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Summer Rain

by Clarisse Hart

In a place with no dry season, when the ground cries out for rain: listen—

the dusty rake of the breeze, the rattle of vacant leaves,

a sprinkler hissing on to pacify the garden.

Suddenly the air shifts, sags heavy, like a two-week balloon.
But it's a promising weight, not like the dark boxes you've been carrying.

Hush! What's been promised for days is now prickling your skin.

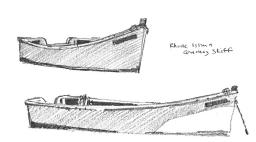
A rush of wind tousles the coral bells, and the first drops scatter down the black rungs of maidenhair fern, landing in thick pops against the dirt.

The sighing ground steams.

You stand, clothes soaking, cool rivulets twisting down your spine.

You set down a few of the dark boxes.

The beaver, too, always starts his work with a flood.



Wildness and Wellness

by Ann Prince



ass Audubon's director of Land Protection, Bob Wilber, has devoted his career to land preservation. He recognizes that every piece of wildland—little or large, close by or faraway—is an asset. Although he's often involved in complex transactions that save large tracts in the state, Wilber, who lives in Stow, knows firsthand that even tiny parcels of green space have great significance. "There's a small place in the woods behind my house where after a long day at work I just sit and relax a little," he says. "The benefits of taking time to decompress in a park or sanctuary are often astonishing."

Mass Audubon owns more than 30,000 acres in our statewide system of

wildlife sanctuaries, which represents the largest ownership of privately held land in Massachusetts, in addition to the 5,000 acres the organization holds under conservation restriction. Other permanently protected properties belong to the federal government, the state, municipalities, private organizations, and private citizens.

Over 2,000 square miles—a quarter of the state's land—has been conserved, covering a footprint larger than that of developed land. "Given the fact that Massachusetts is the third most densely populated state in the union," Wilber says, "this is powerful validation of our proud legacy of land conservation."

Ecologically, it is essential to preserve land to keep water pure and drinkable, provide habitat for native wildlife and for plants that release oxygen and consume carbon dioxide, and, in coastal areas, create buffers to compensate for the sea level rise. Not a new concept and equally compelling, conserving land—both wild and tamed—is an asset to health and happiness, for the collective mind, body, and spirit of humanity.

In their essay *The Powerful Link Between Conserving Land and Preserving Human Health*, Howard Frumkin, MD, and Richard Louv demonstrate that time spent absorbed in nature is essential and that land conservation can be considered a strategy for reinforcing public health. In fact, a host of scientific studies are finally documenting what many already knew: human beings have an undeniable need for nature. Yet wilderness and even our planet's atmosphere are severely threatened—the earth is now more vulnerable than ever, and many would argue that our environmental problems stem from an imbalance caused in part by humans' disassociation from the natural world as a result of our industrialized electronic society.

John Cohen, a prominent eco-psychologist, believes that humanity's excesses and overconsumption are directly linked to our lives being separate from the natural environment. "We all make contact through the same planet yet 95 percent of peoples' time is spent indoors," he says. "Our senses are being fulfilled in artificial ways rather than through our inborn attraction to nature."

This trend of separation from our roots in the earth and our branches in the

sky has been emerging for a long time. Decades ago, artist Marc Chagall (1887-1985) wrote, "The habit of ignoring nature is deeply implanted in our time. This attitude reminds me of people who never look you in the eye; I find them disturbing and always look away."

Nowadays, when so many distractions work to break our ancestral cord with nature, nevertheless ingrained in every person is an affinity too strong to fully ignore. "There is an inseparable connection between humans and the earth," Wilber says, describing our innate deep-rooted bond with the natural world. This is apparent in adults as well as young children. There is no doubt that communing with nature has a profoundly positive effect.

Children love adventures outdoors. In Scandinavia a reverence for direct nature experience is the cornerstone of education; in fact, there is a Norwegian word, *friluftsliv*, that translates to "free air life." The main tenet of *friluftsliv* is that children must enter into nature in an uncomplicated way, which is their first inclination anyway.

One early-June morning at Mass Audubon's Broad Meadow Brook Wildlife Sanctuary, a group of second graders from West Tatnick Elementary School in Worcester went on a "habitat exploration" with staff naturalist Christy Barnes. The enthusiastic children began with a deluge of questions. "Are there bears?" "Are there porcupines?" "Any turtles?" Once the schoolchildren were satisfied with the answers—no bears, perhaps porcupines, definitely turtles—they followed Christy into the woods, completely captivated by the environment.

Broad Meadow Brook's education coordinator, Elizabeth Lynch, says that there are many things that she admires in young visitors like these. "Their creativity tends to not be stifled," she says. "There's lots of hands-on learning and teaching through inquiry—being in this natural setting leads to that." Next thing the children who've come with their schools become regulars, along with their families. "We have lots of repeaters," says Lynch. "They end up coming back over and over."

That June day in the field, the schoolchildren were unintentionally encountering the intrinsic quality of *friluftsliv*. The group wound along the trail,

crossing slow-moving Broad Meadow Brook, listening to melodious birds calling and foghorn-like bullfrogs singing, sniffing skunk cabbage and sassafras leaves, and passing around a crayfish exoskeleton and even a dead dried-up salamander. Although it's a sanctuary of woodlands, wetlands, and meadows, buzzing traffic from Route 20 was loud near the southern boundary: a reminder of the relief afforded all those who wander the five-mile trail system.

All of a sudden one of the girls shuddered—the drama of the day was taking place almost at their feet. A small garter snake was consuming a big green frog. All eyes were on the handsome stripped snake as it unhinged its jaw while the children watched, rapt and now silent, as the reptile continued to swallow. Once the frog had been gulped down whole, the snake slithered away.

The child-nature interface is just one facet when it comes to saving open spaces for people. Adults depend upon green space too. Without oases from the built environment, places to escape from the barrage of electronic messages, according to eco-psychology, we wouldn't have the chance to reorient ourselves with elements of the earth that keep us centered and sane. John Cohen says that our inner attachment to land, water, sky, sun, moon, stars, planets, gravity, wind, rainfall, soil, sown seeds, growth, plants, animals, form, design, color, light, shadow, dawn, nightfall, temperature, all these and more, bring fulfillment and happiness.

The main avenue toward uniting people with nature is preserving land wherever and whenever possible. Every intact piece of the outdoors is a saving grace for someone. Mass Audubon's Bob Wilber states, "I often talk about our land base serving double duty. The peace and solitude that a natural setting provides are increasingly important."

Wilber highlighted some of Mass Audubon's sanctuaries with special attributes—two of which were largely established in the 1970s at opposite corners of the state: High Ledges in northwestern Massachusetts, 15 miles from the Vermont border in the town of Shelburne, and Felix Neck, southeast of Cape Cod in Edgartown on Martha's Vineyard.

According to the principles of eco-psychology, "Reason and language

account for only 4 percent of our inherent means to know and love nature."

Martha's Vineyard artist-conservationist Rand Hopkinson is an observer and painter of landscapes. He calls the natural entities, with their magnetic pull that defies words, "the intangibles." At 194-acre Felix Neck, Hopkinson sees the most heart-stopping skies and the most subtle animal signs.

The solitude of this sanctuary is priceless. Across Sengekontacket Pond, beach crowds are omnipresent in midsummer and traffic tirelessly courses along the barrier beach causeway, yet here one can neither see nor hear another human. Hopkinson is philosophical: "The point is the contrast, without being able to come to a quiet place like this your thoughts are always drowned out by the noise. Finding ourselves in the realm of natural events frees us from the day-to-day. We've been caught up in what we thought was important; this reminds us it's not. When you're out on a walk you're able to be more present. What is your awareness? How engaged are you? Why are you here? What are you doing? When you ask yourself the deeper questions, you realize there's this thing going on that's greater than yourself."

Spellbound by the remoteness, visitors to 600-acre High Ledges may believe that the place is enchanted. The songbirds are kindred creatures—hermit thrushes, flutists sounding their heavenly notes in a fern-filled clearing along a wooded wetland; scarlet tanagers, alighting on young slender maples then flying high up into the forest canopy. The color green is ubiquitous—leaves, fronds, grasses, mosses, lichens. Green, "a restful quiet color," according to the Global Healing Center, promotes "soothing harmonious feelings." Blue has a similar effect.

"The blue sky, the brown soil beneath, the grass, the trees, the animals, the wind and rain, and stars are never strange to me," wrote novelist W. H. Hudson (1841-1922), "for I am in and of and am one of them."

Saving open spaces of course extends beyond the boundaries of our small state of Massachusetts. Fortunately, the ongoing movement to conserve millions of acres across the country and around our sphere can help counteract industrial society's indifference to ecology and a sustainable planet.

One federal preserve is the Rachel Carson National Wildlife Refuge—50 miles

of Maine coastline that preserves habitat for salt marsh birds, waterfowl, shorebirds, songbirds, and mammals—named in her honor. In 1953 Carson built a summer cottage on Southport Island in the mouth of the Sheepscott River off of Boothbay. As well as writing the seminal environmental book *Silent Spring*, she also wrote *A Sense of Wonder*. The latter book addresses the freshness and instinct that children have for those native things observed out-of-doors that give us breathless joy.

Rachel Carson believed that the wide-eyed excitement for what is beautiful in nature is often dimmed and lost before we become adults. "It is a wholesome and necessary thing," she wrote, "for us to turn again to the earth and in contemplation of her beauties to know the sense of wonder and humility." She herself clearly retained that sense of wonder. It lives on in much of her work. She had "a deep dark woodland" north of her cottage that she called the Lost Woods where she could hear the "hollow boom of the sea striking against the rocks" and watch the migrating monarch butterflies. Carson was instrumental in saving the Lost Woods.

There are public protected areas throughout the country, acquired by government agencies at national, state, regional, and municipal levels. The US National Parks alone comprise more than 400 separate areas covering upwards of 84 million acres. In 2014, 293 million people visited these landmarks, including forests and parks, lakeshores, seashores, and scenic rivers. This does not include national marine sanctuaries (12 million acres), nor the national forests (190 million acres), nor national wildlife refuges (150 million acres).

State parks—some of which are massive in size and comparable in stature and significance to national parks—also draw visitors escaping their overwrought cluttered lifestyles. By 2010 land trust initiatives nationwide had set aside 47 million acres in the US. The Land Trust Alliance, with 1,100 member land trusts from across the country, points out that its goal is to make it possible for every person in America to live within 10 minutes of a park, trail, or green space. Healthfulness for the people served by these places of respite is a primary purpose stated in the organization's comprehensive vision.

Conserving land is essential for humanity all over the globe—and many foreign countries host giant reserves covering thousands of square miles, preserving habitat and wildlife while taking into account the livelihood of local citizens. In sum total there are 160,000 protected areas in the world, covering well over a tenth of the globe's surface, and encompassing both land and sea. The largest national park in the world, 358,000-square-mile Northeast Greenland National Park, is an International Biosphere Reserve. Polar bears, walruses, arctic foxes, and musk oxen are resident mammals. Ptarmigans, great northern divers, snowy owls, and gyrfalcons are among the breeding birds.

Kavango-Zambezi Transfrontier Conservation Area, a protected area made up of properties of the five bordering countries of Angola, Botswana, Namibia, Zambia, and Zimbabwe, covers 111,000 square miles of land and includes 16 national parks. The adjacent nations formed the conservation area through work with the Peace Parks Foundation and the World Fund for Nature with the purpose of allowing migration of mammals across borders and also encouraging tourism. Victoria Falls, a World Heritage Site, is one of the extraordinary features of the area, along with wildlife such as the endangered African elephant, cheetah, and Nile crocodile.

In the 1980s, Mass Audubon formed a partnership to work with conservationists in Belize to establish and sustainably manage parks and reserves. At the time there were already numerous national parks in the country and widespread understanding among Belizeans for the value of their natural heritage. The initial project, working with counterparts in the country, was Programme for Belize (PfB), founded in 1988. The project's principal focus was creation of the Rio Bravo Conservation and Management Area, now amounting to 260,000 acres in the northwestern corner of this small Central American nation.

A tract with tropical forest, pine savannah, wetlands, lagoons, and riparian habitats, Rio Bravo is distinguished by its immense biodiversity, including 400 species of birds, 200 species of trees, and 70 species of mammals. "Thank goodness

that the natural beauty of the forests is still ever present and something that can never be improved upon," said PfB Executive Director Edilberto Romero. "Every time of day has a special magic. Morning and evening walks are full of jungle sounds with brilliant flashes of toucans, trogons, parrots, motmots, and the like."

Mass Audubon has continued its longtime relationship with conservationists in Central America through our Belize Conservation Fund and various exchanges, with our naturalists visiting the country to learn and share knowledge as well as playing host to our Belizean friends. In addition to collaborating with Programme for Belize, Mass Audubon also works closely with the Toledo Institute for Development and Environment (TIDE), which works in the southernmost district of the country to help research, monitor, and manage the natural resources there. It was initially formed as a grassroots initiative to respond to manatee poaching, illegal fishing and logging, and destructive farming methods.

Karena Mahung, whose mother, Celia Mahung, is the executive director of TIDE, grew up in Punta Gorda and spent much of her childhood on the cayes of Belize. Her family often took 45-minute weekend boat rides out to the Port Honduras Marine Reserve off the coast from her hometown. "It's a spectacular seascape with an immensely calming effect," she says. "We'd snorkel and swim off West Snake Caye and picnic on a lovely isolated beach. From the tiny mangrove island, in the distance we could see the Guatemalan and Honduran mountainscape. And there were cool wildlife sightings—dolphins, manatees, sea turtles, frigatebirds. The memories of the turqoise blue waters and fishing with my dad bring me a sense of calmness and joy to this day."

"I realize that I am lucky to have parents who had the capacity to provide me with these experiences. The boat trips also allowed me to experience firsthand the realities of illegal fishing by both locals and foreigners in our territorial waters, and poaching of beloved manatees." That is why locals and governmental officials established the reserve in 1997. It protects an array of habitats such as inshore, patch, and fringing reefs; seagrass beds; and 138 mangrove cayes. This invaluable natural resource can now continue to be used sustainably as an important local traditional fishery.

As with other individuals who spent their youth immersed in wilds close to home, Mahung was deeply inspired. "Exposure at a very early age to these natural wonders and the resource management challenges threatening them made me want to be an environmentalist," she adds.

To carry forward her goal to establish a career preserving wildlife, habitats, and local sustainable use of natural resources, Mahung attended the University of the West Indies in Trinidad and Tobago, a regional university for the Caribbean. She majored in Environmental and Resource Management and in 2014 worked as a fall intern at Mass Audubon. Now she's in her second year working on a graduate degree at the Yale School of Forestry and Environmental Studies. She is working toward a career that will focus on ensuring proper management of resources and maintenance of natural areas so that communities that have long cultural and historical ties to the land and sea can continue with their traditional livelihoods. She aims to support innovative conservation finance mechanisms that both increase and maximize investments in conservation, and take preservation much further than acquisition.

The Port Honduras Marine Reserve is a significant resource, especially for the people of Belize. In other parts of the world, some of the largest protected areas are marine reserves. These include the 50-square-mile Galápagos Marine Reserve off the coast of Ecuador, established around a group of islands made famous by scientist Charles Darwin (1809-1882) who voyaged there on *The Beagle* and studied the endemic species. "The love of all creatures," he said, "is the most noble attribute of man." Also renowned is Australia's Great Barrier Reef, which is protected as the centerpiece of a 140,000-square-mile marine park.

"I think that having land and not ruining it is the most beautiful art that anybody could ever want," observed Andy Warhol. The size of a green space, or blue space, really isn't what's important as far as a person's frame of mind is concerned. If not for a pretty backyard, a small urban park, a wild hundred-acre wood, a reserve stretching as far as the eye can see—how can we hear a quiet voice that brings us to a content place within? Nature is our soul.

