

Scenic Watch



News -
During
August
2023

Codes Post Hurricane:

"Idalia destroyed these gulf towns. They worry they'll lose an 'old Florida' way of life"



Photo: Al Diaz, Miami Herald

"The Gulf of Mexico obliterated some of the old wooden clapboard homes and pushed others around, some left cracked and broken in the middle of the road.

Fishing guide Hope Reinke's home, similarly rustic but elevated on stilts, survived more or less intact, a decorative string of crab buoys still dangling from the wooden stairs. So did newer, and far more expensive, homes built to modern standards designed to protect them from just the sort of destructive storm surge that Hurricane Idalia brought to this sleepy fishing village.

Reinke lost some stuff built under the home, including a game room she kept for nieces and nephews. But she and many other residents in the other small, rural enclaves that dot what's known as Florida's Nature Coast, worry about losing the "Old Florida" character that once defined their communities and drew many of them in the first place.

These were places with rustic, even ramshackle, waterfront homes occupied by working people, not millionaires on vacation. There is worry — just like in Southwest Florida after Ian last year and the Panhandle after Michael in 2018 — that the high costs of rebuilding will price them out and bring a whole shiny new kind of development.

Recent history shows their worries aren't unfounded. Mexico Beach, the scene of Hurricane Michael's Category 5 crime in 2018, is awash with more vacation homes than ever, a process that's unfolding in Sanibel Island today after it got rocked by Hurricane Ian last year.

Destruction tends to draw speculators looking to make deals with storm victims forced to move on. And the newer homes that follow, almost unfailingly, are elevated and typically constructed with more steel and concrete and impact windows — often along with other amenities that can maximize price and profit and lure new types of buyers.

Reinke, a charter boat captain, said she was determined to see her community build back better, but she worries building regulations that require more hurricane-resilient structures could threaten the local charm...

Fighting the codes

But despite the evidence showing how important elevation can be, it's common for coastal cities in the wake of a storm to buck new codes, specifically because of concerns like Reinke's.

Although the building codes in play are enforced by the local government, they originate with FEMA's flood insurance program. To stay a part of it, and therefore

have access to cheap flood insurance and federal relief money after a storm, communities agree to build to a certain standard.

One of those standards includes rebuilding destroyed homes better than they were before. After a hurricane, if repair costs meet or exceed 50% of a property's market value, it's considered 'substantially damaged' and must be rebuilt to the newest codes, which usually means elevating.

After Hurricane Michael hit Mexico Beach, the city introduced new building codes that called for homes to be built even higher than state codes require. Then, two years later, the city undid its groundbreaking work after significant pushback from residents. Today, some homes are only built six inches higher than they were before the hurricane soaked them with more than six feet of storm surge..."

-- Alex Harris And Joey Flechas, Miami Herald

[Read entire article](#)

Century long cycle of hurricanes help move Florida's Mangroves north:

"Part of the puzzle explained by centuries of history"



Photo: WJXT

"Researchers have observed an increase in mangrove trees in southern Amelia Island, Florida, in recent years. This is well north of the plant's typical cold-sensitive habitat.

Historically, mangroves have been limited to southern Florida. However, they are now increasing along the temperate zones farther north, from St. Johns to Nassau Counties.

This migration pattern is related to warmer winters and hurricanes. Warmer winters allow mangroves to survive further north, while hurricanes help to disperse their seeds.

A survey conducted by Dr. Candy Feller of the Smithsonian Institute in 2004 found no mangroves along the southern tip of Amelia Island. However, a return visit to the same site in 2017 found mangroves over six feet tall. In May 2023, the same trees had grown to nine feet tall and spread 20 feet wide.

Feller links this expansion to Hurricanes Frances and Jeanie, which hit Florida in 2004. These hurricanes sent wave energy right up the east coast, just when mangrove plant propagation was at peak season. This helped to disperse mangrove seeds throughout the region.

Hurricanes are an efficient mechanism for dispersing mangrove propagules. Thousands of propagules were washed ashore in Northeast Florida after Hurricane Ian in 2022.

Hurricanes are nothing new so why didn't the plants establish locally decades ago?

The answer is that freezes have kept the species in check. In the past, freezes would periodically kill off mangroves that had migrated too far north..."

-- Mark Collins, Meteorologist, News4Jax

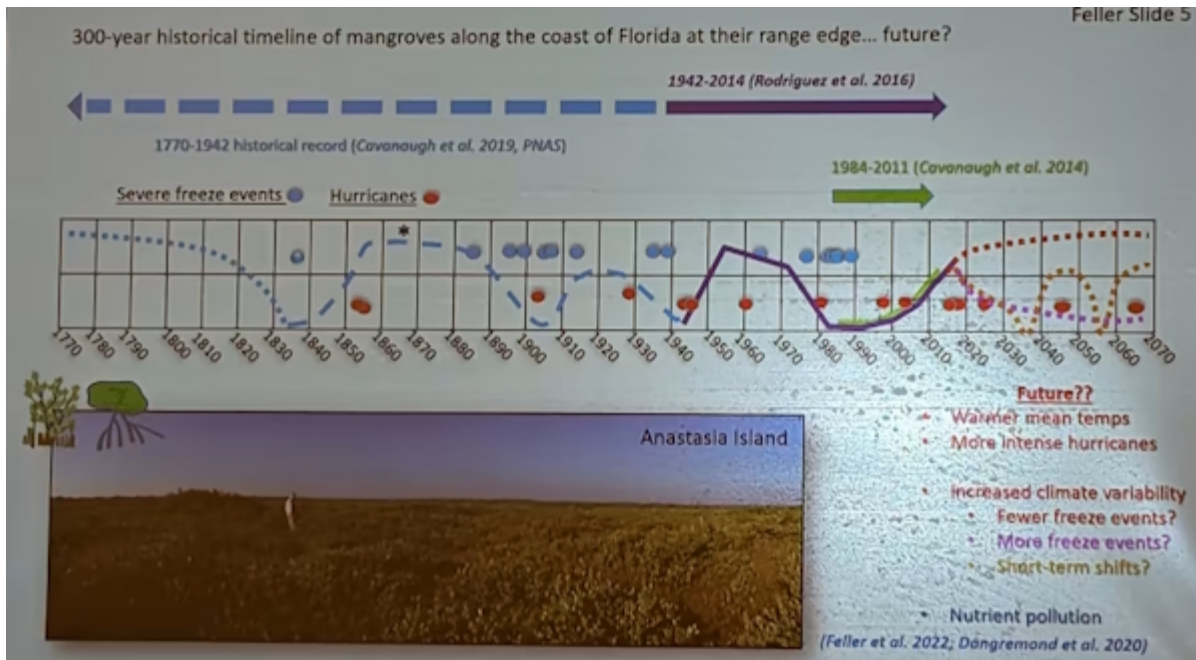


Image: A Slide from Dr. Candy Feller's study showing cycles of hard frosts and hurricanes

[Read entire article with details](#)

Post storm replanting?

"US climate change reforestation plans face key problem: lack of tree seedlings"



Photo: ChamilleWhite/Getty Images/iStockphoto/The Guardian

"US tree nurseries do not grow enough trees and lack the plant species diversity to meet ambitious plans, research says

Only 56 of 605 plant nurseries - 10% - grow and sell seedlings in the volumes needed for conservation and reforestation.

In an effort to slash carbon emissions and provide relief from extreme heat, governments across the nation and globally have pledged to plant trees. But the US is not equipped with the tree seedlings to furnish its own plans, according to a new study.

US tree nurseries do not grow nearly enough trees to bring ambitious planting schemes to fruition, and they also lack the plant species diversity those plans require, according to research published in the journal *Bioscience* on Monday.

For the study, 13 scientists examined 605 plant nurseries across 20 northern states. Only 56 of them - or less than 10% - grow and sell seedlings in the volumes needed for conservation and reforestation.

The team, led by two scientists at the University of Vermont's Rubenstein School of Environment and Natural Resources, also found that forest nurseries tend to maintain a limited inventory of a select few species of trees, with priority placed on trees valued for commercial timber production. As a result, nurseries suffer from an 'overwhelming scarcity of seedlings' that are well-suited for climate plans, the authors write.

'Despite the excitement and novelty of that idea in many policy and philanthropy circles - when push comes to shove, it's very challenging on the ground to actually find either the species or the seed sources needed,' said Peter Clark, a forest ecologist at the University of Vermont, who led the new study.

The research comes as swaths of the US face relentless heatwaves. Phoenix, which has experienced record-shattering heat this summer, has said it intends to plant 200 trees a mile in select areas, and has invested \$1.5m into the plan. Many US municipalities have made similar tree planting pledges.

On the federal level, the 2021 Infrastructure Investment and Jobs Act provided money for the US Forest Service to plant more than 1bn trees in the next nine years. And the World Economic Forum also aims to help plant 1tn trees around the world by 2030....

But trees that can thrive amid local ecological and climate conditions are crucial to meeting such plans, and many nurseries the researchers examined had no stock available of seedlings that have adapted to local conditions. The researchers also found a dearth of 'future-climate-suitable' varieties, or varieties that will survive amid worsening heat and extreme weather conditions.

Trees that play key roles in local ecosystems were also scarce, the study found. The red spruce, for instance, is highly carbon-sequestering and serves as a habitat for many species, but has been threatened in recent decades by development and acid rain.

'Efforts are in the works to restore the species, [but] in our investigation, we found only two nurseries that sold the species,' said Clark.

Many factors led to the dearth of crucial seedlings, said Clark. Among them: the decline of government nurseries.

The decline of nurseries has also resulted in a loss of knowledge about seeds. And skilled seed collectors are also becoming rarer, meaning diverse seeds are becoming harder for nurseries to obtain, Clark added.

The researchers argue that dramatic increases in both seedling production and diversity at many regional nurseries will be central to any successful campaign to address climate crisis with tree planting.

The research calls for expanded federal and state investment into government owned and operated tree nurseries, as well as public seed collection efforts..."

-- Dharna Noor, The Guardian

[Read entire article](#)

"Tiny Forests With Big Benefits"



Photo: Cassandra Klos for The New York Times

"The tiny forest lives atop an old landfill in the city of Cambridge, Mass. Though it is still a baby, it's already acting quite a bit older than its actual age, which is just shy of 2.

Its aspens are growing at twice the speed normally expected, with fragrant sumac and tulip trees racing to catch up. It has absorbed storm water without washing out, suppressed many weeds and stayed lush throughout last year's drought. The little forest managed all this because of its enriched soil and density, and despite its diminutive size: 1,400 native shrubs and saplings, thriving in an area roughly the size of a basketball court.

It is part of a sweeping movement that is transforming dusty highway shoulders, parking lots, schoolyards and junkyards worldwide. Tiny forests have been planted

across Europe, in Africa, throughout Asia and in South America, Russia and the Middle East. India has hundreds, and Japan, where it all began, has thousands.

Now tiny forests are slowly but steadily appearing in the United States. In recent years, they've been planted alongside a corrections facility on the Yakama reservation in Washington, in Los Angeles's Griffith Park and in Cambridge, where the forest is one of the first of its kind in the Northeast.

'It's just phenomenal,' said Andrew Putnam, superintendent of urban forestry and landscapes for the city of Cambridge, on a recent visit to the forest, which was planted in the fall of 2021 in Danehy Park, a green space built atop the former city landfill. As dragonflies and white butterflies floated about, Mr. Putnam noted that within a few years, many of the now 14-foot saplings would be as tall as telephone poles and the forest would be self-sufficient...

'This isn't just a simple tree-planting method,' said Katherine Pakradouni, a native plant horticulturist who oversaw the forest planting in Los Angeles's Griffith Park. 'This is about a whole system of ecology that supports all manner of life, both above and below ground'...

-- Cara Buckley, New York Times

[Read entire article](#)

Lighting Technology: A Multimedia Presentation

"LED lights are meant to save energy. They're creating glaring problems"



Photo: National Park Service composite of 47 images

About this multimedia story:

"The National Park Service captured the images showing the night sky and light pollution in Chelan County. To create a full picture of the night sky, NPS stitched together 47 different photographs, a process that can leave seams between individual image, some of which are visible in the images in the story... Evening sounds are from the Natural Sounds and Night Skies Division at the National Park Service. Solutions for reducing light pollution are from the National Park Service. LED lights are meant to save energy. They're creating glaring problems."

Here's just a tiny bit of an article that can only be experienced...rather than read.

"As societies developed, stars became less visible on the horizon. In one county in Washington state, the clarity of the night sky was marred by lights radiating upward and obscuring the view. This light pollution would only grow worse...

An unexpected increase in pollution came after Chelan County shifted to LED streetlights, which shine brightly while using less energy than traditional bulbs. One year after the change began, the additional glare masked about half of the previously visible stars. What happened there is not unique.

In recent years, cities, towns and small communities across the world have taken part in a radical revolution – of our lightbulbs. Traditional orange-tinged high-pressure sodium bulbs are being swapped for more energy-efficient, whiter and brighter LED (light-emitting diode) lights. But the rise of LEDs is also illuminating new problems for our night sky, as well as our health.

Over the past decade, scientists found, the night sky has become nearly 10 percent brighter each year because of artificial lights, mainly LEDs emitting too much glare. Streetlights are part of the problem, as are sources such as illuminated billboards and stadium lights...

'People need to understand LED lights are being installed everywhere, not just streetlights, but they're blasting up in all directions,' said Jim White, senior energy efficiency engineer with the Chelan County Public Utility District who helped with the county's LED transition...

Researchers with the National Park Service found the LED lights washed out more of the stars, particularly near the horizon.

'You can tell the lighting gets bigger, so it extends higher into the sky ... the entire sky got brighter,' said Li-Wei Hung, an astronomer with the National Park Service who published a study on the LED transition in Chelan County. 'Just a few years ago, this [was] really new knowledge for us. Does the change to LEDs really decrease the light pollution or increase it? We [didn't] exactly know.'

Camera data showed the sky over local Burch Mountain was 60 percent brighter after the county completed the switch in 2019 compared with 2018.

The new artificial light stood at 3.69 times the natural light level after the transition; before the transition, artificial lights generated 2.30 times the natural light. White said the increased pollution was 'a total surprise' because the Public Utility District had tried to direct lights toward the ground, but the light still scattered.

Detailed nightglow data from individual cities is hard to come by, making the transition in Chelan County an important case study in understanding both the good and bad effects of LED lights. Yet observations and anecdotes indicate Chelan County is not alone. From 2011 to 2022, reports from citizen scientists indicated the average night sky got brighter by 9.6 percent each year, which researchers attribute to LED light replacements. Some cities, such as D.C., paused a transition to LEDs after residents complained about the bright lights disrupting their sleep..."

-- Kasha Patel, Kati Perry, Daniel Wolfe and Emily Sabens, Washington Post

[Experience this entire article](#)

www.scenicflorida.org

Citizens for a Scenic Florida, Inc. P.O. Box 8952
Jacksonville, FL 32239