

Spotting Potentially Problematic Tree Features Using Pelican Cove Examples and Tree and Understory Planting Improvement Information Sources

Draft 4 – Oct 29, 2017 - M.T. Weber, MSU/AFRE [Professor Emeritus](#), Pelican Cove, GL 308
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Looking At and Improving Existing Pelican Cove Trees - Clues For Spotting Potential Problems



What Motivates This Work? Three Main Factors

- A wish to develop and contribute informed and systematic in-situ observations, as well as to document for easy reference a review of existing on-line research and literature on urban forest management and recovery.
- The desire to contribute this information to on-going discussions in Pelican Cove about what to do going forward to retain, improve, and reestablish, where desired, the wonderful tree and understory plant environment that helps make resident lives so special in this garden of beauty.
- To offer a friendly suggestion that “[structural pruning: the essence of tree care](#)” as identified by Univ. of Florida authors be considered as a more prominent and permanent component of tree and understory management policy and implementation in Pelican Cove.

Tree Pruning Is A Widely Accepted Practice For Avoiding Problems, and Improving The Quality and Length of Life of Urban Trees

UF/IFAS Insights on Tree Pruning <http://hort.ifas.ufl.edu/woody/pruning-damage.shtml>

- **Pruning is a double-edged sword**, either helping or hurting according to if, where, when, how, and why it is applied.
- **When properly executed**, a variety of benefits can occur. Benefits include reducing risk of branch and stem breakage, preserving health, better clearance for vehicles and pedestrians, improved appearance, enhanced view, and increased flowering.
- **When improperly performed**, pruning can harm the tree's health, stability, and appearance.
- **When pruning is not performed at all** there are several consequences including development of low aggressive limbs, weak codominant stems, bark inclusions, and accumulation of dead branches.

Can Images of the PC Trees Help Us Learn?

Problem Areas To Consider

- » Dead or broken branches
- » "Hangers"
- » Dead stubs
- » Raised roots
- » Fungus growth
- » Sawdust piles
- » Branch and trunk connections
- » Cracks
- » Wounds
- » Holes and cavities
- » Long streaked wounds
- » Abnormal leaf growth

Study 4 Tree Zones of Trees

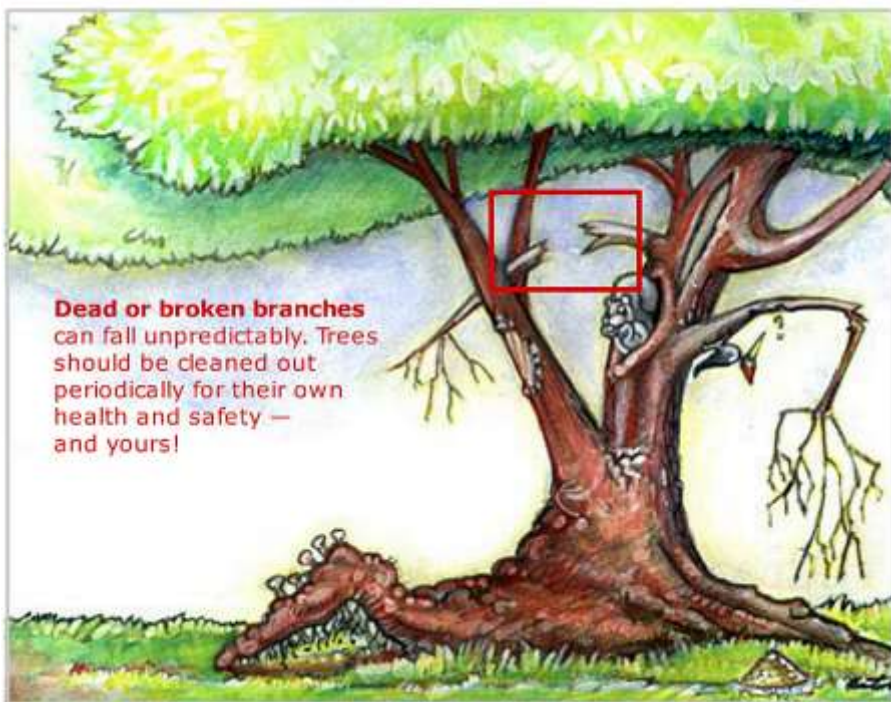
- [Zone 1: The tree as a whole](#)
- [Zone 2: The ground under the tree](#)
- [Zone 3: The trunk](#)
- [Zone 4: The canopy](#)

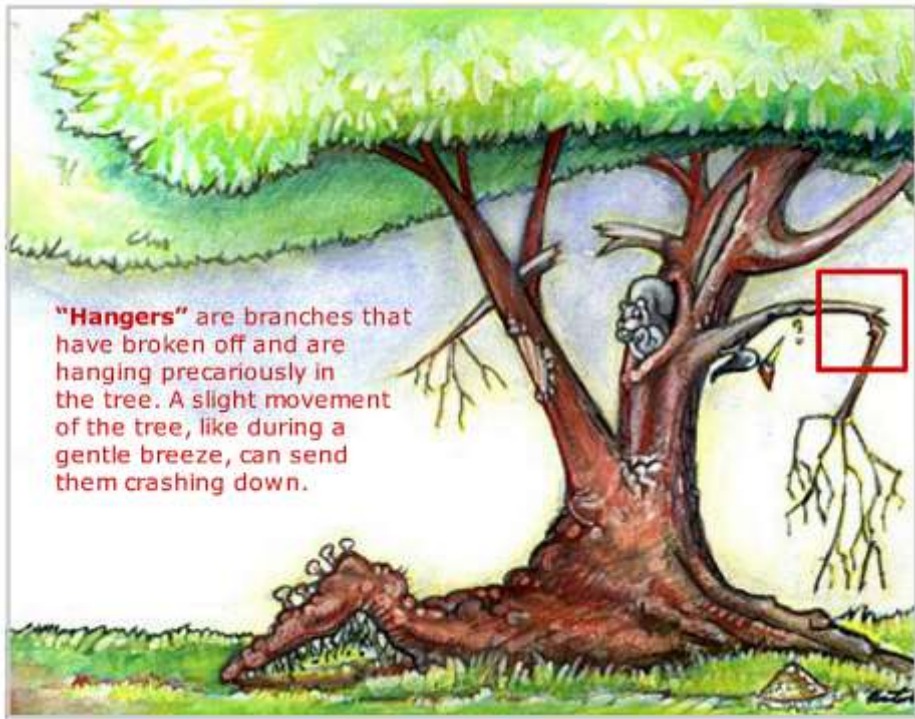
How To Spot a Dangerous Tree – From TreeInspection.Com

<http://treeinspection.com/advice/how-to-spot-a-dangerous-tree?showall=1&limitstart=>



Dead or Broken Branches In Pelican Cove Trees

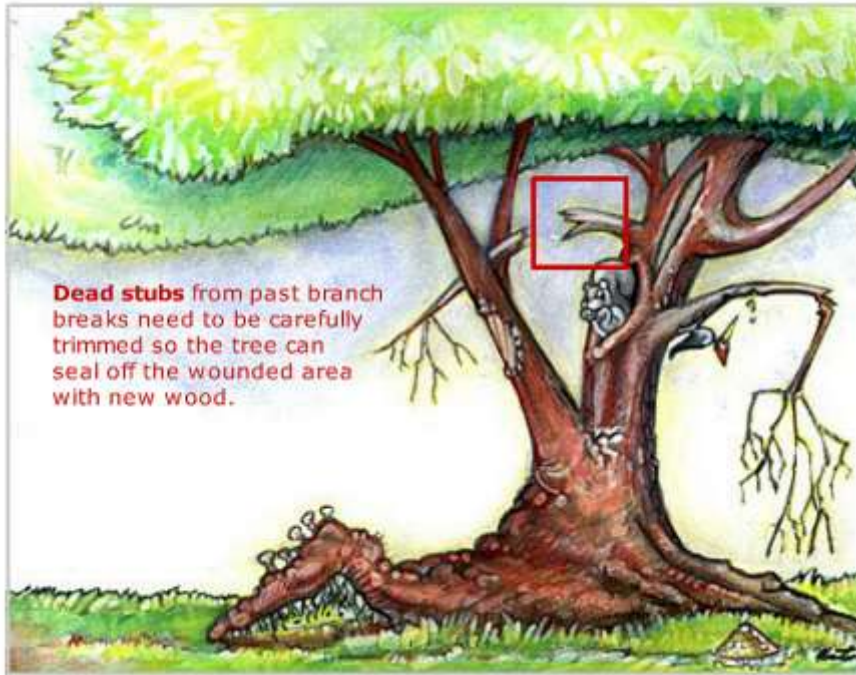




"Hangers" or Widow Makers In PC Trees



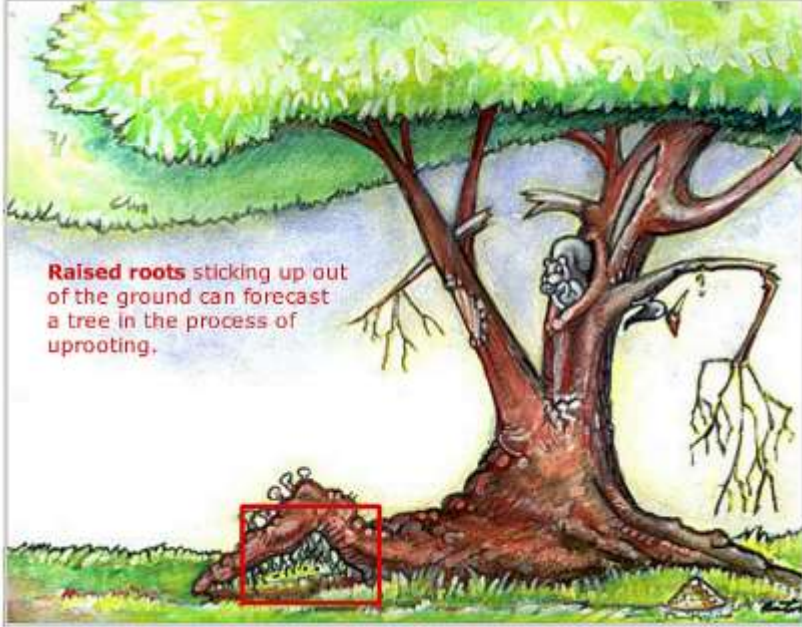
Dead Stubs In PC Trees



Prior limb breaks that were not pruned properly and have now rotted

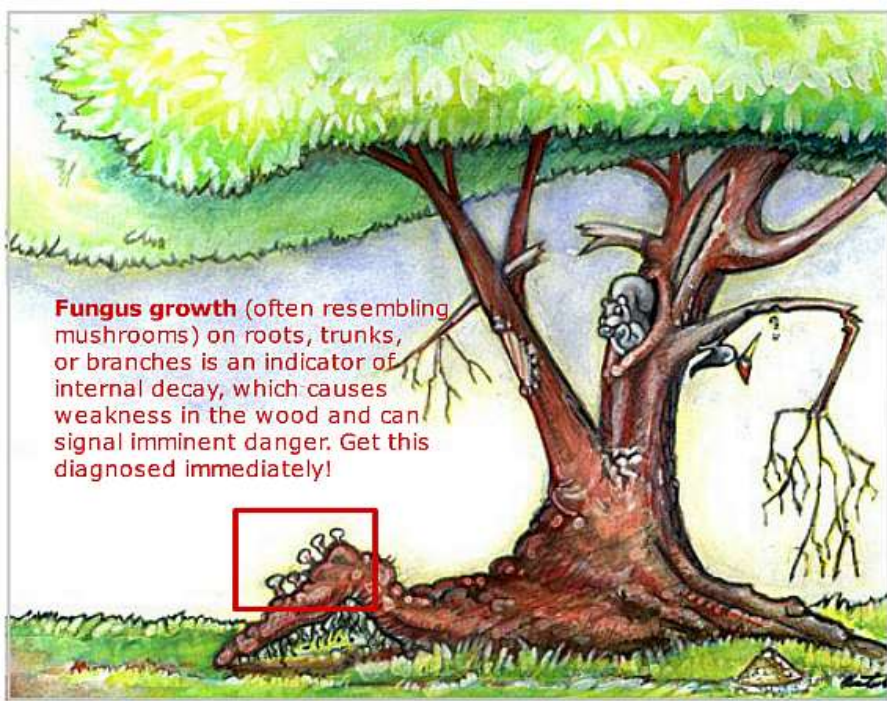


Tree By the Pool/Hot Tub: What will this look like if it is not pruned correctly in 2017? What would that do to reducing the live expectancy of this tree?



Raised Roots In PC Trees

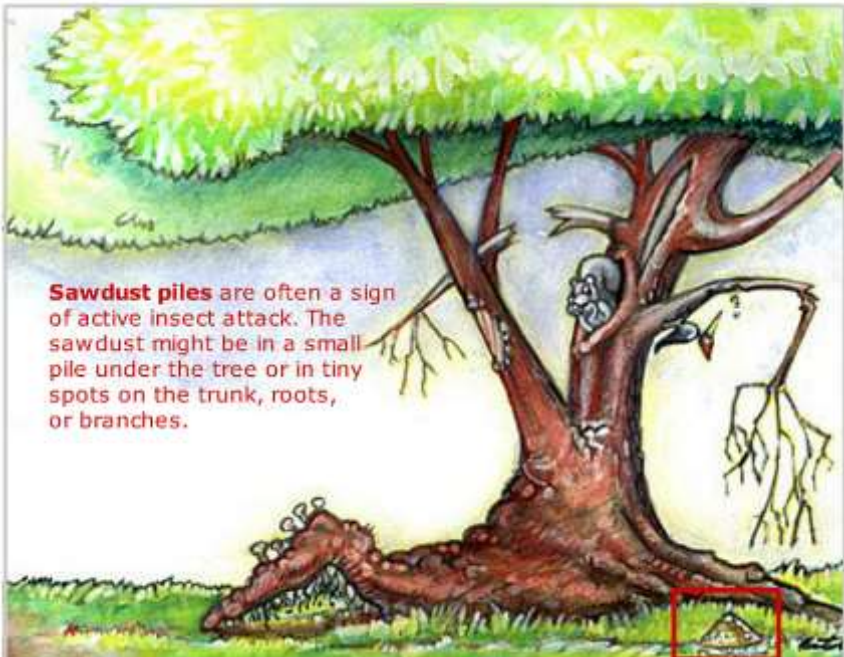




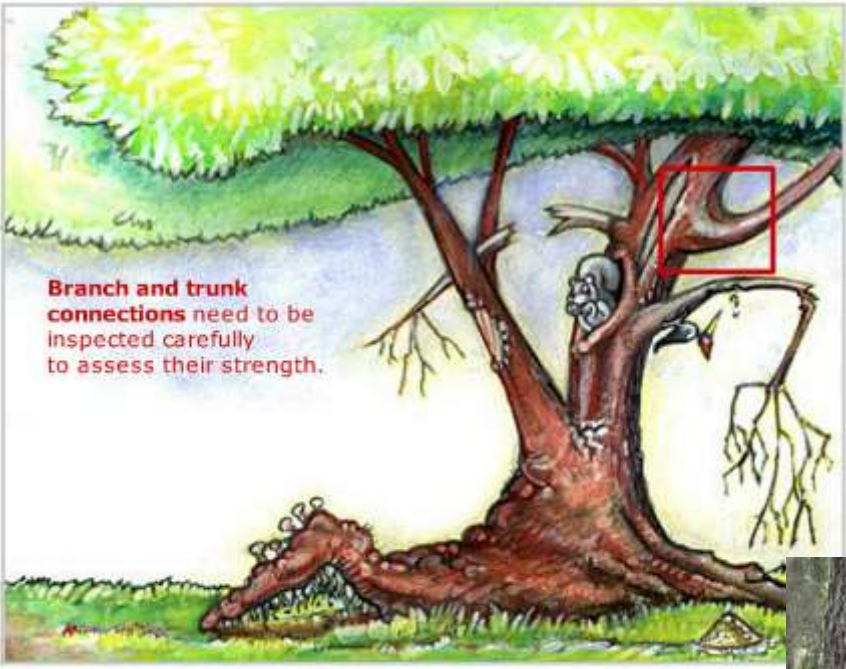
Fungus Growth In PC Trees



Sawdust In PC Tree



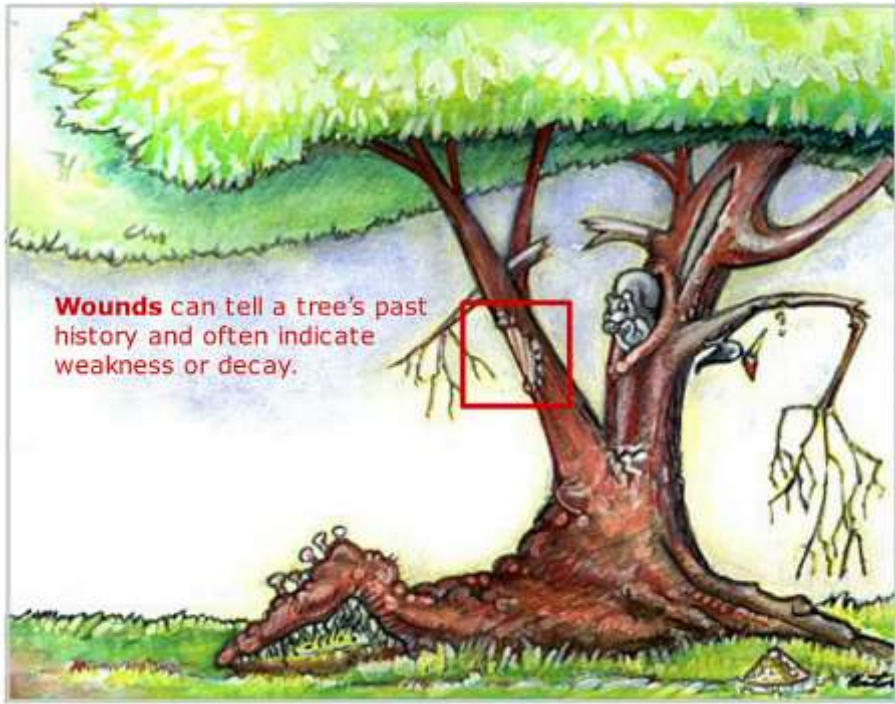
Branch and Trunk Connections In PC Trees



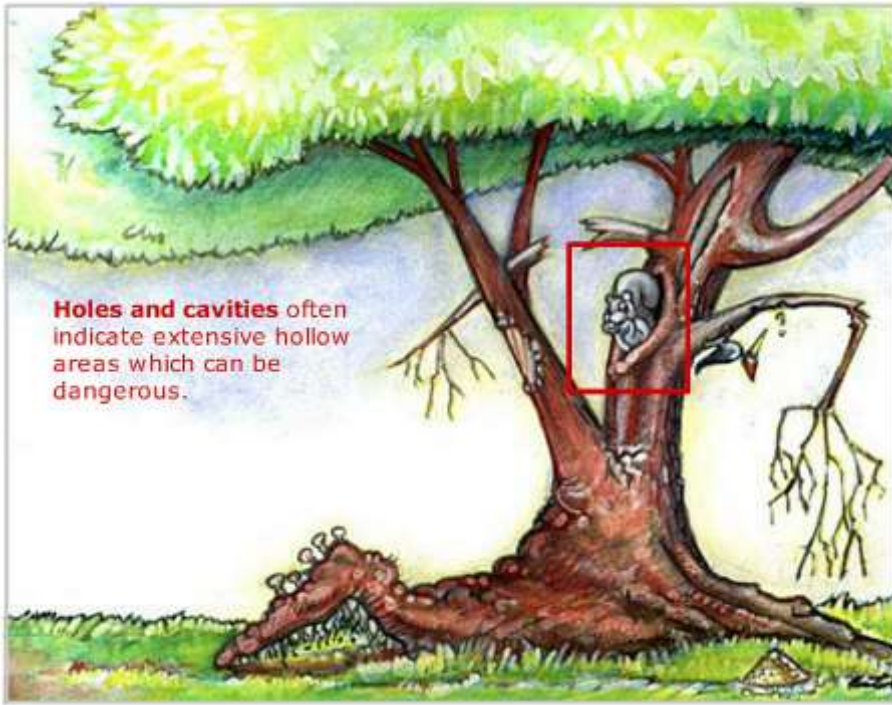
Cracks In PC Trees



Wounds In PC Trees

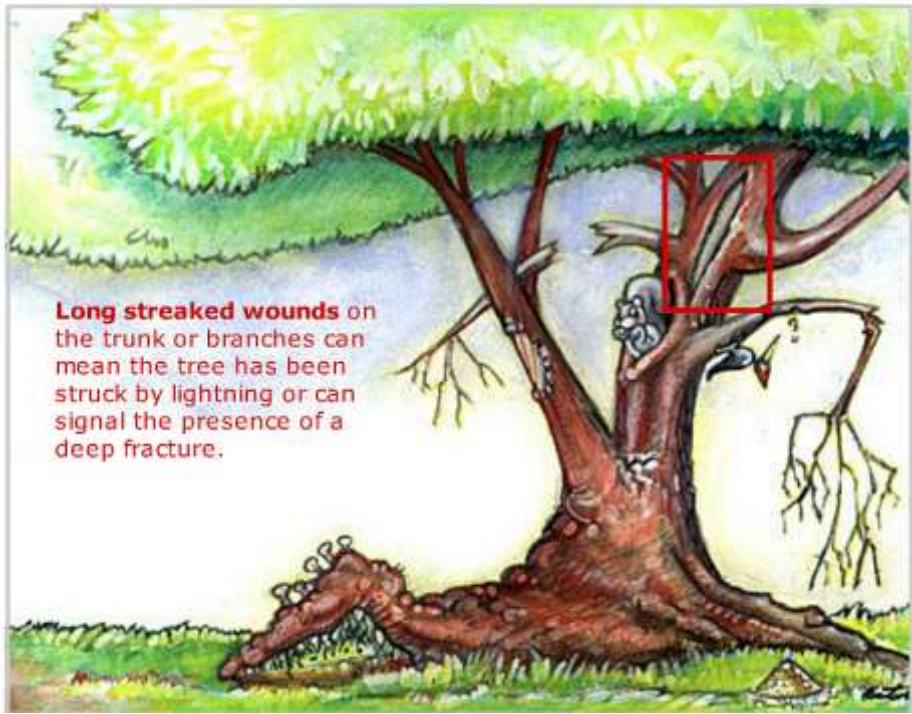


Holes and Cavities In PC Trees



- **This tree represents an example of a bad streak wound at the top (note there is also wood rot present at the top of the streak).**
- **It also exhibits a rotting hole or cavity on the bottom.**

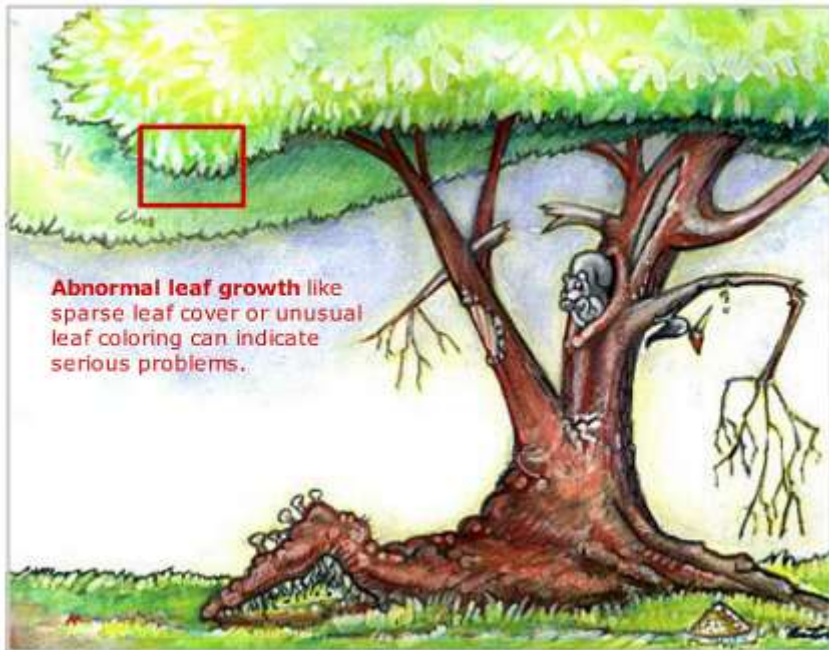




Long Streaked Wounds In PC Trees



Abnormal (Or Little) Leaf Growth In PC



Awesome On-Line Tree Health and Pruning Videos, Mostly From Florida Sources

Fact Sheet

- **Damage - Pruning - Landscape plants - Edward F. Gilman - UF/IFAS**
- <https://edis.ifas.ufl.edu/pdffiles/EP/EP30000.pdf>
- Several *consequences* occur when *pruning* is *not* performed at all. These include development of low aggressive limbs, weak codominant stems, bark inclusions, and accumulation of dead branches. The first three occur primarily, but *not* exclusively, in planted *trees*.

Videos

- **Introduction to Tree Pruning**
- <https://www.youtube.com/watch?v=Kxfi4ewvKZo>

- **Tree Biology and Pruning**
- <https://www.youtube.com/watch?v=ZGFoQ3Jllem8>

- **An approach to pruning you won't forget By: Dr. Ed Gilman, University of Florida/IFAS**
- <https://www.youtube.com/watch?v=cHt3ym3F7Kc> Full Video on this webinar
- <https://youtu.be/cHt3ym3F7Kc?t=267> (When Dr. Gilman's presentation begins)

More Resources to Assist PC Tree/Understory Planting Planning Efforts

- Urban Forest Management Plan Toolkit <http://ufmptoolkit.net/>
- Urban Forest Management tools website-links <http://ufmptoolkit.net/resources/tools/>
- Urban Forester covering SRQ County, Myakka District. Eric Strickland , County Forester, Bradenton
- UF/IFAS [Assessing Damage and Restoring Trees After a Hurricane -Urban Forest Hurricane Recovery Program](#)
- [Florida Urban Forestry Council](#) (A Wonderful Resource) [Urban Forestry Institute-Feb 5/7,2018](#) Urban Forests and Natural Disasters: Preparedness and Recovery; [FUFC - Speakers Bureau](#) ; [Regional Workshops](#) - i-Tree Workshop i-Tree **What is i-tree?** <https://www.itreetools.org/>
- [Quarterly Newsletter of the Florida Urban Forestry Council](#)

Urban Forest Strike Teams to affected county level emergency management operations. Meanwhile, Florida Forest Service Cooperative Foresters made direct contact to municipalities situated in the heart of the disaster. Meetings were held with Cocoa Beach, Holly Hill, Palm Coast
- [Invasive Plants in Our Yards – Broward County:](#)
- Webinar on pruning by Dr. Ed Gilman UF/IFAS <https://youtu.be/cHt3ym3F7Kc?t=314>
- Storm damage prevention and treatment (Good Summaries from UF/IFAS)
<http://hort.ifas.ufl.edu/woody/stormy.shtml>
- The importance of educational videos - Arborist Blair Glenn, <https://www.youtube.com/watch?v=iHarEECxoM>
- Restoring trees after a hurricane UF/IFAS (Excellent) <https://edis.ifas.ufl.edu/pdf/EP/EP30000.pdf>
- Is My Tree Safe? Recognizing Conditions that Increase the Likelihood of Tree Failure. Drew C. McLean, Andrew K. Koeser, Robert J. Northrop, and Gitta Hasing <http://edis.ifas.ufl.edu/pdf/EP/EP50700.pdf>

More Resources (2) To Assist Pelican Cove Planning Efforts



Wind and Trees: Lessons Learned from Hurricanes By

Mary L. Duryea and Eliana Kampf

<http://edis.ifas.ufl.edu/pdffiles/FR/FR17300.pdf>

Is My Tree Safe? Recognizing Conditions that Increase the Likelihood of Tree

Failure By Drew C. McLean, Andrew K. Koeser, Robert J. Northrop, and Gitta

Hasing

<http://edis.ifas.ufl.edu/pdffiles/EP/EP50700.pdf>

https://www.youtube.com/results?search_query=arboristBlairGlenn

All videos by Glair Glenn, Arborist

Preventing Problems Reducing damage from storms with preventive action.

Damage to trees from storms can be minimized by designing and implementing a tree management plan. Unfortunately, most folks are unaware that designing and executing a plan can help prevent problems.

Prevention Strategies for New Plantings

- [Design the site appropriately](#)
- [Select the right tree for the right place](#)
- [Choose good quality nursery stock](#)
- [Plant trees appropriately](#)
- [Preventively prune](#)
- Develop and execute a preventive maintenance plan including the procedures below.

Prevention Strategies for Existing Trees

General Procedures

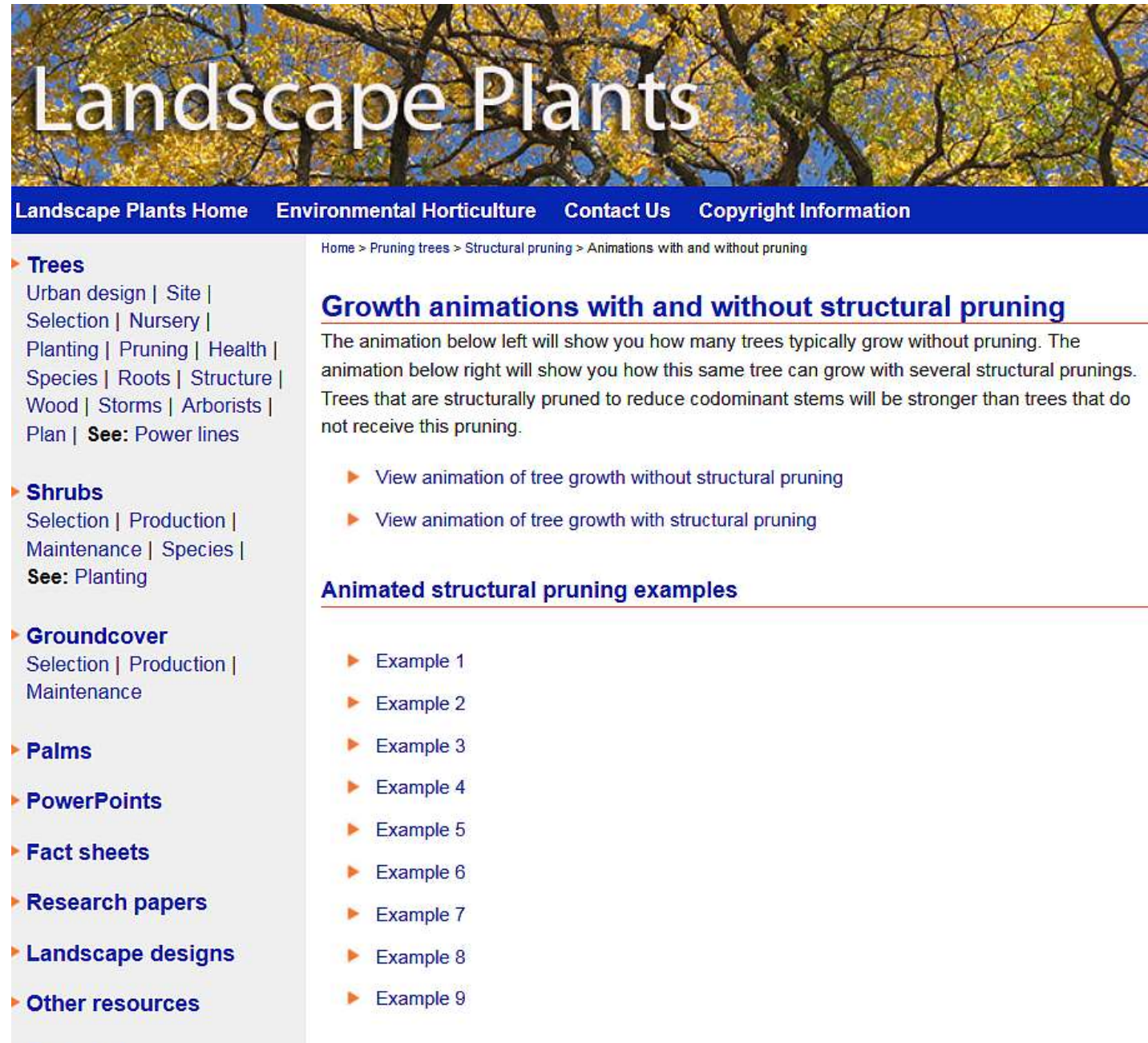
- [Root collar examination](#)
- [Root depth determination](#)
- [Rooting space evaluation](#)
- [Lower trunk assessment](#)
- [Middle and upper trunk assessment](#)
- [Canopy and branches](#)
- [Preventive pruning](#)
- [Do not cut roots on existing trees](#)

Special Situations

- [Leaning trees](#)
- [Young trees](#)
- [Mature Trees](#)
- [Trees close to curbs/sidewalks](#)
- [Trees in parking lot islands/medians](#)
- [Isolated trees](#)
- [Trees near buildings](#)
- [Species of special concern](#)
- [Species resistant to damage](#)

More Resources (3)

[UF Resource](#) [Growth Animations](#) [With and Without](#) [Structural Pruning](#)



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Home > Pruning trees > Structural pruning > Animations with and without pruning

Trees
Urban design | Site | Selection | Nursery | Planting | Pruning | Health | Species | Roots | Structure | Wood | Storms | Arborists | Plan | **See:** Power lines

Shrubs
Selection | Production | Maintenance | Species | **See:** Planting

Groundcover
Selection | Production | Maintenance

Palms

PowerPoints

Fact sheets

Research papers

Landscape designs

Other resources

Growth animations with and without structural pruning

The animation below left will show you how many trees typically grow without pruning. The animation below right will show you how this same tree can grow with several structural prunings. Trees that are structurally pruned to reduce codominant stems will be stronger than trees that do not receive this pruning.

- ▶ [View animation of tree growth without structural pruning](#)
- ▶ [View animation of tree growth with structural pruning](#)

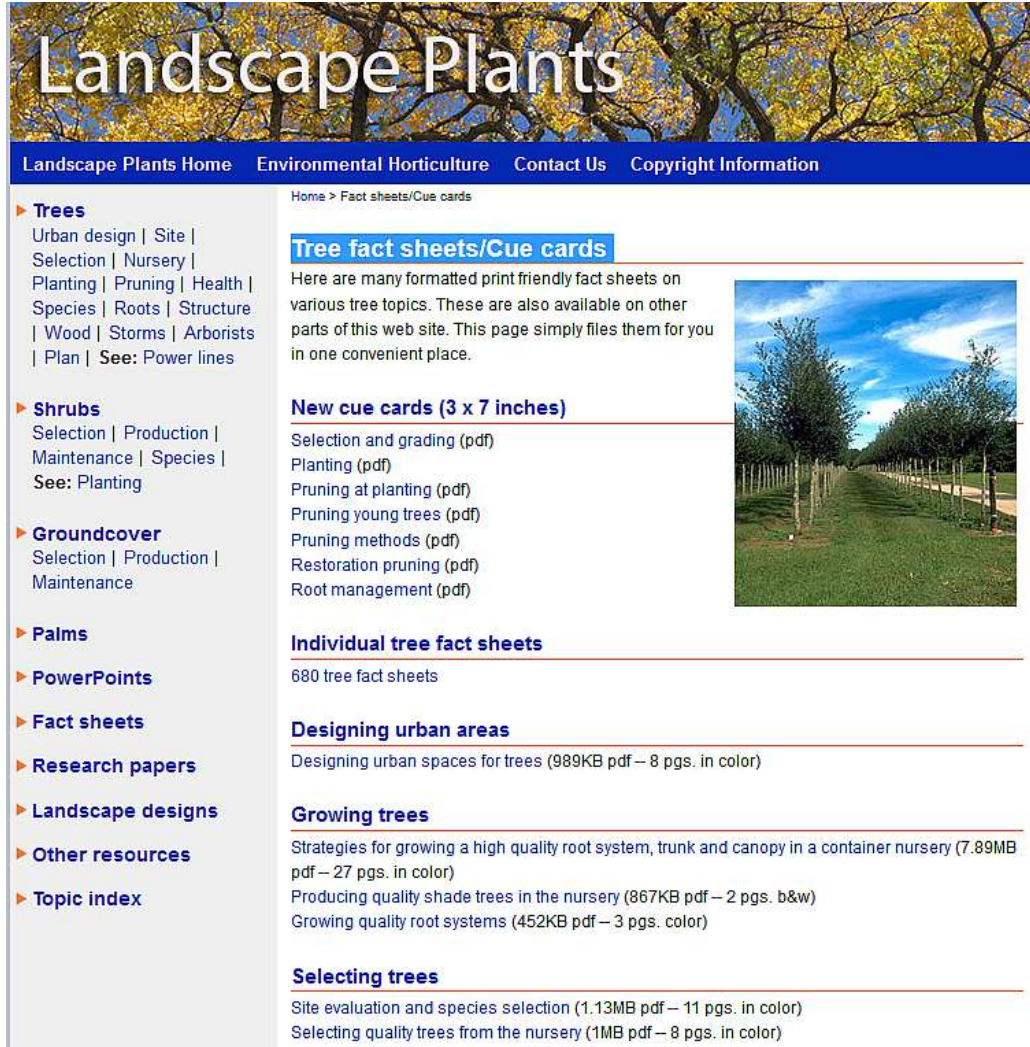
Animated structural pruning examples

- ▶ [Example 1](#)
- ▶ [Example 2](#)
- ▶ [Example 3](#)
- ▶ [Example 4](#)
- ▶ [Example 5](#)
- ▶ [Example 6](#)
- ▶ [Example 7](#)
- ▶ [Example 8](#)
- ▶ [Example 9](#)

More Resources (4)

UF Fact Sheets and Cue Cards

<http://hort.ifas.ufl.edu/woody/fact-sheets.shtml>



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Home > Fact sheets/Cue cards

Tree fact sheets/Cue cards

Here are many formatted print friendly fact sheets on various tree topics. These are also available on other parts of this web site. This page simply files them for you in one convenient place.

New cue cards (3 x 7 inches)

- Selection and grading (pdf)
- Planting (pdf)
- Pruning at planting (pdf)
- Pruning young trees (pdf)
- Pruning methods (pdf)
- Restoration pruning (pdf)
- Root management (pdf)

Individual tree fact sheets

680 tree fact sheets

Designing urban areas

Designing urban spaces for trees (989KB pdf – 8 pgs. in color)

Growing trees

Strategies for growing a high quality root system, trunk and canopy in a container nursery (7.89MB pdf – 27 pgs. in color)

Producing quality shade trees in the nursery (867KB pdf – 2 pgs. b&w)

Growing quality root systems (452KB pdf – 3 pgs. color)

Selecting trees

Site evaluation and species selection (1.13MB pdf – 11 pgs. in color)

Selecting quality trees from the nursery (1MB pdf – 8 pgs. in color)

Shrubs

Selection | Production | Maintenance | Species | See: Planting

Groundcover

Selection | Production | Maintenance

Palms

PowerPoints

Fact sheets


Research papers

Landscape designs

Other resources

Topic index

Urban design | Site | Selection | Nursery | Planting | Pruning | Health | Species | Roots | Structure | Wood | Storms | Arborists | Plan | See: Power lines



Selecting trees

Site evaluation and species selection (1.13MB pdf – 11 pgs. in color)

Selecting quality trees from the nursery (1MB pdf – 8 pgs. in color)

Planting trees

Planting and establishing trees (1MB pdf – 9 pgs. in color)

Specifications for planting trees and shrubs in southeastern US (4 pgs. b&w)

Pruning trees

Pruning young trees (1.83MB pdf – 11 pgs. in color)

Pruning mature trees (2MB pdf – 14 pgs. in color)

Restoring trees following a storm (1.97MB pdf – 10 pgs. in color)

Pruning landscape trees and shrubs (11 pgs. b&w)

Pruning objective ((867KB pdf – 2 pgs. b&w)

Pruning cut types (927KB pdf – 2 pgs. b&w)

Developing a pruning plan (755KB pdf – 2 pgs. b&w)

Structural pruning (905KB pdf – 2 pgs. b&w)

Cleaning (930KB pdf – 2 pgs. b&w)

Raising (685KB pdf – 2 pgs. b&w)

Thinning (763KB pdf – 2 pgs. b&w)

Reducing (911KB pdf – 2 pgs. b&w)

Palms (874KB pdf – 2 pgs. b&w)

Crape myrtles (3.48MB pdf – 5 pgs. in color)

Producing quality shade trees in the nursery (867KB pdf – 2 pgs. b&w)

Storms and trees

Wind and trees: lessons learned from hurricanes (17MB pdf – 17 pgs. in color)

Assessing hurricane-damaged trees and deciding what to do (2MB pdf – 17 pgs. in color)

Cleaning up after the storm (346KB pdf – 3 pgs. in color)

Hiring an arborist (393KB pdf – 3 pgs. in color)

Developing an urban forestry management plan for hurricane-prone communities (671KB pdf – 11 pgs. in color)

Visualizing Possible Futures: On-Lines Sources of Information About Selected Native Trees Suggested in the Beaver Climate Change Adaption Plan

Illustrative Examples *(These same sources can offer insights into all the native trees and plants suggested by the Beaver, et al study)*

Sea Grape (replacement for Australian Pine in PC)

- IFAS <http://edis.ifas.ufl.edu/st175>
- Atlas FL Plants <http://florida.plantatlas.usf.edu/plant.aspx?id=3791>
- South FL Plant Guide <http://www.south-florida-plant-guide.com/sea-grape.html>

Wild Tamarind (replacement for African Tulip Tree in PC)

- IFAS <http://edis.ifas.ufl.edu/st366>
- Atlas FL Plants <http://florida.plantatlas.usf.edu/plant.aspx?id=909>

Willow Busic (replacement for Norfolk Pine)

- Not IFAS - elsewhere <http://www.regionalconservation.org/beta/nfyn/plantdetail.asp?tx=Sidesali>
- Atlas FL Plants <http://florida.plantatlas.usf.edu/plant.aspx?id=739>

Paradise (replacement for Jacaranda in PC)

- IFAS <http://edis.ifas.ufl.edu/st590>
- Atlas FL Plants <http://florida.plantatlas.usf.edu/plant.aspx?id=739>
- FL Native Plant Society <http://fnpsblog.blogspot.com/2011/08/paradise-tree-beautiful-and-useful.html>

Buttonwood (replacement for carrot wood trees in PC)

- IFAS <http://edis.ifas.ufl.edu/pdf/ST/ST17900.pdf>
- Atlas FL Plants <http://florida.plantatlas.usf.edu/plant.aspx?id=2807>
- South FL Plant Guide <http://www.south-florida-plant-guide.com/silver-buttonwood.html>