

up the purple foot-hills, and into these piny woods with the varied incense gathered by the way.

15 Winds are advertisements of all they touch, however much or little we may be able to read them; telling their wanderings even by their scents alone. Mariners detect the flowery perfume of land-winds far at sea, and sea-winds carry the fragrance of dulse and tangle far inland, where it is quickly recognized, though mingled with the scents of a thousand land-flowers. As an illustration of this, I may tell here that I breathed sea-air on the Firth of Forth, in Scotland, while a boy; then was taken to Wisconsin, where I remained nineteen years; then, without in all this time having breathed one breath of the sea, I walked quietly, alone, from the middle of the Mississippi Valley to the Gulf of Mexico, on a botanical excursion, and while in Florida, far from the coast, my attention wholly bent on the splendid tropical vegetation about me, I suddenly recognized a sea-breeze, as it came sifting through the palmettos and blooming vine-tangles, which at once awakened and set free a thousand dormant associations, and made me a boy again in Scotland, as if all the intervening years had been annihilated.

Most people like to look at mountain rivers, and bear them in mind; but few care to look at the winds, though far more beautiful and sublime, and though they become at times about as visible as flowing water. When the north winds in winter are making upward sweeps over the curving summits of the High Sierra, the fact is sometimes published with flying snow-banners a mile long. Those portions of the winds thus embodied can scarce be wholly invisible, even to the darkest imagination. And when we look around over an agitated forest, we may see something of the wind that stirs it, by its effects upon the trees. Yonder it descends in a rush of water-like ripples, and sweeps over the bending pines from hill to hill. Nearer, we see detached plumes and leaves, now speeding by on level currents, now whirling in eddies, or, escaping over the edges of the whirls, soaring aloft on grand, upswelling domes of air, or tossing on flame-like crests. Smooth, deep currents, cascades, falls, and swirling eddies, sing around every tree and leaf, and over all the varied topography of the region with telling changes of form, like mountain rivers conforming to the features of their channels.

After tracing the Sierra streams from their fountains to the plains, marking where they bloom white in falls, glide in crystal plumes, surge gray and foam-filled in boulder-choked gorges, and slip through the woods in long, tranquil reaches—after thus learning their language and forms in detail, we may at length hear them chanting all together in one grand anthem, and comprehend them all in clear inner vision, covering the range like lace. But even this spectacle is far less sublime and not a whit more substantial than what we may behold of these storm-streams of air in the mountain woods.

We all travel the milky way together, trees and men; but it never occurred to me until this stormday, while swinging in the wind, that trees are travelers, in the ordinary sense. They make many journeys, not extensive ones, it is true; but our own little journeys, away and back again, are only little more than tree-wavings—many of them not so much.

When the storm began to abate, I dismounted and sauntered down

through the calming woods. The storm-tones died away, and, turning toward the east, I beheld the countless hosts of the forests hushed and tranquil, towering above one another on the slopes of the hills like a devout audience. The setting sun filled them with amber light, and seemed to say, while they listened, "My peace I give unto you."

As I gazed on the impressive scene, all the so-called ruin of the storm was forgotten, and never before did these noble woods appear so fresh, so joyous, so immortal.

20

QUESTIONS

1. What preconceptions did you bring to Muir's title, "A Wind-Storm in the Forests"? How does the opening sentence—indeed, the entire opening paragraph—suggest a different perspective?
2. The central adventure in this essay occurs when Muir climbs a Douglas Spruce (paragraph 9). Why does Muir undertake this climb? What does he wish to experience?
3. Write about an experience you have had in nature, whether dramatic (as in Muir's essay) or more quiet (as in Aldo Leopold's, also in this section).

Edward Abbey

THE SERPENTS OF PARADISE

The April mornings are bright, clear and calm. Not until the afternoon does the wind begin to blow, raising dust and sand in funnel-shaped twisters that spin across the desert briefly, like dancers, and then collapse—whirlwinds from which issue no voice or word except the forlorn moan of the elements under stress. After the reconnoitering dust devils comes the real, the serious wind, the voice of the desert rising to a demented howl and blotting out sky and sun behind yellow clouds of dust, sand, confusion, embattled birds, last year's scrub-oak leaves, pollen, the husks of locusts, bark of juniper. . . .

Time of the red eye, the sore and bloody nostril, the sand-pitted windshield, if one is foolish enough to drive his car into such a storm. Time to sit indoors and continue that letter which is never finished—while the fine dust forms neat little windrows under the edge of the door and on the windowsills. Yet the springtime winds are as much a part of the canyon country as the silence and the glamorous distances, you learn, after a number of years, to love them also.

The mornings therefore, as I started to say and meant to say, are all the sweeter in the knowledge of what the afternoon is likely to bring. Before be-



from one stunted tree to the next and back again, erratic exuberant games without any apparent practical function. A few big ravens hang around and croak harsh clanking statements of smug satisfaction from the rimrock, lifting their greasy wings now and then to probe for lice. I can hear but sel-

dom see the canyon wrens singing their distinctive song from somewhere up on the cliffs: a flutelike descent—never ascent—of the whole tone scale. Staking out new nesting claims, I understand. Also invisible but invariably present at some indefinable distance are the mourning doves whose plaintive call suggests irresistibly a kind of seeking out, the attempt by separated souls to restore a lost communion:

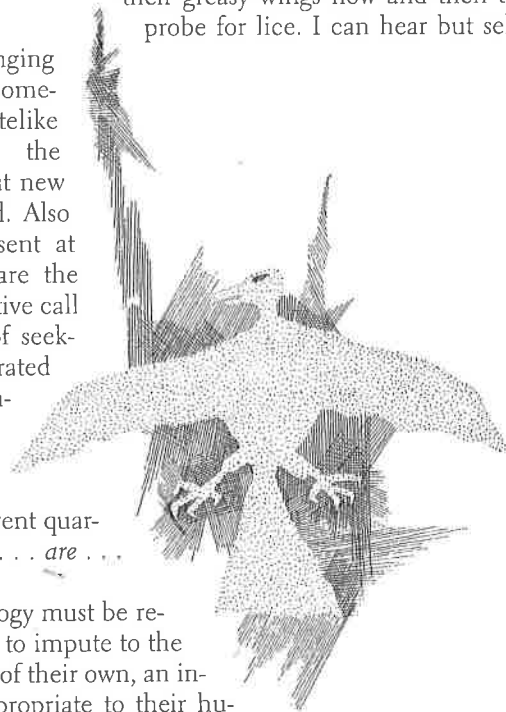
5 Hello . . . they seem to cry, who . . . are . . . you?

And the reply from a different quarter. Hello . . . (pause) where . . . are . . . you?

No doubt this line of analogy must be rejected. It's foolish and unfair to impute to the doves, with serious concerns of their own, an interest in questions more appropriate to their hu-

ginning the morning chores I like to sit on the sill of my doorway, bare feet planted on the bare ground and a mug of hot coffee in hand, facing the sunrise. The air is gelid, not far above freezing, but the butane heater inside the trailer keeps my back warm, the rising sun warms the front, and the coffee warms the interior.

Perhaps this is the loveliest hour of the day, though it's hard to choose. Much depends on the season. In mid-summer the sweetest hour begins at sundown, after the awful heat of the afternoon. But now, in April, we'll take the opposite, that hour beginning with the sunrise. The birds, returning from wherever they go in winter, seem inclined to agree. The pinyon jays are whirling in garrulous, gregarious flocks



man kin. Yet their song, if not a mating call or a warning, must be what it sounds like, a brooding meditation on space, on solitude. The game.

Other birds, silent, which I have not yet learned to identify, are also lurking in the vicinity, watching me. What the ornithologist terms l.g.b.'s—little gray birds—they flit about from point to point on noiseless wings, their origins obscure.

* * * I share the housetrailer with a number of mice. I don't know how many but apparently only a few, perhaps a single family. They don't disturb me and are welcome to my crumbs andavings. Where they came from, how they got into the trailer, how they survived before my arrival (for the trailer had been locked up for six months), these are puzzling matters I am not prepared to resolve. My only reservation concerning the mice is that they do attract rattlesnakes.

I'm sitting on my doorstep early one morning, facing the sun as usual, drinking coffee, when I happen to look down and see almost between my bare feet, only a couple of inches to the rear of my heels, the very thing I had in mind. No mistaking that wedgelike head, that tip of horny segmented tail peeping out of the coils. He's under the doorstep and in the shade where the ground and air remain very cold. In his sluggish condition he's not likely to strike unless I rouse him by some careless move of my own.

There's a revolver inside the trailer, a huge British Webley .45, loaded, but it's out of reach. Even if I had it in my hands I'd hesitate to blast a fellow creature at such close range, shooting between my own legs at a living target flat on solid rock thirty inches away. It would be like murder; and where would I set my coffee? My cherrywood walking stick leans against the trailerhouse wall only a few feet away, but I'm afraid that in leaning over for it I might stir up the rattler or spill some hot coffee on his scales.

Other considerations come to mind. Arches National Monument¹ is meant to be among other things a sanctuary for wildlife—for all forms of wildlife. It is my duty as a park ranger to protect, preserve and defend all living things within the park boundaries, making no exceptions. Even if this were not the case I have personal convictions to uphold. Ideals, you might say. I prefer not to kill animals. I'm a humanist; I'd rather kill a *man* than a snake.

What to do. I drink some more coffee and study the dormant reptile at my heels. It is not after all the mighty diamondback, *Crotalus atrox*, I'm confronted with but a smaller species known locally as the horny rattler or more precisely as the Faded Midget. An insulting name for a rattlesnake, which may explain the Faded Midget's alleged bad temper. But the name is apt: he is small and dusty-looking, with a little knob above each eye—the horns. His bite though temporarily disabling would not likely kill a full-grown man in normal health. Even so I don't really want him around. Am I to be compelled to put on boots or shoes every time I wish to step outside? The scorpions, tarantulas, centipedes, and black widows are nuisance enough.

I finish my coffee, lean back and swing my feet up and inside the doorway of the trailer. At once there is a buzzing sound from below and the rattler lifts

1. Near Moab, Utah, in the spectacular Canyonlands region, where Abbey lived at the time.



his head from his coils, eyes brightening, and extends his narrow black tongue to test the air.

After thawing out my boots over the gas flame I pull them on and come back to the doorway. My visitor is still waiting beneath the doorstep, basking in the sun, fully alert. The trailerhouse has two doors. I leave by the other and get a long-handled spade out of the bed of the government pickup. With this tool

I scoop the snake into the open. He strikes, I can hear the click of the fangs against steel, see the stain of venom. He wants to stand and fight, but I am patient; I insist on herding him well away from the trailer. On guard, head aloft—that evil slit-eyed weaving head shaped like the ace of spades—tail whirring, the rattler slithers sideways, retreating slowly before me until he reaches the shelter of a sandstone slab. He backs under it.

You better stay there, cousin, I warn him; if I catch you around the trailer again I'll chop your head off.

A week later he comes back. If not him his twin brother. I spot him one morning under the trailer near the kitchen drain, waiting for a mouse. I have to keep my promise.

This won't do. If there are midget rattlers in the area there may be diamondbacks too—five, six or seven feet long, thick as a man's wrist, dangerous. I don't want them camping under my home. It looks as though I'll have to trap the mice.

However, before being forced to take that step I am lucky enough to capture a gopher snake. Burning garbage one morning at the park dump, I see a long slender yellow-brown snake emerge from a mound of old tin cans and plastic picnic plates and take off down the sandy bed of a gulch. There is a burlap sack in the cab of the truck which I carry when plucking Kleenex flowers from the brush and cactus along the road; I grab that and my stick, run after the snake and corner it beneath the exposed roots of a bush. Making sure it's a gopher snake and not something less useful, I open the neck of the sack and with a great deal of coaxing and prodding get the snake into it. The gopher snake, *Drymarchon corais couperi*, or bull snake, has a reputation as the enemy of rattlesnakes, destroying or driving them away whenever encountered.

Hoping to domesticate this sleek, handsome and docile reptile, I release him inside the trailerhouse and keep him there for several days. Should I attempt to feed him? I decide against it—let him eat mice. What little water he may need can also be extracted from the flesh of his prey.

The gopher snake and I get along nicely. During the day he curls up like a

cat in the warm corner behind the heater and at night he goes about his business. The mice, singularly quiet for a change, make themselves scarce. The snake is passive, apparently contented, and makes no resistance when I pick him up with my hands and drape him over an arm or around my neck. When I take him outside into the wind and sunshine his favorite place seems to be inside my shirt, where he wraps himself around my waist and rests on my belt. In this position he sometimes sticks his head out between shirt buttons for a survey of the weather, astonishing and delighting any tourists who may happen to be with me at the time. The scales of a snake are dry and smooth, quite pleasant to the touch. Being a cold blooded creature, of course, he takes his temperature from that of the immediate environment—in this case my body.

We are compatible. From my point of view, friends. After a week of close association I turn him loose on the warm sandstone at my doorstep and leave for a patrol of the park. At noon when I return he is gone. I search everywhere beneath, nearby and inside the trailerhouse, but my companion has disappeared. Has he left the area entirely or is he hiding somewhere close by? At any rate I am troubled no more by rattlesnakes under the door.

The snake story is not yet ended.

In the middle of May, about a month after the gopher snake's disappearance, in the evening of a very hot day, with all the rosy desert cooling like a griddle with the fire turned off, he reappears. This time with a mate.

I'm in the stifling heat of the trailer opening a can of beer, barefooted, about to go outside and relax after a hard day watching cloud formations. I happen to glance out the little window near the refrigerator and see two gopher snakes on my verandah engaged in what seems to be a kind of ritual dance. Like a living caduceus they wind and unwind about each other in undulant, graceful, perpetual motion, moving slowly across a dome of sandstone. Invisible but tangible as music is the passion which joins them—sexual? combative? both? A shameless voyeur, I stare at the lovers, and then to get a closer view run outside and around the trailer to the back. There I get down on hands and knees and creep toward the dancing snakes, not wanting to frighten or disturb them. I crawl to within six feet of them and stop, flat on my belly, watching from the snake's eye level. Obsessed with their ballet, the serpents seem unaware of my presence.

The two gopher snakes are nearly identical in length and coloring; I cannot be certain that either is actually my former household pet. I cannot even be sure that they are male and female, though their performance resembles so strongly a *pas de deux*² by formal lovers. They intertwine and separate, glide side by side in perfect congruence, turn like mirror images of each other and glide back again, wind and unwind again. This is the basic pattern but there is a variation: at regular intervals the snakes elevate their heads, facing one another, as high as they can go, as if each is trying to outreach or overawe the other. Their heads and bodies rise, higher and higher, then topple together and the rite goes on.

2. Literally, step for two (French), a dance for two dancers.

I crawl after them, determined to see the whole thing. Suddenly and simultaneously they discover me, prone on my belly a few feet away. The dance stops. After a moment's pause the two snakes come straight toward me, still in flawless unison, straight toward my face, the forked tongues flickering, their intense wild yellow eyes staring directly into my eyes. For an instant I am paralyzed by wonder; then, stung by a fear too ancient and powerful to overcome I scramble back, rising, to my knees. The snakes veer and turn and race away from me in parallel motion, their lean elegant bodies making a soft hissing noise as they slide over the sand and stone. I follow them for a short distance, still plagued by curiosity, before remembering my place and the requirements of common courtesy. For godsake let them go in peace, I tell myself. Wish them luck and (if lovers) innumerable offspring, a life of happily ever after. Not for their sake alone but for your own.

In the long hot days and cool evenings to come I will not see the gopher snakes again. Nevertheless I will feel their presence watching over me like totemic deities, keeping the rattlesnakes far back in the brush where I like them best, cropping off the surplus mouse population, maintaining useful connections with the primeval. Sympathy, mutual aid, symbiosis, continuity.

How can I descend to such anthropomorphism? Easily—but is it, in this case, entirely false? Perhaps not. I am not attributing human motives to my snake and bird acquaintances. I recognize that when and where they serve purposes of mine they do so for beautifully selfish reasons of their own. Which is exactly the way it should be. I suggest, however, that it's a foolish, simple-minded rationalism which denies any form of emotion to all animals but man and his dog. This is no more justified than the Moslems are in denying souls to women. It seems to me possible, even probable, that many of the nonhuman undomesticated animals experience emotions unknown to us. What do the coyotes mean when they yodel at the moon? What are the dolphins trying so patiently to tell us? Precisely what did those two enraptured gopher snakes have in mind when they came gliding toward my eyes over the naked sandstone? If I had been as capable of trust as I am susceptible to fear I might have learned something new or some truth so very old we have all forgotten it.

They do not sweat and whine about their condition.

They do not lie awake in the dark and weep for their sins.³

All men are brothers, we like to say, half-wishing sometimes in secret it were not true. But perhaps it is true. And is the evolutionary hue from protozoan to Spinoza⁴ any less certain? That also may be true. We are obliged, therefore, to spread the news, painful and bitter though it may be for some to hear, that all living things on hand are kindred. . . .

3. From Walt Whitman's *Song of Myself*, sec. 32.

4. Baruch Spinoza (1632–1677), Dutch philosopher known today for his writings on the doctrine of pantheism.

QUESTIONS

1. Why is the word "paradise" included in the title? What does it reveal about Abbey's attitude toward the desert in which he lives?
2. "I'd rather kill a man than a snake," writes Abbey in paragraph 12; yet three paragraphs later he threatens, "if I catch you around the trailer again I'll chop your head off" (paragraph 16). What are the rhetorical purposes of these statements? How do they articulate the thematic concerns of the essay?
3. Write an essay in which you use your own experience in nature to defend an ecological or environmental cause.
4. Write about your own encounter with an animal, whether domesticated or wild.

Alexander Petrunkevitch

THE SPIDER AND THE WASP

In the feeding and safeguarding of their progeny insects and spiders exhibit some interesting analogies to reasoning and some crass examples of blind instinct. The case I propose to describe here is that of the tarantula spiders and their archenemy, the digger wasps of the genus *Pepsis*. It is a classic example of what looks like intelligence pitted against instinct—a strange situation in which the victim, though fully able to defend itself, submits unwittingly to its destruction.

Most tarantulas live in the tropics, but several species occur in the temperate zone and a few are common in the southern U.S. Some varieties are large and have powerful fangs with which they can inflict a deep wound. These formidable looking spiders do not, however, attack man; you can hold one in your hand, if you are gentle, without being bitten. Their bite is dangerous only to insects and small mammals such as mice; for man it is no worse than a hornet's sting.

Tarantulas customarily live in deep cylindrical burrows, from which they emerge at dusk and into which they retire at dawn. Mature males wander about after dark in search of females and occasionally stray into houses. After mating, the male dies in a few weeks, but a female lives much longer and can mate several years in succession. In a Paris museum is a tropical specimen which is said to have been living in captivity for 25 years.

A fertilized female tarantula lays from 200 to 400 eggs at a time; thus it is possible for a single tarantula to produce several thousand young. She takes no care of them beyond weaving a cocoon of silk to enclose the eggs. After they hatch, the young walk away, find convenient places in which to dig their