Autobiographical Account
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On an April day in 1997, my life was hanging by a thread.

Or it seemed like a thread. High above a tea-colored tributary of the Amazon, I was actually suspended by a rope, tied to the top of a machimango tree in the Peruvian rainforest. Seven stories below me, people were fishing for piranhas. But as I climbed, I tried not to look down. If I did, I was afraid I'd never make it to the top.

This wasn't the first time I'd found myself in an odd position while working on a book. Researching books, articles and documentaries, I sometimes get myself in a fix. I've been chased by an angry silverback gorilla in Africa and been bitten by bats in Costa Rica. I've had to pull leaches off my skin after slogging through swamps after orangutans in Borneo. I've been attacked by biting ants on three continents. In order to find and watch the animals I write about, I've skied over hills after bears and ridden elephants through jungles to find tigers. So maybe it shouldn't have seemed strange to be hanging by a rope up a tree in the Amazon—except for one thing. I was up there trying to look for dolphins.

I was researching a book on the Amazon's pink dolphins. That sounds crazy enough. Whoever heard of a pink dolphin? And what's more, who ever heard of a dolphin who lives not in the ocean, but in a rainforest river? But pink dolphins are real, and they really do live in the Amazon. I'd learned a little bit about them at a conference on marine mammals I attended in Florida. I was so enchanted with the creatures that I decided to write a book about them. The problem was, pink dolphins are often very hard to see.

This I had discovered several weeks before I found myself up that tree. I'd come to the Amazon to try to learn more about these fascinating creatures, and had already visited them in Brazil and Peru. When I traveled by canoe, they often came near my boat. I could spot them, all right--but only for a second or two, and got only a glimpse each time.

Unlike the marine dolphins you've probably seen performing in aquariums or on whale watches in the ocean, the pink river dolphins of the Amazon don't leap high out of the water. They behave and look very different from the dolphins like those you see performing in aquariums, or like Flipper on TV. They don't have a tall fin on the back. When I was trying to study them for my new book, I was often very frustrated, because they swim low in the water. Also, much of the Amazon's waters are dark—not clear like in an aquarium—and so I could only see a small piece of the dolphin each time.

By the time I got to the Tamshiyacu-Tahuayo Community Reserve in Peru, I'd already tried everything I could think of to see them better. I tried watching them from a canoe. For hours, I sat in the hot sun with binoculars. I might see the top of a dolphin's shiny pink head—then it would dive and disappear. Or I might hear one blow air out of the blowhole—CHAA!—and turn

around and see nothing but a trail of bubbles. Sometimes I might get a glimpse of someone's tail or someone's back—but that was all. Sometimes I'd hear a pink dolphin blow to the side of my canoe, and seconds later, see a tail flip on the other side. Was it the same dolphin—or a different one? I couldn't even tell how many dolphins I was watching! How was I going to write my book if I couldn't even see the thing I was writing about? I was getting worried.

Maybe, I thought, I could see them better if I actually got in the water and swam with them. One day I dove overboard into the dark water. I opened my eyes beneath the water and tried to see. It was black as night. In fact, I couldn't even see my own feet—but someone else could: I had a bandaid on the bottom of my foot that day and then, all of a sudden, felt it ripped off—by some unseen creature in the black water. (Could it be a piranha? An electric eel? Or perhaps a mischievous pink dolphin?)

I had a lovely swim in the cool, dark water that hot day, but still couldn't see the dolphins. That's why now I was climbing that tree. My idea was this: maybe if I changed my perspective, I could see down beneath those dark waters. Maybe from the top of a tall tree, I would get a better vantage point, and maybe I could watch the dolphins swimming beneath me.

So, up I climbed. The rope was attached to the sort of gear mountain climbers use to scale peaks. Leather loops grip you around the thighs and across the pelvis, and there's a sort of noose in which you put your foot. You step into the noose like climbing a stair, and straightening that leg, push yourself up along the rope, using the strong muscles in the legs instead of the relatively weak muscles in the arms.

At first I was so nervous I shook with fear. I had never done anything like this before. But after a few minutes, I found myself mesmerized by the wonders around me. I found there was actually a forest in the trees! Up I climbed, past a rhododendron bush much like those around a house my family had lived in Virginia—but this was growing on the branches. Up I climbed, alongside a giant philodendron vine with leaves as big as the paddles we used in our canoes. Up I climbed, past birds' nests, wasps' nests, termite nests. Butterflies and parrots flew beneath me. Up near the very top, where the rope was tied, I found a plant like a pineapple known as a bromiliad growing on a branch. Its leaves formed an overlapping bowl which had caught rainwater. And inside this miniature lake the size of a teacup, I found a whole little world teeming with life: mosquito larvae squiggled in the water. A tiny frog clung to the leaves. Other plants—they looked like tiny lily pads—were growing on the water inside this plant. In fact, scientists have catalogued 500 species that can live just in the water of a bromiliad's bowl.

I was astonished and thrilled. I had discovered a whole world up in that tree. Then I looked down, into the water. I couldn't see the dolphins at all. The water was just too dark.

I hadn't accomplished my original objective. But I hadn't failed, either. Instead, my journey up that tree allowed me to discover something new and important—something I never would have even known to look for.

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Trying to see something new--and trying to find new ways of seeing. Both are part of what I do as I research and write about the natural world. Both efforts usually bring surprises. When you're exploring the unexplored, when you're trying to solve nature's mysteries, you have to be prepared for unexpected answers—and be ready to accept unexpected blessings.

This is something the natural world has shown me again and again, ever since I was a little girl.

When I was in grade school, we had to fill out these questionnaires about what we wanted to do when we grew up. I was born in 1958, and grew up at a time when boys and girls were expected to enter different professions. So the form had separate columns; the girls' choices listed things like "mother," "housewife," "teacher," "nurse" and for the exotically inclined, "airline stewardess." The boys' side had stuff like "airline pilot," "doctor," and "fireman." Neither column offered anything like "climbing up Amazon rainforest trees in search of dolphins." Nobody suggested a career that involved being hunted by a swimming tiger in India, or searching for an unknown golden bear in Cambodia's forests, or bathing in a swamp in Borneo while orangutans drink your shampoo and eat your bath soap.

But this is the sort of stuff I get to do in my work as an author, writing books and articles and scripts for adults and children. I feel like the luckiest person in the world.

And apparently, I am. On a trip to northern Thailand researching yet another book, one called *Search for the Golden Moon Bear*, I was talking with a sort of witchdoctor or shaman of a tribe called the Black Lahu. He looked at my wrists and gasped as if he saw something really wonderful. What was so special about my wrists? The Black Lahu read the patterns of blue veins of your wrists like a palm reader sees your future in the lines on your hand. And he said mine were the luckiest wrists he had ever seen!

I don't know if fortune-tellers can really see the future. But I can tell you this for sure: I really have been very lucky. But not, perhaps, in the way you would expect.

I've never won the lottery. I've never found buried treasure. In fact, I've gotten into enough trouble for a lifetime, even though, at 61 as I write this for you, I'm not done yet! I got a mosquito-borne disease called dengue fever in Borneo, which can kill you. I was held up by a guy with a gun in Africa. I've been mighty near getting kidnapped twice in two different countries. (But see how lucky I am: I'm still here!)

My astonishing good fortune is that, even when I run into trouble, I am doing exactly what I love most and have made this my living.

I've also been blessed by some really good teachers. Some were my teachers in school: I still remember the day I met my first-grade teacher, Miss Benvenuti. On the first day of class she told us that Benvenuti comes from the world for "welcome" in Italian, "and that," she said, "is what I want to extend to you." I had a wonderful biology teacher in junior high school named Mr. Profit. One day he brought in a live bat for us to see, and we peered at it in a box—I thought it was so perfect, so tiny, so wonderful—and he had us dissect a crawfish and glue all its parts to a piece of cardboard. I still have it at my mother's house in Alexandria, Virginia. And in college, too, I had some wonderful professors. In college, too, I met my husband, Howard Mansfield, now also an author, and who has taught me more than any other writer.

I've found many of my best teachers outside of school. Some were people far younger than me—the girls who used to live next door to my husband and me in New Hampshire, Kate and Jane Cabot, who taught me how to write books for kids just by showing me what they liked to read. Some of my teachers have been shamans in foreign lands where the people live in mud huts; fishermen and women in the Amazon and in India and Bangladesh, who told me stories that sounded impossible—but which turned out to be true. Some of my teachers were scientists. Some were dancers. Some were dolphins. Others were orangutans, chimpanzees, and gorillas. One was a Scottish terrier named Molly and a 750-pound pig named Christopher Hogwood. I write about my animal teachers in my 2018 book *How to be a Good Creature: A Memoir in 13 Animals.* I'll introduce you to a few of my human and animal heroes in the pages that follow.

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Growing up, my father was my hero. I even got in trouble in Sunday school once for saying I loved him more than God. He was a hero in World War II, and had survived three years of torture and captivity at the hands of the Japanese. I loved looking at all the ribbons on his Army uniform signifying the medals he had earned. He had won the Purple Heart many times, once after being shot in the head—but most of his medals were for bravery in saving other people. As a child I used to lie awake at night wondering if I could muster such courage and strength as he had during the war. He taught me this is possible only if you believe in something larger than, and more important than yourself—and that often, it's just as important to think as to fight, and that sometimes the most important thing is simply to endure (This later came in handy when I was trying to stay still watching gorillas when I was being bitten by safari ants!)

My father never talked about the war, though, not even when I was grown up. When I was little, he would read to me. We loved *Alice in Wonderland*, with its wonderful talking animals and delightful rhymes. He would often recite from this and Lewis Carroll's other books and poetry from memory. He would make up stories, too, about gnomes and elves and princesses. We used to pretend we were in a circus, and that he was a trained gorilla and I was an acrobat. He would walk an imaginary tightrope over a pit of poisonous snakes while I sat on his shoulders. Of course, even if our tightrope had been real, and beneath us venomous reptiles, I

would not have been afraid, because my father would never let me down, whether in human form or gorilla.

My mother, too, was an extraordinary person. She had been a pilot back in the days when very few women flew. She also knew how to hunt. She had shot squirrels and possums to eat growing up in the tiny, rural town of Lexa, Arkansas, the only daughter of an ice man and a postmistress. (Although I gave up eating meat many years ago, I still admire the ability to hunt; it makes my mother seem more like a tiger.) My mother was an excellent student, and although her family wasn't wealthy, she had gone to college—again, at a time when few women did so. Upon graduation landed a job working at the FBI. That's how she met my father, who was working at the time at the Pentagon.

By the time I was born, my parents were stationed in Frankfurt, Germany. Although I don't remember it, when I was a toddler, my parents took me to the Frankfurt Zoo and discovered I was strangely drawn to the hippos, into whose enclosure I nearly wandered during a split second they took their eyes off me. Alas, I never learned German, since we moved to the states before I was two. But long before I started school, I was already studying French. My father seemed to be able to pick up almost any language almost instantly, and it was fun to be able to speak to him in French because it was like a secret code to us. At night, before going to sleep, if my father was home, I would reach up into the sky and pretend to grab the moon and the stars and put them in his pocket.

Just before I started first grade, my father got his stars for real. He was promoted to Brigadier General. The silver eagles he wore on the shoulders of his uniform as a colonel used to scratch my arms up on them all the time when he would come home and I would hug him. I attended the parade at the Brooklyn Army Terminal in his honor. I hoped the stars would be easier to hug.

My father's promotion put him in command of the Brooklyn Army Terminal and military traffic management for the east coast of the U.S., as well as several areas overseas. He traveled a lot in those days, and would come home with wonderful gifts in his suitcase: soft, striped Bursa towels and sequined shoes with turned-up toes from Turkey; silk kimonos and little bamboo cricket cages from Japan. He never held anything against the Japanese people from his years as a prisoner, even though he had testified in the War Crimes trials to some of the atrocities he had seen.

One day he was sent overseas in a big hurry. He came home the day before he left very sick with fever. He had just gotten a whole lot of shots to protect against the diseases that were rampant in the jungles of Vietnam. Normally you get these shots spaced weeks apart; many years later, I would take similar vaccines before I would travel to Laos, Thailand and Cambodia writing a new book. But he had to get them all at once, because the Army was in a rush. I didn't know it at the time, but they were sending him to Vietnam to try to figure out how to bomb the Ho Chi Minh trail; as it turned out, this couldn't be done. When he came back in a few weeks,

the most important news he had to offer me was he didn't see any monkeys in the jungle, which was very disappointing to both of us. He loved animals as much as I did.

While my father went bravely off to war, my mother faced terrors at home. One of her worst fears was that my pet lizard would get out. This had happened several times before, when I was in school and my father wasn't home to catch it. I also had turtles and fish, including, at one time, seahorses (the male seahorse incubates the eggs in a pouch on his stomach; I watched as they seemed to squirt out of his belly), and a green parakeet named Jerry who used to sit on my finger. My best friend and one of my best teachers ever was our dog, a Scottish terrier named Molly. In the manner of all Scottish terriers, Molly was fearless, even though small. Her jaws were strong enough to crunch bones. She could see in the dark. She could smell and hear things people could not. I wanted to be like her. I imagined what it would be like if I could live somewhere in the woods with her and learn dog secrets. But from her more than anyone else, I learned to imagine what the world might be like to a non-human creature.

Molly had been given to us as a puppy by friends of my parents who bred Scottish terriers, people I loved so much I called them Aunt Grace and Uncle Clyde, even though we weren't related at all. In fact, I had few relatives. No brothers or sisters. My mother had, like me, been an only child. Her father, and my father's mother and brother, had all died before I was born. My mother's mother, one of the sweetest, strongest, and most patient people I have ever met, used to visit us for weeks once a year. I only remember meeting my father's father once, but we were close because we wrote each other long letters.

I always loved to write—letters to my grandfather and grandmother, stories I would illustrate with clumsy drawings, and even, for a time, a daily newspaper circulated only in our house. I don't remember playing with other children—ever. In family photos albums, my parents have pictures of me with other kids, but clearly this didn't impress me much. I preferred the company of animals.

I admired even the smallest insect more than I admired other kids my age, because animals can do things we could not. Molly, of course, could see, smell and hear things no human could. My Jerry could fly. My lizards could re-grow their tails. Even earthworms amazed me, because they could literally eat their way through the soil. Crickets could sing by fiddling their legs against their wings. Lightning bugs could glow in the dark.

All these creatures were more than just playmates; they were teachers. They taught me how to watch and to listen. It allowed me to broaden the focus of my interests beyond my own species, to take in a bigger world. What did the world feel like to an earthworm, a bee, a turtle? I would watch all these creatures for hours, transfixed. I haunted the local libraries for books about animals. Sometimes I would write reports on them—not for school, just for fun. And at night, before I would go to bed, I would often close the door and pace around my room for hours, just thinking about these things.

My parents must have worried about me. Once, when I was very young, I was sent home from school for biting a boy. He had richly deserved it, in my opinion; he had pulled the legs off a Daddy Long Legs. (I often looked to Molly for moral guidance; I simply did what she would have done if equally annoyed.) My father had once brought home from his travels a real stuffed baby alligator, which I adored, and I had horrified my mother when I took the baby dolls she gave me to play with and ejected them from their pram, tore off their clothes, and put them on the stuffed alligator.

I really didn't care much about playing with other children, when there were animals to watch instead. Until, that is, I met Ann Wolicki.

Before I began junior high school, my father retired from the Army and took a new job with the shipping industry. We moved to Alexandria, Virginia. This was the first place we had lived that actually had real woods nearby that I could explore. And Ann, our backyard neighbor, a girl my age, showed me The Creek.

Although it was just a few blocks away, The Creek was the wildest place I had ever seen. I had known nothing like it on the Army base or in suburban New Jersey. You could walk for half an afternoon and not see a house, or another person. You could find fish and frogs. Usually Ann and I could find box turtles. We sometimes took these home and would build spacious outdoor pens for them. At The Creek we found most of the creatures for the insect collection Mr. Profit had us create for biology class. (During this project, my poor mother would shriek when she'd find all sorts of insects in the freezer, which was how we killed them before mounting them with pins in a cigar box.) Though Ann and I also liked to bike and watch our turtles at home, and we also enjoyed time in the tree fort her father had built in her backyard, The Creek was our favorite place. It was magic.

It was then that I probably began to imagine the life that I lead now, exploring the living, leafy wild world and writing about it.

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We moved again only three years later. I was devastated to have to leave Ann and The Creek. I found solace mostly in the local church, which became the center of my social life: Bible Study, Methodist Youth Fellowship, and choir. With my friend Herbie, I founded a church newspaper, *Maranatha*. (Herbie is a minister today; Ann became a veterinarian.) And I wrote for the high school paper, the *Hi's Eye*. I took my first journalism classes in high school, with a spectacular, tall teacher, Mr. Clarkson. He was also the track coach, and was given to feats of athleticism: sometimes he would leap off a desk to illustrate a point. This, for me, became the measure of a successful story: it should be so exciting to read that it would make Mr. Clarkson would want to jump off a desk.

Thanks to Mr. Clarkson, I decided to study journalism in college. I chose Syracuse University because of its journalism school. But there were so many fascinating courses in college I eventually declared not just one, but three majors: Magazine Journalism, French Language and Literature, and Psychology. I wanted to declare a fourth, Biology, but the school wouldn't let me. I took as many biology courses as I could nonetheless. We got to dissect a fetal pig, a shark, and a cat. I now feel bad those animals died for my education, but at the time, I was filled with wonder of getting to see what was inside their beautiful bodies. I suppose this is also what attracted me to psychology: in theory at least, it allowed me to see what was inside people's heads, which had always seemed a mystery to me. (Why would anyone pull the legs off a Daddy Long Legs?)

College is great because it allows you to experiment at being many things. I got to be a playwright: I wrote and directed a two-hour musical comedy for a sort of school club called Traditions Commission. I got to be a teacher: I taught a French conversation class for credit. I got to be an athlete, of sorts: I completed three, three-day dance marathons to raise money for muscular dystrophy—endurance was something I could do. And I got to be a journalist: I wrote for the daily college newspaper, *The Daily Orange*. In fact I later became an editor of the paper. I was hired for the job by the man I would later marry. Howard Mansfield, a dual major in American Studies and Magazine Journalism, was the paper's managing editor. He was and is the most interesting person I have ever met. He was always full of ideas, and it seemed everything he saw was inspiration for his writing.

One of the many things Howard taught me was that if you are going to write about things that matter, you are bound to make people mad. If you think something is wrong, and after researching it carefully you see it really *is* wrong, you have to point it out. In our junior year at college, Howard and I were co-editors of the paper's editorial or opinion section. Our university had plans to give the Empress of Iran a big award for being a good humanitarian. We weren't so sure it was a good idea. At the time, the empress' husband, the Shah of Iran, was accused by many reputable international organizations of torturing political prisoners. We did a lot of research on this, and decided it was true. But during the time we were researching our editorial against giving the award to the Empress, we would come in to our office and find a different group of Iranian students waiting for us there. One day it would be a pro-Shah group. The next day it would be an anti-Shah group. Each group wanted us to give them the names of the people in the other group. (Why? So they could beat them up? We wouldn't do it.) And we eventually wrote an editorial that convinced our school not to give the wife of a despot an award for good deeds. Some of the Iranian students told us we should be careful after writing that editorial, and that if we ever visited Iran we would be killed! But it was a good thing we wrote it, because only days after the award would have been given, the Iranian people, angry at their rulers' cruelty, rose up and overthrew the Shah.

Working on the daily paper not only showed me not to fear criticism, but also how to listen and learn from it. When you have a daily deadline to meet, there is little room to nurse hurt feelings because someone criticizes your story; you just go back and rewrite it until it's good

enough to print. One day one of the other editors brought Howard a story to approve before it would go into the paper. As Howard read it, he saw it was so badly written it would have to be redone from scratch. Without a word, when Howard finished reading, he picked up a lighter and torched the pages. The editor had a new, much better story ready in two hours.

When we graduated from college, Howard began to write a book, and I took a job with a newspaper. At first I worked for *The Buffalo Evening News*, covering business. Within a few months, though, I was offered a job at a smaller newspaper for less pay, which I eagerly accepted. I didn't want to write about business; I wanted to write about biology and the environment. The newspaper I now joined wasn't offering me a job writing about that, either. But at *The Courier-News* in Bridgewater, NJ, I would be working in the state with more scientists per capita than any other. New Jersey also was the center of the nation's chemical and pharmaceutical industries, with many interesting environmental stories to cover. At this smaller paper, I would probably have more freedom.

At first, I covered nine towns in the rural county of Hunterdon. This meant writing about a lot of boring meetings, at which people make decisions about sewerage. But I got to do some great stories, too. One was a two-part investigation of why a Getty oil pipeline had broken and poisoned a pristine trout stream running through two of my towns. I went to Washington, D.C. (at my own expense, staying with my parents) and looked up Getty Oil Company's maintenance records at The Petroleum Institute for the pipeline. In the story, I showed the trout stream had been poisoned because a rich corporation hadn't bothered to maintain its own property in order to save its stockholders money.

So, some people were mad at me again—but I also won an award for the story, and more awards for stories like it. I was promoted to medical and science writer/general assignment. I wrote about the unusually high incidence of cancer in New Jersey, including the deaths from a lung cancer called asbestosis at an asbestos manufacturer, Johns Manville. I wrote a series about paralyzing football injuries among high school and college players, showing that, among other things, helmet designs contributed to breaking young men's necks for the sake of a game. I worked 14 hours a day, six days a week. Meanwhile, Howard was working about the same hours on his book. We took Sundays off. Sometimes were so tired all we could do was lie around and read *The New York Times.*

After five years on the paper, my parents decided it was time for me to take a special vacation. I had always wanted to go to Australia, because of its strange, pouched mammals like kangaroos and koalas. My father said he would finance a trip. But where on this giant continent would I go? What would I do? I began to research my options and discovered an organization called Earthwatch. This nonprofit outfit matches regular people like me who were willing to pay for the opportunity to volunteer helping scientists work on projects around the world. I volunteered for a project called Drought Refugia in South Australia, working with Dr. Pamela Parker. Part of the year, Pam worked at the Brookfield Zoo in Chicago; but she also worked in South Australia, studying the habitat of the rare and endangered southern hairy nosed wombat.

Wombats, like koalas and kangaroos, are pouched mammals known as marsupials. They look sort of like giant groundhogs, and live in holes which they dig with powerful claws out of the rock-hard soil of the South Australian outback. You seldom see them except when they're sunning themselves on the mounds of their warrens. So how could you study them? For two weeks, with the other handful of volunteers, I lived in a tent and assisted Pam taking measurements of the wombat's systems of holes and tunnels, cataloging the plant life, and learning from the edges of the animals' lives. One important way of learning how many wombats there are is by looking for their pellet-like feces, or scats. We learned to tell wombat scat from kangaroo scat (wombats' are bigger). We could tell which wombat warrens had residents by looking for these scats, and for the marks their teeth made on the plants growing nearby. At night, while we ate by the campfire, Pam would give us lectures about the animals that lived in the area: the spine-covered, egg-laying echidnas, with their tongues shaped like long ribbons for eating ants; the red and gray kangaroos; the colorful rainbow lorikeets that chattered in the scrubby eucalypts above our heads; the pink and gray cockatoos known as galahs, who look like flying sunsets as their flocks bank and turn overhead.

I fell in love with this astonishing landscape, and the animals there. Seeing my enthusiasm for field work, Pamela made me an offer I couldn't refuse: if I wanted to continue studying Australian animals, she couldn't pay me a salary, cover my airfare, or fund my insurance—but if I wanted to come back, to study anything I wanted, she would give me free food for as long as I wished, and I could camp for as long as I wanted at her study site at Blanchetown Conservation Park.

I quit my job and moved to a tent in the outback.

At first I didn't know what I would study. My first few days I helped out a graduate student with her study of plants. One day, when I was alone, lopping off plants with a small knife and stuffing them into paper bags to bring back to her at camp, I suddenly looked up and saw, 25 yard away from, three birds, each nearly as tall as a man, staring at me. They were emus.

Emus are ancient, ostrich-like birds, with eight-foot stumps for wings, haystack-colored bodies, long black necks topped with periscope heads, and legs on which they can run at 40 miles per hour and strong enough to sever fencing wire with a single kick. I couldn't believe they had come this close to me. While I stayed motionless, they peered at me, as if curious. Then they strolled away, unafraid. I realized I was sweating in the 40-degree cold. I couldn't have been more astonished if angels had come down from heaven to look at me. And I knew what I would study.

For six months, I followed them whenever I saw them, recording their every movement on a check sheet I created, noting the time they walked, sat, ran, drank, grazed. I learned to recognize which bird was which, giving each names. After a few weeks, I found I could locate them daily. I never knew their sex—this is impossible to know by appearance alone. But I knew

that, though no longer tiny, striped chicks, these birds were young. They lacked the turquoise patch on the neck of mature emus. They always traveled together, which suggested they were siblings who had hatched from same clutch of large, greenish black eggs, which are incubated by the father.

During this time, I often thought about a scientist I had long admired, Jane Goodall. Before I could read, I had seen pictures of her in National Geographic magazine, a slender blonde in a ponytail, squatting in the dirt and holding her hand out to a wild chimpanzee, who was stretching his hand out to hers. No scientist had ever been able to do this before. I modeled my study on hers. Like me, she had no formal scientific training when she began her study. But she had good eyes, and a good understanding of how to approach animals. That's why she was able to study them at close range, when all the other scientists before her had only gotten glimpses of chimpanzees running away into the trees. I remember how she got the apes used to her presence among them: she wore the same thing every day. So did I: jeans, the shirt I'd slept in, my father's old green Army jacket, and a red bandana, to help them recognize me. Jane approached the chimps only to the point where they felt comfortable, never chasing them. So did I with the emus. I never wanted them to feel I was sneaking up on them, or stealing from them, not even glimpses. Their presence was a gift I accepted on their terms.

Soon I could approach them within five feet—close enough to see the veins on the leaves they were eating, close enough to enjoy the glowing the reddish-mahogany irises of their eyes, close enough and hear the sound of their beaks combing their feathers when they preened. I discovered they were very smart, and also had a sense of humor.

One day I saw the three approach the park ranger's dog. She was on a chain, and barking ferociously at the interlopers. But the birds were completely calm. They knew exactly how long the chain was! They approached within a foot of the frenzied dog—and then leapt in the air, kicking their legs, flinging their necks—and the dog went wild. Then they ran off to a safe distance, flopped onto the ground, and preened themselves—apparently well-satisfied with the success of their prank.

For six months, I simply recorded what they did all day—what they ate, how they played, where they traveled. There were no major scientific breakthroughs to report. But from them, I learned something very important. Ours was a friendship, and a kind of trust, unlike any other I had known. Unlike my treasured pets, the emus didn't have to tolerate me. They were not living in my home; I was living in theirs. They could get away from me any time they wished. Not only could they run away from me if they wanted; they could have attacked me; and in fact, emus sometimes do, when threatened, and they can kill you with a swift kick from their strong, clawed feet. But they didn't. Even though the emus, being birds, were more closely related to dinosaurs than to people, they favored me with a gift I would cherish forever: the gift of allowing me into their lives on their terms.

When I had to return to the states six months later, my life had changed. For one thing, I realized that after living in a tent, spending all day each day walking outside, and having no boss to answer to, I would hate working in an office. I simply couldn't put on stupid panty hose and high heels and a suit and work in a cubicle all day. I decided to write on my own, as Howard had been doing ever since we graduated from Syracuse University in 1979.

In New Hampshire, a state full of forests and wetlands, I began writing for different magazines and newspapers. On my way back from Australia, I had stopped in New Zealand, in order to visit the windswept, cliffside home of the world's heaviest insect—a handsome, maple-syrup-colored cricket-like species known as the Giant Weta who weighs three times as much as a mouse. I wrote a story about them for *International Wildlife* magazine. Every week, I mailed in a science column to my old newspaper, *The Courier-News*. I wrote for *The Boston Globe's* science section about endangered insects, and for *Animals* magazine about backyard toxins.

Each story seemed to lead to another. *International Wildlife* liked my Giant Weta story enough that I convinced them to let me go back to New Zealand to write about some of the other fascinating animals there, including a flightless, endangered parrot called the kakapo. It had nearly gone extinct, not because people hunted it, but because the young birds were eaten by weasels and cats—animals that Europeans had brought to New Zealand, predators the kakapo had never evolved to avoid. But people also helped the kakapo. Realizing the amazing parrot was nearly gone, people moved them to cat- and weasel-free areas, and also set up special nests so they could breed in captivity and later be released to the wild. This was the sort of story I loved to write most: stories that show how people have, even without intending to, upset the natural balance of the world—and the ways we have learned to make amends for our blunders.

After five years of writing stories for magazines and newspapers, I longed to write something longer and more in-depth: a book. A book is a big project. Could I do it? I was lucky once again, to have a husband and friends who told me I could. About this time, I met a very special person, who would become one of my best friends, even though she is 30 years older than me. Her name is Elizabeth Marshall Thomas, and when she was my age, she had written her first book: *The Harmless People*. It was the story of her family's extraordinary expedition to Namibia, to contact the hunter-gathering people of the desert, the Bushmen. She'd next written another wonderful book about African people, *Warrior Herdsmen*. She then had two children and had not written any more books for two decades. But recently she had traveled to Africa again. Now she was, like me, facing a whole new challenge. Now she was trying to write fiction. Her novel (which eventually became the best-selling *Reindeer Moon*) was about halfway done when I met her. Liz helped show me that you can always start something new. And even when your confidence in yourself might fail, you can keep yourself going by confidence in your project—in the message you want to convey—in the thing that is bigger and more important than yourself.

I wanted my first book to be about people's relationships with animals. Most people know animals in only one of a very few ways: we take animals into our homes as pets. We take them into our bodies as food. Most people never get to really know wild animals on the animals' terms, as I had done with the emus. But Jane Goodall had, with her chimps. As a result, she came to see the animals in an entirely new way. To the researchers before her, the chimps were just study subjects. They never called them by names. They just numbered them, like rocks. Jane, though, saw each as individuals. She didn't just study them—she considered them her friends and her teachers. Jane's unusual approach inspired other studies modeled on her own. After she went into the field, another woman, Dian Fossey, had begun a long-term study of mountain gorillas in Rwanda. And after Dian, a third woman, Birute Galdikas, had begun to study orangutans in Borneo. This seemed a logical place for me to start. My first book would honor three of my heroines. They had a lot in common: all three were women. All three were sent into the field by the same man: Louis Leakey, a scientist famous for finding the first fossils of early human ancestors in Africa. He had sent these women to study apes because apes are humans' closest living relatives: chimps are so like us that blood transfusions between chimps and people are possible. And all three had devoted their lives—not just a few months--to their study animals. Other people, all of them men, had tried to study these animals before. But Jane, Dian and Birute were the first to study apes for such a long time, and in such detail.

Their studies resulted in astonishing new findings. Jane Goodall discovered that chimpanzees use tools—sticks to fish out termites to eat, crushed leaves to sop up water to drink. Before her work, people thought humans were the only creatures to use tools. Dian Fossey discovered that gorillas weren't frightening, violent creatures, but gentle vegetarians who live in devoted family groups, a noble silver-backed adult male and his several females and their children. And Birute Galdikas found that orangutans are extremely intelligent. Among other things, they have incredible memories, keeping track of hundreds of trees in the vast forest, remembering when and where they fruit.

Why had these women made these important discoveries, when the people who tried before them had failed? How was their approach different? And why had they decided to stay so long with the animals they studied, when everyone else had given up after only a few months?

I spent three years finding out the answers. I read everything I could find about the three women and about Louis Leakey. I watched films of the women working which had aired on *National Geographic* TV specials and other shows. I interviewed people who knew the women. I interviewed other scientists who had studied the great apes. I also interviewed Jane Goodall twice—once in the United States, and once in her home in England. I met and interviewed her son, Grub, and her mother, Vanne. Dian Fossey had been murdered by the time I wrote the book, but I traveled to Rwanda and Zaire where she had worked and I met the gorillas she had studied.

To get to the gorillas, you sometimes have to walk for hours on little paths along the forested slopes of the Virunga Volcanoes, up to 10,000 feet where the air starts to get thin and hard to breathe. You have to plow through patches of stinging nettles, which hurt your skin. There are safari ants, which bite so hard sometimes you have to pinch their heads off and then pry away their jaws to remove them. It was a long, hard hike to get to the gorillas the day I saw them, with a small group of people who had hired a guide to take us there. But, actually walking in Dian's footsteps, I learned many things. First, I began to understand just how hard a life she had chosen. And second, the minute I saw the gorillas, I knew that it was worth it.

For my research, I also went to Kenya. There I interviewed scientists who had known Dian and Jane. Louis Leakey had died in 1972, but his family still lives there, and I interviewed one of his sons. I also traveled to the Gombe Stream Reserve in Tanzania where Jane Goodall still works whenever she can. There, on the sunny lake shore and in the forest, I met many of the chimps I had read about. I recognized some of them the same way you recognize a movie star from her picture: at once I knew Fifi, because I had seen pictures of her ever since she was an infant. Now Fifi had a little baby of her own.

I went to Borneo, too, and got to work with Birute Galdikas. Earthwatch had a project there, and I joined the volunteers as they helped learn about wild orangutans' lives. Before dawn, with a native Dayak guide, we would slog through leech-filled swamps to find the tree in which an orangutan had made a nest the night before. Beneath it, we'd sling up hammocks between two trees, to rest and get away from the leeches. We'd listen as gibbons whooped their elastic, alien-sounding songs as the sun rose. We'd hear the buzz of insects whose calls were loud as chain saws. Finally the orangutan would wake up, move from the nest, and begin to swing between the branches of trees along towards a good fruit tree. We'd struggle to follow below--plagued by mosquitoes and flies, trying to keep up without falling into the swamp, trying not to touch any of the trees (which sometimes have spines or toxic sap or fire ants) but above all, trying not to lose the orangutan. At the end of the day, after the orangutan had nested, we'd walk all the way back, sometimes in the dark, completely exhausted. Again, I came to appreciate how hard Birute had worked—and how much she had to love her study animals to do so.

The result of my research, *Walking with the Great Apes: Jane Goodall, Dian Fossey and Birute Galdikas*, was published in 1991. My father never got to see it. Just as I was finishing the last pages of the book, he died in 1990 after a fight with cancer. I read him some of the book, especially the closing words of the Acknowledgements, the part where the author thanks those who helped them in their research: "...finally I would like to thank my father…in whose intrepid footsteps I falteringly follow."

I was with him when he died. He had showed me how to live, and he also showed me how to die. Now I am not afraid.

* * *

One book lead to another, and another. Having written about women scientists and their studies of humans' closest relatives, I wanted to next examine a different kind of relationship between people and animals. Jane, Dian and Birute had loved the apes they studied, and worked very hard to keep them safe from poachers, loggers, and illegal animal dealers in their forest homes. But what about animals who are less loveable, less like people, than chimps, gorillas and orangutans? I wanted next to write about animals who seemed more difficult to understand, and even more difficult to love: predators.

Humans have long warred with predators. In New England, one of the first things the settlers did was kill off all the wolves and the mountain lions. The same is the case around the world. People fear predators. We compete with them. We want their prey for ourselves. Predators also need a lot of land on which to hunt—and people want that same land to build houses, farms, factories, and cities. That is why predators of all kinds are in danger of extinction around the world—and why I chose a predator as the subject of my next book.

I chose what I considered the mightiest and most beautiful predator of all: the tiger. No other cat can grow so big. A tiger can weigh 300 pounds more than a big male lion. No other is so strikingly gorgeous: the tiger's striped coat glows as if aflame. I went to the wonderful library at Harvard's Museum of Comparative Zoology to read more about tigers, hoping to find a particular place which offered a tiger story around which to frame my book.

All day I read, rapt, about tigers all over the world: the biggest subspecies of tiger, the Siberian, who stalks prey in the snows of Russia. The Indo-Chinese tiger, who hunts in the jungles of Southeast Asia. I discovered that there were five different subspecies of tiger, in fact—and that not long ago there had been eight. Three kinds of tiger had gone extinct since the turn of the century. That made writing my book even more urgent, all the remaining tigers were endangered, too. They're shot because people fear them. They're being crowded out of their habitat as people convert wild places to towns. They're killed for their spectacular coat. And they are also being murdered so people can eat parts of their bodies in soups and potions they think will make them strong like tigers. Some articles I read suggested tigers might be extinct in the wild during my own lifetime. I had no time to waste.

And then I came upon an article that suggested the very sort of mystery I wanted to explore. It described a forest that seemed like no other: stretching for 10,000 square kilometers along the Bay of Bengal between India and Bangladesh, the Sundarbans mangrove swamp is a forest drowned by sea. Tides flush the rivers, flood the trees, then drain away. The animals here drink water tinged with salt. And the tigers here are unlike any others. Some 500 of them inhabit the mangrove forest—the only tigers to live in such a habitat. And they are unusual in other ways, as well: they swim out after your boat and eat you!

Though tigers elsewhere seldom bother people, here tigers kill some 300 people a year. Why? But there was an even deeper mystery to explore. Even though elsewhere tigers are hunted to near extinction, here the people don't hurt the tigers—they worship them instead.

To investigate these two mysteries, I embarked on my journey into Sundarbans. The trip would extend to four separate expeditions in two different countries. It would result in two books (one for adults, one for kids), a *National Geographic Explorer* TV documentary, and friendships with one special family that would last a lifetime.

The first trip seemed like a disaster. At first, it seemed everything was going well. Unlike my trip to Africa, I wasn't going to India and Bangladesh alone, but in the company of a wonderful friend. I had met Dianne Taylor-Snow in Borneo, while I was working on *Walking with the Great Apes*. She had been working with Birute Galdikas, helping her to care for the orphaned baby orangutans who were constantly being brought to the study center. Dianne had many talents; she had worked in the past as a zookeeper, a model, an airline stewardess, and a clothing designer. She was also a talented photographer, and eager to accompany me to India to take pictures for my new book. First, we were going to Bangladesh, and next to India, where we would meet the Indian wildlife biologist who had authored the article I read back in the Harvard Library, Dr. Kalyan Chakrabarty. He had generously offered to act as our guide and translator in Sundarbans, and would also take care of arranging for us to travel on a speed boat.

But as soon as we got to India, everything fell apart. On the plane ride over, a filling fell out of my tooth, leaving a painful hole. We arrived in Calcutta in darkness—there was a power failure and had to locate our luggage at the airport by flashlight. The next day we found to our dismay that Dr. Chakrabarty had just taken a new job--and now he wouldn't be able to accompany us to Sundarbans after all. Dianne and I were heading into a tiger reserve full of man-eaters with no speedboat, no translator, and no guide.

And things only got worse from there.

Civil unrest rocked the Indian subcontinent when Muslims and Hindus began to fight over an ancient temple both religions claimed as theirs. Protesters on both sides attacked people in trains, on busses, in the streets. Martial law was declared. No movement between cities and towns was allowed. We couldn't leave the tiger reserve.

With the little Bengali I had picked up from language tapes, I was able to hire a boatman to take us through the reserve's waterways. Girindra Nath Mridha had lived here all his adult life. He had made his boat by hand. One of his uncles, he told me, had been killed by a tiger—and he saw it happen. He knew everything, it seemed, that I needed to know. But we could hardly speak. He knew just a little more English than I knew Bengali!

For two weeks, every day we would take Girindra's boat down the twisting waterways of Sundarbans, hoping to see a tiger. Though we found their footprints everywhere, we only saw a

tiger once—it was swimming across the river right in front of us! But it seemed to vanish in an instant, melting into the forest once it reached the other side. (Dianne got a picture of that tiger—but more disaster awaited us. When we finally did get out of Sundarbans, Dianne had to store her exposed film in her checked baggage at the airport to avoid exposing it to the Calcutta airport's unreliable X-ray machine. When she arrived home in Fresno, California, all her baggage had been stolen. It was never retrieved.)

Those two weeks in Sundarbans, every day, every hour, Girindra and I struggled to speak to each other. We were both so frustrated! There was so much he wanted to tell me, and so much I wanted to ask. We simply didn't have the words. We were from very different worlds: Girindra from a world where everything is made by hand, mostly from mud and reeds; I had flown in on an airplane—a vehicle Girindra had only seen in the sky. He wondered aloud whether airplanes might have tennis courts on board. Girindra was Hindu, believing that humans live many different lives, and that God has many faces, including tigers and many-armed goddesses; I was Christian. But during those two weeks, we formed a deep and lasting bond. Later, when I was able to secure a translator, he told me he thought I was once his sister in a former life. He and wife, Namita, and eight children adopted me into the family, calling me Pishima, which means "father's sister." And as it turned out, my friendship with Girindra was the key that unlocked the mystery to Sundarbans.

On my later trips to Sundarbans, my friendship with Girindra and his family eventually allowed me to talk freely with everyone in his village—not as a researcher, but as a family friend. The people told me astonishing stories. At first they were unbelievable! "The tiger can fly through the air," people said. "Yes, and the tiger can become invisible!" they would insist. How could that be? But I was sure the people weren't lying. So instead of arguing—telling them their stories were impossible—I just listened. And soon enough, I learned their stories were true.

A tiger *can* become invisible—its striped coat allows the cat to blend to perfectly with its environment you can't see it even if it's right in front of you. A tiger CAN fly—it can leap for over 20 feet through the air. Girindra and his friends taught me many natural history facts about tigers, but much more than that, too. They taught me how to listen for truth, even when it comes in stories that at first seem impossible--and how to look for wisdom in places that at first seem humble and poor.

Had Dr. Chakrabarty been able to escort Dianne and I as originally planned, I still would have written a book—but not these books! Again, I was lucky, because a disaster turned out to be a blessing in disguise.

As always, researching this book lead me to the next one. In Sundarbans, I had glimpsed strange, pinkish dolphins who lived in the brown rivers by the sea. These were among the five species of little-known river dolphins in the world. Though I had only caught a few glimpses, the image of those dolphins stayed with me—and when I went to a marine mammal conference in

Florida years later, I understood why. There I met a man who studied pink river dolphins in the Amazon, and he told me legends about these dolphins that claim they have magical powers. No wonder I couldn't forget them! And thus was born yet another book.

My friend Dianne accompanied me to take photos on three of the expeditions I made researching that book. This time the airlines didn't lose her luggage! Dianne's photos appear in *Journey of the Pink Dolphins*. She took all the pictures in the children's book, Encantado: Pink Dolphin of the Amazon. Even though she is afraid of heights, she climbed up that machimango tree after I did. In the books, you can see a picture of the view down, with our canoe below looking tiny in the dark Amazon water.

The dolphins of the Amazon lead me to bears in Southeast Asia. On my second research expedition to the Amazon, I met a scientist who had traveled all over the world, Dr. Gary Galbreath. One night, as we were out in a canoe looking for the Amazonian crocodiles called caimans, he told me about something really strange he had seen in China. It was a bear with a golden coat, unlike any he had ever seen. It was such a strange bear he had even wondered if it might be an unknown, new species! But that was 11 years ago, and he had never had the chance to return to China and see if there were other bears like that one. A year later, though, through a strange coincidence, I was able to help Gary begin to solve the mystery of the golden moon bear.

In the little town where my husband and I live, a friend's birthday party provided the occasion for an unusual meeting. Another friend brought as a guest to the party the deputy director of the Cambodian wildlife protection office, whose name was Sun Hean. Sun Hean felt lonely and awkward at the party. He didn't know anyone. But I was eager to talk to him. We talked about Cambodia's tigers. Then we talked about bears. Had he ever seen or heard of a bear in Cambodia that wasn't black? Sun Hean looked astonished at my question. Just recently he had received a photograph of a very unusual bear with a golden coat! He didn't know what it was. Had I ever heard of such a thing?

Indeed I had. Even though the part of China where Gary had seen his golden bear was 1,000 kilometers away from Sun Hean's home in Cambodia, I suspected they might be the same kind of bear—and possibly a new species no one had documented before. I got Sun Hean together with Gary. The three of us began to plan a new expedition….and I another book.

* * *

These are just some of the true stories I have been lucky enough to report in my books. I've now written nearly 30 books, as well as documentary film and radio scripts. I write magazine and newspaper articles. I work from home, a 150-year-old farmhouse here in New Hampshire which I share with Howard and our third border collie, Thurber.

I love travel and I love writing at home. And I love working freelance, instead of writing for just one newspaper or just one magazine. I want my words to reach many different people—children and adults, book-lovers and radio listeners, Americans and people in other countries see the documentaries I write on TV around the world and read my books in translation (so far my books have been translated into thirteen languages, including, French, Spanish, Italian, German, Romanian, Bulgarian, Polish, Russian, Korean, Japanese, and Chinese). I am carrying an urgent message, at a critical turning point in human history. All my writing tells the same story in a different way: We need to cherish all the life forms on this earth. We need to learn from the dolphins and tigers and apes. We need the life-giving oxygen of the world's forests. We need the nourishing waters of the rivers and seas. We need to the wisdom of all the world's people. And yet, largely because of greed, we are allowing human overpopulation, pollution and poaching to wipe out wild lives and wild places.

When we forget our connections to the larger, wilder world, we can literally lose sight of our place in the universe. In one of Howard's books, *The Same Ax, Twice: Restoration and Renewal in a Throw-Away Age*, he writes about the human desire to restore, repair and renew old houses, favorite landscapes, and even antique machinery. We need those connections to our past. He points out that today, for the first time in human history, we have allowed even the night skies to be so polluted with artificial lights, that most of us can't even see the Milky Way.

But some of us remember our ancient connection to the animals, plants, landscapes and skies that make up the rich planet that nurtures us all. In the Amazon I met shamans who believe that everything has a spirit, even the rivers. They believe we can learn from these spirits. They show us which plants can be made into healing medicines, for instance. The shamans say that dolphins have much to teach us, too—and I found that was true. In India, Girindra and his village understood that tigers are so important that even though they sometimes kill people, it's essential that people learn to live with them rather than wiping them out. Jane Goodall, Dian Fossey and Birute Galdikas, too, realized how much we can learn from our fellow apes. These scientists have spent most of their careers learning from the animals they studied, and they're still making new discoveries.

The snake scientist about whom I wrote my first book for kids, Dr. Bob Mason, says that by studying snakes, we might even discover how to send astronauts to Mars! But as he points out, learning about the creatures who share our world satisfies an even deeper human need than the thirst for knowledge. Without the beauty, surprise and sheer fun these creatures offer us, Bob told me, "life would be diminished in a very real sense."

Happily, there's a lot we all can do to protect and preserve the natural world. In the back of all of my books, I list organizations you can join, places you can visit, books you can read, questions you can ponder. We can all do things to help: Join a forest, town or beach clean-up. Raise money for an environmental group. Start a recycling program in your school. We can also change our daily lives in ways that reduce the stress that humans put on the natural world. We can buy fuel-efficient cars (instead of wasteful, dangerous SUVs!). We can have smaller families.

We can vote for politicians who will enact laws to combat pollution and protect wild land in our country and others. Children can't vote, but you can write letters to the editor at the local paper—and your letter will count even more if they know you're a child—so include your age when you sign your letter.

The more you learn, the more ideas you'll come up with for ways to help. And that is my hope in all my writing: that the teachers I meet on my travels—shamans and scientists, dolphins and dancers, apes and ants—can inspire us to remember and rebuild the connections by which we know the wholeness of the world.