

We are the Witnesses

Using the Power of Wonder to Heal the Earth

an Earth Day address given by Dan Lambert at the First Universalist Society of Hartland, VT
April 10, 2011

Thank you for the opportunity to celebrate Earth Day with you today. I think the decision to clear the calendar for Easter was liturgically sound. Resurrection is an exceedingly rare event, but Earth Day is every day. Or it seems to be on television at least, where you can find nature shows on a half-dozen channels at any hour of the day illuminating the wonders of sea, land, and sky, documenting the astonishing adaptations of the animal kingdom. Do these programs ever make you feel a little embarrassed for your species, at least a bit under-evolved?

You're reclining there on your couch, one hand in the buttered popcorn, one hand on the remote control as you watch animals achieve terrific feats of stamina, agility, and strength. On one channel, there are some emperor penguins, a group of males huddling together against the 50-below temperature and the 120 mile per hour wind. In a moving narration, Morgan Freeman explains how each bird cradles a precious egg on its feet for over two months, buffering it from the ice that would freeze and destroy the embryo. These stoic birds endure the earth's harshest conditions, going up to 115 days without a meal as they incubate the egg and brood the hatchling. Meanwhile, you watch their mates waddle and belly-slide across hundreds of miles of ice to the sea and back so they can feed regurgitated fish to the chicks.

If it's not penguins, then it's an ibex bounding down the wall of a mountain ravine, steadying itself on a ledge you'd swear wasn't there if there wasn't this wild goat standing on it.

Or here's the muscular sockeye salmon, flashing upstream against the river's strong current. Some of these ascend 7,000 vertical feet as they swim 900 miles from the Pacific Ocean into the heart of the Rocky Mountains.

Watching too many of these programs can make you feel like a real slug . . . until you come across the special on invertebrates, which shows two garden slugs athletically mating in mid-air, each suspended by an 18" strand of mucus. As if that's not shocking enough, the narrator describes how a slug doesn't even need a partner to reproduce since it has both male and female parts. Who knew? We're outclassed even by slugs!

Most of the time, I marvel at the endless variety of animal adaptations and am absorbed by wondering how and why. But sometimes, I hear a voice in my head that sounds more like Homer Simpson than Morgan Freeman, saying, "Animals get to do all the cool stuff. Why can't I have animal superpowers?"

But here is the irony. Watching in amazement *is* a superpower – so is formulating and pursuing questions about the earth and the universe. Lying on the couch watching a PBS special doesn't seem very impressive, but the human appetite for nature documentaries demonstrates our gift for wondering at the earth's splendor and for investigating its mysteries.

Stefan Pashov is a Bulgarian forklift operator who works at McMurdo Station, a research center located, as it happens, among penguins in Antarctica. A few years ago, he was interviewed by filmmaker Werner Herzog for his documentary, *Encounters at the End of the World*. In the interview, Pashov declares that he is in love with the world and that this love brought him to the Antarctic to experience its beauty. He paraphrases the American philosopher Alan Watts, with these words:

...through our eyes the universe is perceiving itself and through our ears the universe is listening to its cosmic harmonies. We are the witnesses through which the universe becomes conscious of its glory... of its magnificence.

We are the witnesses through which the universe becomes conscious of its glory.

Perhaps you agree that we channel a universal consciousness, that – as Pashov puts it – “the universe dreams through our dreams.” Or you may believe the universe is unconscious or indifferent to humans. Regardless, we are certainly witnesses to glory and magnificence in our little corner of the universe, here on earth.

Of course, we aren’t the only witnesses. The penguin, the ibex, the salmon: they are watching too. But let’s face it, the penguin isn’t going to drop its egg to watch garden slugs mate. He doesn’t even know that garden slugs exist! It’s up to us, to marvel at the slug. It’s up to us to learn something about ourselves from watching salmon run upriver. It’s up to us to be thrilled when the ibex launches into space, to be fearful as it drops down the sheer face of a cliff, and to be relieved when it lands four solid hooves on a ledge the size of a UU hymnal.

We are the witnesses with a field of vision that extends from the deepest ocean canyon to distant galaxies. We can look back in time and to some degree, we can see what lies in the future. And when we exercise this power, when we search outside ourselves for meaning, we are often handsomely rewarded.

No one knew this better than the Romantic poets, like William Wordsworth, who believed that Nature confers happiness, health, and wisdom to those who watch and receive her . . . as long as we don’t allow our intellect – as he put it - to “mis-shape the beauteous form of things.” “Enough of Science!” Wordsworth complained in his poem, *The Prelude*, “Let Nature be your Teacher.”

Ralph Waldo Emerson, once a Unitarian minister, expressed a similar sentiment in his essay “Nature”.

Empirical science, he wrote, is apt to cloud the sight and by the very knowledge of functions and processes to bereave the student of the manly contemplation of the whole.

This idea - that science dulls feeling by reducing beauty to cold explanations – persists today. When I began to study ecology, the Transcendentalists had me concerned that book learning might wear down my sense of wonder. But it hasn’t turned out that way.

Sometimes, I'll step outside on an April evening - to witness the glory and magnificence of the universe. And from my yard, I may hear the twittering wings of an American woodcock flying above Roy Lutter's pasture. This chubby little bird is putting it all out there in a flight display that involves climbing in widening circles to a height of 300 ft and then careening in a zig zag back to the earth. Just before reaching the ground, it pulls up and softly alights next to an admiring female. She's not the only one who's impressed. It moves me, really, to see this ancient courtship ritual, especially when I consider that those same twittering wings have just carried the woodcock a thousand miles from South Carolina's coastal plain to a spot visible from my bedroom window.

On some nights, I hear coyotes yipping and howling beyond the woodcock's display ground, down around Kim and Andy's beaver meadow. I'll close my eyes and feel the energy that's coursing through the pack and imagine the excitement of being a coyote on that night. Then, when the ruckus ends and the electricity starts to fade, I'll sustain the wonder by contemplating the resilience of coyotes. Did you know that when coyotes are under pressure from hunting, trapping, and poisoning, they breed at a younger age, give birth to larger litters, and can live twice as long as under normal conditions? No wonder the species has spread in recent decades from its native western range up to Alaska over to Maine and down to Panama, despite decades of government-sponsored persecution. An eradication program might have to kill 3 out of 4 coyotes every year for 50 years to overcome this amazing reproductive strategy.

Now, if the coyotes are quiet, I may hear wood frogs quacking from a big puddle in the forest. These normally solitary animals gather for a very short time each year to breed in woodland pools all around us. I appreciate the frog music. It has a subtle beauty that complements the smell of leaves dampened by snowmelt. But what *really* gets me is knowing that these frogs have been tucked away under the leaves, frozen nearly solid for six months, - without breathing, without even a heartbeat.

Insights from science don't rob me of wonder, they expand my wonder. My understanding transports me to a cypress swamp in South Carolina. Or my lack of understanding pushes me through the rick-rack in search of new discoveries and sensations.

Of course, some day I'll lose my enthusiasm for alder swamps or perhaps frailty will keep me indoors on April nights. If this happens, I'll try to remember the example of the aging Charles Darwin, who took to the study of worms in his garden when failing health limited his mobility. The result was a 300-page book, published the year before his death, called *The Formation of Vegetable Mould through the Action of Worms with Observations on their Habits*.

This was a man who had already explained the diversity of life, established the unifying theory of the life sciences, and revolutionized theology on the side. One of the most influential thinkers of all time, investigating, among other topics, the effect of rain on worm castings and the mental powers of worms. Like the forklift philosopher, Charles Darwin was in love with the world.

Wondering *is* a way of loving the earth. To be lost in fascination at the earth's splendor or in curious investigation of a natural phenomenon is a lot like experiencing love for a person in which you lose awareness of your self. Wondering wow and wondering how add up to something like HWOWWW!!

Unfortunately, it's not enough to wonder. We are the witnesses and the earth is getting mugged. We can stay on our side of the street and marvel at the beauty that survives. We can quantify the rate at which it is being lost. Or, like members of the justice league, we can use the power of wonder to protect the earth, even to heal it.

I'm going to describe three examples of how people like us have drawn on the forces of wonder and scientific understanding to help heal or protect the earth.

On April 11, 1860, 5 months after the publication of *On The Origin of Species*, a boy named John Weeks was born on a farm in Lancaster, New Hampshire. He grew up among the forests, streams, and lakes of the White Mountains and developed a strong affection for the land. As an adult, Weeks moved to Massachusetts and became a successful businessman and politician, eventually serving in Congress as a pro-business legislator. On summer vacations back in Lancaster, Weeks saw massive logging operations denude the forests where he had played and explored as a child.

Conservationists had been trying to slow deforestation for decades. Between 1901 and 1911, forty bills had been introduced to establish national forests in the East. All forty had failed. By the time Weeks got involved, hydrological studies had begun to show that forests help control floods and prevent rivers from going dry in the summer, by releasing water slowly over time. This understanding established an economic rationale for creating forest reserves, because they would ensure a steady supply of water to hydro-powered mills.

It took John Weeks, with his love of the White Mountains and his understanding of commercial interests to forge an agreement, based on hydrology. The Weeks Act, which was signed into law 100 years ago last month, conserved 6 million acres in 5 national forests, including Green and White Mountain National Forests. The system has grown to include 300,000 square miles of public land in 41 states, encompassing a great variety of habitats and supporting unknowable numbers of wildlife. Today, national forests give 175 million visitors the chance to experience wonder each year.

Olga Owens Huckins wasn't a member of Congress. She was an editor who lived next to a two-acre bird sanctuary in Duxbury, Massachusetts. She loved to watch the chickadees, and finches, and catbirds in her back yard. She enjoyed the music that came from the sanctuary each spring. But one morning in 1958, instead of bird song, she found bird carcasses in her yard. They were the victims of a mosquito control program that sprayed a deadly mixture of DDT and oil fuel from low-flying crop-dusters. She mailed an outraged letter to the Boston Herald and she sent a copy to a friend, Rachel Carson, who had worked for the Fish and

Wildlife Service, asking her if she knew of anyone in Washington who could address her concerns.

Rachel Carson had been gathering information about DDT herself, but was unable stir up any interest in its risks. Huckins' request ultimately compelled her to summarize toxicology data and anecdotal information in her 1962 book, *Silent Spring*. Some of the science presented in the book is flawed, some is sound. What's important is that it raised legitimate concerns about the effect of synthetic chemicals on wildlife populations and human health. *Silent Spring* set in motion a series of events that resulted in the banning of DDT and other harmful pesticides and the recovery of several endangered bird species, such as the Bald Eagle and the Peregrine Falcon. The falcons that nest up at the Palisades in Fairlee and at Holt's Ledge in Lyme, and the pair of eagles that recently nested along the Connecticut River have returned from the brink of extinction because Olga Huckins loved her backyard birds and turned to a scientist to help save them.

I will offer one last example of wonder and healing that reflects the global age we live in. The hero in this story is Thomas Smith, a professor of ecology at UCLA and the director of the Center for Tropical Research. Coincidentally, Dr. Smith studied ornithology with the man who unraveled the connection between DDT use and peregrine falcon decline. But his field work on tropical raptors led Dr. Smith in to pick up Darwin's study of evolution.

On trips to Mexico, Peru, and Grenada, Smith was floored by the diversity of bird species that he encountered. Of course he knew that the variety was the result of natural selection, which forces a single species to take on different forms under different environmental conditions. But he wanted to know what features of the rainforest are most important in generating new species. After years of research on birds in Cameroon and reptiles in Australia, he concluded that new species arise more readily in transition zones between two habitats than within the habitats, themselves. Therefore, conserving the rainforest here and the savannah there may protect the existing pattern of biodiversity, but it does not protect the evolutionary process, called speciation, that gives rise to diversity. This requires protecting the area where rainforest grades into savannah. Ecologists call this an ecotone.

Equipped with this knowledge, Thomas Smith and his colleagues convinced the World Bank and the government of Cameroon to establish that country's largest national park and one of the first ecotone parks in Africa. Mbam-Dejerem National Park, which stretches across the boundary between rainforest and savannah, is the size of Orange and Windsor Counties put together.

As you can see from these examples, wonder, science, and environmental protection are American traditions. Unfortunately, many of our nation's politicians have neglected our tradition, leaving it up to communities like ours, *people like us*, to carry it on. To participate in the tradition, you don't need to stymie the chemical industry, travel to Africa, or even visit New Hampshire for that matter (though I think you'd like it there).

If you teach biology, or give a talk about gorgeous gardens, or bring local food into the schools, then you participate in the tradition.

If you take photographs or write books to share your love of nature, if you articulate a vision for conserving the New England landscape then you participate in the tradition.

If you organize a State of the World Film Series, if you work for peace, or manage a park, or serve on the board of a wildlife sanctuary,

If you grow your own tomatoes, if you reach for your sweater instead of the thermostat, if you support conservation causes with your wallet and your ballot, then you participate in the tradition.

And if you fall in love with the world on a warm spring evening like tonight, then you also participate in the tradition.

As the real Earth Day approaches, I hope you have a chance to listen to woodcock or wood frogs or coyotes, maybe get down on all fours and crawl to the bog. Or just stay at home and cuddle with your cat, your child, your friend or spouse. Each is an improbable assembly of stardust. Each has come to life through mysterious forces over vast expanses of time. So take a few minutes to wonder at their warmth, their breath, their power.

We are the witnesses, and if it's true that the universe dreams through our dreams, then the universe is dreaming of people like us taking care of the earth and of each other.

Readings included in the 2011 Earth Day Service at the First Universalist Society of Hartland

Reading 1 from "Staying Alive" in *Blue Pastures* Mary Oliver

Deep in the woods, I tried walking on all fours. I did it for an hour or so, through thickets, across a field, down to a cranberry bog. I don't think anyone saw me! At the end, I was exhausted and sore, but I had seen the world from the level of the grasses, the first bursting growth of trees, declivities, lumps, slopes, rivulets, gashes, open spaces. I was some slow old fox, wandering, breathing, hitching along, lying down finally at the edge of the bog, under the swirling rick-rack of trees.

Reading 2 "Earth Teach Me" A Ute prayer

Earth teach me stillness as the grasses are stilled with light.
Earth teach me suffering as old stones suffer with memory.
Earth teach me humility as blossoms are humble with beginning.
Earth teach me caring as the mother who secures her young.
Earth teach me courage as the tree which stands alone.
Earth teach me limitation as the ant which crawls on the ground.
Earth teach me freedom as the eagle which soars in the sky.
Earth teach me resignation as the leaves which die in the fall.
Earth teach me regeneration as the seed which rises in the spring.
Earth teach me to forget myself as melted snow forgets its life.
Earth teach me to remember kindness as dry fields weep in the rain.

Benediction from *The Sense of Wonder* Rachel Carson

Those who dwell, as scientists or laymen, among the beauties and mysteries of the earth are never alone or weary of life. Whatever vexations or concerns of their personal lives, their thoughts can find paths that lead to inner contentment and to renewed excitement in living. Those who contemplate the beauty of the earth find reserves of strength that will endure as long as life lasts. There is symbolic as well as actual beauty in the migration of birds, the ebb and flow of the tides, the folded bud ready for the spring. There is something infinitely healing in the repeated refrains of nature – the assurance that dawn comes after night, and spring after winter.

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Let us all "dwell among the beauties and the mysteries of the earth."