute every day to the subtle changes around her. I imagined I was truly working and living in the backcountry, with “backcountry” defined by being off the well-worn path. Certainly getting to the Elk Mountain site required a thirty minute drive from the apartments in Vail along paved roads, and another half-hour up rutted, bone-jarring forest service roads. Never mind there were Jeep trails less than a mile from me, a well-established foot trail on the other ridge, and I could clearly see I-70 to the east. I was surrounded by the footprints of men. Dale camped less than two miles away and I would see him several times. Even so, for the second week of the Elk Study I mostly worked utterly alone with only the memory of company for company.

At night, I was reminded of the closeness of society. When watching elk, or sleeping during the hot afternoons, I paid little attention to the occasional plane crossing overhead. At night, their flashing red and white lights interrupted the quiet, nearly imperceptible movement of stars. Their passing was marked by a lazy rumble of engines that floated down in the thin night air and rolled off lichen-covered boulders into the valley below. Almost always I marked their blinking decent east toward Denver.

Denver, the city built on the backs of western frontiersmen. A town known originally for its wide, rutted streets, rodeos, and gambling, Denver sprung up on the edge of dry, short-grass prairie and rolling hogbacks where cattlemen did business in local saloons and narrow gauge railroads brought city residents into the mountains for welcome relief during the scorching summers. Its wealth came from the discovery and extraction of gold, silver, lead in the veins of rocks composing its majestic peaks. The economic boon led to growth, expansion, and a movement toward urban life. Cattlemen and farmers moved further east and south as Denver grew. Recreation began to vie for space with mining and ranching in the mountains.

Ski areas began popping up all along and accessible from the I-70 corridor. The interstate took skiers from the front range and beyond to Loveland, Arapahoe Basin, Winter Park, Keystone, Breckenridge, Copper Mountain, Vail, Beaver Creek, and Aspen. More than half of those listed are accessed via the Eisenhower Tunnel, and except for Aspen are within a two hour drive of Denver. Backcountry use during the summer hiking and camping season

has more than doubled since 1985. On any Sunday afternoon during ski season or peak summer tourism, up to 2,000 vehicles per hour may pass through the Eisenhower tunnel. Regular weekend commuters have come to expect the usual ninety minute commute to take closer to four hours.

The interstate was never that busy while I watched it. Even without a calendar I would know when it Friday arrived as more people escaped the hot city for a long weekend. On Friday's long threads of white headlights made their way through the canyon and into Vail. I thought about the orange glow of the city they left behind, the energy there, the 24-hour lights, eateries, activity. I remembered holding Dale's hand when the lights of downtown cast as magically eerie haze over our blooming relationship. I felt my cold bum, wiggled my cold toes and looked up at stars and the vastness of shadowed mountains all around me. Tomorrow I would get up, watch elk, eat food I prepared myself in water I had gathered and perhaps go exploring with no expectations or timelines except dictated by the elk. Embraced by the open arms of the mountains, surrounded by tenacious blooming plants and unseen animals, I thought perhaps at that moment I preferred to have cold toes in the wilderness rather than in the stuffy heat of a city street.



Thursday evening's observation took place under clear skies and no sign of rain. Unlike other so many other evenings when I rushed back to the tent heart pounding in the dark half from fear, half from exertion, both anticipating the initial warmth of the sleeping bag and dreading the frozen chill that would wake me throughout the night, tonight was different. Tonight, my heart pounded in excitement. Tonight, Dale said he would come.

The cool air closed around me verging on the thin bite of cold that I had come to expect. I pulled my hat down further around my ears. In the darkening valley below, I could barely distinguish creamy elk rumps from the shadows of grass and boulder. I had been keeping a lazy eye on three collared females, all already marked with calves. In the deepening dusk, their collars, white slashes against darkened necks, were quickly fading. Even if a new collared animal popped into view, I wouldn't be able to make out her identity

through the sporting scope. I could probably make a good guess using the radio telemetry if necessary, though I hoped I wouldn't need to. The herd was settling for the night, and I was ready to follow their lead.

He came to me across the craggy, rocky slopes. I imagined his long, deliberate strides eating the distance between us. I imagined his legs lost in the deeper shadows of the landscape. His long body, his strong shoulders and head would push up into the slightly lighter sky, backlit only by the slowly rising moonshine in the east. He'd move lightly, his pack carrying only a few necessities – a pad, sleeping bag, water, a few clothes. He would move quickly, lightly across the tundra. I hoped he was being careful on the rocky, uneven ground. What he might think of, I wouldn't ask. What he hoped to find at the end of his journey, I hoped to provide.

Meantime, I waited. Impatiently. Dreamily. I tried journaling. Was embarrassed by my scattered thoughts and would not put them to pen. I tried reading by the faint moonlight.

My eyes grew tired. I remembered the small candle-lantern and dug it out of the pack. With hands shaking from the chill I lit the sliver of wick on the stubby candle. Every other night I hoped to remain unseen. The bump of my tent stood higher than anything around it, and yet I pretended I could be a ghost on the mountain, blending into the low plants and boulders. That night though, I lit a candle. I wanted my tent to glow like a beacon, seen from the ridgeline above. A flame for my moth.

With my back to the valley, I had a new perspective of the land. Time passed infinitely slowly. The cold nights and stiff breezes were keeping mosquitoes at bay, so I didn't worry about keeping the mesh over my entrance. The entrance into the rain fly was pulled back as well, allowing me a small triangle of vision from the interior.

I sat cross-legged in the open tent until it became too cold to feel my extremities. I draped my sleeping bag around my body, and soaked in the stillness of the night. Without anything certain to watch, time passed even slower than my mornings in the frosty air waiting for elk.

The moon rose and the terrain began standing out in relief. The ridgeline above me, a darkened shadow of itself seemed to shrink as the sky expanded. Stars flickered in time with my candle. I wondered what moths they were hoping to attract. The ridgeline I knew Dale

would be walking seemed closer. I imagined a love story between the valley and the ridgeline. Forever apart, they yearned for each other. The only time they might get closer to one another when rains came and washed bits of the ridgeline down to his lover. Or when the mists rose from the trees below and caressed the ridgeline above. At night the ridgeline pressed down with all his might, trying to shrink into the valley while she lay shrouded in darkness, unable to reciprocate.

Wind blew only slightly, and my tent sighed soft, gentle rustles. I imagined the wind streaming across the tundra and caressing short alpine flowers, moss, rocks. I wondered what it might sound like if I were as small as an ant. It might sound less like a whisper then. The voices in the wind might become clear, distinct if I were able to hear them as an ant.

Time passed, and passed. I grew weary of watching stars without giant moths. I was very cold. At some point it occurred to me that with the vestibule and tent door open I was only succeeding in letting out any warm air I could be trapping in my vinyl bubble. I gave up the hope of seeing Dale's silhouette on the ridgeline against the moonlit sky before he began making his way down to me. I left the vestibule open, shucked off freezing boots. I zipped the tent door closed, changed into sleeping socks, and wiggled deep into the sleeping bag. Cold seeped through my winter hat, into my wool sweater. The candle lantern flickered over my head and cast strange shadows around me. Again, I waited. I listened for footsteps across the tundra.

I must have dozed, for I awoke in a strange confused daze to slight sound of falling stones. Was that a crunch of heavy boot on rock and stiff bunchy plants? Then I heard it again. There, a quiet cascade of stones, or pebbles somewhere on the slope. I strained harder. There was a sense of movement, a rustle of nylon, breathing. I sat up, heart pounding. It had to be him. Before I could reach for the zipper on the tent flap he had it open. He brought with him a rush of exhilarating cold air before the heat of his body enveloped me. His cheeks were chilled. His mouth, lips, tongue warmed my own. I pressed fingers into the damp hairs at the nape of his neck. His found a way under my layers and the chill of them shocked a sharp inhalation of arousal from me. He pressed wet lips close to my ear. "Hello, lover."

Only later did I realize Dale thoughtfully kept his lower legs and boots outside in the vestibule until after his exuberant greeting. He shed boots and outer layers, and blew up his sleeping pad. With thick, clumsy hands I zipped together our sleeping bags. Someone blew out the candle. Chilled hands, arms found their way under layers and onto warm skin. Outside the moon crested the ridgeline. In the otherworldly light of a moonlit tent Dale and I curled into one another sharing breath, desire, warmth.

The moon had barely completed her arc across the sky when Dale reluctantly stirred to the sound of his watch alarm at 3:00 a.m. Sometime in the short night we had replaced lost layers. Even our shared heat was not enough to belay the chilly night air against damp bodies. Curled into the curve Dale's long body, I had to work hard to ignore the stone under my thigh. I focused instead on the feel of his breath against my neck.

"I'm glad you came," I said softly.

Dale gently pulled my head around and kissed me. His hand moved across my chest, groping blindly through the thick wool sweater and several lower layers. It was too cold, too bleakly early.

"Me too. I thought I'd get here sooner, except I had a few collared elk out and active the whole observation," he said.

"Did they nurse?" I asked sleepily, turning into his chest.

"Two of them, and there were plenty of calves around." He wrapped his arms around me in a tight hug. "I have to go. Help me with the sleeping bag?" His voice was not demanding, just resigned. As we worked together we spoke in hushed tones. Then he was gone. I was both thrilled he had come, and slightly worried. He was the one who was hiking back in the dark to his camp in time for the morning observation. I could sleep an extra hour. It would be a tough morning for him, I knew. I pressed back into the spot where his warmth had been and slipped into a broken sleep.

Later, I struggled to stay awake during the morning observation, thankful that the elk provided something interesting to watch. Across the valley a handful of animals were scattered, mostly in the open. They were all animals I had seen, K, P3, U5, and now and then L7 slid in and out of view on the edge of the trees. I had yet to get either enough time on P3,

and L6 nursed a calf on Wednesday. It had been a several observations since I had seen any new animals in the area, or any nursing bouts. I began to wonder what good I was doing for the project.

Then, movement from P3 caught my attention. She stood, in that somehow awkward way all long-legged ungulates stand by unfolding her front knees to make a tripod with her head before her rump rose high in the air. She pointed her nose toward the trees. On the other side of the field of view another cow moved into the clearing. I quickly swung the scope over as a matter of habit, expecting it to be L6. I had to blink hard when her collar did not register as L6. I squinted until R1 came into focus in black ink along the collar. A new animal! I quickly glanced down at my watch and recorded the time in the field notebook open on my lap. I didn't dare look away from the scope for too long in case either cow nursed. I had waited so long to get any data P3, and now there was a new animal to keep an eye on, too. I didn't want miss a nursing bout from either of them. If I had taken a deep breath, I might have felt my heart pounding in my chest. Here for the first time in days I was watching more serious elk activity. There was one new collared animal, a familiar one on her feet, both in the same meadow, both looking alert as though they were waiting for something, and I was the only one to see it.

I swiveled the scope between the two animals so I could see both on the far edges of the circular viewfinder. Quietly, out loud, I begged them to move closer together. As though they heard my words carried on the morning breeze, L7 did in fact edge further into the meadow. I could finally see both cows clearly through the scope. They were lovely. Both showed some remains of their shaggy winter coats, and for the most part their butterscotch fur shone glossy and smooth. The darker fur from their necks to the narrowed, delicate features on their heads glowed in the sun. I imagined how the warmth of the sun would radiate against my hands if I could only place them on the length of the elks' powerful necks.

I waited, breathlessly, until several dappled calves bounced from the trees. They chased each other through the open meadow in long-legged awkward gaits in increasingly narrower circles. One kicked its back legs out high behind it. Another stumbled over something, perhaps a rock or log, and its head arched suddenly toward the ground before it

righted itself and continued the chase. I laughed aloud, caught up in the charming gawkiness of young animals.

The trio eventually stopped their frolicking and stood facing each other, ears swiveling alertly. I could practically see their flanks heaving with their exertions. I imagined they were having a kind of playground conference before being called back to school. I waited in hopeful anticipation for the possible nursing bouts that often came after such exuberant play.

The playground group scattered. Two of the young animal made a beeline toward cows. One headed straight for R1. Please nurse, please nurse, I thought. Of course my job was simply to record what happened and as a scientist I should have an objective approach to the research. After so many days of not gathering interesting data though I was eager for something new to record in my little field book. In those moments when cows met calves in a wet greeting of large tongues along young flanks and hot milk flowing from udders, I forgot the my role as unbiased observer and reveled in opportunity to witness a shared moment between cow and calf. There's something achingly intimate in observing the interactions of wild things.

I counted twelve-Mississippi's while R1's calf butted hard against her udders. It was enough of a nursing bout to record in my little book and to prove another successfully raised calf. Of course in reality the young elk was still highly susceptible to predation, disease, and starvation. For the purposes of our study, however, we could say R1 had raised a calf until that point. A result that suggested the cow had not been disturbed during the calving season. Given enough data, perhaps this single nursing bout could help prove that less pressure from humans would in fact help promote elk populations.

Until that moment, alone on the mountain, I felt I could take a truly unbiased approach to this study. I thought as a young, budding scientist the best quality I could offer was one of no opinion. I had always tried to see issues from all perspectives, and rarely had strong opinions about controversial topics. I thought this gave me an advantage in a scientific field. I could remove myself from the desired results, and truly observe, record, and see what the statistical, impartial data spit out. Elk Mountain was the place I learned otherwise.

When I watched R1 nurse, and moments later also finally recorded P3 as having a calf, something shifted. I realized I could never truly have an unbiased approach to this project. I loved watching the animals too much. I loved seeing how they interacted and behaved. I wanted to know if the calves I watched would survive to adulthood. Many would not, and as long as they were eaten by predators or died from other natural causes I did not mind. I did not even mind if some of the animals were lost to hunting. Thanks to earlier generations of men culling the number of predators, elk populations could get out of control without the compensatory mortality provided by hunting. Hunters helped manage the elk herds, and the Colorado Division of Wildlife's job was to make sure the number of seasonal tags maintained a sustainable population.

Hunters, a majority of them, understood this. I had begun to learn through the Wildlife Society that the men and women who found pleasure in hunting were some of the strongest advocates for managing wild populations and wild places. Despite what some may view as their violent approach, hunters were drawn into the wild to prove their prowess, as well as out of respect, awe, and appreciation for the natural world. All the hunters I met expressed deep pleasure in spending time in the out of doors.

It did bother me to think about the other negative ways humans could impact the elk population success. The results from the previous seasons of the elk study suggested increased backcountry use negatively impacted elk populations. I thought about how the elk brought both meaning and joy to my life. I thought about how they were an integral part of the mountain ecosystem. I acknowledged for the first time I did not have an unbiased approach. I wanted to record as many nursing bouts as possible to prove elk needed relief from human pressures during the calving season. I wanted to believe the work I was doing would, in the end, make a difference. Whereas before recording nursing bouts in my field book had been a mark of success for finishing observations on a particular animal, now they meant something more. They were one more data-piece to prove why we needed to tread carefully so we could maintain diverse, thriving ecosystems and wildness for future generations.

On Elk Mountain my perspective shifted when I realized even scientists may have an agenda. That they could also hold a hoped-for response or result to their research, especially when it came to questions of conservation and preservation – animal, plant, ecosystem.

I did not give up on the importance of unbiased research. Throughout the rest of the summer I celebrated whenever I could record a calf nursing and I never once altered my records to include imagined nursing bouts for an otherwise calf-less cow. In my mind, the scientific approach remained the best way to gather the information necessary to make changes for the future, and I would have felt deeply deceitful and forever guilty had I not followed the expectations laid out by the unbiased scientific approach to gathering data.

It was nearing 11:00 a.m. when the elk disappeared from view. I eagerly packed up my gear. Sometime in the blur of our early morning parting I told Dale I wanted to come see him this time. I made no guarantees. I said I would try to come after the morning observation. Now, I couldn't wait to tell him about my success with the elk. It didn't take long for me to wolf down some food, put together a day pack and set out north, toward Dale's side of the mountain.

Striding across the alpine I felt tall, and strong. The world was so enormous. The vastness of space around me that had at times felt oppressive opened its arms. I embraced it all, tried to breathe in everything. I grinned when pika raced across rocks. I whistled back at marmots. A hawk rose on the afternoon thermals and I spread my arms and rose with him. My feet had wings as I ate up the distance between my home and his. I imagined him waiting for me. Wondering if I would come. Hoping, and quietly excited.

After perhaps about a mile, the trail left the ridgeline and began sloping down through a green and cream carpet of grasses, sedges, and early blooming alpine buttercups. Dale had described to me the way the landscape changed on his side of the mountain, and I had been looking for the line of trees that would let me know I was close. As I moved further away from my tent, I became slowly less sure of myself, more convinced I made a wrong turn somewhere. Unlike my campsite's vast expanse of open tundra, this area was more gently sloped, and protected by a curve of westward ridge. On the inner curve of the ridge limber pine and subalpine fir could stretch into the sky without being sheared short by winds. I was

relieved to see the trees, and hoped to find Dale's tent somewhere just east of the highest pine. When I easily picked out a blue dome ahead, I let out a quiet little cheer. Dale raised a hand in greeting, and I made an effort not to run the final steps toward him.

As I drew near I saw a jagged scratch across his cheek. Later, I found more ugly red marks on his hands.

"Dale! What happened?"

"Oh, just ran into some old fencing last night."

"Barbed wire?"

"Yeah. Tripped over it. Guess it wasn't shiny enough in the starlight. No big deal, I'll be fine."

"You do have a tetanus shot, right?" reached up and traced the mark without touching it.

He nodded. Squinting at me he said, "When is the last time you had water?"

"I don't know. A while back." I couldn't remember drinking much in my excitement to get to him.

Dale handed me a water bottle. "Here, you should drink."

I raised it to my lips and sucked in deep mouthfuls of liquid. It was still chilled. Dale must have recently pumped it. I knew some of it was dribbling down my chin as I drank and didn't care. Suddenly, my face was washed in a flood of water as Dale reached over and tipped up the bottle.

"Hey!" I came up from my unexpected bath and playfully punched out at him. Dale's eyes were sparkling when he caught my arm and pulled me close. We tumbled into the sun-warmed tent.



During the last evening observation of the week I saw the first camper other than myself. I was watching elk hanging out peacefully in a meadow on the opposite ridgeline when, as a group, they suddenly pricked up ears and stubby tails and scattered. Moments later, a lone hiker came into view, making his way along a skinny strip of trail I had paid little attention

to. Later I learned it was a leg of the Colorado Trail, a five-hundred mile long hike that winds from Denver to Durango.

It startled me, the sighting of another man who was not Kirk, or Rick, or Dale. When it became clear he was stopping for the night, and began setting up a tent, I was annoyed by the intrusion, and also full of questions. Who was he? Where did he come from? Why was he alone, and still hiking at such a late hour? Where was he going? Did he sense I was watching him? I pulled away from the scope quickly. I remembered I had elk to watch and wondered if they had deserted me for the night. They hadn't. They only moved down slope into another clearing and out of sight of the hiker which meant I would still be able to watch them.

I spent the remainder of the evening in a state of distraction. Half my attention rested on the elk, and half on the visitor camped out just above them, oblivious to their presence. The elk seemed completely at ease, and had returned to doing elk things; grazing, laying, nursing, an occasional frolic. I wished I felt as nonchalant as they appeared. Instead, I kept raising the scope to take surreptitious glances at the company across the valley.

The camper set up his tent, a little two-person contraption similar to the one I unwillingly shared with Kirk that first overnight experience on Elk Mountain. Two more uncollared female cows emerged from the trees in the meadow below. The man walked out of view in the opposite direction of the elk for a short time, maybe to get water. Two calves chased each other, rumps humping upward. He cooked dinner, and I wondered what kind of meals he prepared. L6 nursed her calf again for fifteen seconds. The man across the valley wore a winter hat, like me, and slipped into rain pants to keep out the chill from the wind. The elk shuffled a bit in the meadow. Once the camper stepped to the side of his tent, faced the valley and spread his legs. I looked away. I told myself to leave him alone for the night. That I should not pry into private moments. I wondered what would have happened if he had chosen to hike on my side of the valley. What would we talk about? Would I feel frightened?

At the end of the observation, when the elk became blobs or faded into the trees, I returned to my tent. I felt more exposed than ever, knowing how easily it was to watch without being seen. Who might be watching me?

In the morning I turned on the telemetry before heading out to observe elk. I needed to get a sense of where they may have moved overnight so I could properly set up my observation site. I did not pick up signals from any new animals, though that did not preclude them from being around. Telemetry only works if there isn't anything blocking the signal, and sometimes animals are closer than the technology lets on.

Using the binoculars I scanned the opposite slope and picked out the uneven hump of my long-distance camping companion's tent. After two weeks in this area, I had become familiar enough with the landscape to recognize when something new appeared. I liked feeling like I knew a place. In a short time, this had become my home, and I was inexplicably protective and sensitive to its changes.

He emerged around 8:00, raising his arms to the sky when he emerged from the tent. I thought I might enjoy camping some day when I had no time line and did not need to be up so early. At the same time, I enjoyed feeling like I was part of the transition from night. Being alert to the wakening of the world each morning gave me a certain privileged access to sights and sounds I knew many others remained entirely unaware of.

As the sun crested the peaks of the Ten-Mile Range I didn't know how the camper across the valley wouldn't see my tent. It would be fully illuminated in the morning light, exposed completely on the open landscape. I wondered if he might feel suddenly intruded as I had the night before. While I half-heartedly kept an eye on elk I had already recorded, I watched him efficiently pack up camp. He was gone by 9:30 with no sign of ever having been there. Simply gone. The elk had no reaction to his departure. They lay placidly in their open strips of meadow between trees, ears flicking nonchalantly.

At 10:30 the low rumble of an approaching airplane broke my solitude. I heard the engines long before the flat-winged Cessna swooped into view. As promised, Kirk had his pilot waggle the wings as they flew by. I raised my hands in greeting, waving furiously. I was at first glad I had been seen at my post, so Kirk would know I was doing my job. Again though I felt troubled realizing how easily I could be watched. It brought back a memory of when I flew with Kirk in the Cessna and saw the dome of tents through the trees. I felt like invader then, watching elk and campers without their knowledge. Like my pleasure at seeing

things was somehow inappropriately earned. I had a justification for my actions and a legitimate job to perform.

By noon I stood with a full pack on the sun-kissed ridgeline and looked one last time out on the view I had begun to know as home for two weeks. The alpine stood empty of any sign of my presence. I swept the valley and opposite hills one more time with my binoculars. No elk. They had already moved into the trees. A slight breeze sent the leaves of squat alpine sedges and flowers quaking so a gentle undulation of movement swept across the bench. I imagined how the shadows of mountains and rocks and grasses would change over the course of the day. I thought about how thick clouds might swell over the peaks and settle gently into the crevices and dips of the landscape. During last two weeks we recorded over a dozen nursing cows, and gotten enough time to check of two more animals without calves. We learned the animals often moved up and down the valley overnight, so sometimes I could see certain collars, and the next day they would be keeping Dale company. I learned how to comfortably stare through a spotting scope without squinting or covering my eye with a hand.

I looked out across the land overshadowed by Elk Mountain and Jacque Ridge one last time before turning and stumbling my way down to the Jeep where Rick and Dale waited. Half-way down I stumbled on a rock, the weight of the pack pressed me forward, and I fell straight forward, flat on my face. I just lay there for a moment, winded from the fall. Despite my rocky landing, the ground was warm and comforting. I looked straight into the blue eyes of blooming sky pilots, rolled over to see the brilliant blue sky and laughed and laughed.

Chapter 7 – Garden Elk



The term “life-zone” was initially used by biologist C Hart Merriam in the late 19th century in an attempt to describe the seemingly distinct pattern of varying biotic and abiotic qualities found when rising in elevation. The variances in these systems come about as a result of changing climate factors such as temperature, moisture, and growing season. These aspects of climate naturally influence the kinds of plants that will grow, and the variety of plants in an area will in turn determine the kinds of animals and so on. Decreasing mean temperatures, and growing seasons and increasing moisture levels and wind speeds mark this elevational gradient.

Imagine a child’s drawing of a triangular mountain crossed with four, evenly distributed horizontal lines. The five sections represent life-zones, each of which correlates with a given temperature range and like climatic latitudes. The lowest elevation would receive the least amount of moisture, and have the warmest temperatures while the highest elevation would be the coldest and windiest. Both factors would limit the ability for trees to flourish, as indeed, they do. The middle life zones, with their distinct combination of climatic factors produce their own unique flora. It has generally been agreed that there are five distinct life zones in Colorado. Ranging from low elevation to high they are often referred to as grasslands, foothills, montane, subalpine and alpine.

Of course it is not really as simple as Merriam suggested. Describing natural phenomena often requires multiple layers of description and observation. The key component lacking in Merriam’s visualization of the life zone concept was that it did not allow for the fact that vegetation responds to a wide variety of factors, not only a few physical ones. For example, north-facing slopes will be colder and hold onto snow pack longer than south facing ones. Higher life zone plants such as sub-alpine fir or spruce can be found on a north-facing slope in the montane life zone. Similarly, the subalpine life zone found at 10,000 feet in a southern climate may demonstrate characteristics of an alpine life zone in northern latitudes.

Additionally, the lines between the life zones are rarely sharply defined, and will blend together in a mixture of components from adjacent zones. Imagine dragging a paintbrush dipped in water across the life zone lines in the child's drawing. They begin to bleed and fuzz out, as in the soft lines of a water color. These transitional areas between two life zones that share characteristics of each are called ecotones. Some animals both rely on and thrive in these biologically diverse and rich ecotones, and are often referred to as edge-species. Elk are an ecotone species. They require both the diversity of plant life found in open mountain meadows as well as the protection of the forest.

Dovestring lies in an ecotone and exhibits both foothills and montane features. Wide, puzzle-barked ponderosa pines of the foothills zone share the landscape with tall, spindly lodgepole pines and silky Douglas firs of the montane. Old-growth aspens spring from the ravine through which the narrow perennial stream swells for a few short weeks in early spring when the snows melt. I could not wait to share it with Dale.

I brought Dale home with me to Dovestring over the weekend after our shared week on Elk Mountain. In retrospect, I don't know what I was thinking. Yes I do. I wanted to spend time with him alone. I wanted to bring him to the place I felt most comfortable. I wanted him to love my house and my family as I did, and I wanted them to love him back.

We drove east on I-70 and before we reached Vail Pass I craned backward in the passenger seat trying to guess which mountain was Elk Mountain so I could try to make out the bench I had lived on for two weeks from the perspective of the interstate. We moved too quickly for me to tell. It always felt a little strange to come out of the backcountry and back into the fast-paced view of the world from a moving vehicle.

We hurtled down Vail pass, through the Ten-Mile Canyon at Copper Mountain through the Silverthorne Valley and up the other side. These places seemed so much closer together when driving through them at sixty-five miles an hour than they did on a map. We zoomed east through the Eisenhower Tunnel and out onto the steep downward hill hugged by Loveland Ski area. I told Dale of the handful of exhilarating and embarrassing ski trips there as a young teen when I spent as much of the day on my face in the snow or hunched over in scared submission to the mountain as I did making any kind of graceful turns down slope.

At the historic town of Silver Plume thick black smoke rose from the stack of the Georgetown Loop Railway engine waiting to take its load of tourists along the narrow gauge tracks back east to Georgetown. The terrain here is steep. Gentle mounds of russet gold mine tailings lie in repose on exposed hills, and sometimes worn wooden scaffolding of old mine structures can be seen through clearings in the trees.

At Georgetown, thick stands of doghair lodgepole pines choke the slopes, broken and interspersed with groves of aspens. I told Dale of my trips to the quaint Victorian town for special Christmas events and reminded him to keep an eye out for the herd of bighorn sheep that sometimes wanders right down to the road to graze. I pointed out the road to Argentine pass and told him about learning to drive narrow switchbacks in the truck, and shooting tin cans of rocks.

We passed through the narrow notch of Idaho Springs, home to the best pizza joint in the state and one of the access points to Mount Evans where less adventurous or mobile visitors can easily access alpine terrain and gorgeous views by vehicle. We exited the interstate at Evergreen, just before it wound down through the hogbacks around Morrison and its famous Red Rocks Amphitheater and flattened out on the rapidly developing plains around Denver.

Ponderosa forests and open meadows marked our path through the quickly developing Evergreen corridor. I was practically giddy pointing out places I had known since childhood, and hoped I was not embarrassing myself in my eagerness to share my home with Dale. I told him everything except what he needed to know, or perhaps most wanted to know about what to expect from showing up with me at my parents house for the weekend. They knew we were coming, and I fully anticipated a comfortable, easy weekend. I told Dale we might even see more elk. He grinned good-naturedly. "Haven't you been looking at elk all week?"

"I know it's silly. I just think it's so neat to think about seeing them here, too." I didn't quite know how to express that I felt closer to the elk I knew from Dovestring after spending two weeks with their cousins in Vail. I hoped they might show up while we were visiting.

My mother usually smells the elk before she sees them. Often she is in the study when this happens, working on bills or grading papers at the desk made by my father, or standing at the ironing board watching “Victory Garden” on the television in the cabinet, surrounded by hundreds of books neatly organized along the shelves – cabinet and shelves also made by my father. She might be writing out a check, or about to steam out a crease in a shirt collar when the odor seeps into the room.

The smell is not easy to describe. It is thick like dark chocolate, in an earthy, musky way. There is a kind of sweetness to it, as freshly mown grass, yet it is laced with a hint of urine. The odor is not unpleasant, and not particularly agreeable. It sits on the roof of your mouth, and tickles some ancient memory of dusky woods, rustling leaves, and the feel of hot blood pulsing through veins. The elk’s aroma is entirely unique to them, and it will almost always enter the house gradually, so that my mother will not at first recognize it.

Perhaps she will initially blame the onset of the strange odor on the gentle silken-haired, blond dog breathing in heavy sleep on the floor near her feet. Or she might wonder momentarily if the coffeepot was left on and is on its way to creating a smoldering, sludgy mess in the kitchen. She will finish flattening a crease, or signing a check before going to look. Now the dog’s nose might begin twitching, as the smell drifts along the floor and into his dreams. It is when his head rises sluggishly from sleep with a bark rising in his throat that my mother will understand. She will carefully move to the large picture windows on the eastern wall of the study at the same time the dog bounds to his feet. This part of the home is built on tall supports, and rises some twelve feet above the ground. By the time the first bark comes, my mother will be looking down on the broad brown backs of one, two, maybe three elk. They are almost always young males, and depending on the time of year they might be magnificently crowned in antlers. They are so close my mother can see their long eye lashes, and the thick, pulsing vein along their cheek. They will swing their large, surprisingly delicately angled heads up to stare in at her with wide brown eyes, contemplating whether it is worth the energy to run away.

Tail wagging furiously, the dog behind the glass will continue to bark. A series of canines have passed through our lives, and each one developed a bark specific to elk. Their elk bark is significantly different than their “welcome home” bark, or their, “let’s go outside

and play with the ball” bark, or even their, “look at this squirrel I’ve got up a tree!” bark. The elk bark has a different level of excitement to it. Perhaps this is because they have all learned that elk can be chased away, if never truly intimidated.

In the early years, the elk outside the house would have bounded away into the woods at the first sign of movement inside. Certainly they would disappear in a flash at the first doggy “woof.” In fact, it used to be they’d not even venture so close to the house in daylight. Over time, an understanding brought about by familiarity and the ever-shrinking foothills habitat southwest of Denver, Colorado has come between my family and theirs.

Dale arrived at Dovestring much as those early elk had, uncertain and cautious. In all my eager babble about my history and memories, I did not think to tell him what he might expect from being a guest in my family home. I led him blind into my world and imagined he would blend into our family dynamics as easily as I did into his arms.

We drove down the driveway where we were met half-way by our two excited shaggy mutts whose loud, intense barks were belied by their furiously wagging tails. My mother stood up from where she had been kneeling in the garden and raised a hand in greeting. We parked at the bottom of the drive as my father emerged from the workshop stubbing out a cigarette in the container on the railing of the deck. He approached Dale’s truck, and I could see the cautious question in his walk. My parents had not yet met Dale, only heard about him a little. I had been aloof in my explanation of our relationship which led to them feeling guarded about his visit before we even arrived.

I always felt so comfortable bringing friends to the house with me I did not consider that I was introducing someone they knew almost nothing about to my parents for the first time in their own backyard. I also did not realize then the sometimes strained dynamic that can rise up between a father and the man who had captured his little girl’s heart. My father and Dale shook hands in the driveway and my father’s defenses went up. I did not notice.

Dovestring had always been open to friends, family, and friends of friends. Given enough forewarning, my parents took great pleasure in offering shelter, solitude, respite to anyone who needed it. Over the years many people had passed through our lives, some persisted, others came and went as their needs and lives took them. I often imagined

Dovestring was the lone settler's cabin in the proverbial western mythology with a single candle burning in the window welcoming lost or weary travelers with the promise of a good meal and a place to stay.

I suspect Dale did not feel as welcome as the cowboy travelers of my dreams did. The weekend did not pass unpleasantly so much as awkwardly. Dale helped in the kitchen during meals, participated in conversations, responded to questions when asked. He was a complete gentleman. In general though he remained surprisingly taciturn, and was clearly uncomfortable for large parts of our time together. Later I realized I did little to put him at ease. I returned to my normal routines around the house, falling back into my childhood rhythms. I expected him to know how to fit in. He felt lost, unsure of what was expected of him, and uncertain about why I brought him in the first place. In turn, my parents did not know what to make of my tall, intense friend. We spent some of our most relaxed moments away from the house, exploring the property and wandering the garden.

Gardening at 8,300 feet is enough of a challenge without elk around to nip off the first brave pea sprouts to push through the rocky mountain soil. Elk are food generalists, meaning they will eat shrubs, grasses or forbs. They browse on shrubs during the winter months when plants are mostly unavailable. Come spring they become grazers, munching primarily on sweet new grasses and succulent, flowering forbs. Plants like peas, and squash, and potatoes in unprotected gardens.

The animals often entered the garden at night, leaving a dance of tracks in the soft soil of the beds, and extra fertilizer scattered in loose mounds around the remains of spinach, cauliflower and carrots. Early in the garden's development my parents called the local county extension agent to learn how high the fence should be. Never the kind to sit on their hands for long, my parents had already erected a six foot high welded wire fence around the one-thousand square foot garden by the time the extension agent returned their call. He told them elk had been known to jump twelve foot fences from a standing position. They found it hard to imagine a five-hundred pound animal doing that on such skinny legs. Even so, they weren't about to risk their potato crop.

Rather than adding additional fencing at that point, they experimented with running a line of electric wire around the top perimeter of the fence. It seemed to do the trick. I remember the days when the garden hummed with the electric clicking of the on-off timer as I helped with the planting, or weeding, or harvesting. Perhaps it was this strange noise that deterred the large ungulates. Even after the wire failed, elk stayed away from the garden for a time.

Over time the garden expanded to twice its original size, gained three entry gates, and used more productive raised beds rather than row crops. Some years after the garden's electric buzz fell silent, elk were unable to ignore the unprotected, scrumptious snacks inside. After a few mornings cleaning up the mess from their evening garden dances, we added four additional feet of fence to the original six foot wire wall. It's done the trick, for in the last fifteen years there's only been one more elk in the garden. A young bull once entered the garden honestly, right through an open gate.

My mother found the young male elk trapped in the garden. He must have walked in through the back gate, which had been left open after an afternoon's work of turning the beds in preparation for the late May planting. Perhaps he had been drawn in by the new spring grass growing in the narrow paths between the raised beds. Had he been older, or wiser, surely he would have bounded over the fence at some point in the night. Instead, like a bird that gets trapped in a garage and flutters against the same bright window over and over again, he could not find the garden gate among the rest of the wire fencing. It must have been extremely disorienting to see where he wanted to go and be unable to get there. Or perhaps, he was unconcerned by his situation, happy to graze until my mother appeared in the morning.

I can only imagine the surprise that registered when human and animal realized the strange situation they were in. My mother, steaming coffee mug in hand, looking through the fence at an elk standing in the very spot she planned to put lettuce.

Hoping to help usher the elk back out the still-open gate, she began walking the perimeter of the fence to get behind him. She hoped to encourage him toward the gate. The elk moved in the opposite direction she intended. The bull ended up on the downhill part of the garden, cornered between my mother and a long garden bed intended for peas. By then

both of them realized a mistake had been made. The elk began to panic, and mom found herself watching helplessly as the young animal tried to leap out of the garden. He couldn't clear the fence, and thrashed about trying to clamber over it. I'm sure the thought crossed my mother's mind that if she could get in behind the elk and give him a sturdy shove to the rear he would make it over. I don't blame her for not wanting to tussle with a quarter-ton, panicked elk.

The elk strained his neck, kicked his legs, and eventually smashed down the fence so he could tumble to the other side. He bounded away into the forest, followed by a chorus of muffled barks from inside the house. I think given the option, Dale might have done the same.

Instead we spent a night together in different beds in different rooms. It marked the beginning of the rest of the summer spent mostly apart. We would not be together during a week-long observation period again and our rendezvous during the upcoming weekends would be fleeting. Perhaps it worked out for the best. As Dale faded into the background, the actual experience, not the imagined one, took on more weight. I like to think now that our weekend at Dovestring became one of the many complex personal ecotones I would pass through during the summer.

Chapter 8 – Beaver Creek Elk



The third week of the Elk Study found our little crew scattered across the study areas. Kirk determined where to send us based on Saturday's fly-over data. He had learned some of the cows Dale and I hadn't been able to see in the Elk Mountain and Grouse Creek area had moved closer to Copper Mountain. There was also a lot of activity in areas of the Mount Holy Cross Wilderness and some unobserved animals remained in the Beaver Creek area where Rick had been the week before. Kirk hoped to get good data from all these locations and developed a plan to cover each region.

With many unrecorded elk scattered all across the study areas, Kirk decided he could spare a week's worth of observations away from home base and planned to work in the Copper Mountain area to get data on those animals that had eluded us at Elk Mountain. He planned to follow part of the Colorado Trail in order to look down the Jacque Creek Drainage that been invisible from my location near Elk Mountain. Later in the season when he had more data entry to work on, Kirk resigned himself to short one or two night trips closer to the Vail area. For this third week, however, I think he was excited to have all those days alone in the backcountry.

Rick and Dale were sent into the Holy Cross Wilderness where they would determine their observation sites by radio signals and map and compass. After the meeting they were the first out the door so they would have time to hike in, set up camp, and manage an evening observation. I would be watching animals from the Beaver Creek Ski Area, entirely alone.

The crew only had two sanctioned Jeeps for transport to and from observation locations which meant sometimes clever coordination to make sure everyone was covered. Rick and Dale had use of one Jeep, which left another for Kirk and me. Kirk decided I needed the Jeep in Beaver Creek as there was more opportunity to drive around to new observation sites if the animals moved, whereas he would hike in on foot trails. So when we left the apartment shortly after the others it was with me behind the wheel for the first time since the study began. For the first time, I was more excited than scared.

Kirk and I chatted aimlessly on the twenty minute drive east on 1-70 to Copper Mountain. It felt funny to be going back east toward Dovestring when Dale and I had just come back from there. Kirk said nothing, and asked no questions about my weekend with Dale. Surely he had to suspect something by then. I couldn't help but feel a little awkward during the drive.

Developed in the early 1970s, Copper Mountain lies tucked into the elbow where 1-70 curves to meet Hwy 24. Placed between Vail and Breckenridge, Copper boasts a reputation as mountain for front-range skiers. While other I-70 resorts rely heavily on out-of-state visitors, Copper Mountain gets perhaps sixty percent front-range visitors. A mere seventy minute drive from Denver, it's accessible, friendly, and not overly pretentious. Copper does not offer the same over-the-top amenities as Vail or Beaver Creek and truly attempts to maintain its ski mountain atmosphere. The resort maintained its laid back attitude even after being purchase by skiing giant Intrawest in 1997. Proud employees and loyal customers will tell you the mountain is a ski area for skiers.

I dropped Kirk off at a trailhead with access to the Colorado Trail. As I drove away the cab of the Jeep seemed strangely hollow. I had gotten used to company in the car and discovered a certain freedom in finding myself alone at the wheel. I had finally proved trustworthy enough to drive the crew vehicle to a new observation site alone, where I would spend the week finding and watching elk before returning to pick up Kirk. Several weeks earlier this may have made me break out in a cold sweat. On that Monday, I maneuvered back west onto 1-70 for the forty minute drive to Beaver Creek with the radio blasting. I felt like I had passed some sort of test.

After the toned down, utilitarian Copper Mountain village, Beaver Creek's ostentatious facades were jarring. I got a certain pleasure from being passed through the community guarded gatehouses and into the ski area in my dirty, slightly beat up white government Jeep. I felt a sense of power in being able to open the locked gates leading away from the public access roads and into the ski area itself. A kind of peace fell over me as I left the over-the-top homes and sense of extravagance for the cleanness of ski-run meadows surrounded by aspen groves.

My destination was McCoy Park, the same area where Kirk and I tried to find elk during my first week and watched fireworks. Rick observed in the area the previous week and had given me some ideas of where I might park and camp. I followed his directions to an area boasting a covered picnic bench and informational sign, along with a working outhouse. I could park the Jeep there and walk perhaps one-quarter of a mile through fat, white-barked aspen trees to find a place to set up camp. Since the ski areas rent land from the National Forest, I could technically camp anywhere. It still felt strange to be so close to ski area roads and ski runs. I didn't entirely feel like I should be there. I set my pack on the picnic table with a sturdy thump and looked around.

The landscape itself was strikingly different from what I had grown accustomed to the last couple of weeks. Unlike the starkness of the open alpine with its tiny, flowering beauties, rugged landscapes, and wide open skylines rimmed with snowy peaks, Beaver Creek gave a sense of being embraced by a green curtain of lush growth. I found myself in an entirely new life zone marked by tall, white-skinned quaking aspens, some shorter shade-tolerant firs and spruces, and carpets of tall grasses and wildflowers. Here flowers that barely rose over the toe of my boot on the alpine shot up to mid-calf. Yellow buttercups stood as tall as my ankles. Pink, red, white Indian paintbrush had finally burst into flower nearly to my knee. At Elk Mountain they hadn't even begun blooming yet, and they only reach the laces of my boots. Tall blue and white columbines hung nearly knee-high heavy from loaded stems. I had migrated from the alpine down to the montane where I found myself in a life-zone predominated by aspen, lush, biologically diverse meadows, and hopefully elk.

The confidence of the previous two weeks ebbed. I thought about how I really only needed to walk a few miles down the ski run to return to humanity where I would be back on paved streets, and into the bustle of tourist traffic. I thought about the long, lonely week ahead. Just when I began to feel sure of myself, the old uncertainties and fears crept in again. I told myself I had a job to do. I would not let down my crew. I recalled Rick's directions and looked for the thin trail leading north from the picnic bench. I swung the pack onto my back, stumbling only slightly with the transfer of weight. Squaring my shoulders, I walked into the white walls of the aspens, swallowing against fear. A chickadee greeted me with

distinctive minor-third whistles at the forest edge just before the first low rumble of thunder followed me into the trees.

Rain permeates my earliest memory. There is a skinny, yellowish window, slithery with wetness. I remember a confined space, a low roof, being held secure under a heavy blanket. Did I push up on hands or elbows to see out? What think I saw was this: A scene at night in an empty parking lot. Undefined circles of orange-yellow glow splash on the ground from the overhead spotlights. Darkness falls all around outside the pools of light. In the light three figures stand, shadows without faces or details. Still, I know two of them belong to me. Mom and Dad are standing with an unknown man. Rain falling, falling all around. In my memory the rain makes streaks through the orange, silver wiggles in the darkness. I think I am curious, maybe slightly worried. I am not concerned. I do not fear being left alone. The rain falls and I do not remember it making any sound.

“You remember that?” Mom looked surprised when I asked her about the memory. “That sounds like when we travelled back East in that old camper before your brother was born. We were visiting your father’s family in Maine. I bet you weren’t even two yet. I can’t believe you remember it so clearly.”

She agrees it was raining, and tells me someone was still in the camper with me. They would never leave me alone in the narrow bed space that stretched over the roof of the cab. I know I was alone. Aloud, I assure her I wasn’t scared.

I don’t remember when I learned to be scared.

The trail I followed was not, as I first suspected, a game trail. It took me through a stunning aspen grove and out again into an open, treeless meadow along a gentle ridge. There I found a rather worn picnic table, a sign this area was not as remote and unused as I hoped. Regardless, the open views eastward from the ridge provided both strong signals and excellent sightlines for scoping out elk. My first observation post determined I set about finding a place for the tent. I moved down off the trail and into a thick stand of aspens on the northwest side of the ridgeline. I felt completely unsure about where to choose a site for the

tent though I wanted to be out of view. The possibility of more hikers or other visitors made me more uneasy than when I had been completely exposed on the alpine.

The thickness of the vegetation astounded me. Plants and grasses had grown noticeably taller since I last standing in the same meadow with Kirk some weeks before. The purple-blue lupine, with their five to seven star-fish like leaves brushed my thighs in places. Among the lupine, spikes of butter-yellow golden banner shot up along with fringy-leaved pink wild geraniums. A plethora of bunch grasses provided a linear contrast to the textured patterns made by diversity of flowering plant's leaves. Dense, spiky junegrass and narrow paniced oatgrasses kept company with robust Thurber fescue and surprisingly stiff tufted hairgrass. I didn't know where to put the tent without smashing things. I needed to make a decision pretty quickly as it had taken me longer to get to Beaver Creek than I anticipated and I needed to be setting up for observations soon. I picked the best, flattest looking open space I could, set up the tent, and walked the short distance to the top of a narrow ridge and set up the spotting scope.

After watching elk from an often chilly 12,000 feet, I felt positively decadent down at 8,500 feet where I didn't even need my winter hat during the evening observation. I was the warmest I'd felt in weeks. Unfortunately, the lower elevation also meant more trees to conceal elk. I did not see any come out into the narrow clearing I focused on, even though I was getting signals from A1 and H4 in the area. Then the rain began. With the storm a premature darkness fell and I retreated to my nylon bubble in the trees.

The rain continued in a dull drizzle as I prepared for bed in a tent steamy with my damp heat. After the evening observation I happily sunk my legs deep in the sleeping bag. Socks hung from a rope at the top of the tent. Night-socks slowly warmed my thawing feet and my clothes were nearly dry. I began to wonder if I would get through an observation without rain. My familiarity with Colorado's brief, raging afternoon thunderstorms in the foothills had not been enough to prepare me for the long, drawn-out mountain drizzles.

I wondered how Dale, who loved the rain, felt about the long cold mountain storms. I wondered if he and Rick were caught in the rain and ached for his presence. Even during the previous week when he was two miles away and I slept and watched elk alone it was comforting to know someone I knew camped nearby. Now the Jeep was getting a rain bath

within a fifteen minute walk, I was closer than ever to civilization, and I continued to feel alone and scared.

I felt silly continuing to be afraid. I was afraid of the new sounds in the aspen grove, afraid being alone, afraid of the dark, afraid of the unknown. At Elk Mountain I had gotten used to the wide-open sense of sound made by the rustle of tent nylon, the whoosh of wind over the edge of the bench, the distant roar of I-70, the calls of ptarmigans and other alpine birds. McCoy Park introduced a whole new set of noise. I was not used to the new sounds in the heavier air of aspen trees. They rustled and shook, whispering to each other.

Quaking aspen are named for the way their almost-heart-shaped leaves flutter in the wind and rustle distinctively. They tremble on account of their structure, as characteristic that appears in their scientific name, *Populus tremuloides*. The deciduous aspen leaves attach to branches via a petiole, or leaf stalk, that lies perpendicular to the plane of the leaf. This unique formation allows the leaf to move in the lightest of breezes, and the movement through the air produces a usually calming rustle evoking a sense of water trickling over carefully placed stones.

The difference between my previous experiences with aspen, and those at McCoy Park was that I originally fell in love with the sound of aspen from the safety of Dovestring's decks. Aspen leaves shivering like a million voices outside the tent, louder and louder as a storm approached caused my nerves to fray. So I was already on edge, trying to distinguish the new sounds outside the tent, trying to get comfortable on what turned out to be uneven, sloped ground, when the swishing of aspen's was cut through with the first serious roll of thunder.

The slow, constant pitter-patter of rain overhead increased. A brilliant flash illuminated the tent. Soon angry, hard pellets began leaving dimple marks in the tent roof, visible in lighting flashes. I imagined branches whipping off in the storms, landing on the tent. The churning in my belly, by then a familiar companion, awakened.

After two weeks of living above tree line, the sound of blowing and creaking trees disturbed me. At Elk Mountain I could see and hear all around me in the exposed alpine air. Another big flash illuminated my fragile dome and more rain pounded down. I eventually fell into an uneasy, scattered sleep.



By morning, there little indication of the previous night's violence remained. The cool scent of freshly washed grass and soil washed over me when I emerged stiffly from the tent. The world was shiny and glittering, and I could no longer be irritated by my sleeping conditions. The aspen bark gleamed green through its white powdery bark. Spider webs glistened in delicate bridges between brome grass fronds. Blue lips of hairbells hung low, heavy with dampness. A robin song tripped through the trees. It was going to be a good day.

I returned to the observation site I used the night before. It provided a decent perch, and overlooked a couple of drainages where I had gotten good signals from the collared elk. By full sun-up little striped chipmunks scampered about at my feet, collecting breakfast. One stood up on his back legs to better reach the pinky-orange bell of a fairy trumpet. I wondered if he planned to play it, or eat it.

A new rustling caused all motion around me to cease. Slowly I turned my head slightly and through my peripheral vision picked out the rounded, feathered back of a blue grouse. It was moving right toward me, its skinny neck bent close to the ground searching for insects. I caught my breath and waited. The chipmunks didn't. They continued with their scampering, and the bird looked up. In the few seconds we made eye contact I saw the feathers on its skinny head rise up in alarm. Then it exploded upward in a familiar flurry of feathers and noise. Even though I knew it would happen, I still responded to the sudden noise. Could I not even tamp down on my fear during the comfort of daylight hours?

I did get to see a few elk during the morning observation. It was not easy, as they tended to glide through the skinny open spaces more like phantoms than solid things. I picked out one collared animal. She did not stay in view long enough to be clearly identified. Telemetry indicated two animals in that area, and I had no way of knowing which one I followed. Rick warned me not to expect easy data-gathering, though I still hoped to find the few collars we needed to observe without too much hassle. I found it amazing how such a large animal could disappear from view so quickly. As the morning wore on, I began to sense it would be a long week with few concrete results.

After an unsuccessful observation period, I returned to the Jeep for breakfast where I left my food to reduce the risk of animals getting into my stocks. At the lower elevation I expected more opportunities for rodents, raccoons, even bears to find my stores. I enjoyed preparing food on the picnic table, not squatting over a rock on the ground. It occurred to me I could return to the apartments any time I wanted. The idea was at once tempting, and disturbing. I did not want to get spoiled with another three weeks left in the season, so pushed the idea out of mind for the moment.

I was sitting on the picnic table journaling on a flat surface for the first time in weeks when a Jeep with the Beaver Creek logo on it appeared. Immediately I thought I might be in trouble. Then I reminded myself I had a reason and a purpose for being there. The Jeep pulled next to mine, and a middle-aged, friendly-faced man climbed out. I smiled as he approached, hoping it looked more casual than I felt.

“Howdy.”

“Hi.” I thought about standing, and decided I would appear more casual if I sat and let him come to me.

My visitor introduced himself as Dan and I learned he had worked for Beaver Creek for some years. I introduced myself and explained why I was in the area. Dan seemed genuinely interested in our project and asked all kinds of questions. I half expected the employees of the ski areas to resent anyone who worked on a project which might put the ski area in a negative light. Ski areas were not exactly being portrayed the most positively in the media at the moment, yet here was an employee who clearly loved his job for both the security it offered and the opportunity to live and work in the mountains. He seemed to respect the animals and the environment and thought I had a fantastic job.

“What an awesome way to spend the summer.” Dan said, after I explained my work.

“Yeah, it is.” Buoyed by his enthusiasm I forgot the long sleepless night.

“Hey, our summer bunkhouse is just down the road. You and your crew would welcome to use it while you’re in the area. If nothing else, you could get fresh water. There’s a spigot outside.”

“Thanks. That would be great! I’ll make sure the rest of the crew knows.”

Of course a chance remained that we would not be back in the area. That depended on whether or not I got enough data from the animals in the area, and if they stayed around or moved to a different drainage.

Dan and I shook hands amiably before he drove off. It had been strange, and also pleasant to have some interaction with another person. I thought I might take him up on getting water from the workhouse. It would be easier than filtering all week. I also tried to shake the slight unease that came with no longer being an unknown in the area. Now at least one person knew woman was sleeping alone in the woods. I told myself to have more faith in my fellow humans and to stop being irrational. I put the food back in the Jeep, and wandered back toward camp with the intent to find another possible observation point for the evening.

Instead, I found a perfect place to read and nap under the aspens. Unlike the angry roar of the previous nights storm, they swayed and whispered gently overhead in a calming lullaby.

Aspen trees are really a remarkable species. They are at once tenacious and precocious, and also vulnerable. They can encompass entire hillsides in a near monoculture, while also being extremely susceptible to disease, fungus, and fire. In fact, fire is an integral part of the aspen's life cycle.

Aspens reproduce in two ways. In the late spring male trees produce pollen which is carried by the wind to the female tree's catkins dangling from branches like large fuzzy grey caterpillars. Successful pollination and seedling sprouting takes place only under perfect environmental conditions so most aspens use the more effective method of reproduction. They clone via underground suckers. Most aspen trees in a grove are exact DNA replicates of one another connected via a complex underground root system. These groups of genetically related individuals, known as ramets, stem from a single parent tree. Aspen clones may be as large as 1,000 acres and support over 47,000 individual stems. They were at one point were considered the largest single growing organism in the forest. Later scientists discovered a single fungi whose underground network stretched over 2,384 acres, or four square miles.

Despite their prolific nature, aspens are remarkably fragile compared to other forest trees. Their thin bark contains chloroplasts and has the ability to photosynthesize. It is also susceptible to sunburn so the trees develop a powdery white substance to protect themselves from the sun's glare. During the long winter months, animals like deer and elk will scrape away the aspen's thin, nourishing bark with their strong front teeth. In response, the trees develop thick black scabs over the wounds. In areas where ungulate overpopulation is a problem, like Rocky Mountain National Park, the bottom four feet of nearly every aspen tree is blackened with scar tissue. Some scientists suspect elk are drawn to the aspen for their mid-winter nourishment, as well as the pain-relieving presence of salicylic acid, the same ingredient found in aspirin.

While other trees develop thick bark to withstand the heat of fire, aspens rely on their unique reproductive method to reestablish after being burned. Traditionally, fires through aspen forests or other forests where aspen are found do not get hot enough to sterilize the ground. When a fire burns through an aspen grove, the mature and young trees will, literally, go up in smoke. However, within weeks new young suckers are sprouting through the blackened ground. The death of the above-ground stems stops the flow of a hormone to the underground root network. The absence of the hormone tells the roots to send up suckers. They pop out of the blackened soil, nourished with nitrogen and other nutrients from the fire, and grow at a rapid pace. The sun beats down through the now open canopy and provides additional resources for the sun-loving suckers. Aspen are one of the first plants to recover after a fire. Within a year their shoots can be knee-high, and in three years they will rise shoulder-high.

I first learned the basic details about aspens in sixth grade when I spent a week at an outdoor education program run by the school district. During a week when most girls became giddy with the camp-like excitement of sleeping near the boys they've nursed crushes over since fall, I fell in love with aspen trees.

Our lessons during lab school were broken into morning and afternoon small-group sessions on ecosystems, tracking, pond study, birds, outdoor survival and a variety of other outdoor-themed classes. High school students signed up for a week out of their regular classes to return to the outdoor lab school as chaperones and instructors.

My introduction to aspen trees occurred during a morning hike. Our last stop took place in an extensive aspen grove where I listened in fascination to the story of how fire can help replenish the soil, and bring forth new growth. After our brief lesson we were asked to journal. So I sat in the early spring grasses surrounded by rustling aspens standing overhead and laying at my feet and wrote a completely anthropomorphized poem paying homage to the “mother trees who died caring for their children” and how after fifty years if I could return I would find “a new mother come to the land.”

My young writer-self did not quite capture the sentiment death is simply part of the cycle of renewal and growth and should not be feared. I wanted other people to understand how even inanimate things like trees have strategies to survive years into the future. I tried to express the ideas that the forest has a story to tell beyond the signs left behind by animals that have walked through it.

Later that summer as I watched flames shoot up out of the Yellowstone trees on television, I remember thinking how beautiful it looked. I thought it would be exciting to see what would come up after the fire passed. I didn't understand the deep political impacts the choice to let the fire burn would have on the future of fire management, or the changing role of Smokey the Bear. Nor would I experience the same reaction in some months ahead when I watched flames bursting out of an enormous lodge at the top of Vail Mountain.

When I began to understand *what* I was seeing in the aspen grove, and learned there was more going on under the surface than I might have imagined, my curiosity sparked. I began to wonder what else I had looked at without really seeing. Suddenly, I wanted to know everything there was to know about the forest and its interconnections. I didn't understand I could, or believe I wanted to turn this interest into a career until I discovered wildlife biology in college. In the intervening years I fixated on being a veterinarian. I also returned to outdoor lab school both as a high school leader, and later after college, as a college intern. At the time of the elk study, however, I was just beginning to determine what path I wanted to pursue after graduation. By the third week of the study I was just beginning to relax enough to consider those questions to some depth.

The clouds were beginning to roll in when I returned to the tent at McCoy Park to get ready for the evening observation. Before I left, I took the opportunity to move the tent a few feet where it looked like it might be flatter and have fewer sticks under my hips.

The storm built slowly while I waited for elk to pop into view. It was preceded by intense winds that whipped across my shoulders and through my layers. The first drops of rain arrived with the first clear views of A5. I sat under the tarp letting rain pummel me while A5 moved in and out of view for a total recordable five minutes. The main storm passed just as the sun set leaving a hazy orange curtain hanging in the western valleys.

I completed my evening toilette to the lovely trill of some unknown warbling bird and returned to the tent to journal. Pieces of trees, small cones I suspected, fell with gentle thuds and I adjusted to yet another sound of the forest.



When elk were being boring and invisible, or during the long hours between observations, bugs could become the most fascinating creatures around. With my eyes focused on a dime-sized window in the scope, my other senses began to expand. So during the morning observation I had the sense that something had flown near my head and landed before I saw it. It might have been the slight movement of my hair as the bug came in for a landing, or the low buzz of his wings that alerted me. In either case, I expected to see something, and for once did not jump when I raised my eyes and stared into a multi-lens gaze of a giant bug on my shoulder.

It was big for a mountain bug. Probably close to an inch long and fat in the abdomen. He was a lovely spring-green that nicely complemented the drab camouflaged green of the scope. When my six-legged companion waved his little striped antennae at me I somehow felt like I was welcome there.

Later, as I lay in the grasses under the aspens I watched a ladybug, more properly named a lady beetle, climb up and down a white Indian paintbrush. It had a habit of wandering into the sunspots on the wide, flat leaves of the plant and its deep red and black spotted carapace shone in the light. I tried to take a picture with the macro lens of my

father's 35mm camera. The beetle was camera shy and always ran to the shady underside of the leaf when I tried to capture it on film. Once I stopped trying to take its picture, the insect went on a long journey, clambering from the paintbrush to a grass leaf where it went down into the detritus under the flowers before wrapping its six stubby legs around the stem of a pink-flowered fireweed and climbed up and up. I couldn't figure out what its purpose was, expect maybe to reach a high point in order to fly away.

Weary of watching the lady beetle's unproductive journey I found myself engrossed in a tiny fight-for-life situation between a small green caterpillar and two big black ants. The ants were clearly attacking the caterpillar which was perhaps the size of a ramen noodle. It squirmed, twisted, and bucked in an effort to fight off its attackers. I didn't see the conflict begin, and was surprised when it suddenly ended as the ants marched away. Maybe the ants got bored. Or perhaps the caterpillar had an invisible weapon in the form of a foul-tasting secretion I could not see. For whatever reason, the ants left the wounded caterpillar to slowly limp into the leaves on the forest floor.

It felt good to be noticing these little things again. I had been so overwhelmed by the newness of my lonely situation, I forgot to really pay attention to the small things around me. On the way back to the tent I watched butterflies flitting, saw hummingbirds hovering and fat bees buzzing between blooms. The bees were especially fascinating. They looked like they shouldn't be able to fly with their fat, round bodies held up by squat wings, yet they carried on with no trouble even with legs loaded thickly with bright orange globules of pollen.

After an afternoon watching bugs and bees I felt especially bad when I unintentionally killed one. It really wasn't my fault. Somehow the insect got into my tent and wrapped up in the folds of the nylon bag I stuffed with clothes other bags as my pillow. I didn't know this until after I put my head down, and got an earful of frantic buzzing through the nylon. I carefully held the bag outside the tent and shook it out. A bumblebee the size of my thumb tumbled onto the ground. It lay there, buzzing feebly, and I closed the tent flap on it. The buzzing continued for a while, and then it stopped. It didn't get more distant, as though the bee flew away. It simply stopped. I had smashed a bee with my head. I felt horrible.

I had been killing nasty, biting flies and sneaky mosquitoes all week without too much regret. I generally left bees alone. They generally left me alone. I didn't like the idea I took a life unnecessarily, even one as insignificant as a bee. This did not entirely fit with my other desire to understand how things worked, a hunger that at some point in my adolescence sent me on a quest to dissect anything I could get my hands on.

From the age of five I knew I wanted to be a veterinarian. I became fascinated with all things animal. I paid attention to the dogs and how they played. I followed my pets around, watching their movements. I pretended I was cat and prowled around the house with my brother, who usually acted in the role of dog. We crawled around the forest, pretending to be bobcats and wolves. We followed animal tracks in the winter snow, and deer trails in the summer underbrush. I poked at elk and coyote scat with sticks, curious to see what they had eaten.

My fifth grade science fair project included a tray displaying a giant cow's heart carefully dissected to illustrate the different sizes of chambers veins, and arteries. Each part was meticulously labeled with a pin borrowed from Mom's sewing kit. Later, the eating habits of animals fascinated me. During one class at the sixth grade outdoor lab experience I became fully invested in a complete reconstruction of the mice and voles discovered in the grey, fluffy mass of opened owl pellets.

Then a fascination with learning as much about the inside an animal's body led me to start dissecting anything I could get my hands on. It began with mice and squirrels. Nothing I killed myself, only those things I found already dead on the road, or caught by the family cat. Once I watched her stalk and kill a fat, sluggish mouse in the grasses under the deck. The predator-prey dance between feline and rodent hypnotized me. The cat made deliberate, soft-pawed steps. Her eyes never left the mouse. It was the same hair-raising stance exhibited by mountain lions and jaguars on nature programs. The mouse, too, resembled something from Marty Stouffer's *Wild America*. The petrified animal sat frozen. Its breathing was shallow, its eyes dark bulging eyes unemotional. Quivery whiskers were the only sign of movement. I held my breath in anticipation.

When the cat finally exploded forward, I jumped even though the act was over in seconds. A neat bite to the back of the neck, and a sudden shake and it was done. I swooped in and much to my pet's disgust took away her prize. Something about the mouse's bulging belly made me wonder.

I retreated excitedly to my father's workshop where he had allowed me use of one of his benches for my dissection work. He was both supportive, and tolerant. He graciously allowed me to borrow an Exacto knife, old pair of toiletry scissors, and several old dentists' tools he had acquired who knows when. I had already opened a squirrel, mouse and pocket gopher on his table. I lay down layers of newspaper before beginning.

My instincts about the mouse turned out to be right. More fascinated than repulsed, and already pragmatic about the reality of predator-prey relationships, I felt no regret or guilt as I carefully examined the eight tiny fetuses intact in the female mouse's paired uteri. I remember thinking, "so that's how they carry so many babies." I acted as though by discovering these things for myself, not from a text, I was learning them for the first time ever.

Birds were added to the list of critters subjected to "what does the inside look like?" after a suggestion from my veterinarian uncle. Oblivious to the laws of the Migratory Bird Act which made my actions illegal, I delved into the mysteries of songbird innards.

The Migratory Bird Act, developed in 1919 as a joint effort between Great Britain and the United States, originally protected birds migrating between the two nations. Since the original act, Canada, Mexico, Japan and Russia have joined the agreement. Under the MBA, it is unlawful to hunt, kill, capture, take, or sell birds, bird feathers, eggs, or nests. The MBA includes live as well as dead birds. Even had I known about the act, I argue my actions ought to be allowed in the name of scientific exploration. I never keep the birds, and buried them in the forest. My father, of course, will tell you he can still find frozen birds (and probably rodents) in our freezer. He does it to tease me, I think.

Sitting on an old kitchen bar stool, back bent over the wooden bench in the workshop, I peeled back delicate skin over the grey-feathered breasts of chickadees and white-feathered breasts of nuthatches. I learned the smell of something freshly dead is not repulsive. Tangy

and earthy, it merged thickly with the existing odors of sweet woodchips, heady paint thinner, and somehow comforting left-over haze of cigarette smoke.



A jagged knife slashed open the sky. Wind, a chilly standard bearer, announced its presence. Battalions of rain began a march across the valley. Thunderous applause bounced between granite peaks. Pine trees danced like rooted dervishes. The sun ran away. The sky ripped open. Fat raindrops splattered on my lichen covered rock. Roaring applause, closer. I trembled, though my eye remained fixed against the lens of the spotting scope. Only a few more moments, please. One a collared elk remained in the meadow below. Bright flash. Hands covered ears a split second too late. I had to get off the mountain.

The tripod folded up awkwardly. My rain-soaked hands moved stiffly. I packed the scope in its protective covering and shoved in the backpack. Fear and adrenaline catapulted me into a state of feverish activity. I became a spider trapped in a bathtub. I felt naked. Exposed. Exhilarated. Torn between running away like the sun or swaying with the windblown grasses at my feet, I did both. The storm chased me from the peak. The elk, the ones I'd been watching, didn't even notice.

I wanted thick, hollow fur like the elk. I would stay warm in this chilling rain and make no sound moving among the trees. Instead I swooshed and crinkled, nylon rubbing nylon, as I rushed across the meadow toward the relative protection of the aspens. It was hard to hear over the rumbling thunder and rushing winds, though it seemed as though the rustle of quaking aspen leaves called me forward urgently. Raindrops echoed against my broad brimmed hat. I wanted wipers installed on my glasses. I wanted to be warm and dry inside my tent. I wanted to stop being afraid.

I hoped Kirk would understand the evening I deserted my observation post early because of lightning. The storms raged up the valley at the Beaver Creek site, and when I could see them coming I waited in uneasy anticipation for the moments they were certain to overtake me. This storm rolled up from the south pregnant with thunder and sparking with lightening.

I hoped the rest of the crew was safe, and wondered how long I needed to perch there on the hillside. I had a few elk to watch, including A5 who returned to slip in and out of the trees some more. As the storm approached, the light fled, and by the time the wind whipped up my tarp into a frenzy of noise, I envisioned the order in which to pack away gear. Sheets of rain swept across the valley, and the elk, already darkened shadows through the scope disappeared. The storm hid them from my view. Lightning flashed. I counted seconds. Five seconds after the flash approximates one mile. One-one-thousand, two-one thousand, three-one thous...CRACKBoom! One dead elk observer would do the project no good at all. I threw things into the pack haphazardly and scooted for the tent.

I considered racing for the car, and decided it was too far, the storm too intense. Rain pelted down on me hard. I had begun wearing a sun hat down in the lower, warmer elevations, and the rain plunking off its brim was loud and intense. Sharp staccato pellets stung the back of my neck as I bent down against the wind.

Hunkered in the tent, much noisier than being outside under my hat, I worried about the tent sliding away down slope on a current of water-soaked ground. I hoped lightening would not strike the trees around me and send one of them crashing down on my head and resisted the urge to cover my head with my arms with every intense lightening flash.

I opened my journal and began to write in an effort to keep my mind off the violent sounds of the storm. In writing I realized I felt sluggish, unnaturally tired, emotionally worn and uninspired. I felt I was missing golden opportunities to go explore my surroundings or engage my brain. Sure, I wandered around a little, watched bugs, read, or written. I had also been quite bored during the down time between observations. The previous week Dale's presence motivated me, and in his company, or the promise of his company, the time passed more quickly. Now, on my own, time became a strange, unfocused thing and I moved through it in a daze. If only I had more data to show for my efforts, I might have felt better. The elk, however, had been entirely uncooperative. I knew they were out there. I just couldn't see them.

Two things helped my angst recede during time between frustrating observations. The first was reading and the second writing. I had already read two books that week, Mark Twain's *A Connecticut Yankee in King Arthur's Court* and Graham Greene's *Travels with*

My Aunt. I don't remember why I chose those two particular novels except they were on the bookshelf in the study at Dovestring and I thought they were classics I should be familiar with. As it turned out, I found similarities between both main characters and myself.

Though in very different settings, we all three found ourselves in new, challenging, sometimes difficult situations. Hank Morgan, misplaced in time, used his resourcefulness to survive in an unfamiliar, technologically backwards Arthurian England. A naïve Henry Pulling went on adventures he never could have imagined in his suburban lifestyle had it not been for Aunt Agatha plopping him down in unpredictable and unfamiliar social situations. Surely, I thought, if they could survive, even thrive in their challenges, so could I.

My journals at first described only the scene or the sometimes mundane events of the day. During that first week alone I began to ask myself questions. As Dale had predicted in his 'field note' to me, my thoughts were beginning to shift into introspection.

I would be graduating in a few months. What did that mean? I felt the need to have a plan, and I had nothing. I recognized my contemplations had moved beyond thinking only of survival and completing the job. I began to think about my future. When I looked into it, I saw only a hazy, cloudy wall like the fog that so often slipped into the valley and hid my elk from view.

The violence of the evening storm passed more quickly than I anticipated, and by 8:00 p.m. the skies began to clear, though the rain continued in a gentle sprinkle. I felt guilty then, for leaving the elk unattended. Even so, I did not go back out with my observation gear. I just couldn't bear the idea of sitting around anymore. I realized my sluggishness probably stemmed from a serious lack of activity. There were quick bursts of action when I moved to and from an observation site, and mostly I sat around on my bum. I had a driving urge to get my blood pumping again. I was tired of not feeling like myself. I didn't recognize I was completely feeling myself, only in ways I had never imagined.

I left everything in the tent, and shucked on the poncho and rain hat, slipped into still-damp boots, and stepped out of the tent into a glorious scene. The rain had swept away any dust and dirt and turned the forest into custom-made box of crayons, using every possible shade of green and several carefully chosen sticks in shades of blue, pink, yellow, and purple.

I walked across the Crayola-colored world and got soaked from the knees down. Each spear of grass appeared individually crisp. A robin sang its melodious evening song somewhere nearby. A woodpecker's rapid tapptiy-tappity-tap ricocheted through the forest. I took to a trail and moved quickly, stretching my legs, moving my arms and breathed in the sweet, rain-soaked air deeply. I moved quickly past small snails stubbornly stuck to aspen trunks. I breezed past an emerald-backed ruby-throated humming bird sucking from a pink fairy trumpet. I did not turn back toward camp until the sun broke through the last layer of clouds on the horizon, bathed the forest with slanted, golden light, and slipped from sight.

A memory. Me, thirteen, taking the nightly walk after dinner to the compost bin behind the garden. A sliver of moon hung on one of the pine trees. Holding the compost bucket carefully, I waited for the dogs to run ahead to warn me if there were raccoons, or a bear at the compost, munching on our left-over veggies. Usually I made the short trip quickly, eager to return to the golden glow of light inside the home. For some reason that night everything became accentuated. I actually paid attention to the cool breezes touching my cheeks, the rustle of the pine boughs. My nose filled with the sweet scent of autumn decay. I paid attention to the slight changes in the ground under my feet.

Instead of racing back to the house after dumping the bucket, I remember slowing my steps. Leaning back I stared at the bright pinpricks of familiar stars against the dark curtain of sky. I knew well enough the starlight I saw was old light, yet in the strange, calm magic of that night an understanding crystallized. I remembered just how small a presence I made on our equally insignificant planet. Suddenly my young teenage-self's concerns about my appearance, the teasing that happened at school, my awkwardness around boys, seemed inconsequential. Unimportant. Something was returning that I had lost in the convergence of pre-adolescence and junior high.

I stood still in the pale light of the moon staring into the forest. Listening. Smelling. Breathing. A kind of slow elation moved in me. I set down the compost bucket, and took a diversion to the driveway where I might see more of the stars. The dogs raced by happily, tails wagging. They began up the driveway, turned, and stared back at me, tongues lolling in the pale gleam of the single outside light hung on the garage. As though pushed from

behind, I started up the driveway after them, first slowly, then more quickly. Then I was running around and around the circular part of the drive. Arms pumping, feet racing, I felt I could run forever. I felt like I could do anything. The night air rushed through me, and made me alive.



A wild crashing outside the tent woke me Thursday morning. I shot up in the sleeping bag like a caterpillar thrashing inside its cocoon. A branch snapped. I froze, breathing hard, listening. Did I hear the harrumph of a hard expulsion of breath? Then a sound of more crashing, moving away from the tent. I stayed frozen for some time, straining to hear more from my unseen visitor. Nothing.

In the pre-dawn light my tent had seriously frightened something. A deer most likely, though with the luck I'd been having, I thought it might be more appropriate had it been one of the collared elk I had waited days to see.

After the exciting wake up call, I stumbled out to observation site. The storm had passed though clouds remained. Low and misty they blanketed the peaks of the mountains. Unlike the weeks at Elk Mountain where I sat on top of the fog banks, here I rested underneath them. Their bellies were as grey and swirly as their tops. I could continue to watch elk as long as the ceiling didn't sink into the valley.

My head felt as foggy and hazy as the morning sky, and I had to blink frequently to keep my focus through the scope. There were elk to focus on, for once. Actually, pretty substantial groups of the ungulates moved ghost-like through my field of view in both of the gullies I watched. I had to almost be looking right at them, or anticipating where they would be, in order to see them. Unfortunately, none of them were collared.

I needed to make a decision. Since I had the Jeep I could move around the mountain to try to get a different, maybe better, view of the animals. I might have more luck that way. Yet the telemetry continued to give really strong signals both H4 and A1 were right across the valley. I looked at the map of Beaver Creek, and could find no other vantage point for the area where I suspected the animals were hanging out. I figured I had a couple of choices.

One choice meant staying put in hopes the two collared animals appeared in the next couple observation periods. Secondly, I could move camp to another area of the mountain and search for different animals. Two things dissuaded me from the second option. The first was that our fifth, rarely seen observer, Chris was supposed to be working the other side of Beaver Creek, and I didn't want to run into him. It wouldn't do the study any good to have two observers watching the same animals. The second consideration was that if I didn't get sights on these animals someone would need to return here in future weeks. I decided to see what the telemetry told me during the evening observation before making a decision.

The last time I had been in a position where I needed to be responsible for my actions for the sake of research had been when I volunteered for a local Evergreen Audubon bluebird banding project. It had been my only experience with field work prior to the elk study.

I got involved with the Audubon-supported bluebird conservation project my junior year of high school. The project was supervised by an outwardly strict but really quite personable, dry-witted biology teacher. It involved a weekly early-morning visit to two local open space parks in Evergreen where we walked a circuit of two-dozen or more bluebird boxes, kept records of the inhabitants, and attached small metal bands to any appropriately sized and aged birds we found inside the box.

At first, I was only familiar with some of the nest inhabitants, like chickadees and nuthatches. Others, like swallows, I had only ever seen free-wheeling overhead. Bluebirds weren't a species we saw at Dovestring. We did not have enough open space for the animals who like to hunt insects across open meadows. To be introduced to them for the first time so intimately, thrilled me deeply.

Bluebirds are probably known best for their striking coloration. A true blue bird, they are spinning azure jewels against even the bluest skies. The slightly deeper blue eastern and western species sport handsome russet vests, while the mountain bluebird stays sapphire along the chest and flanks. In all species the females are slightly muted versions of their counterparts. Colorado is home to all three species, though mountain bluebirds outnumbered the others in our nest boxes.

A migratory species, bluebirds are most often found at forest edges, near open meadows. They depend on existing nesting cavities. Their slender, insect-picking bills do not have the structure of the strength to create their own hole. Instead, they borrow from their more thick-billed relatives and take over old woodpecker nests. The mid-1980s found the beautiful birds declining severely. An increasing loss of habitat due to human encroachment and forest management plans removing standing dead trees led to the drastic drop in population. Bluebirds simply couldn't compete with other secondary cavity nesters for a suddenly limited housing market. Perhaps, being the most noticeable and therefore charismatic of the second cavity nesters, they were simply the proverbial blue canary in the meadow-mineshaft. Who knows how long it would have taken most people to notice a decline in the personable, if fairly drab chickadee, or wheeling, never stay-still swallow, or loud-mouthed, physically unobtrusive nuthatch.

Each box-nesting species had its own reaction to being plucked from the nest by human hands. Swallows struggled a little when I first reached in to get them. Then they lay quiet and streamlined in my palm. Chickadees fought, twisting and complaining and biting with their pokey, toothless beaks. House wrens, when we could capture them, were slippery and so tiny it was hard to hold onto them. Bluebirds came quietly, rarely fussing.

The experience introduced me to a close-up look at the horrors and wonders of natural cycles. Despite getting shit on, or cleaning out dead chicks from abandoned nests that reeked with the smell of decay, the tiny lice that occasionally crawled from swallow to human (never to stay, we are too cold for them), something grew in me. I fell in love with the beauty, the open space, the independence. Freedom. Every visit brought some new joy. Sometimes, a coyote loped alone in the ocean of waving grasses. Elk, rising humps, shadows of mystery in the thick mists that sometimes rose in early mornings. Different flowers emerged every week. A red-breasted nuthatch moved into a box for the first time in the history of the study. Always there was the excitement of seeing how the residents of the boxes were coming along. I watched whole families grow up in the course of weeks. From empty nest, to egg, to helpless, blind chicks, to nests so full of birds they seemed overflowing, to a sudden emptiness when they fledged.

The bluebird project grew on me, and became a venue for me to share my experiences with others. I wanted other people to understand the importance of our work in the meadow, and perhaps become as excited about it as I did. So I developed an educational project involving a display in the public library describing the work, including hand-drawn posters of the bird species and a bluebird box mount with a glass wall, complete with nest and eggs. I also arranged to take a troop of pre-teen girl scouts in the field with me and let them band birds.

The day was marked by vocal squeals of excitement and delight from girls holding small birds in their small hands and snickering when birds shat on their troop leader. The day was also marked by the harrowing experience of having a chickadee leg break off in my hands in the middle of banding.

Fortunately, I asked the troop leader to hold the bird, and we could turn our backs to the girls so they wouldn't see. The leg was diseased. Clearly, I ought to have left the bird alone in the first place. I traumatized the poor woman with me who prided herself on projecting a strong, confident front. Perhaps if the chickadee had not already lost its other leg, things would have been better. Instead we were both deeply shaken, and I, not sure what to do, let the bird go from my hands without even considering putting it back in its box first. I tried not to think about how the poor, legless thing would land.

Later I made the difficult call to my biology teacher and explained the horrific events. She was gentle, kind, and understanding. She explained songbirds can develop a leg fungus. She explained the bird probably would not have survived anyway. I understood the cycle of life and death, yet berated my decision making. I should have known better than to continue to band an already injured bird.

Despite the occasional trauma, I continued to band birds. What I expected to be a single summer event turned into two, then three, then five. I was given control to manage the boxes on my own. I took time off from my summer college jobs in order to make weekly visits to the meadows. I couldn't stop myself. I yearned to be outside.

I did not see the growing mound of evidence pointing me toward natural resources and education. I continued to think I ought to be a veterinarian. How do we manage to live our lives with one expectation playing out in our minds, and another reality playing out in

our everyday actions and experiences? Even though it took the entire summer, perhaps I needed all those days alone on the Elk Study in order to finally comprehend my true passions.

After the unsuccessful morning observation I went back to the Jeep to get breakfast. I set up the stove on the picnic table and prepared breakfast while being entertained by juncos splashing around in puddles left in road ruts. I spooned thick globs of oatmeal and dried cranberries into my mouth and had a sudden, overwhelming urge for milk and a shower. Why not, I thought. So in between observations I returned to the apartments in Vail.

It felt strange driving away from camp in the middle of the week. I was a little worried about the safety of my gear, and brought with me the elk study equipment just in case. I had come to expect the strange sense of returning to civilization after the first two weeks in the field. This time I felt even more detached as I drove past the multimillion dollar homes in Beaver Creek, and onto I-70. It was like coming out of a dream, where I tried to merge two very different lives together. The life of the outdoorswoman, alone with only the elk and her own thoughts returning to the rush and blur of the real world with real people to interact with.

I stopped at the grocery store and got milk and a few other things. The cashier greeted me in friendly ambivalence. When I responded, my voice sounded strange to my own ears. Before I left the parking lot, I opened the quart of milk and downed half of it in big, thirsty gulps.

The apartment was cold and empty when I returned, though the shower washed over me warm and relaxing. I felt a little guilty indulging in a shower part-way through the week when my team members were still out in the woods. After I dried off and put on clean clothes, I sat on the couch and looked around blankly. I could have called my parents. I could have gone out and explored the town, stretched my legs. I felt weary, confused, and guilty for leaving my post. The thin walls of the apartment seemed stifling after the open air of the forest. I had no television no radio, and I could not stay focused when I tried to read. I did not know what was happening in the news, and I did not particularly care. I wondered what the bugs in the forest were doing. I thought about my tent tucked into the trees. I

remembered the feel of the ground under my hips when I napped in the forest. I almost returned to camp, except a deep weariness took over and the thought of sleeping in a real bed sounded nice. So I napped. Again.

I have been told one of the easiest traps a new author can fall into when writing is to rely too heavily on the overused ploy of creating transitions points during sleeping and waking moments. I've been told this, and yet I cannot escape the simple fact that my life as an elk observer revolved entirely around these natural transitions. My days were marked by waking, watching, eating, napping, eating, watching, and sleeping. Often, the sleeping was marked by restlessness, unease, cold, scattered dreams and once, Mormons.

A short time into my peaceful nap under my flowered quilt, a loud knock on the door woke me. I don't know why I even answered it. Insatiable curiosity, I suppose, and a sense of it being rude if I didn't. I was also half-asleep, groggy and moving on autopilot.

Two young, clean-shaven, suited Mormon boys greeted me pleasantly when I opened the apartment door. Now, retelling the story, I recognized the irony. At the time I was a little annoyed, and possibly slightly unpleasant. Animals crashing around outside my tent made for a better awakening. If I believed in signs, this one was telling me it was time to return to the forest.



Midway through Saturday morning's observation I realized I was delaying my departure from the Beaver Creek observation site. I hoped elk would show up, though I saw no sign of them all morning. My decision to stay in the original location had not entirely panned out, despite its minor success. The night before I did finally see A4 long enough to watch her nurse. The calf barely had to stretch its neck up to get to the cow's udders. It still sported white, fawn-like spots that had begun to fading slightly. The calves were growing.

One collared animal remained unseen in the area, which meant someone needed to return to McCoy Park. I wondered if I should have taken more initiative to find a new observation point. I told myself even no data provided some information and I did get observation time on A4.

As the morning brightened, skinny striped chipmunks and larger golden-mantled ground squirrels emerged and ran circles around my feet. Their appearance distracted me from my disappointment about elk. Two rodents fought over a particular clump of timothy grass. Timothy grass is one of my favorite plants and it is easy to identify by its oblong, tall, closely packed seed head. Among other more frilly-looking grass flowers, the timothy grass is stately and simple. The chipmunk and ground squirrel chased each other around the legs of the scope in their effort to each claim a particular clump. The spunky chippie won. As the fat, striped ground-squirrel ran off in search of another meal, the smaller rodent stood up on its hind legs, pulled the stem of the grass down until the seed head was in paws reach, and neatly snipped off the top. It then scampered over to a nearby rock and quickly nibbled the whole thing.

The morning was peaceful and calm. Strands of fog rose out of the valley as the air warmed. As sun lit up distant mountain peaks, the fog thickened. In a short time the valleys were hidden under a rolling sea of puffy clouds.

I looked forward to seeing friends again, especially Dale, yet was not exactly eager to return to the apartments. I couldn't imagine living out of a tent all the time, though I was growing accustomed to it. The previous summer I worked cleaning houses for a maid service. After watching elk, despite the fears, discomfort, cold, wet, lack of sleep and hunger, I could not imagine doing that again. I also struggled to imagine myself in classes at college. My world had begun to expand, and I did not want to stop its growth.

I yearned for more of these rare moments of comfort and security. I could feel myself adjusting, and growing, in snippets of awareness. I noticed the shift most during daylight when the sun warmed me, when I did not feel afraid. These moments allowed me to grow reflective and to think about the future. I knew there was a change happening in me. I did not understand how it might possibly translate to what I wanted to do after college.

College meant absorbing as much information as possible in a very short time. The information I was getting was shattering my childlike vision of the world, and the reality of ineffective politics running it. Here I was, watching elk to determine whether or not more recreational use in a proposed ski area expansion would negatively impact the animals. My instincts told me it was ridiculous to think animals wouldn't be disturbed though I recognized

the scientific merit carried more weight than my gut reaction. It also bothered me that the study was being funded by the very ski operation who would strip trees and tear up the ground for new ski runs, and whose power, political and financial, might make whatever scientific results we found moot. After all, Vail had already given money to aid in the lynx reintroduction while it also continued to press for the permits to expand into key lynx and elk habitat.

I had learned enough about politics, land and wildlife management to see the deep seated differences of opinion between different stakeholders regarding predator reintroductions. I sat through a lynx reintroduction town hall meeting in a cramped, stuffy room at the Colorado Division of Wildlife offices in Denver and seen the diversity of stakeholders in favor of and against the lynx reintroduction. Ranchers worried about lynx eating their sheep or calves and the possibility of increased regulations should the lynx be listed as a threatened or endangered species. Uninformed and concerned parents imagined a solitary animal the size of a large housecat would snatch their children from the yard. The timber industry was angry at the Forest Service for renegeing on timber sales in areas of proposed lynx reintroduction. Members of PETA, the Animal Defense Fund and other animal rights organizations attended to express their concern about the welfare of the lynx before, during and after reintroduction. Some academics suggested we could not recreate what had once been, and simply reintroducing an animal we drove out in the first place would be “faking nature.”

On the other hand environmental and conservation organizations like the Colorado Environmental Coalition supported the lynx in hopes of stemming Vail’s seemingly unstoppable growth. They also wanted to see a sense of ecological balance returned to the state. The Colorado Wildlife Federation, Defenders of Wildlife, and the Biodiversity Legal Fund, among others, fought in favor of returning the lynx. Wildlife Biologists, conservationists, and governmental organizations were all in favor of the reintroduction. During the three hour meeting Division of Wildlife officials and other key players in the lynx reintroduction spent explained the biological life history of the generally unobtrusive wild cat, and responded to multitude of questions. What began as a meeting that could have erupted into angry conflict ended if not in joint agreement, at least agreeably. This was only

one of the dozens of town meetings and information session held across the state in an effort to inform and include all members of the public. After all, the land and the wildlife belonged to all of us, and decisions made by scientific experts in an effort to effectively manage lands and wildlife were on our behalf.

I tried to sort through all the details, the opinions, the points of view expressed during that meeting and weigh them against everything I had been learning in school and my own internal reactions. I felt overwhelmed by the wealth of information coming at me from classes, respected professors, peers who came from very different backgrounds who were still in the same field of study. One of my fellow wildlife students was a PETA supporter and had attended the lynx meeting with that very vocal group opposed to the reintroduction. Another friend sat with a group of hunters who were more concerned about the possible loss of hunting territory if the lynx were introduced.

I thought about people who lived on the land, people who wanted to use the resources for financial profit and for personal enjoyment through recreation. I thought I never wanted to be the one addressing a diverse, emotional crowd that could become confrontational at any time. I shied from conflict and I did not want to get involved in political controversies. Yet, my degree was training me to enter just such a field.

My options as a wildlife biology graduate seemed to fall into a few categories. I could continue to work seasonal field jobs. I could go on to try to become a government employee and work as a wildlife manager. I could make management decisions or work on studies to determine how many hunting licenses could be given out for a particular game species. I could be a ranger, enforce rules on forest service. I could study non-game species like song birds, or river otters, or boreal toads.

I thought about the lifestyle I wanted and wondered if it merged very well with the impacts I wanted to have on the world around me. I wanted to live in a cabin in the woods and have easy access to lots of open wild spaces. I was learning I could be very solitary. In many ways I did not want to be surrounded by lots of people, or growth or commercialism. I did not know how to avoid it.

At the same time I felt very strongly the need to conserve habitat for the benefit of both the creatures and plants in the complex ecosystems there as well as for the joy and

aesthetics such places provided. I believed in preserving what remained of wild places for future generations, and wanted others to experience the joys of watching wet, bedraggled chipmunks bathing on rocks, or brilliantly colored bluebirds sweep across meadows, or elk calves frolicking in the forest. In order to do that, I needed to be around people. Maybe most importantly I needed to be around people who had grown up in the excess of commercialism surrounded by concrete streets and manicured suburban lawns. Perhaps I needed to ask difficult questions, challenge others and help change perspectives. Maybe I needed to stand up for what I believed in.

When I considered my strengths, and my passions, I continued to come back to education. I thought about my own exposure to the natural world and how I'd been inspired by the experiences I had outside as a kid. I thought about the eager, glowing faces of the young girls I'd gone bluebird banding with and the intense, serious concentration on their faces when I let them squeeze the band onto a bird's leg. I remembered the bright eyes and excited squeals from children in classrooms when we let them touch animal pelts, or examine a skull up close. I thought about how these young people were the future. If I wanted to help make the future a better place, I needed to start with them.

As fog rolled up and out of the valley, I checked the time. I needed to leave. Kirk expected me.

AUGUST

Chapter 9 - Benchmark

Benchmark: A point of reference. A measurement. A signpost.



On the Monday afternoon of the fifth week of the Elk Study, Kirk and I bounced uncomfortably up a deeply rutted, tightly switch-backed, narrow Jeep trail running west out of Vail's lower ski runs, along the slender, aspen-bordered Mill Creek up past its headwaters and onto the top of Red Mountain, also known as Benchmark. I was glad Kirk drove, though I would have appreciated a wheel to hang onto as we bounced in and out and over deep gullies. I would be on my own again this week, and in a reversal of the previous week's experience, I was getting dropped off with only my gear for company.

Kirk seemed to be enjoying himself as he maneuvered the challenging road, though he clearly had not anticipated its poor condition.

"Must be all the rain we've been getting. This road was not nearly as washed out last year." He explained once before we bounced down in a particularly deep rut and our breath rushed out in a whump. He concentrated hard then, carefully steering over the more treacherous spots with a small smile.

I thought I'd gotten used to some of the backcountry roads, except this one actually scared me a little. I imagined getting high-centered, unable to progress up or back. I didn't enjoy the possibility of walking back down to Vail, though the ride would certainly be smoother.

I had no sense of where we were going. The narrow road running along Mill Creek was often pressed in on by aspen or pine trees. Occasionally the trees to the south thinned and I glimpsed views of the aspen-coated south-facing slopes on the other side of I-70. We wound up steep switchbacks and out onto a ridge that fell away sharply through scattered to the east, and sloped more gradually through tree-choked hills on the west. We followed the

road south until it looped at the end like the eye of a needle around the open, treeless slopes of the small knob of Red Mountain.

Driving counter-clockwise around the loop, Kirk and I were treated to a mosaic of grey, red, and brown peaks ringing the northeastern horizon. Snow lay in scattered patches on only the highest, north-facing ravines. On the south and southeastern part of the loop, trees were relegated to slightly lower, northern aspects, and I looked down across a beautiful, gently sloped valley, green and lush in the late afternoon light. Later I realized I was looking out onto the land that had become the controversial focus of Vail's proposed Category III backcountry expansion, later known as Blue Sky Basin. If I had bothered to really study the maps, I would recognize one of the tallest peaks to the southwest was Ptarmigan Hill, and beyond that Elk Mountain, where I had been stationed for the first two weeks of the summer.

As we rounded the loop and worked our way back north along the benchmark ridge I clearly made out I-70 running through the steep valley to the east, and caught the faint sound of traffic through open spaces in the trees. Below, several tree-free drainages dropped away. There the slopes were either too steep to hold tree roots, or steep enough to promote frequent avalanches which sheared trees off at knee-level. The white bones of the older fallen trees crisscrossed haphazardly under the new growth.

At the time, I only knew we climbed from 8000 feet to nearly 11,750 feet in a long-winded, bone-jarring ten miles. I could certainly feel the nearly 5000 foot change in elevation I when I dragged my pack out of the back of the Jeep and shucked it on, heavy with a full week's load of food and gear. It was after 5:00 p.m. I still needed to find a campsite and go look for elk. To top it off, as soon as Kirk pulled away, waving encouragingly with the promise to be back at the end of the week, it began to drizzle. Soon I was left only with the sound of my own breathing and the constant plopping of rain and the sinking feeling that it would be a very long, lonely week.

I set up the tent in the drizzle at dusk in a group of spruce trees off to the northwest near where the road began its loop. Then I went off dejectedly in search of elk. Before Kirk drove off he had pointed out several drainages he thought could be good for finding elk, and I worked my way toward one of them. This involved a hard, steep hike out of the trees on the northwest side of the knob and up over and around to the south side where I could get good

views across a wide valley. I was wet, already frustrated, and cold when I realized I had forgotten the binoculars.

Hot, angry tears sprung up behind my eyes, and I swallowed hard against them. Some small rational part of my brain recognized it was not actually a catastrophe. The cold, frustrated, already lonely part of me got mad and I kicked myself for being so stupid. I'd grown very close to my staff-issued binoculars over the last few weeks. In part because they were very helpful in deciding where to set up the spotting scope as I could often check to see if there were elk down a particular drainage before using the scope to get a closer look at them. During an observation I could keep the scope focused on a particular meadow where I expected to see elk. If they weren't there the binoculars allowed me to easily scan other, promising meadows. Binoculars saved time and had become an important tool for my work.

The binoculars had also become something more personal. They helped pass the long, lonely hours in the field. In between elk shows and I used them to watch birds, clouds, bugs, and often scanned the surrounding slopes to see what else was out and about other than myself. They allowed me to become more connected to the landscapes I lived and worked for a week at a time. In a place where by necessity I did not have many things, those that improved my suddenly simple life in any way became monumentally more valuable. Without the binoculars I felt in some way as though I had forgotten a friend behind.

Rain gently poured down and I told myself unconvincingly that missing the binoculars was not a big deal. There was nothing I could do about it, and there was no use dwelling on something I could not change. So I choked down my frustrated tears and tuned up the telemetry radio in search of signals.

I half-hoped I wouldn't find any animals. Instead, the first two numbers I checked came through clear and strong. So did the third, fourth, fifth and sixth. The seventh, eighth and ninth suggested a more northern trajectory. I was surrounded by elk!

Oh how I wished then for the binoculars. The view from the main knob at Benchmark afforded a 360-degree view with so many possible elk meadows it would have been nice to scan the options with the lighter, more maneuverable binoculars. Instead, I picked the best view I could based on the strongest telemetry signals and set up for what remained of the evening.

Shortly after I plopped down in the short-grassed, open meadow with my head buried under the tarp protecting the spotting scope, a group of elk came into view. Among them I counted two collars, A1 and T4. Several calves moved among the group, though none of them nursed. After the fairly elk-free week in Beaver Creek just seeing groups of ungulates again brought me a renewed sense of purpose and hope. Kirk would be returning to Beaver Creek to try to find the last few animals in the area I'd been unsuccessful, and I hoped he had better luck.

The rain slowed and stopped before the skies overhead darkened completely. My east-facing vantage point meant I could not see the sun set over the rocky horizon, and instead watched its light slip to the tops of the peaks along the Gore Range until snuffed out like a candle. Shortly after that I found I could no longer distinguish shadowy elk bodies from their grassy surroundings and prepared to head back to the tent.

The evening was surprisingly calm and fairly quiet. I was closer ever to I-70, yet could barely make out the sound of cars when I dropped down the slope toward my tent. Both the main knob and the ridgeline dropping away to the northwest blocked much of the ambient sound from the four-lane interstate.

I made my way down from Red Mountain in the grey toned light of nighttime with the rod cells in my eyes working overtime to distinguish shapes and movements usually seen in colors picked up by the cone cells. Here it was too high and dry for aspens, and my tent was set in the dark shadows of fifty foot tall spruce and fir trees. I admired the way the pine trees painted unique silhouettes against the brighter sky. I hesitated to leave the relatively brighter, more open feel of the meadow for the darkness of the trees. Stars overhead sparkled brightly. The earth smelled of soil and water. It reminded me of the way the garden at Dovestring smelled on warm summer evenings.

When I did finally step into the trees, I noticed the slight increase in temperature as the trees blocked some of the light breeze brushing across the landscape. For possibly the first time since the elk study began I did not immediately dive into the tent when I returned. Instead, I sat outside on a fallen tree listening. I tried to absorb the night noises all around me in an effort to become comfortable with them. Where wind rustling through aspens could at times be reminiscent of waves washing ashore, wind brushing through needles offered a

gentler serenade. I felt like I was surrounded by whispers from many voices. It was soothing. At times a tree creaked, perhaps against another tree. The flowers and grasses out in the meadow moved in gentle grey waves, the trees whispered, stars sparked in ancient light overhead.

I wondered what I could smell if I were not limited to my human olfactory senses. I thought maybe I'd be able to pick out the odor of squirrels, foxes, deer, elk, and even bear if I knew how to distinguish their faint aromas from the rich scents in the wind. I thought about how the elk might be standing, still as rocks in the trees, or moving through them as quiet specters. I wondered where the bugs went and imagined them burrowing under leaves or rocks as night passed. Did birds that flocked together during the day like chickadees and juncos line up on branches together at night? I peered into the trees, and learned no answers to my questions.

I was buried in my sleeping bag when the wind picked up and whipped along the fabric of the tent, creating a rhythmic undulation of waves in the thin bubble separating me from the world. I wanted to cover my ears with my hands like I did as a little girl at firework shows.

Five weeks into the study, and I still strained to hear, to really hear. By hearing, I wanted to be able to see the other nighttime sleepers around me. I continued to anticipate the snap of twigs that would tell me something, or someone, approached my tent.

The sense of anticipation reminded me of standing on the platform of the Paris Metro. The roar down the tunnel prior to the train's arrival brought with it adventure and fear. The sense of forward movement, in any direction, was exciting, carrying with it a promise of something new at the other end of the journey. A pungent dread of the inevitable and uncontrollable rushed toward me in the blast of stale, city air pushed ahead of the train nose. Back on the mountain the tent rattled jarringly. I was momentarily overcome with the feeling of near-claustrophobia similar to standing hip to hip on a platform with strangers who pressed forward into the metro train compartments in a rush of thick musky odors. In my dreams that night, the wind carried my foreign flotsam through in a sea of humanity.



In the pre-light of morning I roused myself uncomfortably from the tent and stumbled up and around the Red Mountain knob to the observation post I used the night before. This time rather than walking through the meadow, I took the road. It was slick with mud from the night's rain and I slipped and fell twice. I was glad no one else was about to see my sleepy, oafish antics.

I arrived to the observation area just in time to see T4 in the valley. I managed to identify her moments before she slipped out of view in the trees. No other elk emerged, and as the skies brightened I munched a cold breakfast of granola bars and cheese while keeping one eye on the scope.

As I waited, fiery reds and oranges lit up the clouds over the jagged peaks of the Gore Range. The slope I crouched on became briefly drenched in sunshine. I lifted my face to the warmth and closed my eyes briefly. When I opened them, a movement on a hillside to my right caught my attention.

I eased my scope around and took a peak through hoping for elk. Instead I found five enormous mule deer bucks working their way across an avalanche slope on the steep eastern face of Red Mountain. Their coats glowed in the haze of morning light and their huge ears flicked calmly back and forth. They were already growing good-sized racks of antlers.

Like elk, mule deer lose their antlers after the fall rut and begin growing them back in the spring. They may spend the winter with the herd, and in spring separate into isolated bachelor groups. With only two months until the beginning of the rut, they already had most of their antler growth, and would not be so friendly with each other for much longer.

The deer strutted across the meadow, browsed nonchalantly, and bedded down. Even without the scope I could clearly see their tanned backs and stick-like antlers. I must have been upwind, or they would have bolted for sure. Of course at the time, I thought it might be a sign I was somehow being accepted into their world.

Then the sun got swallowed, as it so often had in previous weeks by clouds hanging heavy over the mountains. It emerged in short bursts throughout the morning, and the temperature remained fairly warm so my clothes and tent had a chance to dry out.

The sound of a vehicle woke me from a sun-drenched catnap. I dozed off next to the scope again. I roused myself, at first confused by the sound, and then started like a rabbit. After a last, futile sweep for elk, I checked on my neighboring mule deer. I caught the last few flashes from their creamy rumps as they disappeared out of the clearing and down into the trees.

I packed up my gear and made my way to the road to return to camp. As I walked the rumble from a vehicle drew closer. I would have ducked off the road and into trees had there been any trees close enough to conceal myself in. Instead, I hiked forward with slow purpose, as though I had every right to be on the road. A burly, t-bar Jeep containing three middle-aged, red-faced men in safari hats quickly overtook me.

We exchanged pleasantries, and my initial fears were quickly assuaged as we engaged in a brief, friendly conversation. The men were on a vacation from some big city, out to enjoy the rugged Colorado Mountains. They had rented the Jeep in Vail, left their more rutted-road sensitive wives to shop in town, and bounced happily up to Benchmark ahead of the afternoon storms.

One of them asked if I had seen any wildlife. Before I could respond one of his buddies jovially shared, “So far you’re the first wildlife we’ve seen!”

Thinking about the lack of shower facilities I almost told him, “just wait a couple of days and I’ll really fit in.” I did not mention the magnificent bucks they had spooked, or my purpose on the mountain. They hardly gave me a chance anyway, too full of their own mountain giddiness. For that moment I reveled in the knowledge that wildlife surrounded them, and only I had been quiet and patient enough to see any. It was my tiny rebellion against their interruption of my peaceful morning. The friendly, clueless tourists in the Jeep Wrangler would never know of the brown ghosts slipping between trees a thousand feet below.

They waved, matching long-sleeved camp shirts rising in the air as they drove out of sight. It took some time longer for the sound of their car to fade, and I began to wonder how often the elk are bothered by the sound of vehicles. Perhaps the elk had come to expect the activity on the mountain and learned to avoid it. This I came to believe as the traffic through Benchmark increased, and my elk sightings decreased during peak Jeep tour time.

By the end of the first week at the new study site, I had learned Benchmark was a popular location for Jeep tours out of Vail, bringing mostly tourists, or families to out-of-the-way places where their flatlander lungs and out-of-shape legs would not carry them. It made me nervous, especially when I realized how frequently I would be visited by Jeeps. I despised the straining engines, even while curious about the occupants. Unlike the previous weeks when I wondered what it might be like to have frequent run-ins with other people, at Benchmark it became an expectation. Often I desperately wished for the solitude of Elk Mountain. At times I did choose to drop down the ridge out of sight when I heard them approaching. I prickled at their audacity to impose on my space, my quiet.



Wednesday began in the fog, and ended with a brilliant starlit sky. My emotions followed a similar trajectory.

I slept poorly, and awoke several times shivering. It rained off and on all night, and the morning dawned clammy and cold. I walked to the morning observation in a drizzle which ended as quietly as it began. I watched three collared animals for ninety minutes, and recorded one nursing before fog sank into the valley and thwarted my efforts. The fog fell in a heavy curtain so I felt like I was in a haunted house where the walls begin to shrink in on you.

The fog settled over my elk, if not entirely over me. Several times I could make out blue skies through breaks in the clouds and the sun peeked through. I thirsted for the warmth of the sun and stood up from the scope to do a little sun dance. Surely I had begun to spend too much time out there. It did me no good, except perhaps to move thick blood through my chilled limbs, as the sun did not appear again.

I gave up on the elk mid-morning and went for a walk. The goal was to replenish my water supply. I had about finished my water bottles, and the gallon jug I brought with me was empty. If I wanted pasta tonight, I needed to refill. As Kirk predicted, it was getting harder to find water. Hardly any snow remained on the north facing slope of the knob, and what remained had the characteristic pink glow of watermelon snow. Before Kirk left me on

Monday, he pointed out a good watering hole on the topo map. I set off in search of it. Of course, I got sidetracked first.

Tall purple larkspur and lupine and red spiky paintbrush carpeted the meadows, their vivid colors accentuated by the grey light. At the edge of the ridgeline I looked down into a sea of white. It was eerily and calmly quiet. Even the Jeeps let me be for the day.

The haunting, melodious call of a hermit thrush enticed me into the forest where ribbons of mist twined among the branches. I took in deep breaths of the cool, woody scent of the pine and pungent aroma of soil. I discovered orange, lacy lichens on stony boulders, and lichens like green dragon tails quietly resting between exposed spruce roots. A perfect rabbit hole in an opening between rocks led to the search for its cleverly hidden backdoor escape exit. Upon stepping into a clearing I looked up into a grey sky with blue clouds, the usual view inverted by my wandering mind. Even the remains of human passage intrigued me as I found a rusty beer can with bullet hole through it, a broken ski pole, and a collapsed hunter's lean-to. So much for thinking I was the only one to be enticed to this part of the forest.

I wandered and explored for some time before tracking down the stream. According to the map, the water could be found just off an old logging road running along the slope parallel to the main road leading back toward Vail. I stepped confidently the few feet to the edge of the bench and peered over. Rocks and bare soil dropped away below my feet in a steep gully. A few hundred yards to the north a thick swatch of lush vegetation suggested water. I stayed on the ridge to approach the slender stream of flowing water, cutting through chest-high bog birch with its dime-sized serrated leaves and tall bluebells topped with sweet blue and pink bell-shaped flowers. I wondered if I had found the right place. It seemed very difficult to get to as it required a steep descent along vegetative-choked slopes. This could not be the stream Kirk told me about even though I had seen no other water that afternoon.

I scrambled down the slope. Rocks kicked loose by my boots tumbled down the steep incline and rolled for long seconds if nothing stopped them. It was impossible to find a level place, so I picked somewhere I could set my feet firmly. The stream was really more of a trickle, and I needed to dig out a small pool for the bulb of the water filter before I stood uncomfortably in knee-deep vegetation pumping water into my gallon jug.

The quickest way back to the trail meant going straight up the way I came down. Half-way my feet slid out from under me, and I fell several feet backwards. Breathing hard, I tried again to scramble up the steep rise. I slid again. A sharp rock dug a narrow gash into my thigh. Sweat broke out under my arms.

The now-heavy milk jug made climbing awkward. I had not taken the full pack with me on what was to be a short walk to get water. I had with me only the top part of the pack which doubled as a kind of fat fanny pack. It had room for my water bottles and the filter and not a gallon jug. My scrambles up the hill were primarily done one handed.

Studying my options, I realized I could step carefully along the slope, and find a less daunting angle that would take me up to the logging road. Elk knew to follow the contours. They knew not to overexert themselves. I was tired of feeling weak, unadventurous, afraid. The too-familiar tightness of uncertainty and frustration in my chest blossomed into anger. I could get up the hill, and did not need to follow any stupid contour lines to do it.

Gritting my teeth, I tried to scramble up the steep slope a third time and paused again, uncertainty gnawing at my resolve. Balancing precariously on the uneven, forty-five degree slope I felt my determination slipping. It suddenly occurred to me that if I really got hurt here, no one would know.

In a near, unnecessary panic I tossed the water jug up as far as I could trying to get it to land in some bushes so I could use both hands to help me scramble up the slope. Moments later eight pounds of water came hurtling down the slope, past my outstretched hands and landed with a crack fifty feet below. I flushed hot with embarrassment, failure, frustration. All I wanted to do was scramble up the slope and go crawl into my tent. Instead, I needed to stumble back down the steep, slippery slope to retrieve the broken water jug.

Holding the cracked plastic in my hands, I replayed the scene in my head. I felt so stupid. Why did I have to be so stubborn? The brightness of the delicate blue bells, and the joy of exploring beautiful surroundings faded as I return to the logging road, following the contour of the slope, as I should have done in the first place.

On the way back to camp along a part of the road not yet explored, I made out the clear tinkle of water. A short distance from the trail a thick trickle of water flowed smoothly

over rocks and pools deep enough to filter easily. I was less than a quarter of a mile from the campsite.

I stared at the clear, easily accessible water source and burst out laughing.

That afternoon I treated myself to an enormous meal before observations. Since I did not need to hike in long distances, I was essentially car camping without the car. This meant I was able to bring with me some extra treats I would not otherwise pack in if I was hiking long distances during the week.

I boiled a pack of seasoned noodles, popped open a can of tuna, and created a sort of tuna casserole in a pot that included fresh tomato, avocado, carrots and cheese. I treated myself to M&Ms for dessert. Refreshed and re-energized, I set off for the evening observation feeling contentedly full and surprisingly warm. I hoped there were no bears around to sniff out the food bag I had shoved under a half-fallen tree some distance from my tent. I did not have a Jeep as a storage locker this week, and Kirk had convinced me the bears wouldn't be a problem so I did not need to worry about hanging a bear bag. I didn't entirely believe him. Since I had no idea how to set up a bear-hang, I hoped to get lucky.

The quiet day extended into a quiet evening, and a glut of elk. Over a dozen ungulates moved in and out of my target meadow. I liked to think the absence of Jeep traffic encouraged the ungulates to show themselves, and all at once I was grateful for the messy weather.

Hard rain bounced off the brown tarp thrown over my head. I tried not to fog up the lens of the scope with my warm breath as I huddled on the hill, watching three priority animals. A priority animal was our term for any cow in the area that had not yet been seen. If she appeared in the group, we were to focus our attention on her first.

For the moment, I was watching L5 most closely, waiting to see if she had a calf. I really wanted to see her nurse otherwise I had another 150 minutes of observation time to check off. A4 and L3, two females I had only gotten glimpses of all week both nursed exuberant, hungry calves early in the observation period.

Then something happened that made all the small frustrations of working in the field worthwhile. The view through the scope went hazy. Not the hazy that happened when I fogged up the lens, or when mist floated by. This was a different, unfamiliar haze. I lifted

the crinkly edge of the tarp enough to see out. There, directly over my elk floated the end of a magnificent rainbow. It stretched up high into the sky before curving, disappearing into the clouds, and reappearing off to the south. The haze was the rainbow.

I focused the scope on the rainbow itself, and the elk became blurry in the background. Somehow I expected the prism to be some tangible thing, its colors solid and three dimensional. The rainbow, of course, could not be seen directly. Instead it washed landscape beyond in a palette of ephemeral color. There, red spruce trees. There, a meadow splashed with orange. The elk glowed as white horses were painted green, blue and indigo. I focused on the individual rain drops skittering through the paints. I never knew a rainbow could last so long.

By the time the multihued arc rose up into the clouds overhead, a stunning sunset, clear skies, and dropping temperatures awaited me. Enough light remained, as did the elk I still needed to see nurse, to force me to stay at the suddenly chilly post. Once full darkness pressed in, my toes felt like bricks. I began to shake. I imagined a warm carpeted room with a fire burning merrily in the fireplace, a sink-into-me couch and walls full of books.

I packed up gear in stiff movements while a fat sliver of moon crested the Gore Range. I stood woodenly and prepared to leave when something swooped past my head. Something large.

Instinctively, I dropped to a knee, and waited. Silence filled the clearing.

Then from the ridge in front of me an owl, just a silhouette in the dusky light, plunged down, around and over me. Once, twice, three times. I felt the rush of air from the owl's wings, and heard nothing until I remembered to breathe again. The owl landed close by on a tall boulder and watched. I barely made out its shadowy form in the darkness. It waited a short while before circling my crouching form once more and vanished into the trees.

I forgot my cold toes, stiff back, and the subtle fear that continued to haunt me when the sun set for the day. I was acutely aware of every breath, each heart beat. I turned off my flashlight for the first time after weeks of observations. I paused too stare up through the spindly shadows of fir needles and up at the stars washing across the clearing sky. The glabrous moon began to cut through the forest, lighting the grey avenue I walked on in more defined shadows and light.

The owl returned as I crossed a clearing on the way to the tent. Again it circled me several times, almost at eye level before resting high in a tree. Against the moon-brightened sky I observed the swivel movement of its head. Surely it listened to my breath, my pounding heart.

In a brief moment of insanity and wishful thinking, I raised my arm in greeting and invitation. *Please, please come land on my arm.* I wanted so much to experience a connection with another living being. The owl, not surprisingly, declined the invitation. I would not have known what to do even if it had. Many more years would pass before I could both name the owls I might see at night, and know the feel of their talons on my gloved arm.

I took my time returning to the tent feeling every sense acute and alert. I stood outside a long time, looking up at stars. I remembered Margret Craven's book, *I Heard an Owl Call My Name*, and experienced a little mental shiver. Had I just seen my own fate, in the face of an owl? Some Native Americans, including the Utes who used to roam these mountains, believed the calling of an owl heralds the end of a life. Then I remembered this owl had said nothing at all. Perhaps it visited me merely as a reminder. Someday, I will hear the owl call my name.

I stared at stars, felt calmer and more collected emotionally than I had since the field season began. I sensed the quiet need to make some decisions about my future simmering in my subconscious, and thought that may be the best place for those thoughts. Somewhere down deep where they could slow roll and tumble over one another until some threads of understanding materialized.

Finally, I acknowledged my cold toes and crawled into the tent and my sleeping bag. For the first time in weeks, I slept straight through until dawn.



The last day of July dawned clear and sunny and I watched elk in warmth for the first time in many days. All week I moved my observation points around the knob, depending on where the strongest telemetry signals came from. That Friday morning I found a perfect wide and

flat rock on the south-facing slope of Red Mountain a short distance down from the Jeep trail.

The animals in the gulley below me also seemed grateful for the shift in weather and a number of the younger ones frolicked about in the dew covered fields in the elk dance I had come to love. Legs flailed, heads bobbed, rumps bounced. They still had not yet learned the grace, or the caution of their more experienced mothers. Their spots were definitely fading though, and the calves were beginning to look even more like smaller replicates of the adults. I realized I would need to pay extra attention in the last couple weeks of observations to make sure I was recording a calf nursing, not the only slightly larger yearlings who still occasionally fed from lactating females despite their age.

For the first time I saw two large males with the herd. Enormous antlers swept back from the bony knobs on their thick skulls in a graceful curve. It was unusual to see bulls with the herd since they usually created loose gangs and want nothing to do with the females until the fall rut. Possibly these animals were too old for the females to mind having around.

A couple of the cavorting calves pranced very close to the largest of the bulls basking in the meadow. They stopped short when he lifted his large antlered head in warning, his ears flattening in aggression. One calf sidestepped and stuttered backward out of the way. The other calf bravely bowed its neck, and approached the bull on stiff legs. The young animal stopped short of the male and stretched his neck out. The older animal's ears straightened and he too reached out. The dark wet nose of the enormous bull and small calf touched.

The moment lasted only seconds. When the calf raised its leg as though to approach the patriarch closer the bull half-rose from his resting position and lunged forward. The calf spun on its back feet and pranced easily out of range. The calf had learned the bull's breaking point. The young animal bounded across the meadow toward a cow who had alertly watched the entire interaction. Just before the calf started nursing I imagined it looked back toward the bull and then the calf he had been playing with and did an extra high boastful kick as though to say, "See what I got away with?"

I was quite enjoying my morning sojourn with the elk when I heard a car approaching. Darn. It was Friday, and I ought to have expected an increased visitation rate

to the area. If the visitors followed the road all the way around the knob they wouldn't miss me, as I was set up in a conspicuous spot surrounded by gear and a spotting scope. Oh well, I reasoned. It was a beautiful morning for a drive, and the views were spectacular.

I said goodbye to the elk who were already starting to perk up their ears and move out of the trees as the car approached. I took the road back toward my campsite and ran into a friendly three-person group along the way. We exchanged a few words before I excused myself and returned to camp where I began packing up everything. It was only Friday, and Kirk would be picking me up a day ahead of schedule so we could be involved in a special event on Saturday. I was excited to have a change in the schedule, and eager to get back to town for a shower. Also, my best friend Megan was coming up for the weekend. Our relationship was long and complicated and I recently hurt her badly so our parting before the elk study had been uncomfortable. I still could not wait to see her. I could not wait to have someone else share my empty apartment and I was eager to spend time with a girl again.

Megan and I first met when she moved to our mountain community from Denver in second grade. For a long time we were sometimes friends, pulled together more by our shared participation in Girl Scouts than anything else. When our mothers became joint leaders of the troop there was a short time our friendship seemed destined for failure as we engaged in a subtle tug-of-war as the daughters of the leaders. In junior high, something shifted.

Ah, junior high. Three years of slow self-discovery in the midst of often deeply painful social networking. In those first completely awkward, often traumatizing months adjusting to a new school, a new peer interactions, and new expectations, Megan and I found comfort in knowing each other from back when life was safe. Before the ugly jabs about physical appearances, or intelligence or any other serious small, personal hurts that become so accentuated during those awkward and painful years of power plays and puberty.

It was during this time Megan and I came to learn we had more in common than we realized and a close friendship blossomed. We both loved music, the arts, books, being creative, and, of course, boys. We both hated the awkwardness of junior high and the betrayal puberty wracked on our understanding of ourselves physically and mentally.

Looking back we were not as unattractive as we each felt. It just took both of us some time to grow into our rapidly changing bodies. By eighth grade we were each developing traits the other was envious of. While Megan's body was softening into womanly curves, mine was shooting up, bean-stalk like and curveless. Megan's long strawberry blond hair turned prettier by the day, and my dirty blond waves grew only thicker and more unruly. While she struggled with adolescent acne, I fielded teasing about my unavoidable, gawky, toe-walking gait caused by a childhood injury. Yet by the time we reached high school, and had some handle on our self-esteem, our friendship had solidified into a tangible, long-lasting connection.

Over long conversations by phone or sprawled on one of our beds we shared thoughts about books, movies, school and our latest crush. When it came to boys, we had different tastes. Megan found tall, blond and mysteriously taciturn to her liking, and I was often drawn to tall, dark and confident. This difference in tastes worked well until college when our desires converged for the first and only time.

As our friendship deepened, so did our conversations. Megan was the first person outside my family who I talked with about family history, religion, dreams for the future, what I might want done with my body when I died, and other topics that I shared with no one else. I bared my soul, and found her receptive, supportive, and equally willing to share with me. Our relationship blossomed, and we became nearly inseparable. We shared a locker all through high school, and bus seats on school trips. For two years we went to different colleges, and I felt I lost a part of myself. When Megan said she was thinking of transferring to Colorado State I was ecstatic.

The fall semester of my junior year at CSU began by settling with Megan into the south-facing, brick-oven apartment we would eventually decorate with posters and calendar pages of famous paintings artwork. In many ways at that time Megan was already further along the path toward adulthood than I. Her bedroom at home had already been converted to the sewing room her mother always coveted. Mine remained unchanged. Megan was working two jobs to pay her way through school, and was already worried about paying off her quickly accumulating loans. My parents took care of tuition, though by that point I was paying for everything else with the help of a work study job. Megan did not own a car for

the first year at CSU, and we relied on the Toyota my parents lent me. She was practically giddy when she finally bought her first Jeep, with no financial help from her parents. My parents eventually sold me the Toyota for a dollar and no strings attached.

At CSU Megan studied anthropology and developed the groundwork for her future career as a librarian by working for the university library. I threw myself into wildlife biology and the education committee of the Wildlife Society. While our paths in school took us in different directions, we spent most of our spare time together. As my network expanded thanks to my involvement with the Wildlife Society, Megan joined us on many social occasions. We shared an apartment, friends, and for a painful time a crush on the same boy who I ended up dating. Megan was angry and hurt when I left him for Dale, though we didn't talk about it very much. Things got uncomfortable between us, and I had left for Vail with a sinking sense our relationship would never be the same.

When Megan finally arrived in Vail after dinner on Friday, we caught each other in an enormous, crushing hug. I wrapped my arms around her strong, sturdy frame and she pressed her face close into my shoulder. We had never been overly touchy and this hug melted away fears and pain and left a measure of forgiveness and understanding. When we finally broke apart the space between us filled with excited chatter. The empty, dark corners of the room shrunk away as we caught up with each other both speaking a mile a minute.

As we talked it occurred to me Megan might be missing me as much as I missed her. I thought about what it must be like to have that stony apartment in Fort Collins all to myself for most of a summer. It could not have been a very easy time for her the summer I was away on a grand adventure and she remained behind doing the same work. Most of her acquaintances were mine, and I knew she was not contacting them on her own. I wish I had asked her to come up to Vail sooner.



The event that brought me out of the field a day early, and Megan up to visit was an annual one-day scat scavenger hunt and count party. Each summer a group of volunteers gathered to bushwhack through the forest, lay out predetermined survey lines and record all animal scat

along the transect. With enough volunteers, the entire study area could be counted in a single day. The only skills required were some map and compass work, stamina for hiking around difficult terrain, accurate scat identification expertise, and fortitude for picking up animal poo.

Biologists in the Eagle River Valley Ranger district had been conducting the more properly termed “Scat Indexes” for many years in order to develop a long-term data set of animals using the habitat. An index is a measure related to the number of animals in an area without being an actual count of the specific individuals. Taking an index of scat allows researchers to make some guesses about changes to animal populations over time without needing to do specific species population surveys.

For example, one year the researchers may record twenty piles of snowshoe hare scat. Perhaps there are twenty individual snowshoe hares hopping around in the study area, or perhaps there are only half as many. There is no way to know the exact number of animals just by counting the scat they leave behind. However, if in the following year forty piles of snowshoe hare droppings are counted, and the next sixty, then it is possible to make a good guess the snowshoe rabbits have been doing that thing bunnies are known for doing with gusto, expanding their population.

Over a dozen people participated in the scat survey that summer. We met many of the participants in the morning at the base of Vail Mountain in order to carpool to the study area that covered sections of the existing resort as well as some areas the ski area planned to expand into in the coming years. In addition to our entire elk study crew and the local wildlife manager and some of his family, we were joined by Rick’s wife Katie, our fellow wildlife student Brett, my friend Megan, and two women I had heard of but not met, Susan and Jenny who worked on a rodent study in the Vail area, as well as several other volunteers. We piled into the backs of Jeeps and trucks and bounced our way along rutted, bone-jarring four-wheel roads into the back bowls of Vail.

Vail’s famous back bowls, with cheery names like Sundown, Sunup and Teacup, or the more exotic China, Siberia, Mongolia, drew serious skiers each winter. At that time the back bowls could only be accessed by taking a lift to the peak of Vail Mountain, a short two miles from where I looked for elk at Benchmark, skiing across the ridge and dropping down

into the south-facing, ungroomed and deep powered bowls at will. Just a handful of lifts brought skiers back to the ridgeline. Some of those lifts led right to the massive Two Elks Lodge which offered respite in the form of over-priced meals and hot beverages.

Only the most experienced skiers ventured over the ridge from the front side of the mountain and into the intermediate blue and experienced black diamond runs. With over 3,000 acres of skiable, challenging terrain, many skiers enjoyed the sense of openness and elbow-room offered in the back bowls. The often more crowded front side of Vail Mountain consists of 1,627 acres of groomed runs catered to a wider variety of skier abilities. The proposed Vail Expansion into Blue Sky Basin promised some of the most challenging, thrilling runs yet.

At the time, I only knew I was being jostled about in the back of a pickup truck without any real sense of where we were going. Later, when reviewing maps in an effort to find the names of places my memories recalled only as images I realized we must have been working in the valley between Vail's back bowls and the proposed expansion area. I hiked along Two Elk Creek and up into the slopes on either side to help lay transect lines and pick scat. Benchmark lay above me to the south, unrecognizable from the new perspective. I was stepping where I had occasionally looked for and had even seen elk. I was quite possibly walking some of the same trail followed in a little over two months by those who burned down Two Elks Lodge.

When the forest service road ended we unloaded and broke into teams in order to cover the survey area more efficiently. Megan and I worked with Bill Alldredge, who guided us through the sometimes difficult day with humor and patience.

Stalking and counting scat turned out to be more difficult than I anticipated. It rained or misted most of the time, and temperatures dropped into the low 60s. Megan had just come up the night before from lower elevation, and was used to 85 degree days. Even though I had been working at elevation for five weeks by then, we both struggled. It became clear to me then how little exercise I'd actually been getting. I knew was losing weight though it was clearly not due to long hours on the trail. My legs ached as we bushwhacked across the varied terrain under subalpine trees. The ponchos we wore did not protect our lower legs from getting soaked through. My glasses fogged up frequently in the cloudy weather, and

once my toes got cold they stayed chilled. I suspected Megan was often more miserable, though she said nothing. At the end of the day I watched her wring a pint of water from her socks.

Both our spirits remained buoyed by the company of Bill Alldredge. His cheerful attitude and amusing or thoughtful commentary helped keep us going. Too beat down at the time by weather and fatigue I only peripherally understood then that Bill Alldredge was as savvy a reader of people as he was of the natural world. He was very good at asking questions and engaging people. His early efforts to learn about Megan's background and her interest in library work and music helped her feel welcome into the group. Later he recognized when Megan and I really began to flag, and kept us engaged by quoting romantic poetry entirely suitable to the rainy, misty, sometimes mystical weather conditions.

Before I became too uncomfortable or fatigued to care, I recognized the beauty of the landscape. Lush and green from all the rain, the subalpine forest dripped and glistened like I imagined forests in the Pacific Northwest might. I had only been as far as Northern California and eagerly anticipated the first time I would travel further north into the temperate rain forests Dale had me falling in love with before I had even seen them.

The actual work of the scat count was not difficult. Once we found the end of a transect line using the map and searching for faded flagging, one of us lined up the line with a compass, helped another measure out the proper distance with a tape measure, and then walked along the line nose to the ground searching for scat. Once counted, the piles of scat needed to be removed from the transect line to leave a clean slate.

Megan offered to help in any way. Bill Alldredge gently suggested he preferred me to help identify the scat as I had more experience, which suited Megan who spent some time using the compass and found herself most content recording the data. She declined the opportunity to pick and toss animal poo.

Mostly we recorded mounds of chocolate-covered almond-like elk scat, smaller and similar chocolate covered peanut-like deer scat, curved arcs of blue grouse pellets and the occasional Kix-cereal-like snowshoe hare pellets. I hoped to come across predator scat too, coyote, fox, or bear. I knew it would be very unlikely we would find feline scat, mountain lion or bobcat, since the cats tend to bury their feces.

I secretly hoped to find lots and lots of snowshoe hare scat. I wanted to see for myself if what one wildlife biologist had said was true. Was Vail the last best habitat for lynx in the state? Might there be enough of a food source for the small felines to be successful? I wanted to see lynx return. I felt they might fill a long-empty predator niche. It was exciting to consider the mythology of returning charismatic predators to the state. The lynx were our wolves, and they came with as much drama and excitement.

At the same time, after seeing the amount of human involvement in and around the Vail area, I seriously wondered about the suitability of the region for the lynx. If the felines were going to return, scientists better make darn sure they had a chance to survive or wildlife biologists would forever shoulder the political and social consequences. I did not want the field of my studies, an already often publically criticized government agency, to be derided or misunderstood further on account of poor science.

In the afternoon Megan and I rode back to the Eagle Valley Forest Ranger Station with Sandy and Jenny, the two women working on a rodent study. Previously, I knew of them only by their affectionate nickname, “The Rat Girls,” given on account of their research with the small mammals on Vail Mountain.

Susan was a master’s student working on her project through Colorado State University and Jenny had recently graduated from undergraduate program and wanted to get some field research under her belt before starting her own master’s program. Neither had worked in Colorado before, and both expressed how much they loved their mountain experience, despite the challenges of being Rat Girls.

Their multi-faceted small-mammal research looked at rodent use of forested and disturbed patches of habitat. It would be some of the first biological work done on small mammal population dynamics in areas experiencing ski-run development. Multiple times a day the girls set and checked dozens of Sherman traps, collapsible metal boxes used to live-capture small mammals, namely rodents. The traps were baited with a hearty mixture of peanut butter and rolled oats, contained polyester bedding to provide warmth, and if set out in the direct sun the metal traps were covered with shingles to prevent them becoming ovens.

Susan and Jenny set up trap lines twice a day, and returned to check for occupants, weigh and measure them before letting them go. The small mammal study examined the

effects of landscape change on rodent populations. It should not have surprised me to see how many research opportunities arose when men changed the landscape. We may have been working in National Forest Service land, which had been designated as an area to preserve our natural resources, and yet we continued to find ways to manipulate it and study the impacts of that change.

Later the results of the study provided information about how changes in landscapes and habitat availability affect behavior and numbers of animals. For example, the multiple-year study found a higher density of voles in forested areas, and less on open, new ski runs. More deer mice and chipmunks were trapped in a new ski run than forest suggesting they actually preferred the open areas.

Results from this and other studies help biologists make decisions about how to manage the habitat to the best interest of the animals. Perhaps something as simple as providing woody debris in the ski run to act as cover will help voles. Other species, like deer mice and chipmunks that tolerate disturbed habitats and open spaces may only need the presence of nearby forest cover to encourage them to use the ski runs. Unlike other runs in the Vail area, the Blue Sky Basin was designed to provide more of a backcountry feel, and the runs are narrower and contain more tree islands which may benefit forest-dwelling animals.

According to the girls they had already handled hundreds of rodents for the summer. Both had been bitten at least once, even though they wore thick gloves protect themselves. Susan thought the chipmunks were the most feisty and difficult to keep a hold of. Jenny disagreed.

“Are you kidding? Those tiny shrews are the worst. They squirm and wiggle all over.”

I loved meeting other women working in the field. It made me feel like less of an anomaly, and less lonesome. Certainly more and more women were entering the field, nevertheless my first field experience followed the more traditional ratio of men to women. I long weeks by myself, while my weekends were filled with men. Even when I was in love with one of those men, it was simply not the same as spending time with other women. Throughout the scat

weekend, I found myself surrounded by them. Megan, Susan, Jenny, Katie. I enjoyed the quiet balance of feminine beauty among the masculine ruggedness. I heard the softer rise and fall of our voices, our more gently pitched laughter, felt our strength as women roughing it in the wilderness and hoped some day I would be able to work with a woman in the field to balance the summer of men and elk.

That evening we all went to the local wildlife manager's house for a BBQ dinner. The atmosphere was friendly, with people, children and dogs scattered both indoors and out in the plentiful yard. The air tasted of the sweet smoky scent of BBQ, friendly conversation filled the air, and bodies moved everywhere. Children excitedly ran in and out of the house or squealed with delight as they bounced on a trampoline in the back yard. After so many weeks alone in the field, being surrounded by so much energy and excitement and action was almost sensory overload.

Megan and I filled our plates to bursting and joined others at an outdoor table. Somehow I couldn't bear to be inside, especially since the clouds had broken and late afternoon sun shone down on freshly mowed green grass. We talked and listened and ate and ate. Dale passed our table as he went in to get more food and when we made eye contact he grinned and winked. I ducked my head and smiled into my shoulder like I was thirteen again. We had not seen each other much with all the activity and visitors. While I missed him I also cherished the time with Megan.

I leaned back in the hard patio chair and looked around at the life and energy surrounding me. All the empty space in my belly and my chest filled and stretched as I sat there with my best friend, eating delicious food, surrounded by conversation and joyful sounds of companionship. I felt a childlike giddiness start to bubble up from deep inside. I gently elbowed Megan.

"Hey, what do you say we try out that trampoline?"

She looked at me and the smile that broke across her face reminded me of junior high when we spent the night with a friend who owned a trampoline. There were four or five of us and we spent the whole afternoon and much of the evening bouncing and tumbling, until our stomachs were queasy. It didn't matter, the freedom of losing our grip with gravity, for

however brief a moment, was too exhilarating to mind the discomfort. We rolled and bounced until our sides ached and our eyes grew wet with happy tears.

We were already breathless and lightheaded when someone suggested sleeping on the trampoline overnight. The idea became an immediate hit. Later when the sun went down we slipped into flannel pajamas, filled our arms to bursting with sleeping bags, pillows, extra blankets and ventured into the dark toward our oversized bed. Our progress was marked by giggles. Our friend's house was pretty isolated up in the mountains and the night sky sparkled with too many stars to count. We lay on our backs on the trampoline that bowed only a little under our combined bodies, and stared at the sky speaking in hushed tones until one by one we dropped into sleep. I remember the comfortable press of warm bodies around me and the smell of the nylon mesh of the trampoline under my head.

It didn't start raining until around 2:00 a.m. At first we ignored the gentle drops. When they began coming down with more intensity most of us simply crawled under the trampoline where the mesh above provided some relief. When lightning began to flash and the pace of the rain picked up we retreated into the house and fell back into a damp, uncomfortable doze on the unforgiving hard basement floor. It was one of the best group sleepovers I ever went to. I had slept on a trampoline with friends in the mountains and I had been happy.

Back in Vail, Megan and I usurped the trampoline from a few younger children and reclaimed the memories of our youth. I didn't even care that we were the only adults making absolute fools of ourselves, and neither did anyone else. I once caught Dale watching us, and the soft gleam in his eyes assured me he enjoyed our antics. Megan and I bounced and spun and laughed until tears squeezed from our eyes. We collapsed on the giving mesh of the trampoline in a heap of breathless joy. I remembered the night in Vail when I would not go upstairs to join my crew and was suddenly grateful that somewhere between July and August I learned how to be comfortable with myself again.

The rest of the short weekend with Megan seemed to stretch out in a long rubber band of time. When the time came for departure late Sunday afternoon, I did not want Megan to leave. Her eyes told me she felt the same. We hugged, hard. I knew then that despite our differences, and the challenges of being roommates, and the hurts we had inflicted on each

other, Megan and I would remain fast friends. Bosom buddies, I liked to think Anne of Green Gables would call us.

Chapter 10 – Elk Company



Kirk dropped me at Benchmark under threatening skies early in the afternoon of the sixth week of the study. He did not loiter. He planned to hike into an observation site on the other side of 1-70 in hopes of catching some of the stray priority animals that had been eluding my views from Benchmark. Often finding a new perspective helped us gather additional data. He had over an hour's drive and a hard hike into his planned observation site. Rick and Dale were again hiking into the Holy Cross Wilderness area and had a long way to go with heavy packs before they could set up camp. Again, we were scattered across the study area, following the pattern determined by our silent study animals.

The empty feeling expanded as the skies turned grayish-yellow and thunder and rain poured down onto the tent. The weekend had been so full of people, companionship, friends, and family that I felt suffocated and small on the mountain alone. I kept myself occupied by pulling out the topo maps and determining where Kirk had picked up elk signals on his last flyover. I still had an hour or two before I needed to go out for the evening observation, and I hoped by then the rain would let up. I hoped there would be elk to watch, as the idea of a lonely evening without even the elk for company was disheartening. It seemed especially empty after a weekend so full of friends, and family.

That morning my parents had driven up from Dovestring to join the crew for breakfast. Everyone was extremely welcoming and generous. Kirk even asked if they would like to stay for the morning meeting. We gathered in Kirk's living room, squishing together on the couch, bringing in extra chairs from Rick and Dale's apartment and I thought about what my parents were seeing. Their only and oldest daughter sat casually among a group of tall, fit, confident men discussing strategies and plans for the week. As the summer had progressed I had definitely gotten more vocal at the staff meetings, offering ideas or suggestions if appropriate, and asking more questions. I was glad they came later in the season and had not seen me a few weeks before.

After the morning meeting we had some extra time before Kirk would be driving me up to Benchmark again. I'd gotten much faster at preparing my gear for the week afield, and had time to spend with my folks so we went into Vail for a short time. Even though Megan and I just spent some time there, I was again struck by the juxtaposition of so much quaint commercialism plopped down in the middle of such stunning scenery. There were cute little stores at every turn, stylized European architecture, cascades of blooming flowers, cobblestone streets, inviting benches along a rolling stream. The ski runs from below seemed wider, steeper than they did when looking at them through a scope. Women clicked past in high heels, wearing neon pink velour, carrying white fluffy dogs. The athletic, handsome young men and women working in the stores had name tags that told us their home state or country as though they were still tethered to the reality outside of the Disneyland like atmosphere in Vail.

I found myself enjoying myself despite the pretense. There was something endearing about Vail's effort to be quaint, provincial, and European. It brought back memories of my own experiences on that continent, and I could momentarily forgive the false façade of culture and history on the alpine-styled store fronts which housed the same touristy t-shirts, buttons, magnets, candies, and over-priced outdoor gear.

My parents treated me to an early lunch at a quaint café offering sandwiches for \$10.00 and drinks for \$5.00. We sat outside at a wooden table where we were surrounded by boxes of flowers and were visited by a plethora of trilling hummingbirds while we ate. It was a perfectly lovely morning. I was not eager to return to the field for another long week alone.

We said little on the short car ride back to the apartments. After they returned me to the apartments, Dad held onto me hard, saying nothing. Mom placed her cool hands on my cheeks and looked into my eyes with a look that made me uncomfortable. She was not often so open in her expressions. I don't know if I saw love, pride, concern or a mix of all three. Something in my chest tore a little when they closed the doors and drove out of sight.



The first several observation periods back at Benchmark were grey, drizzly and disappointing. I saw hardly any animals. With only two weeks left in the summer field season, we had fewer elk to track down and observe. We had already gathered data on a majority of them, and it was getting harder to both find and observe the remaining animals. While some of those we had yet to see might have a calf, it was more likely the remainder probably did not and we simply needed to watch them to achieve the 250 minutes of observation time that guaranteed they had no calves.

On Tuesday afternoon, I had just begun to pack up from one observation site in order to move to the next when I took one more sweep with the binoculars and caught a small group of females moving through a meadow. One of them sported the white flash of collar I eagerly scanned for every time I found elk. By the time I hurriedly unpacked and set up again they were gone. I was extremely frustrated.

The only positive thing from the week so far had been the use of my brother's borrowed pants. When my parents found out how cold I had been getting they scoured the house for something they might be able to help me out with. Remi had been happy to pass on his long workout pants. While they were not exactly waterproof, they did cut through the wind and provided an additional layer of warmth. I wish we had thought of them earlier in the season. At the same time I had a hard time believing I could now wear my little brother's clothes. In the last several years he grew nearly a head taller than me. It was easy to forget he was a young man, a sophomore in college. I still envisioned him as my tow-headed and mischievous little brother who crawled around the forest floor with me while we pretended to be squirrels.

Wednesday I awoke to a cloudless sky and looked for elk while sitting in the sun. Overhead clouds billowed in large, grey puffs without spilling a single drop of rain. I shed layers of clothes as the morning observation progressed and eventually stripped down to a tank top to soak in the warmth. The change in weather reflected in my attitude and I did not even mind there were no elk to be found.

Later I sat on a log and let the forest seep into me. It was cooler there in the tall pines, and I sat on the soft, spongy rotting bark of a downed tree and soaked in the bevy of blooming flowers, the moist rich scent of the soil wafting up from the forest floor and the

sounds of the forest. Branches swayed and creaked gently. The persistent “yank-yank-yank” of a nuthatch became obvious, and the weak, high pitched whistles of brown creepers floated lazily overhead. A junco sent out its staccato, monotone trill while a woodpecker drummed its rat-a-tat-tat rhythm on the soundboard of an aspen tree.

An orange and black and yellow wood nymph butterfly fluttered past my cheek. I followed its jittery path through the trees until it stuttered up and out of sight against a ray of streaming sunlight.

The moist scents, the birds singing, the butterfly all reminded me of two of my favorite childhood novels by the early 20th century naturalist author Gene Stratton Porter; *Freckles* and *Girl of the Limberlost*. I was probably eight when my mother first handed me her already ragged, well-loved copy of *Freckles* and I fell in love with the characters and the forests of Indiana’s Limberlost for the first time. I read for the stories of people, and the descriptions of place. For many summers immersed myself in lovely-crafted tales of character’s lives entwined with the natural world around them. I saw myself and my relationship with Dovestring in Porter’s stories.

When I was eight I wanted to be spunky, brave Freckles, learning how to live in and love the woods he had never before experienced. When I was ten I wanted to be the lovely, strong-willed and musical Elnora Comstock, willing to fight for the land she had known since childhood and the boy she came to love with all her heart. At twenty-two, sitting in the rich pine-scented subalpine forest of Colorado’s high country, I thought for the first time that perhaps I most wanted to be like the Bird Lady, who both knew the forest and its inhabitants and cycles and fought to preserve what remained of its valuable resources.

It occurred to me then I might want to be a naturalist; someone who could name the animals, the plants, the connections between soil and root and rock and tree and engage others interest and passions in the details of how the landscape worked, ecologically.

My scientific brain and training suggested if I were to engage others, I would need to do so objectively. It would be necessary to present information and facts in a way that conveyed my interest, while allowing the recipients to make their own decisions about the information. By doing so, I could perhaps give them knowledge so they might act on their own accord.

The passionate side of me, the part that felt time was running short on the planet with its quickly shrinking habitats, rising temperatures and the superficial needs and wants of a exponentially growing population of people implored me to take a more subjective, more personal stand. One in which I could pass on information in from a value-based perspective, where I infused others with the need to make a change, to do something immediately without waiting for them to decide on their own.

Yet I had never been comfortable with others who told me what to do, or think, or say. I shied from most religions since I saw them imposing their values on a people who could not challenge the systems without being ridiculed, beat-down, guilted into changing their behaviors. I did not want to be the one to do that to others. It seemed hypocritical.

So where did I fit in? I was in an undergraduate program training me to become a master's student, a researcher, a scientist, or a wildlife manager or ranger. It was becoming clear to me I did not want to do any of those things, if for no other reason than I avoided conflict and confrontation. I had seen the challenges faced by biologists and managers who wanted to implement change, as with the lynx introduction. I had begun to get a sense of the intensely political nature of research, management, and change. It made me uncomfortable. I did not possess the qualities necessary to be a strong manager who needed to make tough decisions about wildlife, or interact with other land users to make sure they were following the rules.

While I enjoyed the structured aspects of research, I did not care for the consistent judgment, and critical aspects that came with developing, implementing and publishing results. I had little confidence in my ability to be objective and analytical enough for the requirements of science. I was more interested in sharing the results of those studies with others. I wanted to share information to help others determine their own perspectives. I wanted to tell engaging stories.

I had never been to the lush forest of the Limberlost which Porter so beautifully describes, yet that day in the fir and spruce forest of Colorado I felt I might have gleaned for the first time insight into the path I might take when I stepped out of college and into what was so easily referred to as, "The Real World."

I left the forest that afternoon deep in my own thoughts, feeling like perhaps I was that much closer to figuring out what path I might take after graduation in December. I lumbered slowly along the logging road, pausing thoughtfully at several breaks in the trees that overlooked the gullies above I-70. When a male voice spoke up from behind me I literally jumped.

“Hey! How’s it going?” A deep voice asked cheerfully. I had not even seen the young man coming down the trail in my direction.

I imagine I had the wide-eyed look of a rabbit in my eyes when I looked up. He might have been in his early twenties and had a friendly grin on his face.

“Didn’t mean to startle you. Do you know where the party is at?”

“What party?” I asked.

“Oh, you’re not part of the party?” I shook my head. “Too bad. You could come if you wanna. It’s my buddy’s birthday so a bunch of us are hanging up here for the night. Sure you don’t know where it’s at?”

“Uh, no. Haven’t seen anyone.”

And I don’t ‘wanna’, I thought to myself.

“Alright then. We’ll have plenty of beer. We got a keg! Come on over if you want to join us.” He turned and walked away in search of his friends. I waited for him to disappear from view before continuing toward my tent, tucked into the trees and hopefully out of clear view.

I felt self conscious and exposed when I reached camp and began preparing for the evening observation. Knowing I had company on the mountain for the whole night set me on edge. I wished I knew where the party planned to set up and hoped it would not be near me. I did not like the idea of someone, especially a drunk someone, stumbling across me in the middle of the night. How did I both want to connect with people, and yet also shied away from them so readily?

I needed to get some data on our priority animals, and anticipated the additional activity on the mountain overnight meant I would not see many. When two scruffy, friendly dogs tried to share my meager evening meal with me, I knew for sure the elk would not appear. No matter, I could not avoid my job and needed to go out to look anyway.

I headed off for evening observations acutely aware of the additional activity on the mountain. From the sounds of it, the party headquarters had chosen to camp further down the road though they began wandering around the bench with their own kind of animals. In addition to the dogs, they brought ten vehicles, six motorbikes and a group of carefree partiers. I didn't talk to any of them, exactly. Two men who appeared down slope of my spotting scope and proceeded to take a leak over the cliff did not see me at first, or possibly they would have chosen another spot. Once they saw me, one of them just smiled and waved at me nonchalantly, still with his pants unzipped. I waved back. I must have been getting used to being around men in the woods.

While I found the unexpected company on Benchmark an annoyance for my job, and had some concerns about my own well-being, I also envied their companionship. The warm memories of past weekend's company spun up in my thoughts. I wished I had company.

There were no elk to watch. I gave up before darkness fell completely. I hardly saw the point in sitting there with the faint sound of music and laughter wafted over the mountain. The animals probably left for the next drainage with the first barrage of cars. I headed back to camp with the sun not even off the peaks of Gore Range. Usually by the time I called it off for the night I walked back in a sea of grey flowers. That night, they still glowed colorfully against the fading light.

The fastest route back to my tent was along the road. On the way, I ran into still more people. It was only Tuesday, and I found the number of folks sharing the mountain with me so early in the week disarming.

I had no choice except to interact with the new visitors. We greeted each other on the road and I learned they were a family camping out for the night. Seth, only slightly older than myself, worked in Vail for a Jeep touring company. I should have guessed. His mother Lois and younger sister about my age were visiting from the east coast. We engaged in surprisingly easy conversation.

"That's a hefty pack you've got on. Did you walk up here?" Seth asked.

"Oh gosh no," I said. "I'm just watching elk."

"Really? Seen any?" Lois asked.

They expressed a genuine interest in my work when I told them about the elk study, and my role in the project. At first my own voice sounded rather strange to my ears. Then I warmed to the subject and got pretty excited explaining the project. It was unexpectedly nice to have someone to talk to as the day came to a close.

Soon, the first stars began popping out. Seth and Lois invited me to come with them stargazing.

“Seth brought his telescope,” Lois said. “We were just going to find a nice clearing to sit and watch for a while.”

I think had it just been Seth I would have bolted. With his mother and sister there, I felt more at ease and I thought, why not? The skies were actually clear, and it would be nice to have company for once.

It turned out my spotting scope was almost as powerful as Seth’s small telescope. We all swapped places at the telescope and the spotting scope. Together we looked at the summer triangle, Cassiopeia’s W-shaped throne and Gemini’s twins attached at the hip. Many of the fainter stars were washed out by the nearly full moon, yet I could still pick out my favorite little constellation, Pleiades, or the seven sisters. For some reason it gave me great pleasure to count the seven brightest stars with my naked eye before looking at the mass of stars that appeared through the scope. I focused the scope on the moon, and needed to close my eyes at first it was so bright. I don’t know why I had never thought to look at the moon through the scope before. I started to sing under my breath.

“What are you humming?” Lois asked.

I blushed in the dark, “Oh, it’s just a song my mom used to sing to me about the moon. I can’t remember the words.”

In the cool, quiet night it was easy to talk with these near strangers, and as we watched stars we learned about one another.

“Callae, do you ski?” Seth asked.

“Uh, not really. Even though I grew up here, I never really skied very much. You?”

Lois answered for him, “Seth is an amazing skier. I brought my kids up skiing in Vermont and I told them, ‘if you can learn how to ski here, you can ski anywhere.’ Seth has skied with some of the best in the world.”

I wondered if Seth was embarrassed by his mother's eagerness to brag about him. It was nice to see a parent who loved her kids that much. It reminded me of my family.

I turned to Seth, "Are you one of those crazy people who leave the ski boundaries?"

"Yeah. In the winter my buddies and I will hike over here from the back bowls, and take those gullies." He pointed down the slopes where I had been watching elk. The ones cloaked in short, avalanche trimmed trees. Maybe they would seem less steep and intimidating with snow. I doubted it.

"There really is nothing more exhilarating than jumping off a cliff to catch twenty feet of air before sinking neck deep in a powder drift and shooting out the other side. There's no way to describe that feeling." Seth spoke earnestly. He really loved to ski, and the challenges of skiing difficult, out of bounds terrain. I tried to think if there was anything I had done that made me feel that exhilarated, that alive. I could not.

"What about avalanches?" I asked.

"We'll ski the tree line, so if a slide starts we can escape into the trees."

I was not convinced that alone would save him from an avalanche. Seth regaled me with more skiing experiences so I felt I was watching a Warren Miller movie. I could not imagine doing what he and his buddies did for fun. My sense of adventure was simply to get down a green run in one piece, and even the few times I had been on the slopes that had been a questionable achievement.

Spending time with Seth and his family made me homesick, and a bit heartsick. For the first time in a while I wished I could share the evening with someone I already knew. Dale came to mind first, though any of my friends or family would have made the evening less lonesome. Eventually I excused myself and returned to my very empty tent. The faint sounds of the revelers across the way floated through the calm night air. Sleep took a long time in coming.



Since Seth and his family were kind enough to share their evening with me, I invited them to share my morning. They joined me mid-way through my so far empty elk observations.

We sat on my favorite flat rock chatting as I kept an eye out for ungulates in the drainages skied by Seth in the winter. There had been no sound from the party, so I hoped some elk would emerge.

“So Lois,” I asked, “Did you sleep in the tent?” When I left them last night, Seth was encouraging his mom to stay in the tent, not in their truck.

Seth coughed loudly.

Lois was frank, “I tried. I know you wanted me to,” she looked at her son, “but I just got too cold. I slept in the truck, and was as happy as a clam.”

I smiled. “Hey, you made the effort, right?”

“You know, at my age, I’ve done enough that I don’t have to prove anything to anyone. I used to be stubborn, and push myself to see how much I could handle. Not anymore. I’ve learned I can do it, and now I’m not too proud to ask for help. Or to sleep in a truck where I can stay warm.” Lois grinned comfortably.

Her comments made me think about my actions this summer. I had approached this experience like a challenge in which I needed to prove to myself I could handle the summer without help. I imagined I could not show fear or weakness. Even around Dale I had been conscious of making a special effort to seem confident, maybe especially because of how much I wanted him to be impressed by me. Maybe I had been too stubborn. Maybe I should ask for help occasionally. I sat quietly staring at where there should be elk, seeing nothing.

I really wanted to show Seth and Lois elk, and for the entirety of the morning we were only whistled at by marmots and swooped over by a red-tailed hawk. One of the magnificent mule deer did come out for a time, and a coyote trotted through the field of view.

I was more disappointed by the lack of elk than any of my companions. Lois got excited every time a new animal appeared. They both asked lots of questions about the animals and elk and what I’d seen during the summer. I found I really enjoyed the company and sharing my knowledge. When Seth and Lois left me near the end of my morning observations I was sorry to see them go.

The overnight party broke up at about the same time. It took a while for all the vehicles to rumble down the road until finally, I was left alone with the marmots, wildflowers, and raptors. I felt like the hostess who breathes a huge sigh of relief after

unexpected, unwelcome guests leave her home. Even if you've had a great time, all you want to do is close the door behind them, collapse in a chair with tea and a book and breathe in the quiet that their absence creates. It amused me to think about how easily I started to take ownership of a place where I, too, was only a visitor.

Before the end of the observation period I took one final look in the scope. Below me, in the drainage where Seth would cut fresh ski tracks the next winter, stood a single, collared elk.



Late Thursday afternoon Kirk arrived to spend the last several observations with me. He said he had been able to get some good observations on two of the priority animals before they moved out of range. He thought he knew how to look for them from my area.

I felt a sudden stab of dismay when I first recognized the white Jeep bouncing up the Benchmark ridge from my evening observation site. Kirk had forewarned when he dropped me off that he might come join me. I didn't think I would mind except I'd gotten used to the solitude, and the voices in my own head. A sudden change in the plan did not sit well with me at first.

I realized when I saw his Jeep how easily I'd been able to get caught up in my own head. I sort of liked being there, though later I came to realize it was because in my own head, no one challenged my way of thinking. Later when I was forced to come out of my head, to share my innermost ideas and dreams and hopes I found it difficult to put into physical words the complex tapestry of ideas, feelings and visions I developed nonverbally.

Despite my initial disappointment, once I saw Kirk's friendly, familiar face I was glad to have the company.

The day ended with a stunning sunset followed by a brilliant moonshine night. The moon was like a spotlight creating corridors of bright, cold white light through the forest and across the open meadows. Clouds streaming overhead took on new personalities and nuances as they passed over and around the glowing orb. I would have stayed up to watch the stars until dawn had I not been exhausted.

While I found the moonshine beautiful while awake, I think it prevented me from sleeping very soundly. It was so bright overnight I kept waking up thinking it was time to get up for morning observations. By the time Kirk and I stumbled out of our tents to head off to separate observation points I was still yawning.

We agreed the night before on which sites to cover. Since Benchmark provided nearly 360-degree views down the drainages surrounding Red Mountain it allowed for multiple possible vantage points. I had been moving all week between sites along the north-stretching ridgeline down from my campsite, and others higher up toward the peak of the knob. Kirk agreed to hike up to the higher vantage point and I worked my way toward an open spot along the Benchmark Road ridge surrounded by tall spruce and fir.

From my site I gazed down several of the east-facing gullies leading down to I-70 as well as open west and southwest facing meadows across the interstate. Kirk's location allowed him to see more gullies around the Timber Creek area, and across the interstate to open spaces around the Polk Creek drainage. The landscape curved in such a way we both saw some of the same landscape, and at the same time have very different perspectives. We would also be able to see each other, though separated by a quarter mile or more. This might allow us to signal if elk moved between our vantage points so we could tag-team our observations.

It was a good plan, if the elk had cooperated. They played coy, however, and did not come into view even though, once again, I was hearing their signals on the telemetry. Sometimes I just wanted to throw on the pack and hike in their direction and find the darn animals face to face.

By 8:30 a.m., soused in warmth from yet another sunny morning, I was ready to take a nap. I think I might have submitted to the overwhelming urge to lie back and close my eyes if my boss were not within sight. I forced myself to stay alert. Fortunately there were benefits to sitting around with good binoculars and a spotting scope.

First I was distracted from watching nonexistent elk by a kestrel. I used the binoculars to follow the robin-sized small falcon's path up close, though when it swooped for mice I found it difficult to follow. A shrill marmot's whistle distracted me from the kestrel and I glanced up in time to see an enormous shadow of a bird swooping down near the

ground. My first thought was, way too big for a kestrel. The small falcons are only about the size of a robin, and this shadow bird was easily ten times that size, maybe bigger. Then it banked, and rose up on a thermal almost directly in front of where I perched on an eastern ridge overlooking I-70. I recognized it then as a golden eagle.

Golden eagles are more common in the plains and prairies, and I was surprised to see one this high in the mountains. With a wing span of over seven feet, and distinguishable brown-gold feathers it was unmistakable even to my relatively untrained eye. Through the binoculars I could watch its head swiveling back and forth as it looked for prey. Earlier in the summer it might have considered swooping in on a new elk calf. Now, the young ungulates were too large for the raptor to prey on.

The eagle's tail feathers spread or compressed like a rudder depending on the direction it turned. I had never been able to watch how a bird flew so closely before. It distracted me entirely from looking for elk.

The eagle stayed nearby, soaring in, around and over groups of trees rising from the banks on either side of the open area I perched for elk. Occasionally it landed in a heavy crash of talons and feathers before resting briefly and starting off again. The lack of grace surprised me, and made me wonder if this might be a young bird.

When it landed, I could get a really close view through the spotting scope at its golden eyes, scaly talons and wickedly curved beak. It had to be looking for food, though the way the magnificent bird twisted and turned, ducked and tumbled through the sky I thought it might also be playing. It sometimes flew through the gaps in the trees, flipped parallel to the branches and skimmed them before banking out and down around the meadow again. I thought about how I'd seen the landscape from an eagle's perspective in my first week in Vail from the plane. I wished I could return to that view, only under my own power where I, too, could play in the thermals and swoop between trees and search for elk without the added weight of a spotting scope to give me acute long-distance vision.

I wanted to share the moment with someone and for once, I could. I trained my binoculars in Kirk's direction in hopes of signaling him somehow. He was lying back on the open, sunny slope, flat on his back, sleeping.

The eagle soared nearby for over half an hour. In that time no elk emerged, and the marmots and interior forest birds stayed silent. Golden eagles aren't likely to take a small bird, as they prefer larger prey. Still, a predator is a predator and the forest remained quiet.

As soon as the eagle disappeared, the little kestrel popped back into view and resumed his search for a morning meal uninterrupted. I watched him key in on a target, drop down out of sight below me for a moment and then rise with something dangling from his small talons. He settled in a nearby tree to eat. Through the scope I watched him take short, sharp bites of what looked like some kind of small mammal.

All the activity and motion around me reminded me I was not the only creature out and about enjoying the clear summer morning.

During our midday break Kirk and I visited the Rat Girls. They worked out of the First Aid building at the top of China Bowl, almost literally just around the corner from us. I was eager to get out and stretch my legs. Kirk and I enjoyed a very pleasant walk together across a sunny ridgeline with clear skies and spectacular views. I had not yet ventured around to this side of the mountain, and as we walked I wondered why I still stayed so close to camp during the days.

The south facing, mostly treeless slopes lay in gentle, undulating waves down into the valley where Two Elk Creek flowed. They were spotted with color like an impressionist painting, dots of red paintbrush, yellow *potentilla*, white and creamy sulfur flowers, blue lupine, purple vetches and others blended together into a single smooth landscape rendering. A sense of fading color in the grasses hinted at the upcoming seasonal change to autumn. Across the valley, where the Category III expansion would occur, the northern slopes wore a dark cloak of spruce and fir trees. Beyond, pointy peaks in the Holy Cross Wilderness area stretched across the horizon in a jagged uneven line.

When we came around a bend in the trail and I faced the enormous Two Elk Lodge for the first time I think my mouth fell open a little. I had seen huge buildings at Beaver Creek and other areas in Vail. I just hadn't expected to come face to face with one so near my observation site, and so obviously out of place with its surroundings.

When the lodge first opened in 1991 it was already an impressive 20,000 square feet and sported floor to third-floor ceiling windows along its south-facing wall. When an additional 13,000 square feet were added the next year it became positively monstrous. My five-day camping funk seemed very incongruous with the opulence of the impressive mountain-top lodge. The building was closed up for the summer season, so Kirk and I could only press our faces against the glass to get a glimpse inside. We had to cup our hands to block out the glare of the sun.

The interior was as impressive as the outside. Massive eighteen-inch tree trunks held up the roof. Later I learned they were giant lodgepole pines brought in from Arizona. The cedar-planked ceiling glowed, even in the dim interior. A massive mural petroglyph reproduction hung on one wall, various Native American blankets and robes on the others. Elk antlers hung from chandeliers, door handles, and several mounted elk heads graced the log walls.

The juxtaposition of the labor of our field work, and a sense of care-free tourism about the lodge struck me. I was there to do an objectively driven, scientific research job, and it was not my place to judge for or against the forest service's "multiple-use" policy. Why couldn't recreational users share the land with four-wheel drive enthusiasts, skiers, mines, loggers, backpackers, hikers, grazing sheep and wildlife? Yet how could we all use the land without making some impact on it? Nor was I able to sort out my many mixed feelings about the controversies surrounding both the lynx reintroduction and the Vail Expansion. I imagined this building was a welcome refuge for skiers in the winter. Come summer, it seemed merely an empty shell.

The Rat Girls were not at home. They worked out of a small shanty in the shadow of Two Elks Lodge. The space was cramped, stuffy, and very messy. We realized they were probably out checking their mammal traps and waited in hopes they might show up. By the fifth week of the season, I think at times Kirk was as eager for company as I. A certain kind of monotony creeps in over the course of field season. Once the initial excitement and newness wears off, data collecting becomes routine rather than novel, and long days alone start to wear on you. It's at these times mischievousness can easily take over. When it

became obvious we were not going to see Susan and Jenny, we decided to make some subtle arrangements to their living quarters.

On the table inside their small space lay a scrawled note left for any Vail employees who may show up while they were out explaining who they were, their Colorado State University sanctioned research, and that the funding came from Vail. So we left them a note in response telling them they had been visited by some re-arranging elk calves from CSU and could expect some surprises upon their return.

We then opened a five-pound bag of potatoes sitting on the table and scattered and hid the root vegetables all over. Some went under pillows, at the foot of each bunk bed, in shoes, in various cabinets, pots and pans. We moved items on the shelves in the kitchen area, too. It was the most excitement during a midday break since shattering my water jug.

I thought maybe I would run into one of the Rat Girls again to find out what happened when they returned to a rearranged kitchen and potato escapade. I never did see them again. I still wonder if they found all the potatoes, or if some poor unsuspecting Vail employee was left with the after effects of our tiny act of civil disobedience. Of course, it more likely no one from Vail had an opportunity to discover the remaining potatoes since the small building would be burned to the ground during the upcoming October inferno.

Kirk and I returned to our camp in high spirits and just in time for the evening observations. We divided the observation points again looked down different slopes. I got strong signals from a couple of animals who did not show themselves all evening. I made up new words to the tune of the children's song about Raindrops and Gumdrops and sang it to them, hoping to entice them into the open.

If all the rocks and trees were collared elk and spotted calves

Oh what a week this would be.

I'll sit by my scope with my eyes open wide.

Oh, Oh, Oh, Oh, Ah, Ah, Ah, Ah Ah (Repeat)

If all the rocks and trees were collared elk and spotted calves

Oh what a week this would be.

I even stood up once stood up and danced while singing. It did not convince the elk to come out and play. The almost full moon ascended fat and orange behind the Ten-Mile Range and illuminated the curves and angles of terrain and tree line. Knowing only one week remained in the field season both pleased and saddened me.

Chapter 11 – Elk Bugle



You find a routine, watching elk. You wake up in the dark, force yourself to get out of the sleeping bag, will yourself to put on layers and cold shoes, gather the pack with observation gear and hike to the observation spot. Search for elk, anticipate the rising sun that will slowly warm your chilled body, watch elk, wish for warm toes, snack on a granola bar, keep watching elk. If you are lucky, the collared ones will show up. If you are really lucky, you'll watch a calf appear, butting its head insistently against the cow's udders. Check that one off your list. By 11:00 a.m., you may be warmer, and the elk have moved out of the clearings and into the trees.

You return to camp for breakfast: oatmeal, tortilla, cheese and peanut butter and a handful of dried fruit. Nap. Read. Perhaps, if you are daring enough, explore. Go get water. Make a huge dinner at 2:00 in the afternoon. By 3:30 pick up the pack and the spotting scope and go back out to look for elk. Sit, get stiff, let the chill seep into you, and hope it doesn't rain. If it rains, as it probably will, pull the crinkly brown tarp over you and your scope like a tent. Wrap it under your legs so you don't end up sitting in a puddle of water. Hear how the sound changes? You can only hear the pitter-patter of rain on the tarp. Your point of view narrows to whatever can be seen through the scope. Do you feel vulnerable in your little shell, unable to look around you for visitors; unable to smell the change in the air, or hear approaching footfalls; animal or human?

You don't have a choice. You watch elk. Watch them eat, sleep, scratch, lick, frolic and nurse. Watch elk until the sun disappears, and the brightest thing in your scope is the white elk collar. When you can't see the animals anymore, and your rear has turned into a brick, it's time to go back to camp. This time is the hardest. The dark time. When it slowly arrives and you're living in Elk World, it is not scary. Now, the time to walk back to the tent...that is scary.

Everything looks different. The cheerful flowers have turned shades of grey. Perhaps you see a moon overhead, shining encouragingly and casting shadows of rocks and

holes. You walk cautiously so you won't turn an ankle, or slide down on the wet, slippery scree. Maybe this week you've found a campsite in the trees. This is nice during the day, you feel secluded and unobtrusive. Not at night. At night you have to go into the darkness of the forest to return to your tent. It is the same feeling as being wrapped in a tarp. You can't understand the shapes and shadows surrounding you; you can't see. The trees blow in the wind, and you imagine you hear them whispering about you.

A hot drink would be nice, except the stove and all the food are hidden under a log far away from your tent to keep mice out of your home. Maybe a bear is there now, eating your oatmeal. You want to shuck off your damp clothes, put on dry socks and slide into your sleeping bag. The zipper on the tent is grating as you quickly climb inside the dome. You can't hear with all the nylon swishing around you. You strip in the dark. Quickly slip back on the same shirt you've been wearing for four days, the winter hat that lives permanently on your head. You really ought to change your underwear, only your legs are finally warming up inside the long underwear in the sleeping bag. Tomorrow is soon enough. Fold up the wool sweater under your head, fold your legs up to your chest, and try to find that perfect position between the rock under your lower back and one under your shoulders.

Your body wants to fall into an exhausted sleep. Your mind won't stop listening for bears. Or humans. Your muscles groan with fatigue. The fatigue takes over and you drift into a restless sleep, waking when the trees fall silent, and again with an irresistible urge to pee, and once more when the temperature drops in the very early morning. You wonder if you will ever sleep through the night again. You wonder if you have forgotten what it is to be warm in bed. The haunting flute-like whistle of the hermit thrush calls you from the tent at 4:30 a.m. You hope the elk will be waiting.



The elk study crew had one final week to gather data on a handful of collared cows. I spent it once more at Benchmark. The previous week had been extremely disappointing, and lacking in elk, so I was even more motivated to find the two animals Kirk hoped would wander into the areas around Benchmark.

During the evening observation I only saw one bull, a couple of cows, and a calf. No collars. I walked back to the tent in deep dusk. Thick clouds overhead muted the light from the recently full moon making it difficult to see the road clearly. I had come to rely on the moon's light the previous week as it waxed into fullness. I hoped to continue take advantage of its glabrous state for the final week of observations.

Concentrating on my footsteps meant I did not at first hear the new sound. When I did, it stopped me short in the middle of the road. Cowbells? I distinctly heard what sounded like bells drifting through the forest. Then I heard the unmistakable bass notes of a large dog barking followed by fainter bleats and baas of sheep. I thought maybe I'd been transported to the highlands of Scotland. I wondered if the dog was barking at a coyote, or if my scent had reached him. I drifted into sleep wondering if I might wake up surrounded by thick fuzzy bodies and the stench of wet wool.

Bill Alldredge and others liked to call the sheep who crawled the slopes of public lands mountain maggots. From a distance, the white fluffy critters did seem to swarm over a hillside like their nickname. Historically, sheep had ranged the summer high country in the Upper Eagle River Valley for nearly a century. Ranchers released their flocks to the high meadows of Colorado's public forest service lands each summer under special lease permits. Owners hired sheepherders, or *borregueros*, to keep an eye on their herds during the long months of summer.

Borregueros live remote, lonely lives and frequently move with their sheep. I suppose in some ways they experienced even lonelier summers than me since I could return to civilization once a week. After watching elk for over five weeks though, I knew the sheepherders could not feel completely isolated. They had the sheep and the dogs.

The sound of consistent, nearby barking awoke me in the middle of the night. It was not a comforting, friendly sound. This bark rumbled up from deep inside a broad chest and I knew it came from a big dog whose job was to protect sheep, not curl up docilely to keep campers warm at night. I wondered if he had gone on evening patrol and seen or smelled my tent. The barking eventually stopped and I finally started to drift back into sleep trying not to conjure up images of *Hounds of the Baskervilles*.

At 1:30 a.m. the light from the emerging moon tricked me into thinking it was time to head out in the semi-darkness for the morning observation. I was part way out of the sleeping bag about to pull on pants when I thought to check the time.

A 2:30 a.m. a truck roared up the road, its tailgate rattling and bouncing incessantly. Vroom, vroom, crash, crash, vroom. I huddled in the sleeping bag, throat suddenly tight and listened for where it might stop. I halfway dozed and thought it must have driven around the loop on the top of the knob and gone back down the hill. A late night four wheel drive adventure, perhaps, though I couldn't imagine driving up that road in the dark.



At 5:00 a.m. I stumbled out of the tent and toward the new observation site I picked out the night before. This one required a steep trek up and over the knob and down its south-west facing ridge perhaps a half mile or so from the tent. A half mile isn't that far unless it's early in the morning after a restless night's sleep. The still fat waning moon was out and lit the silver path for me to follow. For the first time I noticed Orion's spread-eagled stars hanging in the western sky. A prominent winter constellation, Orion's presence indicated a sure sign of summer drawing to a close.

The new post allowed me to look south into the Two Elks Roadless area and across to the proposed expansion bowls, as well as the slopes to the northeast. I had not been so far down this ridgeline before, and when the elk emerged into the half-darkness they filled view in my scope. They were so close I felt like I could reach out and touch them. I had to look around the scope to get a better sense with my naked eye of how many had come into view. Over a dozen animals had emerged, including two collared females.

I got so excited when I saw them I reached too quickly for the data book and knocked my water bottle over so it rolled down the slope away from me. I must have made a noise or a too-fast movement when I reached out to try to grab it because when I looked down at the elk three of them were staring up in my direction. Those big, swimming eyes were pointed right at me, ears swiveled in my direction. I froze. I could not afford to lose any opportunity

to identify these collared animals. They might, just might, be one of the last observations we needed for the summer.

Very slowly I eased back into a position where I could look into the spotting scope. With one eye on the animals, who continued to stare in my direction, I slowly reached out with my right hand and groped for the data book next to my thigh. If I could see the IDs on the collars before they scattered I would know who to look up.

I identified U6 and T8 before I had the data book open on my lap. My heart skipped a beat. I knew those were both new for me. I hoped they would stay in sight long enough for me to look up information about them. Luck and light and the upslope winds were with me that morning. The animals lowered their heads and returned to nonchalantly browsing.

Some of my enthusiasm faded when I saw that T8 already had over 500 minutes of observations. She must have moved over from an area where Rick and Dale had been watching the last couple of weeks. Even though we only needed 350 minutes over the entire course of the summer to ensure a cow did not have a calf, when there was nothing else to watch we often kept recording time on the animal.

I had my eye peeled to the scope when I felt something or someone behind me. The hairs on the back of my neck stood on end and every sense went into high alert. I made out the very audible sound of breathing.

I spun around without even a mental image in my brain of what I might face or what I might do if it wasn't friendly. Behind me, sitting back on long gangly legs was a large, goofy-looking, very hairy blond dog. I breathed a small sigh of relief and hoped he was friendly.

It took some coaxing with cheese to convince the dog I was friendly and would love to scratch behind his ears. He sidled up to me without looking me in the eye. Once we made physical contact he seemed to accept me and rolled on his side in happy bliss as I rubbed his tummy. He slobbered all over my hand in thanks.

Even when I turned back to watching elk he came over, sniffed me, and sat nearby. He wore a green collar with no tags and no owners came over the hill or called to him. His white coat sloughed dust with every shake and pat and had two obvious abscesses and several scars. He smelled faintly of sheep. It occurred to me I might be keeping company

with a sheepherder's dog and wondered if he thought I was a lost lamb in my big wool sweater long overdue for a wash.

The dog kept me company most of the morning. I had forgotten just how comforting it can be to have another living creature nearby. Later I came to learn Rick and Dale had seen me from their observation site over in the Holy Cross Wilderness. We were all looking down the same general valley in hopes of snagging the last few Vail elk on our rosters. Rick thought at first I was being eaten until he realized I had only been rolling around with the big fluffy dog.

At some point my furry friend left me, as did the elk, and I returned to my tent. On the way back I ran into an easy-going, friendly couple who offered to share their bottle of cheap wine and a few tokes on their joint. I declined both.

The final week blurred into a series of events without attachment to specific days or dates. The elk were still fascinating and also frustrating because I had been able to collect little new data. It was difficult to stay motivated and despite the intensity of the physical setting and the continued antics of the animals being watched. My focus shifted to other events that broke up the monotony of the days, whether human or animal.

For several days in a row Benchmark was overrun by Camp Jeep. They brought cavalcades of a dozen or more Jeeps up the trail, many with ridiculous little flags waving from the tops of their cars.

I didn't like the way the Jeeps interrupted the solitude, and became wary of straying too far from the tent with so many more people wandering about the mountain. Of course many of the groups merely drove up, around, and back down without much pause. I could understand wanting the challenge of maneuvering up a four-wheel drive road in order to get to a beautiful location if you planned to enjoy it for a time. These groups stopped only briefly and followed ten other vehicles bumper to bumper down the road. Didn't they get enough of that during the commute to work?

Megan came from a long line of Jeep lovers and I teased her all the time about her passion for the car. I told myself I would disown her if she ever joined the silly Jeep Club.

One morning I met the Peruvian shepherd whose sheep bells I'd been hearing off and on throughout the week. He was square-faced, dark and had thick straight black hair that lay in shaggy bangs under his worn baseball cap. He wore blue jeans and a denim jacket with a polar fleece underneath. He led a horse, the big white dog who had visited me, and a whole passel of noisy sheep. He spoke some broken English so we held a conversation of sorts. He explained he moved about 1,000 head of sheep up and down the valley daily. No, he didn't miss home. I didn't ask why not. When he told me he worked for Piney Valley ranches I perked up. Earlier in the spring I during a class field trip to the Piney Valley ranches I rode in the truck with the ranch manager. I'd gotten out and opened and closed gates in between learning about sheep ranching in Colorado. So I felt like I knew the sheep milling around these treeless spaces in a distant way.

That same morning I watched Kirk set up camp on a mountain across I-70. I had to use the scope to see him. He worked that hillside to have yet another vantage point into the Two Elks area in hopes of capturing the last needed views of our Vail elk. Later when there were still no elk to watch I scanned the slopes across the highway. Something dark moved across one of the open spaces. Even though I had learned to recognize out-of-place things, I could not help jumping slightly when I realized what I saw through the scope was a bear. It looked like a young black bear. It carried something in its jaws which I couldn't make out through the long view of the scope. Whatever the bear carried seemed too small to be an elk calf, though certainly bears are major predators of the young ungulates.

Bears are not uncommon in the Colorado high country, and truthfully I was a little surprised I'd not seen one before. I was also grateful my one bear sighting happened through the lens of a spotting scope and not when I went to collect my food stores. I hated to think what might have happened had the thing breathing down my neck earlier in the week been a bear instead of a canine. I scanned over to see how close the bear was to Kirk. I found no sign of Kirk, or of the bear that had clearly moved out of view. I hoped they wouldn't meet.

My more intimate wildlife encounter for the week happened on a much smaller scale. A mouse got into my food stores. His first meal consisted of tortilla, cheese, apples with M&Ms for dessert. Not a bad combination, really. I should know. I had been living on it for

six weeks. I hoped the chocolate would give the little critter indigestion and it would leave me alone. No luck. My food stores got nibbled on again the next night so I moved them.

Then one afternoon before observations I heard the plastic bag outside my tent rattling. I often took snacks with me to observations and had gotten lazy about keeping all food away from the tent during the day. I slipped open the front door panel and waited. After a pitter-patter of little feet and a brief swishing of grass a little brown mousy head popped up over the plastic bag. It was a cute little thing though I wished briefly for one of the Rat Girl's Sherman traps.

The moon waned that week, and so did my energy. Even though the work was not particularly strenuous, after nearly six weeks of field work I was physically and mentally worn down. Despite my fatigue, I knew I wanted to have more experiences outside. I wanted to go on more hikes, go backpacking, get out and try something new in the out of doors. I felt as if I had finally gained the confidence to do some of those things that caused me to hesitate before. Maybe I would try canoeing, kayaking, or even rock climbing. Now that I had stories to share with others about *my* field experience, I finally felt a kind of full initiation into my field of study.

An intense storm buffeted the ridgeline opposite my observation post on my final evening observation period for the summer. Flashes of lighting burst from the black clouds, thunder rolled for long seconds. The storm was still some distance away and I was relieved as I sat exposed on the treeless tundra. The wind, cold and forceful, whisked the alpine grasses into beautiful, swirling patterns that resembled ocean waves. I shrugged into my fuzzy wool sweater, covering it with a rain jacket. Needles of rain, blown by the wind, drove down my collar, smacked my shoulders. Looking through the scope, I kept an eye on the half-dozen elk in the valley. It took me some time to locate them, and it amused me to know that even by early August, rocky lumps still fooled me into thinking they were lumpy elk.

It occurred to me that while I'd been alone all these weeks, I had never really been without company. There had always been elk. I'd seen them frolic, dance, gallop, bluff, spar, urinate, nurse and hiccup. I heard their high, lilting calls echo through meadows, and their bugles ascend in haunting melodies from dark woods.

I envisioned musky steam rising from the sturdy backs of the elk below me. The few bulls with the group stood nonchalantly as rain rolled off their thick, coarse fur. Cows rested, knees folded under them, unconcerned by the rumbling thunder. Calves frolicked in misty meadows, dancing among fiery Indian paintbrush and lupines dressed in royal purples. Watchful adults kept an eye on the playful yearlings. Their days of cavorting were long past. A calf pranced to its mother and demanded food, ramming its head against her soft udders. His flanks were sleek and unspotted. The dark fur on his neck had grown in and he looked like a smaller version of the adults around him. The cow would allow her calf only a few more weeks of liquid sweetness. Their separation from each other would soon begin. At the completions of my observations for the week I would also be leaving.

I had experienced six weeks of extremes in weather, temperature, light and emotions. I'd been windblown, sun baked, nearly drowned in rain and fog, cold, hungry and muscle sore. I saw light play on and paint the same rocks a dozen and more different ways. I watched chipmunks scurry, marmots stand at attention, pika with their mouths stuffed full of food, birds splashing in puddles, and raptors ravenously devour prey. I'd seen sheep and sheepdogs up close and a bear from far away. I sang silly songs to elk.

I'd become an expert at digging catholes, finding and filtering water and I could set up and take down my tent in five minutes flat. I'd learned to love the change from day into night and my own odor after five days in the field. Rainbows had arched in and out of existence, wisps of fog worked their way up basins only to be fought back by the sun, and rain marched across valleys. Trees had shimmered like diamonds after a rain and I had walked in the clouds. The moon rose in slender slivers, grown pregnant with silver light and disappeared into darkness. I watched young spotted calves grow into sleek young elk.

The wind continued whipping softly through grasses at my feet while the storm settled over the opposite mountain. The sun set behind me, the sky turned orange, and the menacing black clouds softened into gentle pinks and purples. The blowing rain settled to a drowsy pattern of finger taps, a stickless drummer. The elk below disappeared into the darkness of the trees and fading light. I packed up my gear slowly, enjoying the lingering sunset and the distant lightning show. Reluctantly, I moved toward camp for my final night in the field. A single haunting elk bugle rose out of the valley and followed me into the trees.

There are few sounds as evocative as the bugle of an elk signaling the start of the autumn. When heard for the first time the eerie vocalization will raise hairs on the back of arms, legs, neck. When heard again, the desire to follow it to its source is irresistible. Without knowing what makes the sound, it is impossible to imagine it comes from an instrument shaped like an elk.

The bugle begins on a low, clear note and after an initial stutter, ascends a haunting scale before ending in a high-pitched whistle, nearly like a scream. A series of short, staccato like barks or grunts follows, each at different pitches. The whistle will echo for miles, a resounding call of the rut. It dares all other males to challenge his domain, and reminds the cows whose harem they belong to. Once heard, bugle of an elk is a sound one yearns to hear again and again.

OCTOBER

Chapter 12 – Two Elk Recovery



Winter in Colorado's high country can begin as early as mid-October when the first flush of snow cascades gently through golden aspen forests. The forest floor, already an artist's palette of rusts, auburns, yellows, is covered in a lacy white veil. Firs and spruces capture pillows of the white down in their branches. On the forest floor below, orange male, and yellow female pine grosbeaks leave tiny scuff marks in the snow. They are plucking tiny purple vaccinium berries from low growing evergreen plants. A kind of high-altitude blueberry, vaccinium is also a favored food of bears. They leave much bigger scuff marks through the light blanket of snow as they stuff in as much food as possible before retiring to their winter quarters.

By afternoon of the next day, most of the snow will be gone. Melted by the intense high altitude sun, it will plop from the branches overhead and soak into the soil. All save a few drops, shimmering in tiny prisms in the concave surface of fallen aspen leaves. The air has changed. The soil is releasing its final sweet breaths before winter's freeze. Breathing in deeply brings to the lungs a refreshing crispness, and a taste of winter on the tongue. The elk will be moving into their wintering grounds at lower elevations. The elk summer has ended.

Mid-October of 1998 saw a different kind of animal on the move in Vail's Two Elk Roadless Area. Sometime early on Sunday morning October 18th an unknown number of people set fire to Vail's multi-million dollar, 33,000 square foot Two-Elk Lodge. By the time fire trucks struggled up the slick and muddied access road the flames were too intense and the situation too dangerous to manage safely. At noon all that remained of the once impressive lodge was a pile of ashy posts. Gone was the impressive mural reproduction of a Ute petroglyph, and the south-western rugs, Indian robes, hand-peeled pine table and chairs and elk antler chandeliers and door handles that had graced the building's interior. In addition to

the total loss of massive lodge, several other buildings were burned, and four ski lift poles destroyed or severely damaged.

Two days before the inferno, a coalition of environmental groups had lost the last ditch court appeal that would prevent Vail from proceeding with the Category III expansion plans. With the injunction against construction lifted, Vail had instructed crews to be ready to work Monday morning.

No one claimed responsibility for Sunday's fire immediately, and the local media had a field day speculating about causes and culprits. Vail's recent transition to New York owners had not been a smooth one, and there could be perpetrators among the disgruntled staff and skiers who remembered Vail's days of yore, before it became a corporate behemoth. Frustrated locals and business owners who suffered under Vail's financial prowess also had plenty of reason to be disgruntled. Some even pointed at Vail, suggesting they would benefit from the multi-million dollar insurance policy taken out on the lodge and all its furnishings as well as the subsequent loss of dilapidated or underperforming nearby buildings and restaurants. Not to be forgotten, of course, was the controversial issue of Vail's expansion plans.

Speculation swirled until the media received a note from the environmental activist group known as the ELF (Earth Liberation Front) which claimed responsibility for the destruction, "...to stop the destruction of natural habitat and the exploitation of the environment." Specifically they targeted Vail on "behalf of the lynx."

The ELF itself is an underground activist group who claims no leader and whose membership list consists of anyone who plans, performs or participates in an act of eco-sabotage. They began in 1994 as a splinter group from the more public Earth First! and Animal Liberation Front organizations and appeared as kind of reincarnation of another eco-guerilla group from the 1970s known as Environmental Life Force. Members of today's ELF movement work across the country in independent, invisible, short-lived fraternities. They hold no regular meetings, and believe the plight of the ecosystem is too desperate to wait on slow, sometime ineffective policy change.

By the time of the Vail fires, the organization claimed nearly a dozen acts of vandalism, animal releases or arson to both private and governmental agencies around the

United States. Perhaps other unclaimed acts belonged to the organization as well. It was not until the Vail incident that their name and the plight of the lynx were catapulted into the national spotlight. National media converged on the scene and captured striking images of the lodge up in flames. While no animals or people were injured, the actions of the ELF incurred massive financial and social costs while giving a new face to the term “eco-terrorist.”

The Vail fire caused an estimated \$12 million in damages, the highest of any ELF action to date. The event sparked an outpouring of response from all fronts, ironically mostly in Vail’s favor. Local residents of Vail and the surrounding areas were affronted by the “attack” on their native soils. Long-time skiers were outraged by the event, and loss of a favorite ski house. Vail’s publicly traded stock even rose slightly in the days and weeks following the fire. The company immediately made contingency plans for housing kitchens, warming huts, and ski patrol centers in yurts. No jobs were lost.

Perhaps most disturbingly, attributing the fires to a radical environmental group only served to weaken the clout of well known and often respected conservation organizations and environmental groups who had worked so hard to promote positive change on the landscape through non-violent, honest methods. In a flurry of misunderstanding one woman promised to stop supporting the Sierra Club until the “terrorists” were found. The director of the Colorado Wildlife Federation expressed concern that protecting endangered wildlife would only become more difficult if people began attributing such protection with extremism. Many environmental groups distanced themselves from the events on Vail, hoping their efforts to bring positive change for the ecosystems would not be stymied by the actions of a few. In an attempt to place some positive outcome on the events at Vail, Jasper Carlton, executive director of the Biodiversity Legal Foundation said, “at least the lynx is now a national issue.”

I had very mixed reactions to the Vail fires and during the controversial reactions in the days following. When I initially saw the raging fires on television while standing in the kitchen at Dovestring I was stunned. Then I was excited to have been so close to the action, in space if not in time. I wondered if perhaps any of the young people I had met on the mountain at

Benchmark might have been involved, plotting their moves during those long, starry winter nights. Certainly the event had been well planned and expertly executed. The arsonists had carried gallons of petrol and incendiaries to their target, at high elevation, in snowy conditions. They selected their targets carefully, and performed their act without being noticed by several hunters who were camped near Two Elk lodge the night of the blaze. They left not a trace of their identities and very little evidence. To some degree I admired their deliberate, well-executed act.

I also thought for brief time that perhaps the ELF's act might spur change. I didn't quite know really what difference I was making just by watching elk for the summer. While I was hunkered down on mountain tops, lost in the beauty and solitude and personal growth of my first summer field job, others outwardly condemned Vail's expansion plans in writing, angry phone calls, and attempted court-actions. I did nothing, too petrified by my own lack of knowledge, and inner uncertainties and reluctance to get into a fight even though I also condemned the rash of growth and expansion I witnessed all along Colorado's arterial corridors. While I looked inward during the summer of 1998, others planned to make take more drastic action against the corporate paving of Colorado's high country. Part of me admired their bravery and resolve.

Once the initial excitement wore away, I found myself getting more uneasy. Forest fires are a serious concern in Colorado. Though the high country had seen plenty of moisture, as I was well aware after spending much of the summer in the rain, and it had snowed on Vail Mountain a couple days before the fires happened, setting a fire so close to standing timber had not seemed very thoughtful. Granted, many foresters will acknowledge that forests in that part of Colorado desperately need to burn in order to regain forest health. Even so, it seemed a dangerous decision to create such a blaze when it could have spread into the very area ELF was intending to protect from expansion.

Hearing about the negative reactions to environmental organizations that stemmed from the national attention given the fires also bothered me. Organizations like the Biodiversity Fund, or Colorado Environmental Coalition, the Sierra Club and Defenders of Wildlife and so many others who had been fighting legally and politically against Vail's expansion felt the ELF fires hurt their cause. While their efforts may not make positive

environmental impacts immediately, their collective voices could raise awareness and positive action in order to lead to positive change in the long run. I admired the tenacity and persistence of those who chose to fight for what they believed for through honest channels. I understood how it must be frustrating at times, and began to realize that a sense of hopelessness might arise from always fighting for what you believed in without seeing much positive outcome.

After all, despite years of efforts from environmental groups, public citizens and others, Vail's Category III expansion got the go ahead. Construction began almost immediately at the site of the fires and just over a year after the destructive act, Two Elks Lodge II, a bigger and grander version of its predecessor, reopened. Two frenzied summers of work later, skiers were introduced to Blue Sky Basin, Vail's self-proclaimed, "crowning jewel." After all that time and energy and heartbreak, I might be willing to set something alight myself.

I often found myself returning to a kind of quiet allegiance with the ELF's actions. When it is clear that the intended actions may have negative impacts on the environment, and public outcry and political maneuvering does not result in action, who will, in the words of Dr. Suess' Lorax, "speak for the trees?" Or the lynx, or the elk, or the atmosphere, or the general aesthetic need for wild places? It seemed at times some unlawful behavior may be the only way to have your voice heard. Unlawful, I might accept. Dangerous, violent and potentially more destructive to the cause I could not.

In the end, I certainly hoped that actions like the ELF's would not be the only way to make positive changes for the successful future of our planet, its wildlife and natural resources. I thought perhaps my strengths, my interests, played toward educating others. I wanted to show others the beauty and joy of being outdoors. Helping others understand the need for diverse, biologically rich ecosystems and adequate tracts of habitat to maintain those systems might help prevent some of the negative reactions toward conservation groups. Reactions which I learned were often born of ignorance, or perhaps fear.

Back in Fort Collins for my final semester I threw myself whole-heartedly into the educational outreach programs through the Wildlife Society. Knowing our future, and the future of the planet lay in the next generation I eagerly sought to inspire and educate and get

kids excited about the outdoors. After graduation, I began an internship at the Outdoor Lab School where I first learned about aspen trees as a sixth grader, and had volunteered as a high school leader. I returned almost every weekend to Dovestring and I always kept an eye out for elk.

Sometimes I got lucky, and they passed through. Other times, I waited in vain. Standing in the study looking out the wide picture windows, I easily mistook a skinny Douglas fir for a skinny elk leg. I stared into the forest for long minutes, waiting for the movement I wanted to believe would happen. I waited for the elk barks. I longed for the moment when a tickling aroma of musk wafted into the house, and I would race from window to window looking for the startling largeness of brown elk backs below.

EPILOGUE



The five-year Upper Eagle River Valley study did determine that increased backcountry use could negatively impact the ability of female elk to raise a calf. Calf-cow ratios decreased during the treatment years, and rebounded in the post-treatment years. Though the study suggested populations can rebound, it acknowledged the threshold of recovery was unknown. The elk population might not recover if it falls below a certain level. That survival threshold remains undetermined.

Management suggestions based on these results included closing known calving grounds in the spring. They also recommended a proactive approach to preserving populations. Rather than waiting for something negative to occur and reacting, researchers suggested proving adequate habitat and undisturbed calving grounds before running the risk of permanently damaging the population.

To its credit, in 1999 Vail implemented these suggestions. Though eager to continue the Blue Sky Basin project, Vail waited until after elk calving season to return to construction efforts. When construction crews arrived in July they were met by protestors who set up and locked themselves to a twenty-foot tall log tripod on the main Forest Service access road. The Forest Service closed 4000 acres of public land to deter possible violence. Vail crews found alternative routes to the work area and the protestors were forcibly removed after the July 4th weekend.

The expansion efforts continued. Unlike traditional ski runs, the design of the Blue Sky Basin runs called for selective thinning rather than more traditional clear-cut swaths. Vail restrained itself to installing three high-speed lift lines and only one fairly modest, rustic structure which housed basic necessities like restrooms and warming room. At its opening in 2000, Blue Sky Basin boasted backcountry skiing along narrow, expert trails with a variety of terrain including moguls, cliffs, and ridges. The winter trail map for the area clearly indicates all of the forest surrounding Blue Sky Basin is “Wildlife Habitat – No Access”. Work must end in the evenings so as to not disturb potential lynx in the area.

Lynx reintroduction efforts also moved forward. In 1999 and 2000, 96 lynx were reintroduced in the San Juan Mountains in southern Colorado. The adult lynx were transported from Canada to holding cells near their soon to be new home. After a several month internment period, meant to give the animals an opportunity to adjust to their new surroundings, the doors were opened and the felines released. At first the project seemed doomed to fail. Just in the first year seven animals died from starvation. Over the next several years more animals were shot, crushed by cars or succumbed to disease.

Biologists, undeterred, planned to release an additional 180 lynx over the next five years. Eventually the felines began to settle into their new home. In the summer of 2003, three years after the first animals were reintroduced to the state, researchers found the first set of wild-born lynx kittens. Additional reproduction occurred through 2006. The question remains whether these small, solitary predators will be compatible with humans, especially in their shared habitats in ski areas.

Since their reintroduction lynx have been seen in Keystone and Arapahoe Basin. From there the animal is only handful of miles by paw to reach Vail. Who knows when the next skier plummeting down a run in the Blue Sky Basin may come face to face with a returned lynx? Of course, the only positive sighting in the Vail area since the reintroduction came in June 1999 when a trucker reported a dead lynx on the side of I-70 at Vail Pass.

Before the coals even cooled at Two Elk Lodge, federal investigators became involved and took immediate steps to track down and arrest the arsonists. The Bureau of Alcohol, Tobacco and Fire Arms contacted various members of our elk study crew for information. We had none, of course. In the meantime, ELF claimed responsibility for over a dozen acts of sabotage and arson between 1999 and 2005.

A long-term federal investigation concluded in 2006 in Oregon brought an indictment against thirteen individuals who claim association with ELF. Four of those named claimed responsibility for the fires in Vail. Each faces up to twenty years in prison on eight counts of arson. At least one has apologized for her actions.

AFTERWORD



The events described in *Elk Summer* are real and portrayed with as much accuracy as possible with the help of my journals from the time, scads of sources, and my own powers of recollection. Any blatant factual errors are purely my own.

The people in this story are real, though many of the words I've put into their mouths are reconstructed from memories. The dialogue is intended to develop character or move the story forward. Any misrepresentation of personal character is absolutely unintentional.

While *Elk Summer* spanned only several months, I remain close to or in periodic touch with many, though not all, members of the crew.

Bill Alldredge retired from Colorado State University and moved to a beautiful ranch in Wyoming where he continues to provide wildlife consulting on various ungulate and other management projects.

Kirk is a wildlife biologist working under the auspices of the U.S. Department of Agriculture. We have lost touch since the Elk Study.

Over the last several years, Rick's research focus has shifted from mammals to amphibians. He will complete a PhD from Colorado State University after extensive studies on the endangered boreal toad. He and Katie have a spunky, long-limbed, lovely daughter. Her name is Callae.

Megan and I remain close in spirit if not in physical distance. She provided valuable comments from both the perspective of a librarian and friend to the final drafts of this manuscript. Thank you. Megan lives with her husband and their two young, energetic daughters. Their toddler can almost say "bibliophile."

Dovestring has changed little. It remains nestled in the trees and my parents continue to garden in the summer, harvest and cut firewood in the fall and draw and cook through the long winter months. Without them, this story would never have been born.

While Dovestring has not changed, the surrounding community has. In the years since the Elk Study the small community of Conifer has burgeoned into a thriving

commercial center, replete with three commerce centers, two bigger-than-life grocery stores and over forty eating establishments. A major, multi-year widening project for Highway 285 resulted in the removal of an entire mountain face, the addition of three fly-over ramps, a faster commute to and from Denver and an increase in high-end housing developments. Traffic noise has increased, and the stars are harder to see at night. Nearby reports of mountain lions are increasing, mule deer are becoming abundant, and Dovestring's first wild turkey appeared in the driveway recently.

I have not been able to return often, and when I do the sudden changes to the community continue to shock me. While I both despise and understand the growth I could almost pretend none of it was happening when I drove the dirt road leading to the house where gravel kicked up under the tires. The last time I returned, however, I found the county had paved over our dirt road with black asphalt. I pulled into Dovestring and wept.

Of course, *Elk Summer* would not be complete without mention of Dale. The romance begun on Elk Mountain remained simmering for many years while we wandered both together and separately through literal and figurative wildernesses. In time our winding paths came together and merged during a beautiful Pacific Northwest marriage ceremony followed by a summer celebration at Dovestring. It is with Dale's patience, support and vital insights that I found the fortitude to finish. I love you.

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