

## ERIKA PERLOFF

*Davenport Calm, 2014*  
Pastel on Board, 11 x 14 in



COURTESY THE ARTIST

side, lowering the dish, slowly turning it this way and that until I shout, “I hear them,” and he thrusts his arm in the direction the dish is pointing, and we start up the engine and go. Sometimes we are lucky and the situation is right with the orcas, and we manage to get a satellite tag onto a fin; and then, if we have cell phone service, we might call a colleague in town who can check the website and give us the tagged animal’s last location. But a lot of the time we have no cell phone service. Orcas being the far-ranging, unpredictable creatures they are, days and days can go by without finding them. And we spend those days imagining where they might be, and how to find them.

In their absence, we imagine ourselves into their realm—how the salmon might be moving, and how the orcas might be responding to those movements. And we imagine ourselves back into the past, combing through memory and computer files of previous years’ encounter data, searching for patterns. We imagine them in the context of observations we made the last time we saw them, and in the context of radio calls reporting whale sightings out of our range. We imagine their response to environmental change, bad weather, or the weekend influx of charter boats.

So often our imaginations fail us. And this is the beauty and frustration of studying such animals. It is essentially impossible to imagine the world in which they exist. E.O. Wilson said, “Every creature lives in its own sensory world,” and that is true of every human and every nonhuman; and in the case of an aquatic creature, it is true in an even more striking way. In the case of the orcas I study, how does one comprehend the sensory world of a sonic creature, who receives sound through oil-filled canals in the lower jaw, who reads the environment as echoes? How does one comprehend a creature whose vision is acute only at close range, because ocean water in summer is murky with plankton and light fails to penetrate beyond the surface layers, but whose acoustic abilities are enhanced because sound travels much faster in water than in air? But we try to imagine. It takes a lifetime to comprehend a little of the life of an animal that spends 90 percent of its time below the surface. Without imagination in a case like this, without the willingness to see in our minds what we can’t see with our eyes, without risking being utterly wrong, and without inventing ways to test our theories, we would be

left timing dives, counting breaths and breaches and fluke slaps, and trying to parse meaning from these cold hard numbers. Which would be like trying to parse the meaning of a poem only by considering its meter.

The best scientists I know are people who spend their entire lives trying to imagine themselves into the animal imagination. Like any writer or artist who desires to see clearly, to search for truth, to get past the known and received, they work hard to strip what gets in the way. We think of the scientist as detached, impassive. And yet, as I said earlier, it’s a ruse. In the field, at the computer, the scientist adopts the persona of the objective observer, “the small figure in the landscape who bears witness,” to paraphrase the poet Barbara Guest. That imaginative device of the speaker in a poem that creates distance and perspective and allows us to see freshly—is she that much different from the poet who adopts the mind-set of the scientist to collect the most accurate data possible?

Wonder is the seed of any imaginative act. To wonder, to muse, to be flattened and dazed by, to be awed, stupefied, stumped, befuddled, mystified, to question our own eyes. The imagination is innate to our species. To walk down the dusty road in summer with a ten-year-old girl who is carrying one of those hard briefcases with snaps, and which houses her plant collection, is to be in the realm of both scientific and artistic wonder and method. My ten-year-old nephew Quinn and his best friend Eric, last fall, in a rain- and wind-storm, decided to build a trail down their steep forested bluff to the water. They discovered, among other things, a hidden stream. My sister followed them with a bucket of beach gravel for their trail building, and Eric stopped, turned to her, and said, “This has been the best day of my life—in terms of discovery.” Another boy I know, who is growing up in a Chugachmiut native village in Prince William Sound, shot his first deer at the age of nine. He knows the habits of river otters and martens because he traps them with his father. At home, he meticulously draws prehistoric creatures, and creates detailed sketches of river otters, martens, deer, moths, whales, and insects, using a biology textbook for models. There is no division in his mind. He can simultaneously have wonder and reverence for animals and the impulse to kill and eat them. The same imagination he brings to his knowledge of the natural world he brings to the blank page, to the