

An Acorn in a Forest

“I may be small, but I am still important...”

Written by: Tracy Powell, Project Green Tree

Original version Published April 22, 2010 <http://earthday.net/blog/> - Funding information updated June 2010



I look around, and the world seems too big for me to be noticed. I know I can grow to be big and strong; but will I ever have the chance? Will my opportunity to provide you, and future generations, a better life be taken away because you don't know I am here?

Ignoring a problem will not make it go away; it only makes the impact bigger.....

Many oak trees are dying in our community and attempts for appropriate assistance have been unsuccessful. Agencies dealing with massive tree concerns are in higher populated areas to service more people; but who services the areas where there are more trees per mile than people?

Areas like Huron County, Michigan, contain several small rural communities; we are, “*Where the Countryside Meets the Lakeshore*”. There are 93 miles of lakeshore-supported tourist communities; with inland property providing agricultural crops, livestock and wind-energy farming opportunities.

Many local agencies and organizations specialize in crop and livestock production, but they are not equipped to handle tree health care related concerns.

Years after the initial concern regarding the decline of several white oak trees began, many of these trees have required removal and our condition has become worse! Many white and red oaks are declining or dead, the ash trees are now at a loss due to the invasive Emerald Ash Borer, and a maple planted more than four years ago is still only a foot tall. What is happening?

I am struggling to survive....

Back in 2004, leaf scorch, decline and death of many mature white oaks were observed on vacant lots, developed lots, and along road side areas in a small portion of our community. Lab diagnostics conducted in 2005 indicated oak anthracnose, varying degrees of chlorosis “not likely caused by nutrient deficiency”, leaf scorch, and *Armillaria* sp. Although these lab diagnoses were issues, they did not appear to be cause for serious, wide-spread concern.

Efforts once again started in July of 2009 to understand why many of the same trees observed in 2004 were now dead, along with so many others. This is serious! What is killing our trees?

Little did I know...This question was going to lead me on a journey that has not ended!

Since it was obvious that we needed additional help, many local, county and state organizations and agencies were contacted regarding these concerns, but none could provide assistance. The decision to take action myself has led me on a journey further than I would have ever expected.

More than 30 miles of roadway containing numerous, small epicenters (Pockets), of continually declining red and white oak trees were identified. These pockets contained clusters of dead, declining and symptomatic trees with fewer affected trees appearing randomly around the area.

Although the primary observation was leaf scorch, closer inspection of specific trees revealed additional symptoms such as twig cankers and bleeds. Sampling and diagnostic tests continued until weather conditions became no longer favorable. More than 100 samples of leaves, twigs, trunk, roots, soil and water samples were collected for diagnostic analysis. Findings were inconclusive as to a primary cause linked to miles of problems, but many root rots were noted, including *Armillaria* sp. Several samples were submitted to test specifically for bacterial leaf scorch, phytophthora, and oak wilt. Phytophthora tested positive on several samples, but species identification was unavailable. Phytophthora is a relatively new problem when it comes to tree disease and consists of several known and unknown species affecting various hosts. The species *P. ramorum*, discovered in California during 1995, is the cause of the Sudden Oak Death.

Lab confirmation of Phytophthora and *Armillaria* sp. is cause for serious concern and validates beliefs that symptoms observed above ground are likely related to an unknown ground source.

Lengthy and overwhelming days, weeks and months have been my life for nearly a year. Hundreds of hours and thousands of dollars were spent observing, collecting samples, diagnostic testing, acquiring knowledge from internet research, books, attending seminar classes both in and out of state, compiling data, performing presentations and letter writing.

Unhealthy trees will get attention one way or another.

Butt and root rot caused by *Armillaria* sp. increases the risk of tree failure. Tree failures occurring in any developed area are hazardous! These failures cause injury, death and damage.

Unfortunately, tree failures are quite common. At 4:20pm on July 17, 2006, through 5:00 am on July 18th (a little over 12 hours) the Storm Prediction Center (SPC) received 163 damage related reports; which 121 were related to tree failures. Huron County reports stated; “*trees down across M-25 in multiple locations*”, “*trees down in the city of Bad Axe. Power outages reported*”, “*several trees down along Michigan route 25 in Caseville and nearby areas*”, and “*tree down on house, garage damaged*”. This storm that ripped through our area and several others caused an extensive amount of property damage; with reports of several injuries and one fatality from a public park in Ontario. Could some of these tree “failures” have been prevented?

The EDN urban environmental report produced environmental data cards on 72 cities nationwide. As a Michigan resident, familiar with several “nature” activities available throughout the state, I expected an overall ranking somewhere in the middle; with 1 being the “best” and 72 being the “worst”. It was definitely a surprise to learn that Detroit, Michigan, ranked 72; the “worst” score.

As quoted by Michigan’s own, Mr. Henry Ford; “Coming together is a beginning, staying together is progress, and working together is success”.

Innovative technologies have created global interaction and travel abilities. The first Model T was produced in Michigan (exactly 100 years prior to the development of Project Green Tree) and Michigan became known as the “Automobile Capital of the World”. This created a whole new industry allowing many in this generation to thrive, but at what expense? Michigan waters are a serious environmental concern and several efforts are in effect to “*clean up the Great Lakes*”; but what about the trees located along these very same waters? If the water requires frequent bacterial monitoring to alert swimmers of hazardous water conditions, why would we overlook the possibility that these same waters could be creating harmful effects on our trees?

We can control our destination...

Alerts affecting human health are controlled by the CDC health alert network and states; “This project is intended to: Ensure that each community has rapid and timely access to emergent health information”; but what network exists for tree health alerts? Do you even know that National Pest Alerts exist? Greater efforts to spread alerts affecting tree health must be addressed. The Emerald Ash Borer was found in Michigan, but by the time it was discovered, control efforts proved unsuccessful. *Phytophthora Ramorum*, causing Sudden Oak Death in California, was not discovered until after shipments of infected plants were transported to several states. An effective communications network could prevent future widespread outbreaks.

March of 2010 finally produced some encouraging results. The USDA Forest Service/Forest Health Protection validated my concerns and stated; “*you clearly have some problems... and I would be interested in looking at the situation...*” Although an August 2010 meeting is scheduled to occur in our area to address this issue, how can I continue to perform the necessary observations and diagnostic tests for another four months? Although this began as an independent and self-funded effort to assist our communities, these costs have become too overwhelming and additional support is needed. Website publishing, newspaper headlines, public displays and nearly 600 letters were sent requesting funding assistance, but to this day, only \$375 has been obtained. Many pull together to provide communities faced with disaster, support and assistance, but why do we wait for devastation to occur before assisting?

We are struggling to survive....

Identifying the cause of symptoms is crucial to developing an appropriate action plan. If the process to identify the source/sources is delayed any further; the continued decline will intensify an already hazardous situation to both the community and environment.

Much of our natural woodlands are not regenerating new tree growth and several mature trees have fallen, indicating an unhealthy growing environment. New tree plantings will not be successful unless the initial situation is resolved.

Project Green Tree’s immediate goals are: (1) To obtain necessary funding required to isolate the cause behind the recent upsurge in tree decline and mortality in our community (2) To formulate methods to treat affected trees without creating additional lake water problems; (3) To implement an action plan to prevent future transmissions; and (4) To initiate awareness and educate communities on the importance of tree health care.

Once funding is obtained; continued research will answer: (1) What pathogens are present? (2) What is the cause or causes creating this continuing spread of tree decline? (3) Are soil and water contributing to this decline? (4) What is the best treatment, suppression or control method? (5) Which trees can be recommended for planting in this area?

Replanting and “preservation” of trees is an important step toward maintaining a suitable environment (especially one such as ours), which allows future generations the same opportunity current and past generations have come to enjoy. We attract full and part-time residents and tourists, providing various economic opportunities for businesses. Many programs, such as Arbor Day, promote new tree planting, but an adequate foundation is necessary to allow a tree to grow. What is accomplished if the tree has no chance for survival? We are attempting to build a “greener” world, but will it be amongst dead, brown trees?

The foundation is the most important part of any building venture, but if it is built on a crumbling foundation, it will eventually fail! What technical device could perform all the functions of one tree such as; producing oxygen, cleaning the air and soil, preventing soil erosion, and still be nice to look at? Have we in fact jeopardized one resource for another? We are all guilty of focusing too much effort on one subject and not enough on others of equal importance. I, myself, am guilty of this...In attempts to solve our “tree crisis”; I have ignored other responsibilities that affect “today’s life”; such as business and household duties.

Attempts to preserve and maintain trees in residential yard settings are quite common, even in rural areas. Some of the current practices observed by construction, landscape, municipal and even nurseries are actually causing hazardous situations, such as improper maintenance and changes in landscapes that bury or remove necessary roots needed to maintain stability. Many forget that roots are the foundation of the tree, providing nutrients and stability. Would you survive without food or stand without legs? This is what we expect our trees to do, although we have good intentions. Our lack of understanding creates a hazardous and “stressed” tree that is capable of causing injury, damage or death. These types of trees become susceptible to insects and diseases that may affect other, once “healthy” trees. In this case, removal would have been a more appropriate solution, if extreme root damage was unavoidable. Although most urban areas are familiar with plant health care and integrated pest management programs, this is a new concept to most rural communities. The urgency to introduce tree health care to rural areas is due to the epidemic spread of invasive insects and diseases currently causing devastating tree losses observed around the world.

New species of exotic insects and disease, along with the current epidemic outbreaks, make it imperative to create a better communication system and introduce tree health care to rural communities such as ours immediately. Although much information is available through web research, rural communities often lack the initial awareness, tools and resources, resulting in situations beyond control. The ultimate goal of Project Green Tree is to teach community members to self-educate. If ordinary citizens are educated on proper maintenance, signs and symptoms of possible problems and current alerts, they will have the tools necessary to monitor and maintain their own landscape and surrounding areas. I believe many of the predicted, devastating losses can be controlled before destruction occurs. Everyone must take their part in protecting the environment and the less costly approach is through education, especially in rural areas where trees are more abundant. Prevention = Sustainability.

Trees are a major part of our environment, ecosystem and existence. A tree will survive without humans, but will humans survive without trees? What climate changes will we experience then?

“Land of the Lost” ...

Growing up and living in a rural community definitely has its advantages, but there are also some disadvantages. Rural areas are not seen as the most “technologically advanced” communities, and those who do not travel frequently, browse the net, or use other modern advances; are basically cut off from the rest of the world, even if the “world” is only the next state away, which can be a scary place if you’re not exposed to certain situations.

We are where many families began and continue to live, enjoying many outdoor activities currently offered. Several homes built during development of our community have since been inherited by the next generation and is a chosen summer vacation area for many Michigan and out of state families. The beach sunsets and natural scenery provide serenity to those living and working in urban areas. We are an escape of their hustle and bustle lifestyle. Several naturists enjoy the wide range of outdoor activities, such as fishing, camping, sight seeing and nature hikes.

Low crime rate is an important factor, no matter where you choose to live, but our environment is being stolen right in front of us, without our knowledge. What chance do we have if beaches continue to close due to high levels of *E. coli*, the fish become scarce or are too toxic to eat, our scenery turns from a lush green to pale brown and nature viewing consists of watching trees fall? Camping and hiking is still an option as long as you don’t get crushed.

Although our community and state are struggling to survive, like most, we still have a chance to change the future, but we need assistance. Many have asked if I am familiar with the reason so many pines appear to be dying further north of us. Unfortunately, I have no answer. I do face a critical decision if I cannot obtain adequate funding. What will happen? Financially I know I cannot continue, but how can I handle this decision based on instilled morals? I have already observed the consequences of further delay in resolving the oak tree problem and realize education is necessary at a community level to actually change our destination.

There are numerous opportunities to receive other financial assistance, but awareness, restrictions, requirements and guidelines have not provided the necessary funding to continue. Non-profit status would enable more opportunities, but this, too, requires additional time, funding and assistance. Too much time has lapsed between the initial concern and today. My time is more effective performing field observations and tests, which need to be provided on a full-time basis until assistance arrives. I’m not sure how many opportunities such as this on-site visit will be possible. It has already taken 10 months of extensive efforts and costs to accomplish this meeting.

Project Green Tree has unlimited potential! The focus to promote, awareness, prevention, education and support regarding tree health care will result in a difference! Communities such as ours want to be educated and will be instructed how to accomplish this, including control options. Although there have been more defeats (regarding funding), there have been a few successes. The community is slowly becoming aware of tree related issues. Questions are being asked, such as, “What is this black spot on my leaf”? Although I provide the information, I encourage internet users to research

additional information. Changes, attempting to prolong tree life, are occurring. One such success is the beginning use of root barriers along sidewalks to decrease municipal grinding of exposed tree roots that are heaving existing walks.... but we still have a long way to go.

Appropriate funding will ensure these efforts continue to make a difference. If you have any questions please email projectgreentree@gmail.com or visit www.jpstree.com. Our website is still under construction, but information regarding support is available on the site.