What does the future hold for La Florida?

2013 will be a landmark year for our beloved state, marking 500 years of La Florida, as Ponce de Leon named this land when he sighted it in March 1513.

What did the explorer intend when he bestowed the name? No one can say for sure, because Ponce de Leon’s voyage journal has been lost. However, in a recent essay, Florida historian Gary R. Mormino writes a Spanish historian who had access to the journal observed, “They ran along the coast seeking harbor... Believing that land to be an island, they named it La Florida, because it appeared very delightful, having many fresh groves, and it was all level, and also because they discovered it at the season which the Spaniards call Flowery Easter [Pascua Florida].” They went ashore to discover and take possession.”

Roughly translated, La Florida means “flowery place” or “land of flowers.” Regardless of Ponce de Leon’s intentions when he named it, there is no doubt he stumbled upon a paradise in which riches were counted in glorious natural resources rather than the gold he coveted. This immeasurable wealth consisted of crystal-clear springs of pristine bubbling water; mystical cypress swamps; majestic longleaf pine forests; uplands that were once ancient islands, and stunning, blindingly white beaches.

Fast-forward 500 years. La Florida is still a paradise to many — a much-lauded vacation destination with swaying palms, theme parks and world-class shopping. Many visitors and residents venture forth to sample its natural treasures — meadows of swaying wildflowers, sinuous rivers, and trails through scrub, oak hammocks and primeval swamps.

But five centuries of exploitation and development have left ugly scars. Longleaf pine forests are all but gone, harvested for their wood. The withdrawal of millions of gallons of water each day has the shrinking Floridan Aquifer reeling. Salt water is intruding into wells, and pollution from septic tanks causes algae to grow thick in the vaunted basins that once spewed untainted water.

Thousands of square miles of wetlands have been filled or drained, and parts of Florida’s vital River of Grass have vanished. Each year, millions in taxpayers’ money is spent to fight invasive species — from iguanas to Brazilian pepper — that compete with La Florida’s natives. Meanwhile, money with which to purchase conservation land has become more scarce than a Florida panther.

The course for the next 500 years is ours to set. What will we write in the blank book that is set before us?

We all have the power to make changes that are good for Florida, whether it’s to use rain barrels to collect water for gardens; to plant native species that provide habitat for native wildlife; to live more simply within a reduced footprint; or to elect politicians who will take action for conservation and back organizations doing good work for our state.

2013 is not only about the commemoration of 500 years of La Florida, “land of flowers,” it’s about our stand for the future.

Viva Florida!

Lisa Roberts
Executive Director

John Moran traveling exhibit launches in January


“The exhibit shows off the beauty of Florida’s native environment through its wildflowers,” said Terry Zinn, the Foundation’s board chairman. “It commemorates 500 years of La Florida, ‘place of flowers,’ while inviting people to explore the state’s history and culture through its natural places.”

Wildflowers play an important part of the state’s history, as is recognized in the state seal. Both Native Americans and settlers made wide use of flowers and their plants, utilizing them for food, dye and medicines.

The exhibit consists of 15 glorious large-format photos. The exhibit will make stops in Lake Wales, Orlando, Fernandina, Monticello and Okeechobee, among others. Venues include botanical gardens, libraries, art galleries and a hospital. Click here to view the exhibit schedule.

“It’s extremely important that Florida’s residents and visitors are aware of what’s happening to natural Florida,” Zinn said. “If you think in terms of the 500-year timeline, it’s startling just how much we’ve lost to development. Going forward, we have to do a better job at living with nature and wildlife. This exhibit helps illustrate that we need to reconnect with the natural world and become better stewards of it.”

Moran is one of the state’s foremost nature photographers. He traveled the state to capture each flower’s unique beauty within pristine natural areas.

Exhibit sponsorships are available — click here to learn more.
Frost flowers – beauty and the brrrrr  by Jeff Norcini

“... a flower of ice crystal of purest white which shoots from the stem, bursting the bark asunder, and fashioned into all sorts of whimsical feathery curls and flanges and ridges.” [William Hamilton Gibson, Sharp Eyes: A Ramblers Calendar of Fifty-Two Weeks Among Insects, Birds and Flowers (1892)]

Flowers of ice in Florida? Yes, seeing is believing. I first saw icy flowers — often called frost flowers, ice flowers, ice ribbons, or the exotic-sounding crystallololia — on a cold December morning in 2010. From a distance they looked like pieces of cotton attached to the stems of tropical sage (Salvia coccinea) growing in my front yard. But up close, these icy formations were just as William Gibson described in the 1800s when he saw them on longbranch frostweed (Helianthemum canadense).

Gibson wasn’t the first to notice frost flowers. James Carter, professor emeritus at Illinois State University, who has researched the history and science of frost flowers, noted that these beautiful ice formations were seen much earlier in the 1800s on several species, including white crownbeard (Verbesina virginica), camphorweeds (Pluchea camphorata, P. foetida, and P. odorata) and New York ironweed (Vernonia novaboracensis). The second critical factor is a combination of weather conditions, with a subfreezing temperature just one part of the equation. Carter points out that the dew point — the air temperature at which water condenses — also must be below freezing. Last, the soil temperature must be above freezing, which in Florida is rarely an issue. This combination of conditions is most likely to occur after the passage of a strong cold front during the very late fall and winter, when the sky is clear and wind calm.

When these conditions are met, super-cooled water (unfrozen water below the freezing point) flowing through a rupture in the stem can freeze when it makes contact with tiny frost crystals on the stem’s surface. The frost flower grows as the super-cooled water continues to flow through the stem and freezes where the stem and flower meet, pushing the existing ice outward.

For a detailed, scientific analysis of frost flower formation, read “A Speculative Scenario for Crystallololia” by Bob Harms (http://w3.biosci.utexas.edu/prc/VEVI3/scenario.html). To see an ice flower forming, click here to see a short video clip by Forrest M. Mims III (www.forrestmims.org).

So if you live in an area prone to subfreezing temperatures, consider planting a patch of white crownbeard or other frost flower species in hopes of experiencing some of Mother Nature’s wintry eye candy. Seeds can be obtained from the Florida Wildflower Seed and Plant Growers Association, www.floridawildflowers.com. Or, choose plants from a Florida Association of Native Nurseries member; visit www.PlantRealFlorida.org to find one near you.

Jeff Norcini is the owner of OecoHort LLC, a Foundation consultant.

Plant Profile

**Tropical sage (Salvia coccinea)**

With its striking flowers, tropical sage is a perennial that no butterfly or hummingbird can resist. Its flower spike consists of bright red blooms, loosely arranged in whorls along a square upright stem. Its triangular leaves grow opposite each other and have relatively long petioles. Tropical sage is self-sowing; its seeds remain in the soil and will germinate throughout the year.

**Native range**: North, Central and South Florida (Zones 8–10)

**Exposure**: Full sun to partial shade

**Growing conditions**: Prefers well-drained soils

**Size**: 1 to 3 feet tall

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**Raise money for native wildflowers through simple, everyday actions.**

**Search**: Search the web using GoodSearch and support the Florida Wildflower Foundation: Visit www.GoodSearch.com and sign up using your email or Facebook account. Then type Florida Wildflower Foundation in the search field and complete your search. GoodSearch will donate a penny per search to the Florida Wildflower Foundation.

**Shop**: Visit GoodShop.com, select or enter Florida Wildflower Foundation and start shopping. GoodShop will donate up to 20 percent of each purchase to the Foundation! It’s that easy!

**Dine**: Eat at any of the 10,000 participating GoodDining restaurants and up to 6% of your bill will be donated to the Florida Wildflower Foundation — at no extra cost to you.

The App that Gives Back: Download the GoodApp and the Foundation will earn money every time you shop and search online — even if you forget to go to GoodShop or GoodSearch first! You’ll also be able to keep track of your individual earnings as well as the total earned for the Foundation. And as a bonus, the app will alert you to any coupons or deals when you’re shopping at partner retailers.

Go to GoodSearch.com to get started and help the Florida Wildflower Foundation today!
Bringing the buzz back to your garden by Taryn Evans

It is well known that, in the last decade or so, honey bee populations worldwide have significantly diminished due to unknown causes. Less known, however, is the fact that native bee populations in North America are also in decline. The reason for this is less of a mystery — it is primarily the result of habitat loss. As more rural and wild landscape becomes suburban and urban, there is less space and materials needed by native bees for laying eggs and feeding their young. Since bees are the preeminent pollinators of both cultivated and wild plants, the effects of fewer bees on crop production and native plant communities is serious. But there is a way for you to help. Create a space in your garden that is attractive to native bees and encourage them to stay.

Most native bees are solitary — that is, they live alone, occupying a nest either in the ground or in above ground tunnel-like cavities in natural or man-made materials. This is in contrast to the social, hive-dwelling bees such as honey and bumble bees that most people are familiar with and often fear. Honey and bumble bees are aggressive and sting because they are defending their colony and a queen. Solitary bees, on the other hand, are peace-loving creatures who are too busy laying eggs, gathering pollen to feed their future young, and making a proper nest for their eggs to be bothered with a bipedal giant who might be hanging around the area. In Florida, there are over 300 species of native bees, many of which are easy to entice to your garden with the right plants and a nest site that you make just for them.

Now that you know you are not really inviting a bunch of tiny terrorists to your garden by making a bee-friendly space, what’s next? Well...food, of course! And for bees, that means flowers — and lots of them! You’ll want to plant as many as you can make room for in the space you have, but more importantly, you’ll want to plant native wildflowers as these are the plants alongside which our native bees have evolved. Experts say that bees also have a preference for flowers that are yellow, blue, violet or white. Plant the flowers in clumps and make sure there is variety in both plant size and flower shape and size. Solitary bees can range in size so you need to provide flowers that can be readily used by all types of bees. Some of the best wildflowers for bees here in Florida include sunflowers, partridge pea, dotted horsemint, blanketflower and ironweed. (For more details about native bees and enhancing your landscape to attract them, read “Enhanced habitat can bring the buzz of native bees to your landscape” by Claudia Larsen in the Summer 2012 edition of this newsletter.)

Once you have established your beautiful wildflower garden, you’ll now need to provide accommodations for a growing family — and by family, I mean many female bees and lots of eggs. If you have trees and shrubs in your landscape and are rather easygoing when it comes to gardening chores like pruning and hauling away dead stems, or if your soil is not covered completely with sod, other vegetation or mulch, you may already be providing nesting space to some native solitary bees. But if you are like many here in Florida who live in cities, subdivisions or retirement communities, you probably keep too tidy a garden for bees to find much that is useful for nesting. In this case, you will need to buy or construct an artificial nest box.

The easiest bees to create housing for are the tunnel-dwelling species, which includes mason and leafcutter bees. In nature, these bees typically make their homes in the hollow stems of certain plants or in tunnels drilled in dead wood by beetles. The simplest home to construct for these bees is a log, large branch or untreated block of wood in which you drill holes ranging in size from 3/32” to 3/8” in diameter. The depth of the hole needed will vary from 3” to 6”; the smaller the diameter of the hole, the shorter the depth of hole required. Be sure to not drill all the way through the wood as bees prefer to have a closed end to their nesting tunnel. Use a sharp bit to drill clean holes as bees may avoid tunnels with rough walls.

Another approach to a nesting box involves durable, hollow plant stems that are cut to form a tube. The most commonly used plant here in Florida for this is bamboo. When you cut the stems, be sure that you cut below a node to ensure that the tube will have a naturally closed end. Gather several stems and either strap them together to form a bundle or pack them tightly into a container such as a tin can or plastic bucket, with the open ends of the stems facing out. My husband and I make the nesting boxes we sell out of cypress fence slats and bamboo, but if you have the tools and materials, you can build a simple attractive box yourself. Be sure to use material that doesn’t require paint or stain.

If you have the space, however, and are a bit more ambitious, the best design for a solitary bee nest box is one that is incorporated into a larger shelter that can also be used by a variety of insects and other small critters. This type of structure is most commonly known as a “bug hotel.” Your drilled blocks of wood or bundles of stems will form only part of a structure that may also use twigs and small branches, bark pieces, pine cones, bricks and other natural (or possibly man-made) materials to attractively house ladybugs, green lacewings, assassin bugs, anoles, tree frogs and more; all of these are useful and beneficial creatures for the gardener who may prefer to rely more on integrated pest management strategies, or one who welcomes those creatures that help form the foundation for a healthy backyard habitat. If you type “bug hotel” into any online search engine, you’ll find more than enough photos to inspire some imaginative ideas for your own backyard creation.

Speaking of integrated pest management, any bee nesting box you place in your garden will also attract a number of solitary wasp species. These wasps are similar to solitary bees, but they are only minor pollinators compared with bees. Their most important function in the garden is as a hunter of pest insects like many caterpillars of moth species that do damage in our veggie gardens or pantry closets.

Once you have made your nest box, you’ll want to consider these simple guidelines to help identify a good site to locate it. First, place it as near as possible to the plants and flowers the bees will be foraging from. Many native bees are very small and their flight range is consequently quite limited. The closer the female bees are to their food, the more time they have for foraging. If you have a veggie garden, you can place a box nearby, but be sure to have a variety of other blooming flowers near the vegetable plants. Place the box facing east, if possible, which will allow bees to warm their bodies soon after the sun rises and get them out and active sooner. As well, try to place the box out of the late day heat. It’s best to have the box raised off the ground so that it does not sit on damp earth or get covered by (continued on page 4)
Brown is beautiful – native grasses and wildflowers still spectacular in winter by Jeff Norcini

At this time of year, the foliage of many native grasses has senesced, or is senescing — the technical term for dead or dying. So, it’s time cut them back, right?

Not so fast. While late November is considered the time of year to cut back native wildflowers and grasses, some, including me, find there is aesthetic appeal in the various shades of browns and reddish browns they exhibit through the latter stages of life. The grasses in my front yard are left standing until mid- to late January so I can stretch the time they are adding ornamental interest to my landscape.

Part of their ornamental value is their seeds, which vary size, abundance, stem arrangement and color — from cream to brown. Some seeds add subtle interest, while large seed heads, such as those of bushy bluestem (Andropogon glomeratus var. pumilus), stand out in any situation.

Senescing native grasses are not the only herbaceous plants with aesthetic appeal at this time of year. During a recent trip, I became aware of the subtle beauty of senescing native wildflowers, mainly those in the daisy family, Asteraceae. The seeds of many native wildflowers in this family have a pappus — a hairy, parachute-like structure at the end of the seed that helps dispersal by catching the wind. The pappus is white to creamy white.

Many Asteraceae native wildflowers produce thousands of seeds clustered in heads or along stems. While an individual seed is barely noticeable, clusters contrast nicely with brownish dead stems. Moreover, many of these native Asteraceae can be tall, like goldenrods (Solidago spp.), making them quite noticeable. They are even more noticeable when in large populations.

So when adding natives to your landscape or designing a new planting, consider using native grasses as well as wildflowers such as goldenrods and goldenasters to provide ornamental interest in your landscape into late fall and early winter.

Jeff Norcini owns the consulting firm OecoHort LLC, Tallahassee. He is the Foundation’s La Florida “Land of Flowers” Community Plants Grants administrator.

Further Reading:

- **Insects and Gardens: In Pursuit of a Garden Ecology**, Eric Grissell, Timber Press, 2001: an inspiring, amusing and easy to read book that will have you rethinking how you feel about insects if you think you don’t like most of them.
- **The Xerces Society for Invertebrate Conservation**, [www.xerces.org](http://www.xerces.org): lots of information and also many useful downloadable and printable fact sheets.
- **The Metropolitan Field Guide**, [www.metrofieldguide.com](http://www.metrofieldguide.com): a blog and more with useful links, ideas for built habitats and much more; type in “bug hotels” in the search engine and check out the eye-popping designs.

(Buzz,... continued from page 4)

vegetation, but any height will work. Be aware that ants might discover your box at some point if it is accessible to them; you may need to watch both bees and solitary wasps using their nest box and from knowing that you were able to recover a small bit of their lost habitat. Even if it is only a mimic of the natural it replaces, it is one piece in a hopefully enlarging mosaic of interconnected backyard habitats.

Taryn and Terry Evans own Creative Garden Structures, a small business that sells bee, bird and bat boxes; custom garden structures; and native plants. For more information, visit [www.creativegardenstructures.com](http://www.creativegardenstructures.com) or [www.facebook.com/creativegardenstructures](http://www.facebook.com/creativegardenstructures).

Calendar


Feb. 9: Magnolia Chapter, Florida Native Plant Society, Field Trip to Apalachicola Bluffs & Ravines Preserve with Dr. Gil Nelson. Details: fnpsmagnoliach@gmail.com or gil@gnlenson.com.

March 9: Magnolia Chapter, Florida Native Plant Society, 9 a.m., Field Trip to SR 65, Apalachicola National Forest. Details: eleanor43@aol.com.

March 14: Eugenia Chapter, Florida Native Plant Society, 7:30 p.m., Boathouse of the Florida Medical Entomology Lab, Vero Beach. Presentation by Lisa Roberts: Start Gardening with Wildflowers.


March 23: Florida Wildflower & Garden Festival, 9 a.m.-4 p.m., downtown DeLand.

April 4-5: Florida Native Plant Show, Osceola Heritage Center, Kissimmee. Featuring 7 continuing education credit hours for landscape architects, designers, installers, maintenance professionals and arborists. Details: [www.nativeplantshow.com](http://www.nativeplantshow.com).

April 4: Putting Wildflower Research to Work, a research symposium for growers and landscapers at the Florida Native Plant Show. Details, Page 6.

Final reports from the 2010-11 Seeds for Schools grant cycle revealed that both teachers and students using wildflower gardens in their studies received valuable lessons from the gardens themselves. “An unintended lesson was how we need to be patient and let nature take its course... The lesson learned is that nature is not instantaneous but purposeful. It is man who needs to step back and let nature show us how it’s done!” reported teacher Wendy Vidor at Matanzas High School, Palm Coast. Her agriscience and horticulture students used the garden to develop plant identification skills and learn about ecology, food webs and native plant species.

Vidor was one of 50 elementary, middle and high school teachers who received a Seeds for Schools grant of native wildflower seeds and classroom resources during 2010-11. The popular program strives to get kids outside where they connect with “real” Florida while using wildflower gardens to develop math, science and language arts skills. Since 2009, more than 130 grants have been given to teachers across the state. Most teachers enhanced science studies using their gardens, and several used them in language arts by having students write plant descriptions and poems. Some did art projects using flowers.

Students weeded and removed roots, old construction debris, sticks and leaves from the garden site before they raked the soil and planted wildflower seeds. They visit the garden at least once a week, recording its care, and harvesting and planting seedlings as needed.

In Port St Lucie, Florestra Elementary School students learned the scientific names of the flowers and accessed information on the Florida Wildflower Foundation website to learn more. Because 4th-grade standards include learning about Florida native plants, the garden was used to satisfy requirements for learning about native ecosystems. Other teachers at the school used the garden to teach about plant parts and life cycles, including saving seeds for future gardens. Water conservation principals were discussed, as well as gardening without chemicals that killed beneficial insects. Students also learned to appreciate rainy days that enhanced their wildflowers growth.

Teacher Antoinette Greff of Bellview-Santos Elementary in Bellview invited Master Gardeners to lead first-graders in a pollinator program. “We learned about how birds, bees, bats and butterflies pollinate and the wildflowers they like. We learned why pollination is important for our food supply and our future. In December, the children decorated wings we made of the four pollinators, and we had a parade around the school with kazoos.”

Students were not the only winners. Several teachers said they became more organized as they utilized the garden for teaching. Others learned better ways to manage their students in the outdoor venue. (Imagine gardening with 12 6-year-olds using a water hose.)

Visit the Seeds for Schools page online to see resources and information on applying for the program in spring 2013: www.Flawildflowers.org/seedsforschools.php.

Claudia Larsen is the Seeds for Schools grant administrator. Contact her at CLarsen@FlaWildflowers.org.

Commemorate 500 years of La Florida with wildflowers

It’s true that nothing says La Florida quite like wildflowers, which is why Viva Florida seed packets — filled with the seeds of Florida’s official state wildflower — will be terrific promotional items in 2013. When you partner with the Florida Wildflower Foundation, you’ll receive commemorative packets to distribute at events and meetings to supporters and customers.

The Florida Wildflower Foundation has distributed more than 50,000 seed packets at meetings and events across the state. We’ve experienced all the emotions — excitement, smiles, a sense of wonderment and gratitude — that come with receiving a packet, and now you can too! Here are just a few distribution ideas for the packets Viva Florida! contributors will receive:

- Host a community beautification day and give each participant a packet.
- Seed packets with your organization or business logo and message not only increase awareness of Florida’s history and culture, they help ensure a green, sustainable future for our state. That’s because your tax-deductible contribution will directly support the Foundation’s education, planting and research projects. When you see a roadside display of wildflowers, a school wildflower garden, or a demonstration planting at a botanical garden, you’ll get the satisfaction of knowing you helped.

See our sponsorship package for details.

Welcome new members

(r) – renewal

General
Cammie Donaldson (r) – renewal
Barbara Hoelscher
Amanda Jungles (r)
Rosemary Mack
Dan McCormic
Sarah Whitaker (r)

Student / Senior
Jean Fincher
Susan Petty

License Tag
Ron Bynum
Christine Snyder

Reconfirmed License Tag
Carolyn Beckman Kiel
Jan Blue
Janet Dawkins
Diedrich Dierks
Ronny Green
Joan Jones
Norma Kirby
Marilyn Smullen

See our sponsorship package for details.
Florida Wildflower & Garden Festival set for March 23

Don’t miss MainStreet DeLand Association’s annual Florida Wildflower & Garden Festival, which promotes native wildflowers and plants, environmentally friendly and sustainable gardening practices, and features wildflower and gardening speakers and demonstrations.

During the popular event, organizations will provide information on Florida’s native wildflowers and plants and the environment, as well as on general gardening; gardening for wildlife, birds and butterflies; green living; habitat creation, and recycling.

Vendors also will offer wildflowers and plants, and bird, butterfly and garden-related products.

The festival is organized by the MainStreet DeLand Association in cooperation with the Florida Wildflower Foundation.

University of Florida-IFAS Volusia County Extension office, Quality Green Specialists, River of Lakes Heritage Corridor Scenic Highway and the Museum of Florida Art.

For more information on the festival, visit MainStreetDeLand.org/flwildflowerfest. Find the festival on Facebook: www.facebook.com/FloridaWildflowerFestival. Vendors are welcome to apply — download an application at mainstreetdeland.org/images/content/2013flwildflowervendorapplication.pdf.

‘Putting Wildflower Research to Work’

“Putting Wildflower Research to Work,” a mini-symposium to be held April 4, will provide nursery and landscape professionals with an overview of science-based information on seed germination and storage, propagation methods, and the establishment and management of native wildflower plantings.

The event is from 3 to 6 p.m. at Osceola Heritage Park, 1901 Chief Osceola Trail, Kissimmee.

The educational session, held in conjunction with the Florida Association of Native Nurseries’ inaugural Florida Native Plant Show (April 4-5), will feature three of Florida’s leading native wildflower researchers:

- Dr. Hector Perez, a University of Florida seed biologist in Gainesville, who will present the results of his work and its relevance.
- Dr. Mack Thetford, a University of Florida/IFAS faculty member at the West Florida Research & Education Center (Milton), who will talk about his collaboration with Dr. Sandra B. Wilson (University of Florida/IFAS, Indian River REC, Ft. Pierce) to develop 10 new native wildflower propagation protocols.
- Dr. Jeff Norcini, who will present the science behind recommendations for establishing and managing native wildflower plantings.

The cost to attend the event is $25. To pre-register by March 28, please click here. Limited registration will be available at the door (cash or check only). For more information, contact Norcini at JNorcini@FlaWildflowers.org. For more information of the Florida Native Plant Show, visit www.nativeplantshow.com.

Donate to the Florida Wildflower Foundation today!

The Florida Wildflower Foundation is a not-for-profit 501(c)3 public charity devoted to native wildflower research, planting and education. Help support the work for Florida’s native ecosystems by making a contribution today. Your tax-deductible gift makes an impact at any giving level:

- $10 provides butterfly/wildflower brochures to 50 school children
- $25 prints 200 educational wildflower handouts
- $50 sponsors a school wildflower garden
- $100 provides a speaker for an event or meeting
- $250 provides wildflower seeds for a roadside
- $500 provides funds for a community planting

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