

FOREWORD by Amy Tan

BEFORE WE HAD WORDS, we had wonder. Our infant eyes took in new shapes and colors. All sounds and odors were unknown. Gradually, we observed what was familiar and what was still strange. As we grew older, our young eyes puzzled over a bug missing a leg, a blade of grass with a watery bead, a tree so tall we could not see where it ended. As first-grade scientists, we touched the backs of little frogs to make them jump. We poked ladybugs and watched them tuck themselves into their polka-dot capes. We ate mashed clover and hay to decide if we liked them as much as cows do. And we saw dead things: flies on the sill, a skunk on the road, and perhaps a pet turtle, parakeet, dog, or cat, whose sudden loss was nearly the end of our world. Through animals, we learned about goneness and grief.

As we grew older, we stopped asking as many questions, in part because we came to believe that smart kids had answers and dumb ones had questions. When we became full-fledged adults, we could use precise words to explain our experiences with nature: *Species. Raptors. Plumage. Foliage. Migration. Environment. Evolution.* They were concepts defined by details and facts. With labeled concepts, we no longer wondered as much about nature and creatures. They became as common as sunsets, and we could see them at the end of any day, should we choose, and mostly we did not. Because we were responsible adults who did productive work, we no longer had the curiosity or time to watch a troop of ants ferrying crumbs across the floor. If we needed to know something about nature—say, the reason birds do not plummet from trees while asleep—we could find the answer in a book.



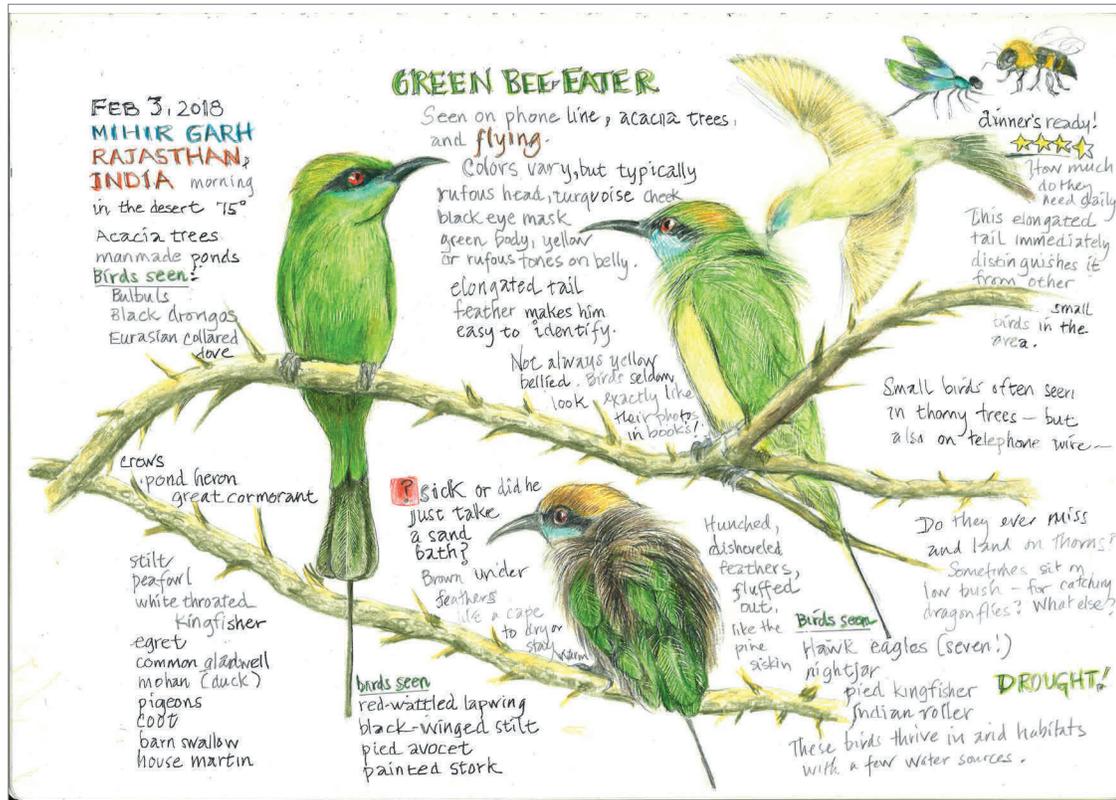
When we were still waddlers, we scribbled freely on large sheets of paper. Our crayons traveled off the edges. There were no boundaries to where our eyes and fingers could roam, until we learned to make our pictures nice and neat. In kindergarten, we saw that some kids drew better than others; their drawings received praise from adults, while ours languished unnoticed. We became self-conscious out of fear of being laughed at. So it was for me. According to my father, from the time I was three, I drew pictures and made up stories to accompany them. By the age of nine, I secretly wanted to become an artist and drew pictures in the privacy of my bedroom. When I was twelve, a great-uncle who was a landscape artist looked at my sketch of a girl, and I did not cry when he corrected it by drawing black lines all over her face with a thick piece of charcoal. By age fourteen, I saw that a boy in art class could draw cartoons just like those seen in comic books. When I was seventeen, a teacher told me I had no imagination, which he said was necessary to be creative. After that, I stopped drawing. But from time to time, I told myself that one day, after I had retired from my professional career, I would return to drawing. I imagined I would have a little room

in an attic, filled with easels, paints, paper, and a peaceful view of water and trees.

When I was sixty-three, I realized that the imaginary room in the attic had been empty long enough. I would never retire as a writer, but it was not too late to learn how to draw. So I started by attending workshops in nature journaling led by a naturalist artist, author, and educator named John Muir Laws—Jack, as I later came to know him. His name was already familiar to me because I owned his guidebook on wildlife in the Sierras. I soon bought his other books: *Laws Guide to Drawing Birds* and *Laws Guide to Nature Drawing and Journaling*. I practiced techniques. I practiced drawing nearly daily, putting in my “pencil miles,” as Jack called it. But it was through Jack’s field trips that I learned that the more important skills I needed to develop were the ones I had left behind in childhood—to be intensely curious, to wonder aloud, to see the story in front of me and try to capture an interesting aspect of it in a drawing. There is a big difference between drawing a bird with exact details while at home and capturing its essence in the field, in the moment, when it is never still. My lively subject moved every second, and that forced me to see it afresh every second, and not based on what I already assumed it looked like. I had to see it as a child who has not seen this creature before. Wonder takes place when everything is new.

On one of those field trips, I met someone who showed me how to regain my childhood sense of wonder. Her name is Fiona Gillogly, and she was thirteen at the time. A page from her journal is within this book and shows how our noticing infinite variations in nature enlarges our view of life. On field trips, I noticed that she was excited about everything—and not just the beautiful birds we all saw. She turned over the undersides of ferns as we walked into a woodland forest. She crouched down to show me a clump of California manroot and traced how far the vines extended and coiled around other plants. When making such discoveries in the field, she crammed her pages with questions about mysteries that lead to more mysteries, unmindful that her sentences are never formed in blocks of straight lines, left to right. Her observations flow continuously, curving upward or downward, as if to avoid interrupting her train of thought. John Muir Laws has been her mentor, and although I am now sixty-seven and she is now sixteen, she has become one of mine. I am learning the joys of unbounded curiosity. Everything is again new.

I think the readers of this book—parents, teachers, and their young children or students—are much like Fiona and me. They are partners in wonderment. Curiosity provides a basket into which they can place endless questions and observations. They are in suspense about what will happen next. They take turns pointing out what they notice and what it reminds them of. No question is silly. No drawing is poor. No observation is wrong. They all exult when the next thing that happens is completely



unexpected. The clouds shift, and a phalanx of pelicans flies through the fog into sunshine. The lichen in the forest glows. A fledgling junco makes a crash landing but is unhurt. Nature journaling is happy making. What better gift of love can a parent give to a child on a daily basis? What better gift of learning can a teacher give to young students?

I think of nature drawing as a spiritual connection to nature, and nature journaling is a written testament of miracles in the wild. Each day, I wake with curiosity over what is happening in my yard. Each day holds discoveries that I write down. The sounds that juvenile birds make when they are unsuccessful in finding food. The stretchmark patterns of bark on an oak tree. The glints of gold on the bay that I mistook to be a school of anchovies. The tangled fingers of beached bull kelp drying into sculpture. Each day I can do what I loved as a child: put pencil to paper to capture life, whether a detailed rendering with colored pencils or a lively sketch in the moment noting mysteries while sitting on a log. Through the practice of nature journaling, my fear of making mistakes is gone. I have abandoned my lifelong need for perfection. I am freed from the rusty rules based on *can't* and *don't* and *won't*. My brain is more flexible. In fact, scientific research proves that active learning through nature journaling can change the brain and boost intelligence. It makes sense. If kids are free to wonder aloud without feeling dumb or tested, they remain engaged. If they are happy in what they are doing, their attention span grows. By noticing how they feel when they experience something new, they absorb ideas more quickly. By being excited

with what they've created, their memory expands and becomes the wellspring for future learning. Imagine it: Whether we are six or sixty, we can forge a new brain path that goes beyond former dead ends.

In one of Jack's books, I read something profound that changed the way my brain thinks. "As you draw the bird," he writes, "try to feel the life within it." So now I look at the bird before me and imagine how it senses the world, how it feels breathing cold air, how it feels to have its feathers ruffling in the wind, how it feels to always have an eye out for possible food and possible predators. The bird sees me and is a nanosecond from flying off, but it stays. Why? By imagining the life within, the bird I am drawing is alive, no longer a shape and its parts, but a thinking, sentient being, always on the brink of doing something. By feeling the life within, I am always conscious that all creatures have personalities, and so do trees and clouds and streams. To feel the life within, I now imagine myself as the bird that is looking at me. I imagine its wariness, the many ways it has almost died in its short life. I worry over its comfort and safety, and whether I will see my little companion the next day, the next year. To feel the life within is to also feel grief in the goneness of a single creature or an entire species. Imagination is where compassion grows.

Let us join with children to imagine and wonder, to use curiosity as the guide to miracles in plain sight. Let us enter with them into wild wonder so that we become guardians together of all that is living and all that must be saved.