The Naturalist

By Barry Lopez

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MY HOME STANDS ON A WOODED BENCH, set back about two hundred feet from the north bank of the McKenzie River in western Oregon. Almost every day I go down to the river with no intention but to sit and watch. I have been watching the river for thirty years, just the three or four hundred yards of it I can see from the forested bank, a run of clear, quick water about 350 feet wide. If I have learned anything here, it's that each time I come down, something I don't know yet will reveal itself.

If it's a man's intent to spend thirty years staring at a river's environs in order to arrive at an explanation of the river, he should find some other way to spend his time. To assert this, that a river can't be known, does not to my way of thinking denigrate science, any more than saying a brown bear can't be completely known. The reason this is true is because the river is not a thing, in the way a Saturn V rocket engine is a thing. It is an expression of biological life, in dynamic relation to everything around it — the salmon within, the violet-green swallow swooping its surface, alder twigs floating its current, a mountain lion sipping its bank water, the configurations of basalt that break its flow and give it timbre and tone.

In my experience with field biologists, those fresh to a task — say, caracara research — are the ones most likely to give themselves a deadline — ten years, say — against which they will challenge themselves to know all there is to know about that falcon. It never works. More seasoned field biologists, not as driven by a need to prove themselves, are content to concentrate on smaller arenas of knowledge. Instead of speaking definitively of coyote, armadillo, or wigeon, they tend to say, "This one animal, that one time, did this in that place." It's the approach to nature many hunting and gathering peoples take, to this day. The view suggests a horizon rather than a boundary for knowing, toward which we are always walking.

A great shift in the Western naturalist's frame of mind over the past fifty years, it seems to me, has been the growth of this awareness: to get anywhere deep with a species, you must immerse yourself in its milieu. You must study its ecology. If you wish to understand the caracara, you need to know a great deal about exactly where the caracara lives when; and what the caracara's relationships are with each of the many components of that place, including its weathers, its elevations, its seasonal light.

A modern naturalist, then, is no longer someone who goes no further than a stamp collector, mastering nomenclature and field marks. She or he knows a local flora and fauna as pieces of an inscrutable mystery, increasingly deep, a unity of organisms Western culture has been trying to elevate itself above since at least Mesopotamian times. The modern naturalist, in fact, has now become a kind of emissary in this, working to reestablish good relations with all the biological components humanity has excluded from its moral universe.

SITTING BY THE RIVER, following mergansers hurtling past a few inches off its surface or eyeing an otter hauled out on a boulder with (in my binoculars) the scales of a trout glistening on its face, I ask myself not: What do I know? — that Canada geese have begun to occupy the nests of osprey here in recent

springs, that harlequin ducks are now expanding their range to include this stretch of the river — but: Can I put this together? Can I imagine the river as a definable entity, evolving in time?

How is a naturalist today supposed to imagine the place between nature and culture? How is he or she to act, believing as many do that Western civilization is compromising its own biology by investing so heavily in material progress? And knowing that many in positions of corporate and political power regard nature as inconvenient, an inefficiency in their plans for a smoothly running future?

The question of how to behave, it seems to me, is nervewracking to contemplate because it is related to two areas of particular discomfort for naturalists. One is how to keep the issue of spirituality free of religious commentary; the other is how to manage emotional grief and moral indignation in pursuits so closely tied to science, with its historical claim to objectivity.

One response to the first concern is that the naturalist's spirituality is one with no icons (unlike religion's), and it is also one that enforces no particular morality. In fact, for many it is not much more than the residue of awe which modern life has not (yet) erased, a sensitivity to the realms of life which are not yet corraled by dogma. The second concern, how a person with a high regard for objectivity deals with emotions like grief and outrage, like so many questions about the trajectory of modern culture, is only a request to express love without being punished. It is, more deeply, an expression of the desire that love be on an equal footing with power when it comes to social change.

It is of some help here, I think, to consider where the modern naturalist has come from, to trace her or his ancestry. Since the era of Gilbert White in eighteenth-century England, by some reckonings, we have had a recognizable

cohort of people who study the natural world and write about it from personal experience. White and his allies wrote respectfully about nature, and their treatments were meant to be edifying for the upper classes. Often, the writer's intent was merely to remind the reader not to overlook natural wonders, which were the evidence of Divine creation. Darwin, in his turn, brought unprecedented depth to this kind of work. He accentuated the need for scientific rigor in the naturalist's inquiries, but he also suggested that certain far-reaching implications existed. Entanglements. People, too, he said, were biological, subject to the same forces of mutation as the finch. A hundred years further on, a man like Aldo Leopold could be characterized as a keen observer, a field biologist who understood a deeper connection (or reconnection) with nature, but also as someone aware of the role wildlife science had begun to play in politics. With Rachel Carson, the artificial but sometimes dramatic divide that can separate the scientist, with her allegiance to objective, peer-reviewed data, from the naturalist, for whom biology always raises issues of propriety, becomes apparent.

Following Leopold's and Carson's generations came a generation of naturalists that combined White's enthusiasm and sense of the nonmaterial world; Leopold's political consciousness and feelings of shared fate; and Carson's sense of rectitude and citizenship. For the first time, however, the humanists among this cadre of naturalists were broadly educated in the sciences. They had grown up with Watson and Crick, not to mention sodium fluoroacetate, Ebola virus ecology, melting ice shelves, and the California condor.

The modern naturalist, acutely even depressingly aware of the planet's shrinking and eviscerated habitats, often feels compelled to do more than merely register the damage. The impulse to protest, however, is often stifled by feelings of defensiveness, a fear of being misread. Years of firsthand field observation can be successfully challenged in court today by a computer

modeler with not an hour's experience in the field. A carefully prepared analysis of stream flow, migration corridors, and long-term soil stability in a threatened watershed can be written off by the press (with some assistance from the opposition) as a hatred of mankind.

At the opening of the twenty-first century the naturalist, then, knows an urgency White did not foresee and a political scariness Leopold might actually have imagined in his worst moments. Further, in the light of the still-unfolding lessons of Charles Darwin's work, he or she knows that a cultural exemption from biological imperatives remains in the realm of science fiction.

IN CONTEMPORARY native villages, one might posit today that all people actively engaged in the land — hunting, fishing, gathering, traveling, camping — are naturalists, and say that some are better than others according to their gifts of observation. Native peoples differ here, however, from the Gilbert Whites, the Darwins, the Leopolds, and the Rachel Carsons in that accumulating and maintaining this sort of information is neither avocation nor profession. It is more comparable to religious activity, behavior steeped in tradition and considered essential for the maintenance of good living. It is a moral and an inculcated stance, a way of being. While White and others, by contrast, were searching for a way back in to nature, native peoples (down to the present in some instances), for what-ever reason, have been at pains not to leave. The distinction is important because "looking for a way back in" is a striking characteristic of the modern naturalist's frame of mind.

Gilbert White stood out among his social peers because what he pursued — a concrete knowledge of the natural world around Selbourne in Hampshire — was unrelated to politics or progress. As such, it could be dismissed politically. Fascinating stuff, but inconsequential. Since then, almost every naturalist has borne the supercilious judgments of various sophisticates who

thought the naturalist a romantic, a sentimentalist, a bucolic — or worse; and more latterly, the condescension of some scientists who thought the naturalist not rigorous, not analytic, not detached enough.

A naturalist of the modern era — an experientially based, well-versed devotee of natural ecosystems — is ideally among the best informed of the American electorate when it comes to the potentially catastrophic environmental effects of political decisions. The contemporary naturalist, it has turned out — again, scientifically grounded, politically attuned, field experienced, library enriched — is no custodian of irrelevant knowledge, no mere adept differentiating among Empidonax flycatchers on the wing, but a kind of citizen whose involvement in the political process, in the debates of public life, in the evolution of literature and the arts, has become crucial.

The bugbear in all of this — and there is one — is the role of field experience, the degree to which the naturalist's assessments are empirically grounded in firsthand knowledge. How much of what the contemporary naturalist claims to know about animals and the ecosystems they share with humans derives from what he has read, what he has heard, what he has seen televised? What part of what the naturalist has sworn his or her life to comes from firsthand experience, from what the body knows?

One of the reasons native people still living in some sort of close, daily association with their ancestral lands are so fascinating to those who arrive from the rural, urban, and suburban districts of civilization is because they are so possessed of authority. They radiate the authority of firsthand encounters. They are storehouses of it. They have not read about it, they have not compiled notebooks and assembled documentary photographs. It is so important that they remember it. When you ask them for specifics, the depth of what they can offer is scary. It's scary because it's not tidy, it doesn't lend itself to summation. By the very way that they say that they know, they

suggest they are still learning something that cannot, in the end, be known.

It is instructive to consider how terrifying certain inter-lopers — rural developers, government planners, and other apostles of change — can seem to such people when, on the basis of a couple of books the interloper has read or a few (usually summer) weeks in the field with a pair of binoculars and some radio collars, he suggests a new direction for the local ecosystem and says he can't envision any difficulties.

IN ALL THE YEARS I have spent standing or sitting on the banks of this river, I have learned this: the more knowledge I have, the greater becomes the mystery of what holds that knowledge together, this reticulated miracle called an ecosystem. The longer I watch the river, the more amazed I become (afraid, actually, sometimes) at the confidence of those people who after a few summer seasons here are ready to tell the county commissioners, emphatically, what the river is, to scribe its meaning for the outlander.

Firsthand knowledge is enormously time consuming to acquire; with its dallying and lack of end points, it is also out of phase with the short-term demands of modern life. It teaches humility and fallibility, and so represents an antithesis to progress. It makes a stance of awe in the witness of natural process seem appropriate, and attempts at summary knowledge naÃ¯ve. Historically, tyrants have sought selectively to eliminate firsthand knowledge when its sources lay outside their control. By silencing those with problematic firsthand experiences, they reduced the number of potential contradictions in their political or social designs, and so they felt safer. It is because natural process — how a mountain range disintegrates or how nitrogen cycles through a forest — is beyond the influence of the visionaries of globalization that firsthand knowledge of a country's ecosystems, a rapidly diminishing pool of expertise and awareness, lies at the radical edge of any country's political thought.

OVER THE YEARS I have become a kind of naturalist, although I previously rejected the term because I felt I did not know enough, that my knowledge was far too incomplete. I never saw myself in the guise of Gilbert White, but I respected his work enough to have sought out his grave in Selbourne and expressed there my gratitude for his life. I never took a course in biology, not even in high school, and so it seemed to me that I couldn't really be any sort of authentic naturalist. What biology I was able to learn I took from books, from veterinary clinics, from an apprenticeship to my homeland in the Cascades, from field work with Western biologists, and from traveling with hunters and gatherers. As a naturalist, I have taken the lead of native tutors, who urged me to participate in the natural world, not hold it before me as an object of scrutiny.

When I am by the river, therefore, I am simply there. I watch it closely, repeatedly, and feel myself not apart from it. I do not feel compelled to explain it. I wonder sometimes, though, whether I am responding to the wrong question when it comes to speaking "for nature." Perhaps the issue is not whether one has the authority to claim to be a naturalist, but whether those who see themselves as naturalists believe they have the authority to help shape the world. What the naturalist-as-emissary intuits, I think, is that if he or she doesn't speak out, the political debate will be left instead to those seeking to benefit their various constituencies. Strictly speaking, a naturalist has no constituency.

To read the newspapers today, to merely answer the phone, is to know the world is in flames. People do not have time for the sort of empirical immersion I believe crucial to any sort of wisdom. This terrifies me, but I, too, see the developers' bulldozers arrayed at the mouth of every canyon, poised at the edge of every plain. And the elimination of these lands, I know, will further reduce the extent of the blueprints for undamaged life. After the last undomesticated stretch of land is brought to heel, there will be only records

— strips of film and recording tape, computer printouts, magazine articles, books, laser-beam surveys — of these immensities. And then any tyrant can tell us what it meant, and in which direction we should now go. In this scenario, the authority of the grizzly bear will be replaced by the authority of a charismatic who says he represents the bear. And the naturalist — the ancient emissary to a world civilization wished to be rid of, a world it hoped to transform into a chemical warehouse, the same uneasy emissary who intuited that to separate nature from culture wouldn't finally work — will be an orphan. He will become a dealer in myths.

What being a naturalist has come to mean to me, sitting my mornings and evenings by the river, hearing the clack of herons through the creak of swallows over the screams of osprey under the purl of fox sparrows, so far removed from White and Darwin and Leopold and even Carson, is this: Pay attention to the mystery. Apprentice to the best apprentices. Rediscover in nature your own biology. Write and speak with appreciation for all you have been gifted. Recognize that a politics with no biology, or a politics without field biology, or a political platform in which human biological requirements form but one plank, is a vision of the gates of Hell.

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