

Plants, People, Priorities, and Prudence

By Thomas R. Cuba, Ph.D.

As I walked through the woods the other day, I reflected on what I was doing. I was applying herbicide to exotic plants in a nature park. “Why?” I asked myself. “Why am I doing this?”

The answer was clearly more than just to get a paycheck. My ecological brain told me that exotic plants can, and do, invade our natural habitats. These plants can grow so fast and reproduce so rapidly that they out-compete our native plants. They have no natural enemies (bugs or animals) that eat them, so they form dense stands of plants made up of just one, or maybe two, plants.

Then my other scientific brain kicked in, the one that says, “Question everything.” I answered my observation about exotic plants with this. “You mean like mangroves? They form dense forests of plants made up of only one, or sometimes two, species.”

My non science brain then told me it was going to be a long day in the woods.

What makes a plant an exotic plant? In paleontological time and a global ecosystem, plants moved around the world, colonizing, competing, winning, and losing. Without going into too much boring history, the answer is that a couple decades ago, some people with authority decided that a native plant was one that was here in America before Columbus arrived. Of course the natural forces of plant distribution (hurricanes, ocean currents, migrating birds) were still in play, so a plant arriving by natural means after 1492 was still an undocumented plant and had to go.

The science side still had a point. We’ve all seen the Kudzu, Air Potato, Brazilian Pepper and Cattails taking over an area and killing it. Wait....Cattails are native. Let’s leave them out for a minute. The threat to our natural systems is real. The forest I was working in had been under severe pressure from Air Potato. Over the course of my work, I had seen 80 foot tall Bay trees killed by the vine. So we remove these plants in the name of preservation.

But, are all exotic plants invasive like that? The answer is no. Some, like Oleander, seldom if ever reproduce and pretty much stay put. Others, like the Wandering Jew I was spraying now, can cover the forest floor eliminating our native ground orchids, wood sorrel, and pitcher plants. My practical brain asked a different question. From my prior experience working for the government, I knew that the State of Florida spent millions of dollars a year hiring people to remove exotic plants that had invaded our natural areas. From the day before, when I was at Lowe’s looking for some ground cover, I knew that many of the plants that I had sprayed this morning were on sale at the nursery. So my question was this. “Are we serious about exotic plant control?”

I suppose I could look at it as job security, but that would be pretty shallow. My ecological brain and my practical brain collaborated a bit and I asked. “If we want to control exotic plants, shouldn’t we stop propagating, selling, and distributing them in the first place?” As I sprayed a

Mexican Petunia growing along the bank of a ditch, I recalled seeing it as an accent plant around the entry way to the park department office. “I guess not.” I answered myself.

These musings culminate with the recognition that we have a contradiction of priorities and prudence. The landscape industry is at odds with the nature parks. The local homeowners buy the plants, put them in their yards, and pay taxes to have them removed from the parks and preserves.

This frustrating train of thought was broken as I looked up into a 60 foot tall Sugarberry tree and saw that it was covered with a vine and would soon succumb to light starvation and die. Unfortunately, the vine was a grape. It was a native, so should I kill it to save the Sugarberry?

My science brain rose again, informing me that while the grape was native, people had allowed it to grow as large as it had in this instance by eliminating fire from the natural processes. Under normal conditions, fire would keep the vine at levels that allowed the trees to stay ahead of the growing game.

Not ready to give up yet on the quandary, I chose to cut the vine rather than kill it with the herbicide. This is what the fire would do. As I sliced the vine with my pocket knife, my mind went back to those cattails. Why were they a problem if they are native? My science brain answered that when lakes and streams are allowed to rise and fall through the seasons in accordance with their natural cycles, cattails don't form dense stands. Eliminating the natural cycle in the lake had the same effect as eliminating the fire.

There really is no conclusion to this essay other than to use our plant management position to illustrate how we, as a people, tend to address issues in isolation, failing to consider the unintended consequences and failing to reconcile mixed priorities with prudence.

© Thomas R. Cuba, 2014. All rights reserved

© Thomas R. Cuba, 2014. All rights reserved.