Trinity-Neches Forest Landowner Association Newsletter Second Quarter, 2012

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Has My Tree Survived the Drought? – Ronald F. Billings, Manager Forest Health and H. A. (Joe) Pase III, Regional Forest Health Coordinator, Texas Forest Service

Last fall, many homeowners were questioning whether their broadleaved trees had survived the drought. The month of March and into early April is an ideal time to re-evaluate your shade trees to determine which ones



made it through the fall and winter. Most post oaks, water oaks, and elms, some of the most common shade trees in the eastern half of Texas, have begun to break buds, flower and put on new leaves – at least those that are still alive. However, keep in mind that there will be variation in when trees leaf out, even among the same species. If in doubt, give the tree a little more time so you will know for sure. Pecan, walnut and mesquite trees are some of the last trees to leaf out in the spring. On the other hand, if the needles on pine and cedar trees have turned red, the tree is dead and won't recover.

Dead trees can be recognized by one or more of the following signs or symptoms (see photos on next page or at <u>http://texasforestservice.tamu.edu/main/article.aspx?id=1262&terms=canker</u>):

- 1. No new growth or greening in the crown or at the ends of branches, compared to adjacent trees.
- 2. Patches of bark falling from the trunk, exposing a brown or gray fungus known as hypoxylon canker.
- 3. Retention of dead (brown) leaves, particularly in the upper crown. Live trees will have shed all or most of last year's leaves by now and show signs of greening in the upper crown.

Hypoxylon canker is a fungus that causes cankers and death of oak and other hardwood trees, including elm, pecan, hickory, sycamore, maple, beech, and others. It is most common on post oaks and water oaks that are dying or dead from drought or other causes. The disease is common in Central and East Texas and all across the southern United States. The fungus spreads by airborne spores that apparently infect trees of any age by colonizing the inner bark. The fungus is known to be present in many healthy trees and can survive for long periods of time in the inner bark without invading the sapwood. Relatively healthy trees are not affected, but the hypoxylon fungus will readily infect the sapwood of a tree that has been damaged, stressed, or weakened. Among natural and man-caused factors that can weaken or stress a tree are defoliation by insects or leaf fungi, saturated soil, fill dirt, soil compaction, excavation in the root zone of the tree, removal of top soil under the tree, disease, herbicide injury, drought, heat, nutrient deficiencies, competition or overcrowding. The hypoxylon fungus is considered a weak pathogen in that it is not able to invade the sapwood of healthy trees. In addition to the hypoxylon fungus, weakened and stressed trees may become susceptible to myriad other insect and disease pests.

Hypoxylon canker activity usually increases during or immediately following periods of prolonged drought. When a tree is under stress, chemical changes occur within the tree rendering it vulnerable to the growth of the fungus. The fungus then becomes active in the tree and invades and decays the sapwood killing the tree.

An early indication of hypoxylon canker infection may be a noticeable thinning of the tree's foliage. Also, the tree may exhibit branch dieback. As the fungus develops, small sections of bark will slough from the trunk and branches and collect at the base of the tree. Where the bark has sloughed off, tan, olive green, or reddish-brown, fine, powdery spores can be seen. By the time the spores become visible, usually the entire tree is dead. In the next few months, the tree will exhibit patches of a dark brown to black material (similar in appearance to solidified tar) and/or silver-gray colored patches on the trunk or branches.

There is no known control for hypoxylon canker. However, the best way to prevent the disease is to maintain tree vigor. Also, avoid damage to tree roots around construction areas or during yard

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maintenance activities. Apparently, the spores of this fungus are so common in most areas that removing trees infected with hypoxylon canker is of little value in controlling the spread of the the disease. Also, infected fire wood is not considered to be an important source of fungal spores. The fungus does not kill groups of trees by spreading from tree to tree. There is usually little that can be done to prevent naturally-occurring stress factors (drought, flooding, storm damage, etc.), but many mancaused stress factors can be avoided. During drought periods, supplemental watering is recommended, if the tree is near a water source.

Once the fungus invades the tree, the sapwood begins to rapidly decay. Dark decay lines can be seen running through the wood. Trees that have died from hypoxylon canker and are located in an area where they could fall on structures, roads, fences, power lines, etc., should be removed as soon as possible. During removal, it is very dangerous to climb trees killed by hypoxylon canker. Because the fungus decays the wood so rapidly, the tree may not support the weight of a climber. Instead, use bucket trucks or other mechanical lift devices to take down a dead tree.

In a forest situation, salvage of trees killed by hypoxylon is an option; however, a landowner must react quickly or the trees will not be acceptable to mills because of the rapid decay caused by the fungus. Also, the scattered pattern of hypoxylon-killed trees usually makes salvage not economically feasible. Remember the slogan, "If in drought, hypoxylon canker can occur."



Evidence of hypoxylon canker on water oak –"tar spots" (left) and "silver-gray" patches (right).



Hypoxylon canker on dead water oak showing persisting dead (brown) leaves.



Brown patches under the bark indicative of hypoxylon canker.

Field Notes – personal reflections about our forests and trees Page 2

Sharing the Forest Experience with Others – Christine Kallstrom, Treetops in the Forest, Houston County Forest Landowners Association (HCFLA)

"When my husband and I were in the process of retiring from a lifetime of teaching, we knew that we wanted to keep working with children, but the question was "Where".

While we were "over the hill", we still had a lot to share with kids...he as an ex-marine of Swedish descent whose father had early taught him to fish and hunt and I as a lifelong teacher of all kinds of youngsters as well as teachers at area universities.

It seemed to us to be a miracle that we saw an ad in the Dallas paper for a lodge on twenty acres in the Davy Crockett Forest. Within days, we were unlocking the entrance gate to what was to become: TREETOPS-IN-THE-FOREST and the place where hundreds of kids would come to hike the 4C Trail into the Big Slough Wilderness and practice taking care of the campus environment by doing daily chores as a part of their stay.

Time and again, things we didn't know how to do, local folks gave us the "know-how": BILL CONNER was our first caretaker, and chances are, a number of the HCFLA helped in some way. And though they have since died, the spirits of Jim Jeffries and Eliza Bishop are still at work in the place...The Folk Game Garden of statues is short the one Jim was working on when he died. And Eliza would be delighted that we have turned the place into a live-in, hands-on museum for connecting nature into the arts, science, math and all the humanities. And she would have loved the poetry written by children, such as Hunter's Haiku: "I HAVE LOST BY CAP..IT'S EXPLORATING ON ITS OWN..UNTIL IT COMES HOME". (sic)

The grounds now have a Native American area with a re-building of the Medicine Wheel as our next project. The Butterfly House, a gift from the Children's Forest, awaits its first spring arrival. AND WE INVITE YOU TO AN APRIL 22^{ND} "DAY IN THE WOODS!" Oh yes, we're all still volunteers!"



<u>NOTE</u>: If you would like to submit a story to be considered for inclusion in *Field Notes*, please send it to Susie Shockley at <u>sshockley@tfs.tamu.edu</u>.

Forestry Terminology 101 – Texas Forest Service:



Texas Forest Service: http://texasforestservice.tamu.edu/main/popup.aspx?id=187

This list is the twelfth in a series of forestry definitions that will be useful to forest landowners and others interested in better understanding forestry.

Pollution - the presence in a body of water (or soil or air) of substances of such character and in such quantities that the natural quality of the environment is impaired or rendered harmful to health and life or offensive to the senses

Pre-Commercial Thinning - practiced in very young stands to decrease the number of trees and reduce competition for water and nutrients

Prescribed Burning - the controlled use of fire to achieve forest management objectives

Prescription - usually a written recommendation by a forester prescribing present and future management practices for a forest stand

Primary Road - a high specification permanent road which is maintained periodically and serves as a main artery in a network of roads

Pruning - the removal of branches from standing trees to produce higher quality knot-free clear wood

Pulpwood - trees cut primarily for conversion into wood pulp for the manufacture of paper, fiberboard, or other wood fiber products

Reforestation - the regeneration of new trees on an area where the forest has been or will be removed; either naturally by seed fall or artificially by direct seeding or planting seedlings

Regeneration - the practice of replacing old trees either naturally or artificially with new trees

Regeneration Cut - a harvest operation to remove the old trees and leave environmental conditions favorable for the establishment of reproduction

Release Cutting - an operation to release young desirable trees from competition with other trees of the same size or larger and overtopping trees



Market Report – January/February, 2012

Product	Statewide Ave. Price		Previous Ave. Price		Price/Ton Difference
	Weight	Volume	Weight	Volume	
Pine-Sawlogs	\$24.27/ton	\$168.64/mbf	\$23.08/ton	\$182.67/mbf	+5%
Pine-Pulpwood	\$5.41/ton	\$14.51/cord	\$6.26/ton	\$16.87/cord	-14%
Pine-Chip'n'Saw	**	**	\$8.85/ton	\$23.90/cord	**
Mixed Hardwood-Sawlogs	\$20.99/ton	\$188.93/mbf	\$25.15/ton	\$229.01/mbf	-17%
Hardwood-Pulpwood	\$9.59/ton	\$27.57/cord	\$7.71/ton	\$21.59/cord	+24%

** Indicates insufficient sales to report price statistics (fewer than three sales).

Texas Timber Price Trends is a bimonthly publication reporting average prices paid for standing timber in Texas. *This report is intended only as a guide to general price levels.* It should not be used to judge the fair market value of a specific timber sale, which may vary considerably due to many factors. It is recommended that you use the services of a professional consulting forester in managing any timber sale. Important factors affecting timber prices include the type, quality and volume of timber for sale, accessibility, distance to mills/markets, weather conditions, economy/market conditions, who is handling the sale or is buying the timber, and contract requirements by the landowner. Hard copies of this publication can be purchased by contacting Monica Jadlowski at (979)458-6630. The complete Texas Timber Price Trends can be viewed at http://texasforestservice.tamu.edu/main/article.aspx?id=145 .

Conversion factors between volume and weight vary from sale to sale, so the differences in volume prices above may not equal differences in weight prices.

Stumpage price statistics include gatewood sales (estimated by subtracting cut-and-haul costs, other expenses and profits provided by reporter).

Statewide data excludes U.S. Forest Service sales.

Price calculated from specific conversion factor reported for each sale if available; otherwise, average conversion factors listed on page 4 of *Texas Timber Price Trends* (<u>http://texasforestservice.tamu.edu/main/article.aspx?id=145</u>) are used. MBF = thousand board feet. Doyle Scale used for board foot measurements.

Ten Reasons to Belong to Texas Forestry Association

- Your voice before state and federal lawmakers
- Promoters of preserving the forest productivity tax law of Texas
- Supporters of fair competition for your forest products at home and abroad
- Promoters of Sustainable Forest management
- Source for information on all issues related to forestry
- Defenders against excess regulation from government agencies
- Publishes a monthly newspaper to keep you informed on forestry issues
- Sponsors meetings and workshops to provide you with the latest information on forestry and related subjects
- Sponsors the Tree Farm Program
- Sponsors the Texas Logging Council

Want to join? Please circle the category and annual dues amount representing your interest in forestry. Memberships are based on a calendar year.

- **Timberland owners:** \$50 plus 4 cents per acre over 500 acres
- Individuals: \$50 active; \$15 student; \$1,000 life
- **Sawmills:** \$0.01/M board feet produced annually, \$600 minimum
- **Treating plants:** \$0.01/M board feet produced annually, \$600 minimum
- Hunting Clubs: \$50
- **Consulting foresters:** \$100 per individual
- **Equipment suppliers:** *\$100 minimum*
- Other manufacturers/distributors: \$100 minimum
- Financial institutions: \$100 minimum
- Insurance suppliers: \$100 minimum
- Utilities: \$100 minimum
- Logging contractors: Request Texas Logging Council application for dues
- Logging Council Corporate Associate: \$200 (in addition to the amount listed above)

Please complete the form in the next column.

I am interested in (circle your interests):

- Texas Tree Farm
- Texas Forestry Museum
- Texas Logging Council
- Teachers Conservation Institute
- Texas Forest Landowners Council
- TFA Forestry Political Action Committee

Name			
Company/Affiliation			
Mailing address			
City	State	Zip	
Phone			
Fax			
E-mail			
Your county			
Occupation			
Recommended by			
Payment enclosed			

___Bill me

____Send Texas Logging application

After completing the form, please send this entire page to:

Texas Forestry Association P.O. Box 1488 Lufkin, TX 75902-1488

For more information about membership, please call (936) 632-TREE (8733) or e-mail tfa@texasforestry.org.

For more about Texas Forestry Association, please see <u>www.texasforestry.org</u>.

Removing Privet Helps Restore Native Bee

Populations — Sarah Farmer, Student Intern, USDA, Forest Service, Southern Research Station, Asheville, N.C.

When plants travel the world, they escape the checks and balances of their ancestral ecosystems and can multiply without bounds, competing with native plants for light, nutrients, and water. Do non-native invasive plants also disrupt native bee populations?

Jim Hanula, research entomologist with the SRS Insects, Diseases and Invasive Plants unit, explored this question by comparing bee diversity and abundance in forests where Chinese privet had been removed, had never invaded, and where it still dominated the shrubby layer. Hanula found that removing Chinese privet provided immediate benefits for native pollinators, even when there were no specific efforts to restore native plant communities.

Chinese privet (*Ligustrum sinens*), first brought to the United States as an ornamental shrub, now infests over 2.5 million acres of public land across 12 southern states and countless more acres of privately owned land, roadsides, and forested urban areas. Hanula and his team removed privet from study sites in the Piedmont area of Georgia using chainsaws, mulching, and herbicides. They found that within a year, bee populations were larger and more diverse. In fact, areas where privet had been removed by mulching hosted average bee populations of 418 per plot, while areas where privet had not been removed had average populations of only 35 bees per plot. The bee populations in treated plots continued to soar, and by 2007, bee abundance and diversity in all the treated sites was similar to that in forests that had never been invaded by privet.

Removing privet allowed more sunlight to reach the forest floor, where flowering plants such as pokeweed, wingstem, violets and others began to flourish. Flowering plants and pollinators depend on each other, and mature healthy forests have diverse and abundant bee-supporting plants that are almost completely excluded when native plants are crowded out by non-native invasive plants such as Chinese privet. Hanula concluded that removing Chinese privet benefits native forest pollinators such as bees even without further restoration of native plant communities.

Read the full study at http://www.srs.fs.usda.gov/pubs/39743

Websites of Interest



Using Fences to Exclude Feral Hogs from Wildlife Stations by Dr. Billy Higginbotham, document L5533 – <u>http://agrilifebookstore.org</u>

2012 State Water Plan - Texas Water Development Board – <u>www.twdb.texas.gov</u>

The Impact of the 2011 Drought and Beyond, Texas State Comptroller's Office (see page 10 for what others are doing) -<u>http://www.window.state.tx.us/specialrpt/drought/</u>

Nonpoint Source Water Pollution Report – Texas State Soil and Water Conservation Board – <u>http://www.tsswcb.texas.gov/reports#nps</u>

2009 Economic Impact of the Texas Forest Sector, Texas Forest Service –

http://texasforestservice.tamu.edu/uploadedFiles/Sus tainable/econdev/Publications/Reports/EconomicIm pact2009_all.pdf.

Timber Taxation for Landowners, Dr. Harry L. Haney, Clemson University, Department of Forestry and Natural Resources. Set of DVDs of this presentation are available for \$49.00 -

http://www.clemson.edu/extension/natural_resources/cont inuing_education/timbertax.html

Birth of Forest Conservation in America

Gifford Pinchot, first Chief of the U.S. Forest Service, and generally regarded as the "father" of American conservation, is said to have derived the name for his idea of conservation from "conservancy," the term for a large tract of forest land managed by a "conservator" in British India. Conservation - the management, restoration, protection and preservation of natural resources was his prescription for finding a balance between human activity and the workings of nature.

One quote attributed to him: Unless we practice conservation, those who come after us will have to pay the price of misery, degradation, and failure for the progress and prosperity of our day. Return Address XXXXXXXXXX XXXXXXXXX