

## *The Earth as Vernal Pool*

 In a warming afternoon around the beginning of March last spring, I heard the first calls from a population of wood frogs that collect in a series of vernal pools on the northwest side of my property. Their ducklike quacking, along with the appearance of mourning cloak butterflies, and the spearing heads of skunk cabbage in the local swamps, is a reliable indication of the advent of true spring. But the last few years have been uncertain. Dry spells have become more common, even in spring, and for whatever reason the pools have been drying out earlier than usual, threatening the year's crop of frogs. Last spring was the worst of these years.

The season started well enough: the snows melted, the ice went out of the pools, and the wood frogs arrived on schedule and began calling. By April 1, I could see the submerged twigs and branches. But around mid-April, the rains ceased and we entered into a dry spell, coupled with some strange unseasonably high temperatures. The pond edges began to shrink. The heat and drought continued into May, and soon enough it looked like the pools would dry out, even before the eggs hatched.

I'm not sure of the legality, or even the wisdom, of what followed, but I set out on a campaign to rescue at least a segment of the population. I have three different ornamental pools in my garden, two of them heavily vegetated and deep enough to maintain cool waters. So little by little I began collecting eggs from the vernal pools and moving them to my own pools. I had help in this from a willing five year old, and three or four times a week we would carry a net and buckets to the vernal pools, scoop up a mass of eggs, and carry them back to the garden.

Our rescue operation continued all through May. And all the while, the heat and the drought wore on, and the pools diminished day by day, foot by foot, leaving a surround of wet vegetation.

Nonetheless, at some point during that month some of the eggs hatched; I could see the little tadpoles in the deeper water. The boy and I would wait and watch for wiggling ripples in the still waters and then scoop them out with the nets and carry

the tadpoles back to the garden pools.

As the vernal pools dried, this rescue operation began to take on a bit of a desperate maneuver. By early June, with still no significant rain, the center of the pools was no more than a mud puddle teeming with wriggling tadpoles. And beyond these last refuges, in the drying leaves, we could find multitudes of those unfortunates that did not survive. We began going out every morning, bringing in more and more survivors. Finally, as far as we could tell, there were no more struggling tadpoles in the now-dried-out pools.



Meanwhile the ones we had rescued thrived. Slowly over the month of June and early July the tadpoles grew legs. We checked their progress by netting them to watch the growth of their legs and the slow shrinking of their tails. Happily, as the season progressed, there seemed to be fewer and fewer in the pools—presumably a good sign. They were making their way out into the wide world.

Then, late in the summer, along with the usual adults that seem to appear at the end of the growing season each year, I began spotting tiny wood frogs, more than usual.

I see a metaphor in all this. Without our intervention that season's crop of local frogs would not have thrived, thereby decreasing, however slightly, the number of wood frogs in the world. The adults that originally laid the eggs will probably return to their native ponds this year, and the year after. But in an increasingly warming planet, and with the associated vagaries of bizarre weather, who knows how long that population would last? So our efforts, for the time being, were justified.

But in a sense, the earth is a vernal pool. The climate is warming, habitats are disappearing worldwide, populations of wild things are shrinking, and there are no godlike giants roaming the earth to scoop us up and carry us off to a better more sustainable planet.

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