



NATIVE PLANT LANDSCAPING TO PROTECT WATER QUALITY:

ORGANIC TREE CARE

Press Esc to exit full screen



TREE AND BEAUTIFICATION COMMISSION

The order. At 9.30. I am.

1016016066 - 3.00.10 AM

CTYVB 13





Conservation Club Programs



Environmental
Learning Center—
Wildlife Habitat
Fragmentation

Florida Dept of
Environmental
Protection—Lagoon
Restoration

Pelican Island
Audubon

Florida Bat
Conservancy

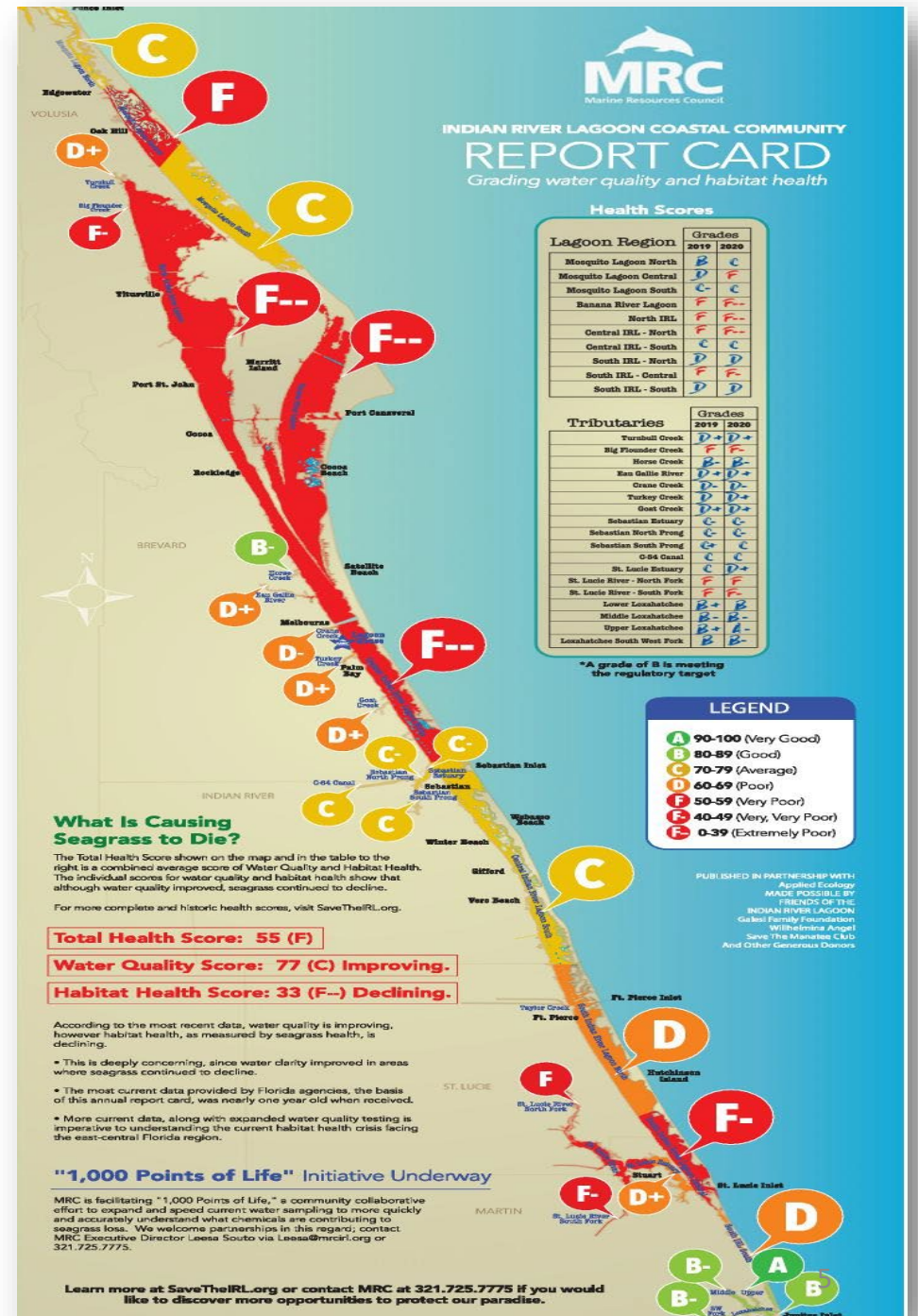
Army Corp of
Engineers—Lake
Okeechobee

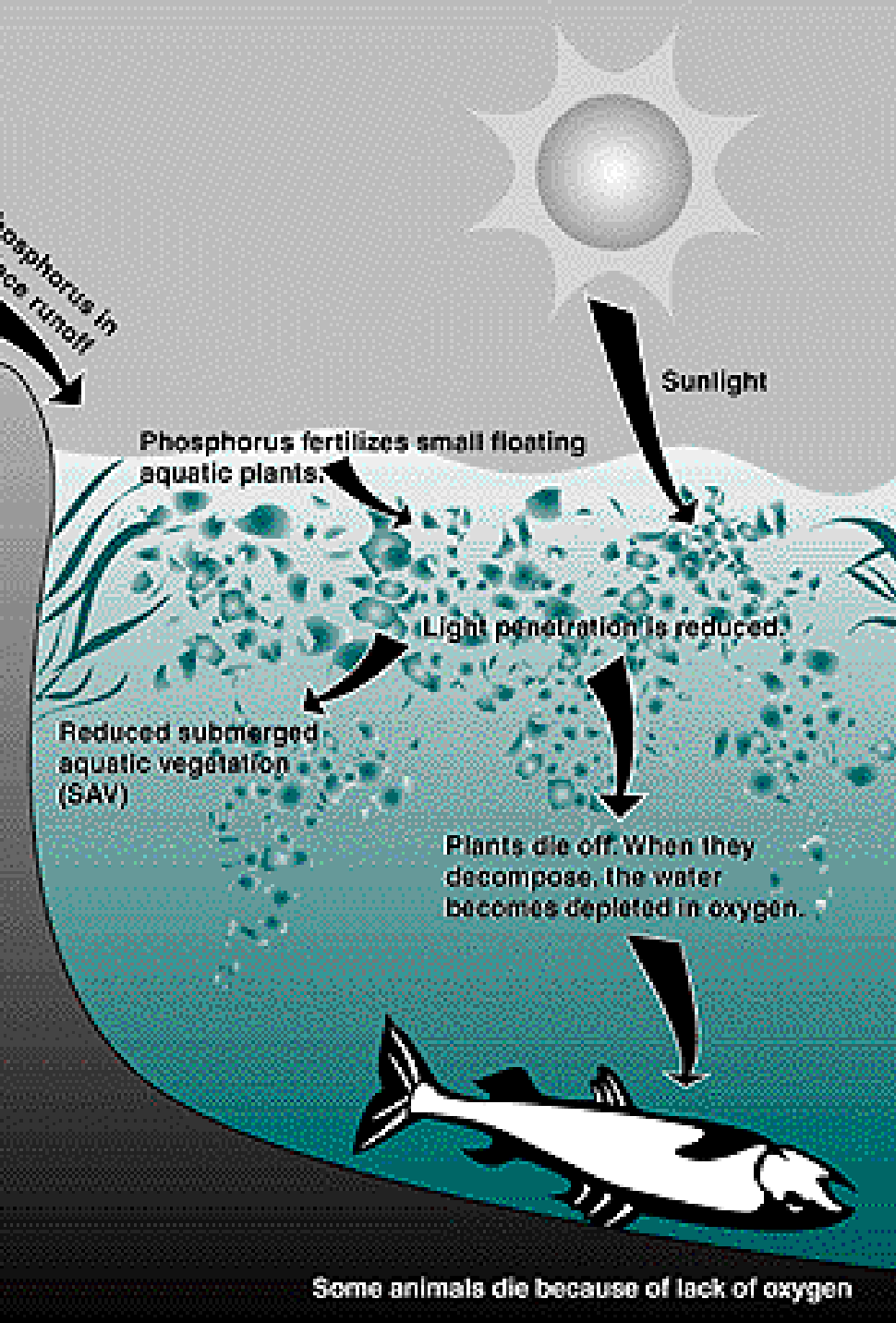
Save the Manatees

Dolphin Spotter

Marine Resources Council

Annual Lagoon Report Card 2022





What has happened to the Lagoon?

The Eutrophication Process

- Normally, wind and waves oxygenate the Lagoon
- Algae in water bodies are a normal finding and essential for the smallest creatures to feed on, as the basis of the food web
- Nutrients from landscape fertilizers run off by irrigation and stormwater into the Lagoon
- Abnormal overproduction of algae and non-native invasive aquatic plants occurs
- Overgrowth of both beneficial and harmful plants prevents oxygen and sunlight from penetrating into deeper water (seagrass must have sunlight for photosynthesis)
- Overgrowth is sprayed with toxic aquatic pesticide equivalents of round-up
- Beneficial and non-native invasive aquatic plants are killed and decompose
- Decomposition of the plants requires oxygen, which is taken from the water
- Suffocation of plants and animals occurs from lack of dissolved oxygen
- Muck, composed of toxic chemicals is now transformed into more poisonous substances, along with dead animal and plant debris, covering the normal sandy floor of the Lagoon, and resulting in dead zones near inhabited coastlines

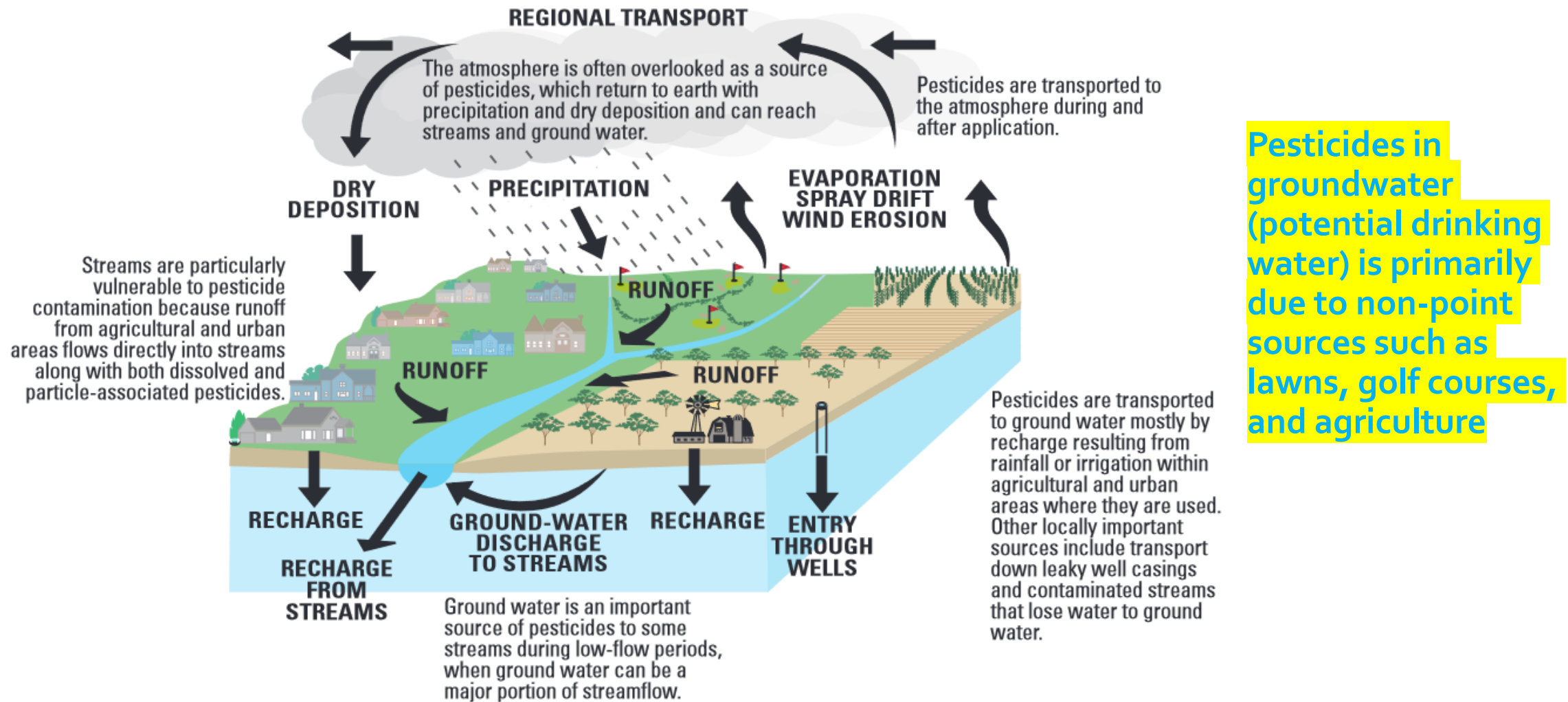
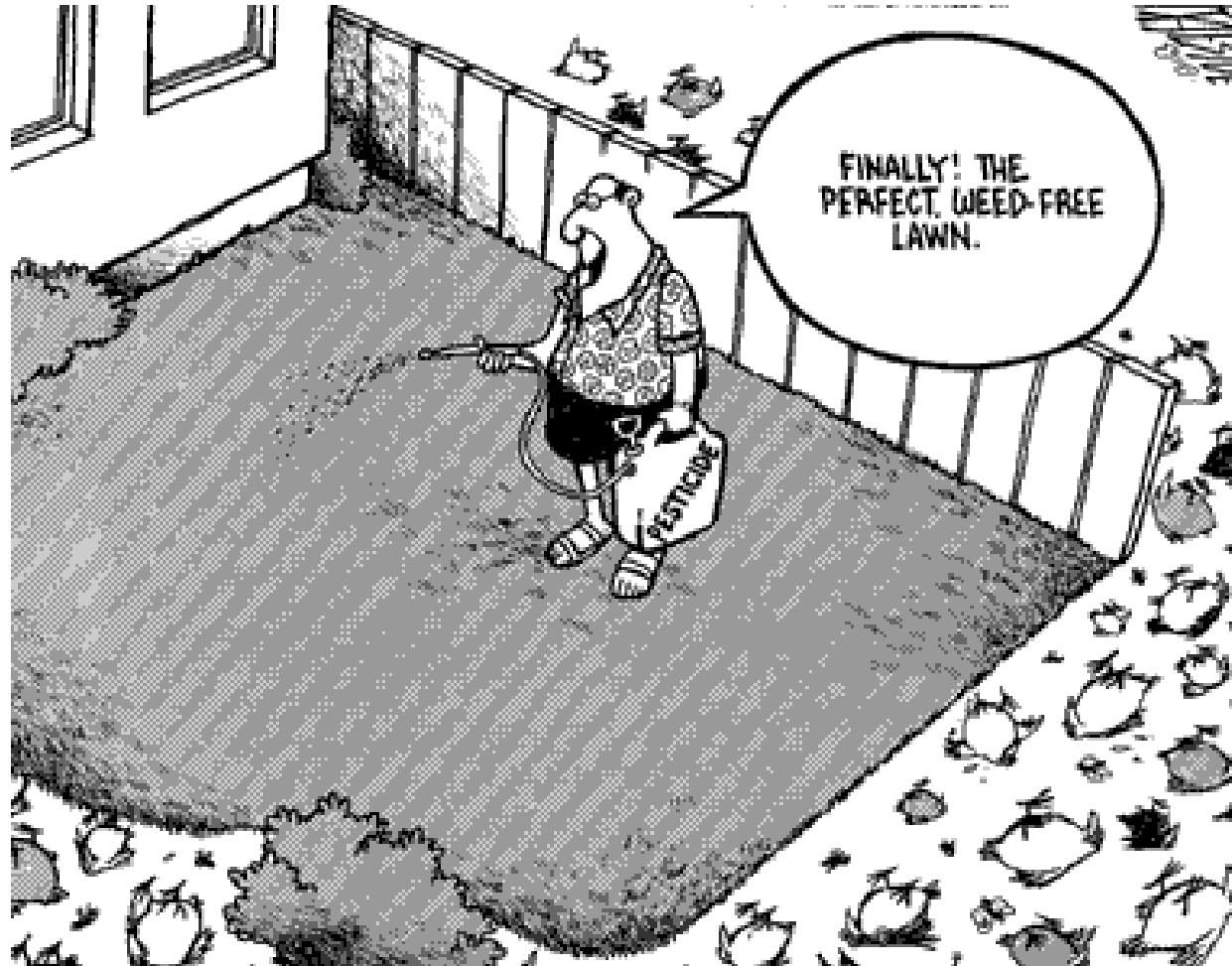


Figure 2-4. Pesticides are transported to streams and ground water primarily by runoff and recharge. Nonpoint sources of pesticides originating from areas where they were applied—rather than point sources such as wastewater discharges—are the most widespread causes of pesticide occurrence in streams and ground water. (Modified from Majewski and Capel, 1995.)



Over 200 chemicals are used for home lawn care, and 66 million pounds of just the products' active ingredients is applied in home and garden settings annually. About two-thirds of the total are herbicides.

Birds Suffering



Estimates are that at least 67 millions birds die in the U.S. each year due to pesticide toxicity. A report, The State of the World's Birds, compiled every five years, finds that the populations of even once-widespread, easily recognizable species, have rapidly declined by 40% and face global extirpation.

Homeowners Control PREVENTABLE Habitat Loss

Lack of Native Plants

Little planting of native species of trees, shrubs, and groundcovers that do not need chemicals to survive and thrive

Pruning of Native Trees

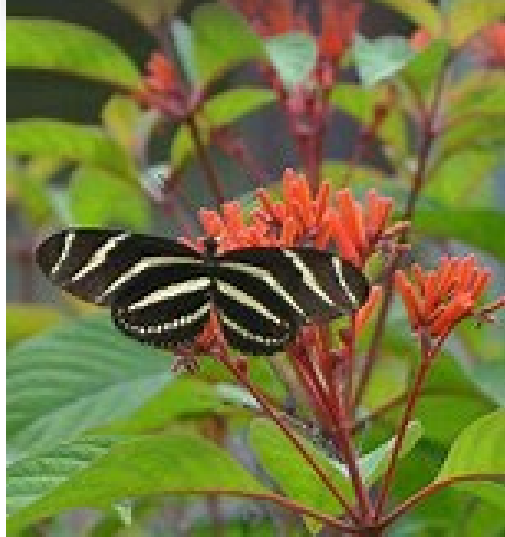
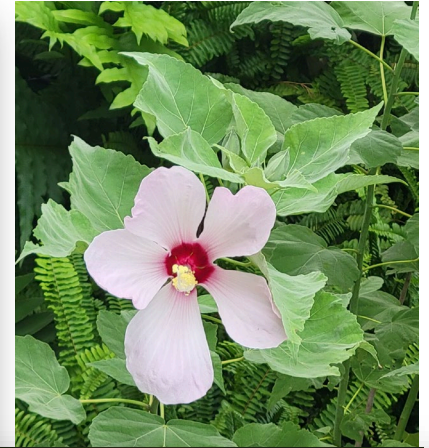
Poor landscaping practices include excessive pruning of trees and shrubs

Applying Fertilizer, Herbicides and Pesticides on lawns and shrubs and in stormwater ponds

Excessive Irrigation resulting in chemical runoff into the Lagoon

Mis-Management of Storm Water Retention Ponds and Waterfront

Embrace Florida Native Plants





NATIVE PLANT ENTRANCE AT COSTA POINTE

Section 7 of Article II, General Provisions, of the **Constitution of the State of Florida**, provides a clear statement that the actions of the legislature and state agents of Florida are to be defined and guided by policies that serve to “conserve and protect” the Florida environment.

SECTION 7. Natural resources and scenic beauty.—

(a) It shall be the policy of the state to conserve and protect its natural resources and scenic beauty. Adequate provision shall be made by law for the abatement of air and water pollution and of excessive and unnecessary noise and for the conservation and protection of natural resources.

Florida Statute Encourages Florida Friendly Landscaping

Lagoon friendly landscapes...

- Conserve water
- Protect the environment
- Are designed for local conditions

Deed restrictions and covenants cannot prohibit

Local governments may not prohibit

FL.S. 373.185

But you still may have to fight a legal battle to enforce it!





Consider --

THIS (Florida Friendly)

INCREASE height of turf to 4-6". DECREASE FREQUENCY in winter.

Less mowing:

= less \$

= less fossil fuel used

= less carbon footprint

OR BETTER

PERFORM A TRIAL of replacing turf area bounded by man made structures with a native ground cover.

OR BEST (Lagoon Friendly)

GRADUALLY replace turf grass with native groundcovers to decrease water usage and cost of manpower and fuel, thereby decreasing pollution and carbon release.

NATIVE PLANTS

Are low maintenance

Don't require chemicals to thrive

Don't require irrigation after establishment

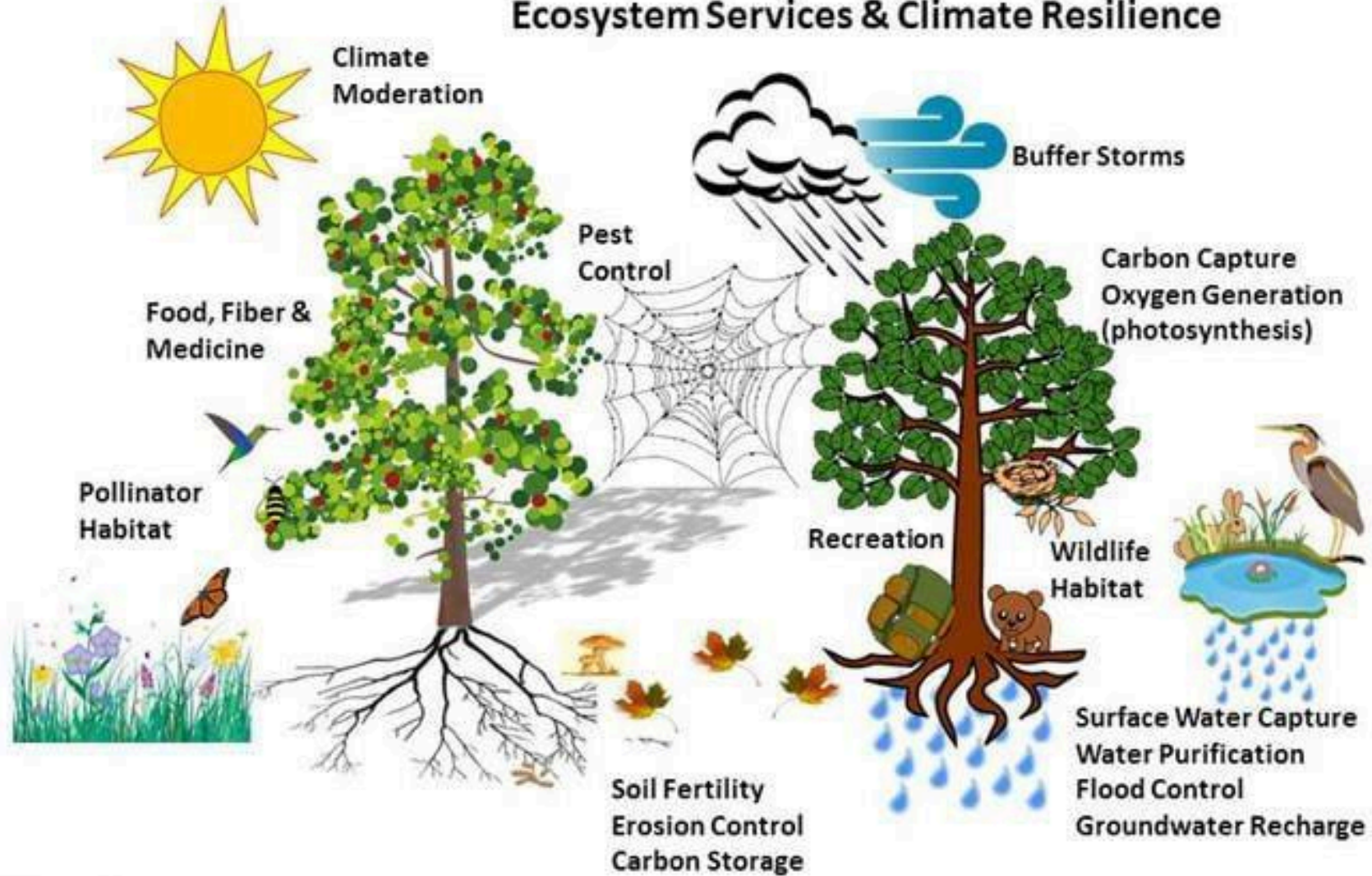
Encourage pollinators & beneficial insects

Save homeowners time and money

Are beautiful and designed for our ecosystem



Native Plant Communities Ecosystem Services & Climate Resilience



Florida Native Plant Society



The Mission of the Florida Native Plant Society is to promote the preservation, conservation, and restoration of the native plants and native plant communities of Florida.

www.fnps.org

- Florida is the most vulnerable mainland state for introduction and establishment of invasive pests
- On average, Florida receives one new pest every month
- Agricultural trade and pest interceptions at ports of entry have been doubling every 5 to 6 years
- With increased trade liberalization, and as East – West trade has increased, many invasives now come from Asia



Asparagus aethiopicus

Asparagus fern

INVASIVE SPECIES IN FLORIDA

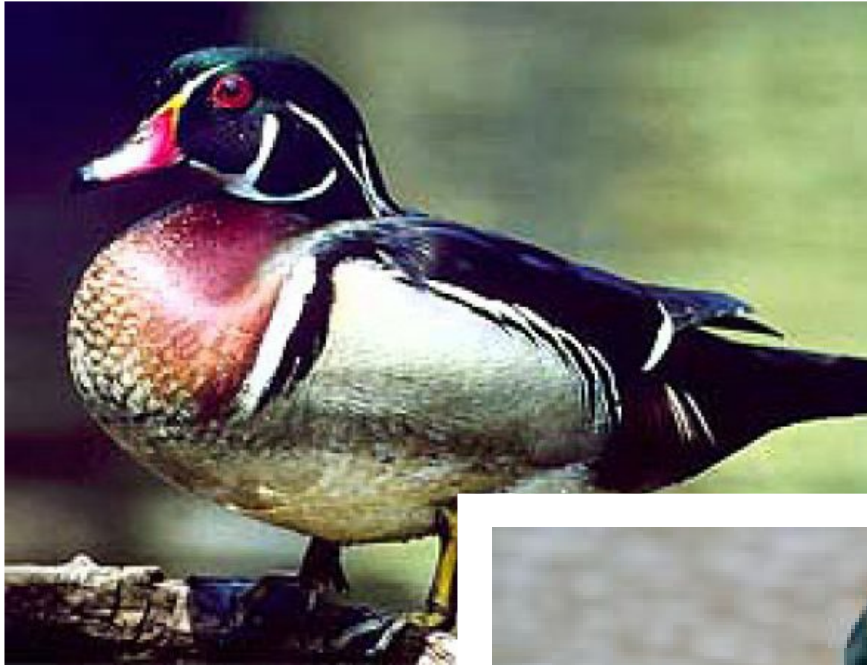
NO TO CYPRESS MULCH!

Brevard Code of Ordinances: Sec. 62-4341. Landscaping
Unfortunately, no prohibition of cypress mulch



GRAND HOTEL





CYPRESS HABITATS

Prime areas for feeding and nesting birds, including many that have threatened or endangered status

	Breeds in Forest Fragment	Stopover in Forest Fragment		Breeds in Forest Fragment	Stopover in Forest Fragment		Breeds in Forest Fragment	Stopover in Forest Fragment
Black-and-white Warbler	X		Pine Warbler	X	X	Least Flycatcher	X	X
Canada Warbler	X	X	Prairie Warbler	X	X	Magnolia Warbler	?	X
Carolina Chickadee	X		Prothonotary Warbler	?	?	Northern Waterthrush	X	
Cerulean Warbler		?	Rose-breasted Grosbeak	X		Ovenbird		X
Connecticut Warbler	?	?	Scarlet Tanager		X	Red-eyed Vireo	X	X
Eastern Wood-pewee	X	X	Tufted Titmouse	X		Veery	X	X
Indigo Bunting	X	X	Wood Thrush		X	White-breasted Nuthatch	X	
Hooded Warbler		?	Worm-eating Warbler	a	X	White-throated Sparrow	X	
Kentucky Warbler		X	Yellow-throated Warbler	X		Red-bellied Woodpecker	X	
Mourning Warbler	?	X	American Redstart		X	Downy Woodpecker	X	
Nashville Warbler		X	Black-capped Chickadee	X		Hairy Woodpecker	X	
Northern Parula		X	Blue-grey Gnatcatcher	X		Yellow-bellied Sapsucker	X	



‘The Evergreen’: Oregon’s old forests keep getting cut down, despite Biden’s promise to protect them

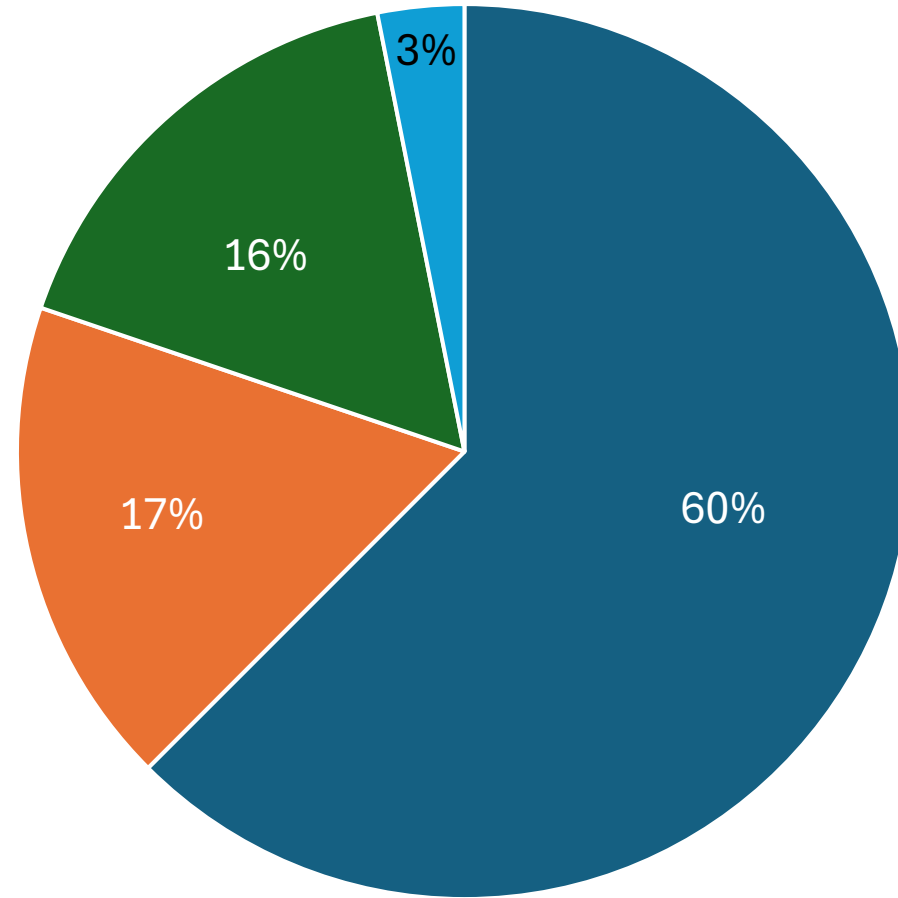
Today, we’re talking about how logging has continued in western Oregon — the heart of the nation’s remaining old-growth forests.

Nov. 18, 2024



Florida's forests ownership

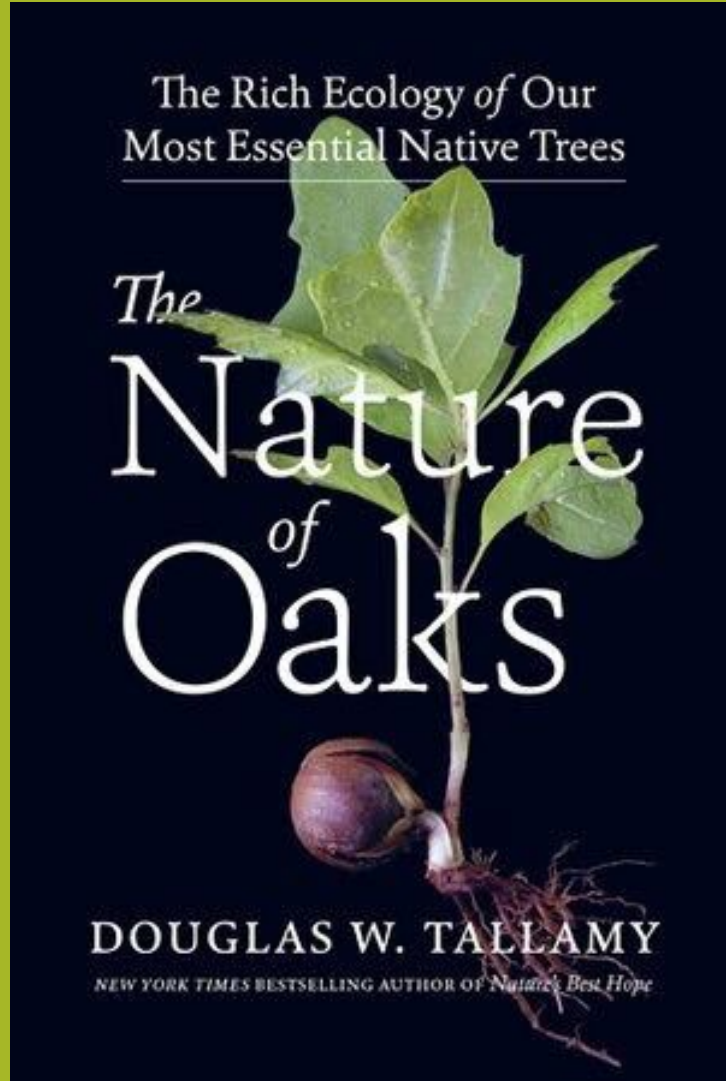
- Private
- Federal
- State
- Local





National Parks are too small and separated from one another to adequately preserve the native trees, plants, insects and animals that our ecosystems depend upon to survive and thrive.

Thus, the concept for the Homegrown National Park®: a national challenge to homeowners and property owners...anyone with some soil to plant in - to extend our national parks into our yards, communities, and surrounding lands by planting native and removing invasive species.



From: Tallamy, Douglas <dtallamy@udel.edu>

Sent: Saturday, March 11, 2023 6:11 PM

To: Katherine Booth

Subject: Re: Please validate oaks need protection against pruning myths--thank you!

I like everything you said!! Great job!

From: Katherine Booth <mprademacher@msn.com>

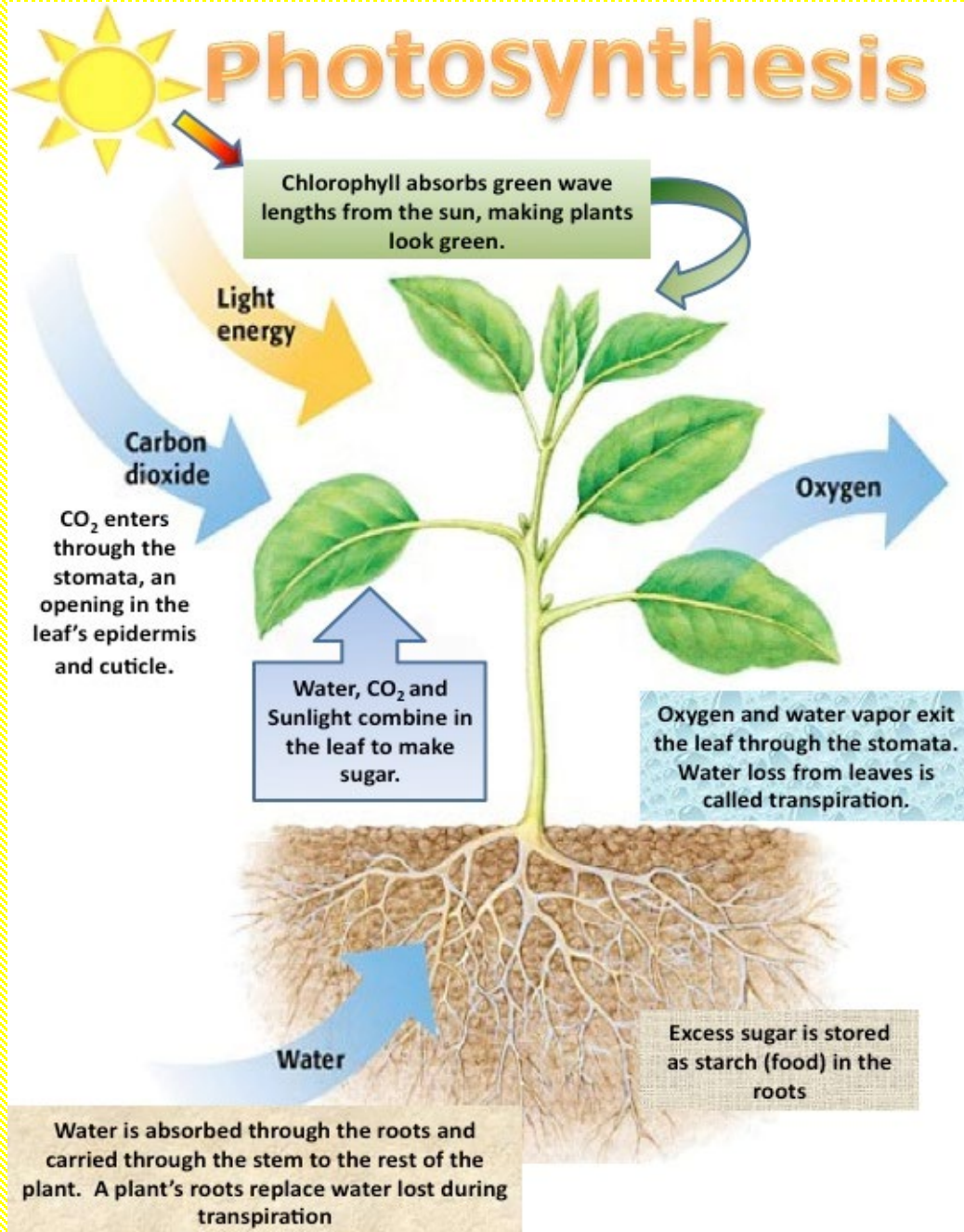
Sent: Saturday, March 11, 2023 5:56 PM

To: Tallamy, Douglas <dtallamy@udel.edu>

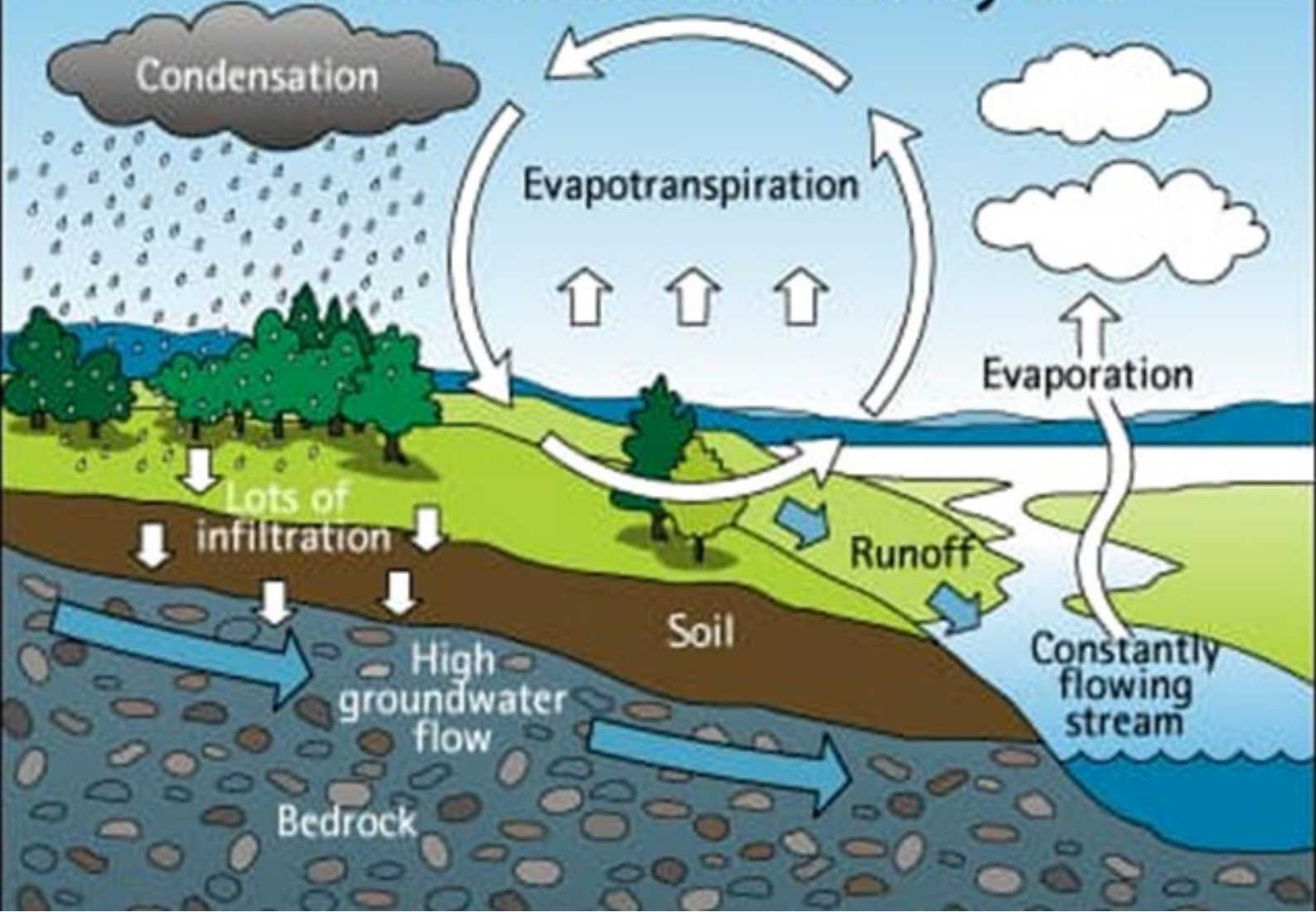
Subject: FW: Please validate oaks need protection against pruning myths--thank you!

Hi, Dr. Tallamy, following up your review. Thank you so much.

Let's Be a Good Neighbor to the Lagoon



The natural water cycle



What a Plant Knows

by Daniel Chamovitz

Plants
have
photo-
receptors
like in our
eyes

- Knows if you come near
- Knows when you stand over them
- Knows if you're wearing **blue** or **red**
- Knows if you've painted your house
- Knows if you've moved their pots from one side of a room to the other



Plants continuously monitor their visible environment

- Nearly all plants bend toward light
- Plants measure how much light they take in to help them know when it's day or night
- Plants measure not the length of the day but the length of the continuous period of darkness
- Plants can differentiate between colors of light: **BLUE** light is used to know which direction to bend and **RED** to measure the length of the night to know when to bloom



Plants' Awareness



- Plants differentiate between red, blue, far-red and UV light and respond accordingly
- Plants respond to minute quantities of aromatic compounds wafting in the air
- Plants know when they are being touched and can distinguish different touches
- **Plants' DNA causes them to grow according to the species shape. Thus, plants know where their branches are oriented in space and position successive branches to achieve that design**
- Plants are aware of gravity and align their shape to ensure that shoots grow up and roots grown down
- Plants are aware of their past: they remember past infections and the conditions they've weathered and then modify their current physiology based on these memories and share their knowledge with other plants!

SHAPE SENSING

Proprioception is the perception of self

Synergies exist between shape sensing and response to external cues, such as wind and gravity

The screenshot displays the Vero Beach Florida website's legal code for tree classifications. The breadcrumb trail is: Vero Beach, Florida - Cod... / PART III - LAND DEVELO... / TITLE VII - LAND DEVEL... / CHAPTER 72. - LANDSC... / ARTICLE III. - TREE CLAS... The left sidebar shows a navigation tree with 'ARTICLE III. - TREE CLASSIFICATIONS' selected. The main content area lists regulations for tree shapes, including sections for specimen trees, protected trees, and invasive trees. A table titled 'MATRIX TYPE # / SHAPE:' shows five tree shapes: #1 ROUNDED, #2 PYRAMIDAL, #3 COLUMNAR, #4 VASE, and #5 OVAL. Below the table, it specifies 'Three inches DBH, four feet of clear trunk.' A table at the bottom shows height requirements for each shape: ROUNDED (12'), PYRAMIDAL (9'), COLUMNAR (12'), VASE (9'), and OVAL (10').

MATRIX TYPE # / SHAPE:	#1 ROUNDED	#2 PYRAMIDAL	#3 COLUMNAR	#4 VASE	#5 OVAL
Height	12'	9'	12'	9'	10'

Beautiful Native Oak



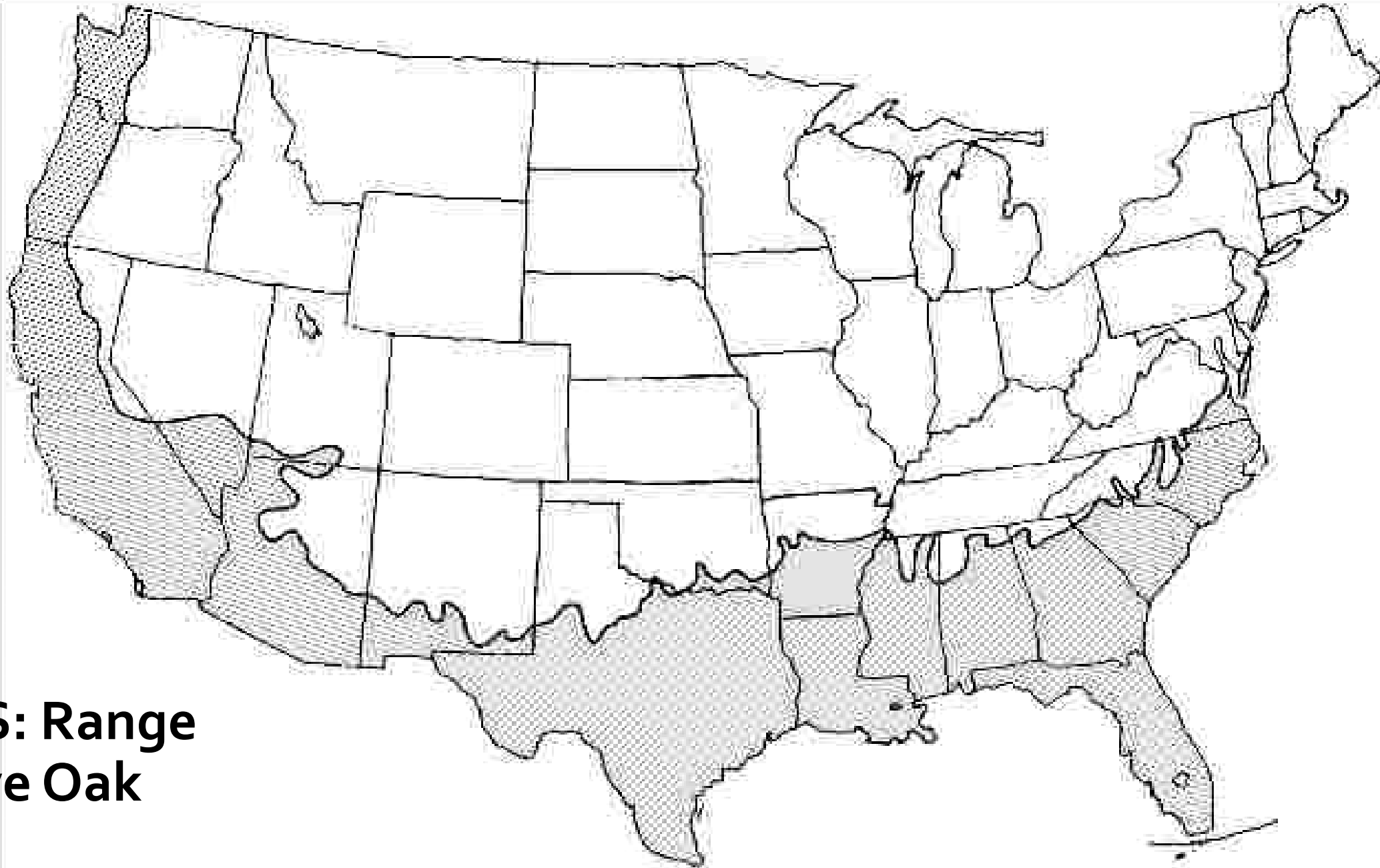
Quercus virginiana—Live Oak

- Size: 40-80 ft tall by 40-100 ft wide
- Life Span: Long-lived perennial. Life span 300+ years.
- Phenology: Evergreen. Inconspicuous blooms in spring; wind pollinated. Acorns ripening the same year in fall.
- Noted for: Interesting foliage, Hurricane wind resistance

Distribution and Planting Zones
Natural Range in Florida



**UF/IFAS: Range
of Live Oak**



Note squat trunk, many small branches and abundant foliage of an organic canopy

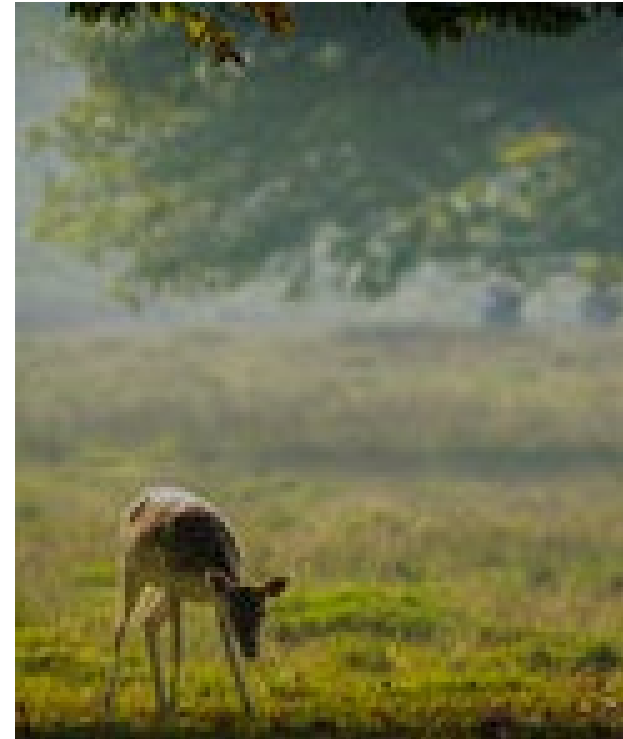




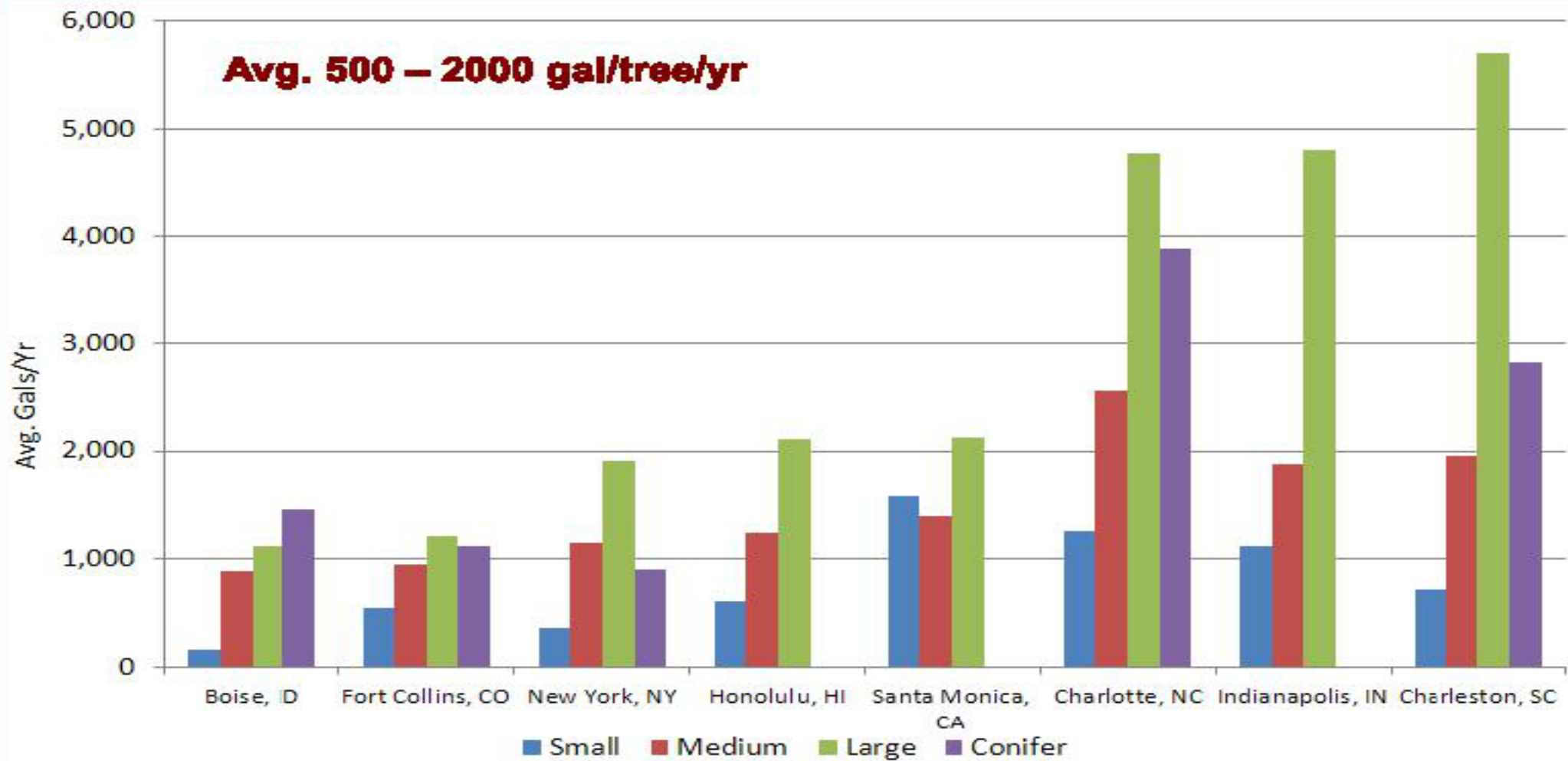
**AN OAK'S
NATURAL AND
BEAUTIFULLY
SHAPED SKELETON
EXPOSED BY WIND
AND SALT SCALD
FROM HURRICANE
IRMA**

VALUE OF OAKS TO WILDLIFE

- Birds and mammals eat acorns
- Invertebrates eat leaves
- Leafy foliage used for nests
- Dense foliage provides concealment
- Cavities provide dens, roosts, and nests
- Spanish moss for roosts and nests



Interception



Costs to the Community when We Don't Manage Stormwater Better



- Increased flooding
- Infrastructure and property damage
- Polluted waterways

How Do Native Trees Help the Lagoon? **LEAVES**

According to the Florida Urban Forestry Council

- Improved water quality – natural filtering
- Better air quality – 40 trees can remove 80 lbs of pollutants annually
- Lower energy costs – Leafy shade trees cool the air naturally
- Higher real estate values
- Consumers are drawn to businesses with shade trees



Real Life Comparison

McKee Botanical Gardens



Windsor Golf Course



**Beautiful organic unpruned oak
2020**



Misshapen dying pruned oak 2021





WHEN IT'S HOT, YOU NEED SHADE!

INAPPROPRIATE!

Lions-tailing

- Foliage concentrated at the tips of branches because inner branches are removed
- Branches droop from the weight of foliage only at the tips, necessitating continual pruning
- More susceptible to hurricane damage
- Difficult if not impossible to restore (tree does not replace the same pruned branches—new branches are at 90 degrees and useless for birds to perch)



Remove live foliage only for a good reason! (UF/IFAS)

Excessive sprouting as a result of stress caused from over pruning.





Sprouts
become
unnatural
90-degree
branches



Right: Longggg drooping branches caused by severe pruning, now over cars, etc. Lolli-popping places weight of the leaves at the ends of branches.

Below: Small branch sized sprouts growing on underside of a large branch. Any of these are unnatural and human caused!



**EXCESSIVE CANOPY
RAISING** makes a
tree top heavy &
**MORE PRONE TO
HURRICANE
DAMAGE**

INAPPROPRIATE PRUNING!





Harm from Pruning

Removes
benefits to us
and environment

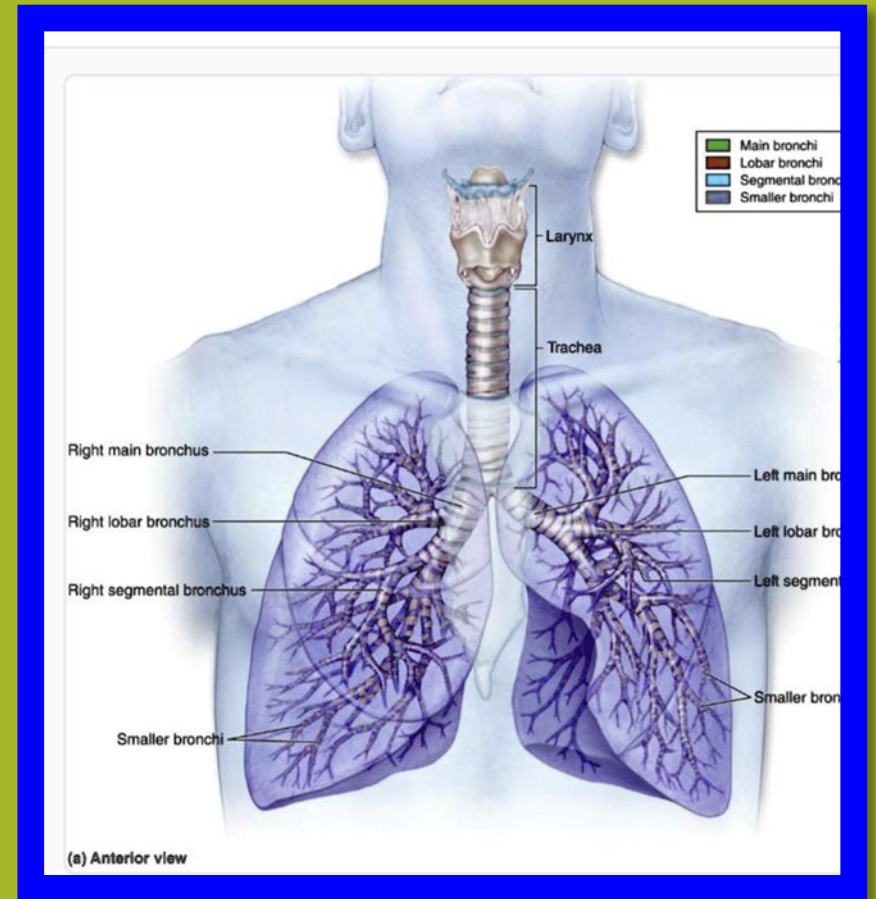
Diverts energy
production to
wound healing

Depletes tree
energy reserves

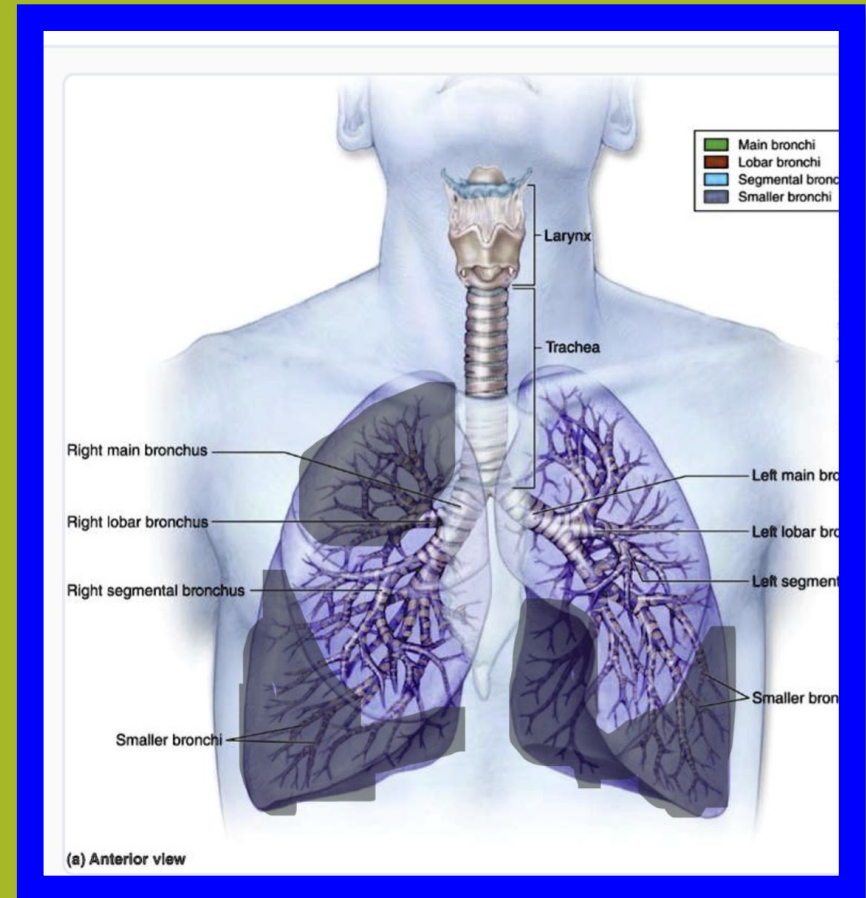
Bark splitting,
potential disease

Increases risk of
failure in wind
event

If trees are the lungs of the earth...

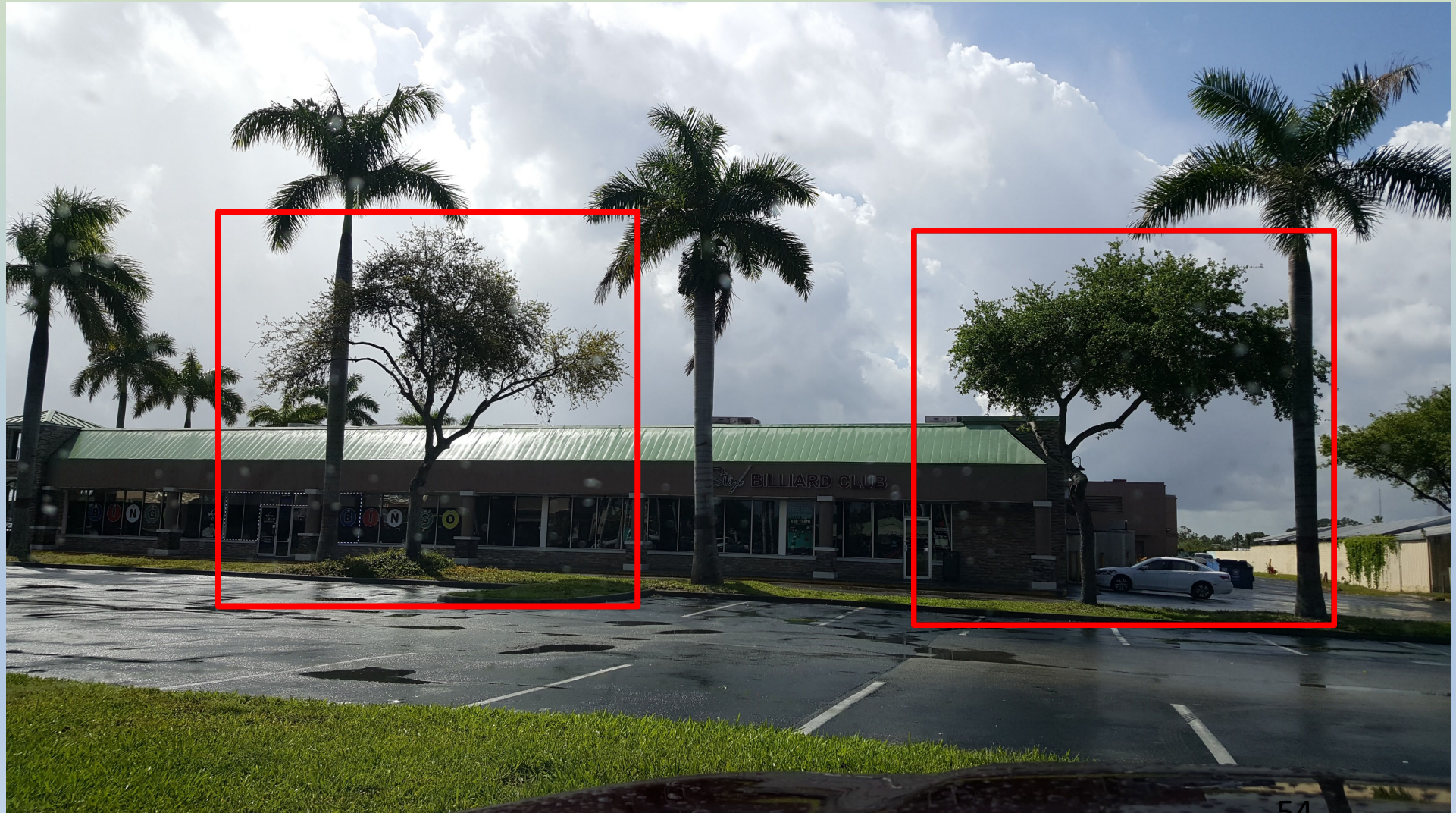


...how can they breathe without leaves?



By the Majestic Theatre

Severe over thinning and lifting



Vero Beach Museum of Art

A young tree.

Will this tree live?

If it lives, will it ever be the
beautiful tree it was meant to
be?



NO PROOF

Studies lack data...

- What was the damage between different pruning types and NO pruning?
- Did the trees uproot?
- Quantify the amount of foliage lost and branches broken.

From: Gregory Dahle [mailto:Gregory.Dahle@mail.wvu.edu]
Sent: Friday, August 31, 2018 10:09 AM
To: Mark, Katherine Booth Rademacher
<mprademacher@msn.com>
Subject: RE: pruning to enable wind resistance

Alas, there are no definitive scientific studies that directly confirm or directly refute the *potential* benefits of pruning trees.

--Greg

Gregory Dahle, Ph.D., BCMA
Associate Professor of Arboriculture & Urban Forestry
Program Coordinator, Forest Resources Management & Wood
Science Technology
Davis College, Division of Forestry & Natural Resources
West Virginia University
Percival Hall 338-B, PO Box 6125
Morgantown WV 26506-6125
304-293-6292 office, 304-293-2441 fax
Gregory.Dahle@mail.wvu.edu
<http://trees.wvu.edu>

MYTHS VS. TRUTH

Florida oaks were here long before Europeans arrived and have thrived for centuries **WITHOUT** pruning!

- It's necessary to strip the oak tree by pruning to prevent it from uprooting in high winds or from dropping branches: **NOT PROVEN** scientifically. **What is true** is that small branches buffer large branches and the low branches, relatively short trunk and extensive roots keep the unpruned tree rooted in wind.
- Pruning the branches to allow air to flow through the tree prevents it from uprooting in high winds: how can this be? **The tree PRODUCES air!** More leaves = more oxygen.
- It's necessary to prune the branches to allow sunlight into it for a healthier tree. What the arborist is *really* saying is now you'll be able to grow a lawn underneath the tree. Pruning **defeats the purpose of the tree—shade--**and causes remaining branches to droop due to loss of structural integrity.
- Laurel oaks don't live more than 50 years: **NOT PROVEN** scientifically. **The opposite has been proven:** A database of laurel oak ages proves these trees age well. Biodiversity is important to natural ecosystems. Why do laurel oaks and southern live oaks co-exist if only one oak is needed?

Bottom Line: Follow the Money

In Florida, **NO TRAINING** is required for anyone wanting to prune trees

- Tree pruners calling themselves “arborists” are **NOT LICENSED** as professionals by the State of Florida
- Tree pruners pay a business tax to Indian River County, which is not a license, and there is no penalty for not paying the tax nor non-renewal
- Only minimal requirements are needed to advertise as a “certified arborist” by the International Society of Arboriculture [ISA] or other similar organizations *
- There is **ZERO ACCOUNTABILITY** for tree pruners in Florida
- Unlicensed, untrained tree pruners have enormous earning power and use myths and unproved reasons to persuade municipalities, homeowners and HOA’s to prune native trees year after year
- Although it is very dangerous work, due to high demand BY YOU for unskilled labor, arboriculture is one of the top ten **AT-RISK** industries for **human trafficking, slave labor and illegal immigration**

Pruning for Clearance

Clearance is the only legitimate reason to prune a native tree

Clearance over a man-made structure can be achieved by shortening

Prune low branches gradually rather than removing them (UF/IFAS)

Pruning is unnecessary when the tree is planted in the right place with room to grow!

A damaged or “dead” tree continues to provide housing for plants and animals



College degree?

References?

Supervisor on site?

What's the plan for each branch?

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SAMPSON TREE CO.
Call Now: (772) 336-3456

For over 31 years, Sampson Tree Service has been providing professional tree trimming, tree removal, lot clearing, debris hauling, stump grinding, forestry mulching, bush hogging, mangrove maintenance, certified arborist, and a variety of other services to residential, commercial, and municipal customers in South and Central Florida. Sampson Tree Service also keeps mulch on hand, at all times, for consumers to purchase.

ISA
International Society of Arboriculture

VETERAN OWNED AND OPERATED

Services
Our professional services include but are not limited to:
• Tree Trimming - Tree Pruning
• Tree Removal (invasive, exotic, & hazardous)
• Stump Grinding
• Forestry Mulching
• Debris Hauling
For a complete list of services click here.

Certified Arborist
Sampson Tree Service is an International Society of Arboriculture and always has multiple certified arborists on hand to ensure that the tree services we perform comply with arborist standards.
License#: FL-6012A

Free Estimates
If you are looking to trim or prune a tree(s), remove a tree or tree stump, maintain your trees, or have any other concerns about a tree...we can meet you on site and give you a free estimate. Arborist certified documentation not included.
Contact Us today so we can ensure your tree(s) are getting the care they need.

Contact Us Information Social
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E-Mail: info@sampsontree.com
Office Hours
Monday to Friday

brought to you by ISA

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Home > Find an Arborist > Verify an ISA Credential

Verify an ISA Credential

This tool allows you to verify if an individual currently holds an ISA credential. It includes all individuals who are currently credentialed through the [ISA credentialing program](#). Not all individuals listed are available for hire. To find an arborist to provide tree care services, use the [Find an Arborist](#) tool.

If you are having difficulty verifying an arborist's credentials, you may contact ISA at isa@isa-arbor.com or .

Search by Name
First Name
Last Name
Search

Search by Certification Number
Certification #
EX. XX - 1234 A
Search

ISA International Society of Arboriculture
www.isa-arbor.com • p. +1 678.367.0981 • isa@isa-arbor.com

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Email comments and questions to ISA
Thursday, March 02, 2023 1:53:35 AM (CST/ISA Headquarters Time)
Please click here to view our privacy policy.

Remember: Not the State nor municipalities license arborists



Certified Arborist

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Contact Us today so we can ensure your tree(s) are getting the care they need.

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Thursday, March 02, 2023 1:53:35 AM (EST/ISA Headquarters Time)
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**Remember --
Neither the State
nor Municipalities
License Arborists**



DO NOT PRUNE SABAL PALMS

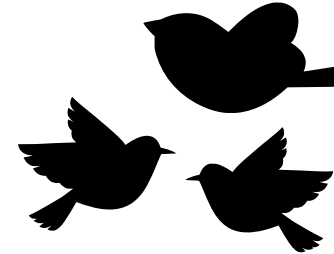
Benefits of Organic Tree Care (NOT Pruning)



Saves \$ for homeowners, HOAs, municipalities



Stormwater storage by all parts of the tree



More leaves = more O₂, less CO₂



Native trees are healthy and beautiful



Organic trees continue to host abundant and diverse plant and animal life



Natural purification of air and water



Organic canopy reduces Summer heat, energy costs



Offsets human carbon impact

A diverse group of people, including men and women of various ages and ethnicities, are seated in a meeting room. A woman in the center foreground is raising her right hand, indicating she wants to speak or ask a question. The scene is overlaid with a semi-transparent green filter. The text 'TALK TO YOUR HOA, COA' is centered over the image in a large, white, sans-serif font.

TALK TO YOUR HOA, COA



NATURAL FLORIDA BEAUTY

Questions?

Katherine Booth

(386) 506-9477

mprademacher@msn.com



Be a good neighbor
to the
Lagoon