

Plants: Ancient Friends and Quiet Healers

Anyone who has spent any time on this planet knows that life can get bumpy. We live in a world that changes so quickly that, if you're not careful, it's easy to get swept away in it all. Whenever I feel lost in the fray, I remind myself to slow down and listen to the breeze, the trees, the birds, and the bees. They remain completely unfazed by the world's woes and have seen it all before. Often, I think about the miraculous ability of plants to photosynthesize and how they need so little to survive, only sunshine, water, and soil. Even the dandelion pushing up through cracks in the sidewalk needs no help from us to live a perfectly happy existence. The thought of spraying these beautiful little creatures with herbicides is difficult to stomach when I reflect on the sheer brilliance of their existence.



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I think about us humans, and how our needs are endless. We are fragile at best. Plants, on the other hand, have endured five mass extinction events, endless exploitation at the hands of man, and countless other insults. Yet despite it all, the oaks still give us shade, the grasses still sing in the sway of a light summer breeze, and the corn still stands tall and strong in our fields. We, in our ignorance as a species, live under the false pretense that we are the most highly evolved of all God's creatures. Yet a simple dandelion needs nothing and wants nothing. We are fortunate that plants tolerate us.

Truthfully, we are mere infants compared to plants. Modern humans have been around for only a few hundred thousand years, a brief blip on the evolutionary timeline. Plants, meanwhile, are truly ancient, with billions of years of history behind them. It should come as no surprise that they are self-sufficient in ways humans can only dream of. The first evidence of photosynthesis took place some 3.5 to 2.5 billion years ago, within cyanobacteria. These single-celled organisms, known collectively as blue-green algae, were actually bacterial life forms. However simple they may have been, these tiny organisms were instrumental in creating the oxygen-rich atmosphere found on earth, enabling the formation of the extraordinary variety of living organisms that exist today.

Fast forward several hundred million years, and plants began to colonize terra firma. Mosses and liverworts, non-vascular plants, thrived in the wet coastal areas, river basins, estuaries, and swamps of early earth. Lacking roots or vascular tissues, they survived entirely on nutrients found in surrounding moisture. By 420 million years ago, the first vascular plants had appeared.

These plants evolved the unique ability to transport water and nutrients through vascular tissues called xylem and phloem. During this time, the first primitive forests began forming, filled with spore-producing ferns, lycophytes, and horsetails. These early forest dwellers were so numerous that they caused a global cooling period by consuming vast amounts of CO₂ for photosynthesis.

Following this period, seed-producing and flowering plants proliferated between 360 and 120 million years ago. Their modern descendants still grow in our yards today. Our beloved eastern red cedar (*Juniperus virginiana*), for example, can trace its roots (plant pun intended) back 50–60 million years. Other familiar trees such as sycamores, poplars, and magnolias date back 95–100 million years. Oaks, maples, hickories, walnuts, beech, chestnut, and elms are all at least 45 million years old. These plants are staggeringly ancient, to put it mildly. To understand just how much longer plants have existed than humans, consider this analogy: if the entirety of earth's history were a 365-page book, cyanobacteria would appear on page one, while humans would not be mentioned until the very last sentence on page 365. Compared to plants, we are evolutionarily unrefined, simplistic, brutish creatures. Oh, how they must pity us.

Pity us as they may, the fate of humans is now inexorably intertwined with plants. While they could go on existing without us for another billion or more years, we would not last a single rotation around the sun without them. They provide us with the very air we breathe. They feed us with their flesh, fruits, nuts, seeds, and roots. They feed our livestock. They provide the material to build our homes, the fiber for our clothing, the fuel for our fires, and even the paper on which we record our brief history. We need them far more than they will ever need us.

For me personally, plants have played an outsized role in shaping and sustaining my life. Being diagnosed with autism late in life, my affinity for plants should come as no surprise. It is widely known and accepted that neurodivergent individuals derive profound benefits from interactions with nature, specifically through caring for, appreciating, and enjoying the predictability and quiet calm that plants provide. E.O. Wilson, the famed naturalist and “father” of sociobiology, observed the innate human need for connection with the natural world. Known as the Biophilia Hypothesis, he recognized the psychological and physiological benefits that such interactions bring to human well-being. This is especially true for autistic individuals, where plant interactions often result in reduced aggression, anxiety, and depression. Additionally, the sensory experiences, the textures, smells, sights, and sounds of plants, help desensitize individuals from the harmful effects of overstimulation in daily life. Luckily for you, an autism diagnosis is not a prerequisite for experiencing these intrinsic benefits. Talk to anyone who gardens, hikes, or simply sits on the ground to enjoy nature, and they will tell you that they feel markedly better afterward. For me, gardening is more than therapeutic.

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When out in my back field, walking the trails I have carved through tall grass, flowers, trees, and shrubs, I am reminded of the beauty of our world. It forces me to slow down, take a deep breath, and simply be. In these plants, I see the very breath of the divine, God's master creation given to us as nourishment for the heart, mind, and soul. If you do not have acres, or even a yard, make a point to step outside. Go to the park, the greenway, or sit beneath a tree near your office. If you listen closely, you too will hear the breath of the divine in every blade of grass, green leaf, and woody stem. Plants are far more than quiet, lifeless beings. They are the very lifeblood of our existence, ancient friends and quiet healers meant to be cherished and appreciated by humankind.

Happy Gardening!

For questions or comments, please feel free to reach me at the UT/TSU Rutherford County Extension office. Our main office line is 615-898-7710 and my email is jski@utk.edu. Additionally, please check us out on the web at Rutherford.tennessee.edu to learn more about upcoming classes and all other Extension programming activities that we offer.



(Aster, basking in the evening sunlight, Photo J. Stefanski)



(Cup Plant, standing tall and proud, Photo J. Stefanski)