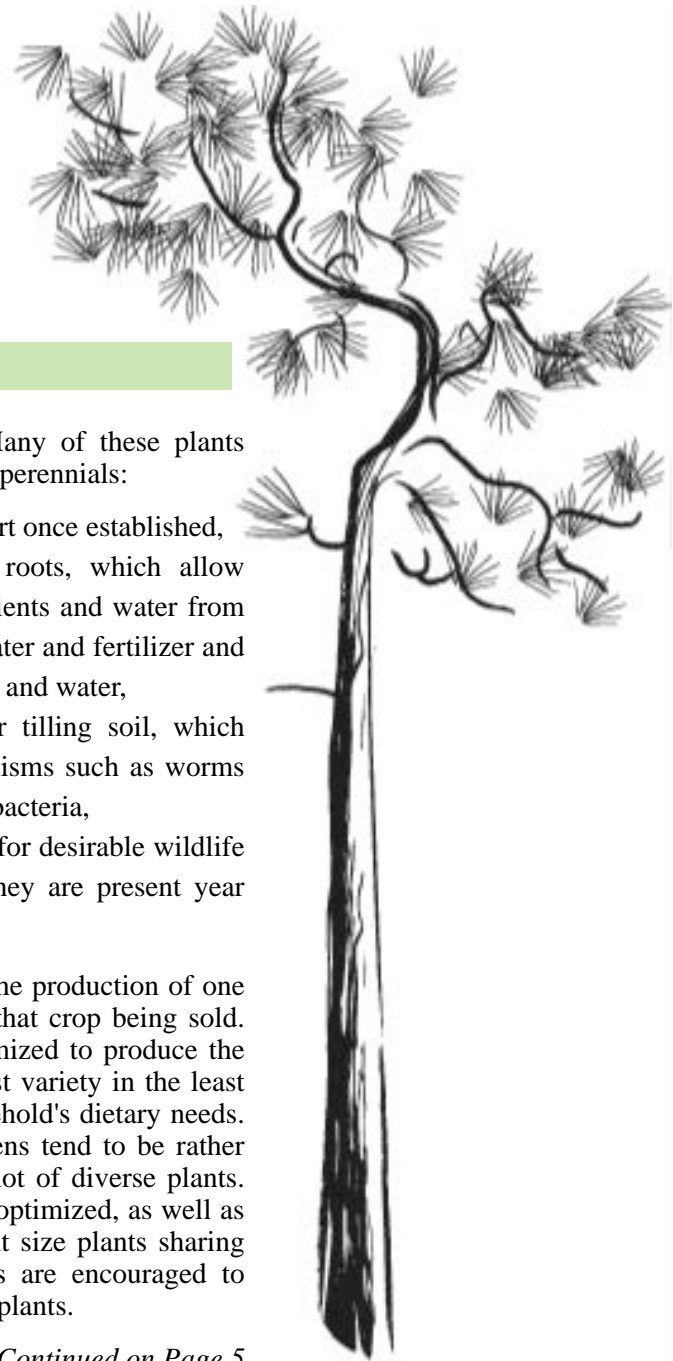


The Understory



August – September 2013

Permaculture and Native Plants Part III

by *Andy Karpinski*

Permaculture Parts I and II defined permaculture goals and elements and how permaculture can be used to design native landscapes. Part III addresses the incorporation of food plants.

The first thing that most people think of when they hear the term “permaculture” is growing food. That is the main reason people are drawn to permaculture. Growing food is still the most common use for permaculture. So the third and final part of this permaculture series will explore how native plants fit into a permaculture-based food-producing garden.

The ultimate goal of permaculture is the forest garden, also referred to as a food forest. Ideally, this garden will function with little maintenance, as a forest does. All the plants in this forest garden either produce something edible or help their companion

plants produce food. Many of these plants will be perennials, since perennials:

- require the least effort once established,
- usually have deep roots, which allow them to extract nutrients and water from the soil, reducing water and fertilizer and helping to retain soil and water,
- reduce the need for tilling soil, which kills desirable organisms such as worms and nitrogen-fixing bacteria,
- are reliable habitats for desirable wildlife and insects, since they are present year round.

Large farms maximize the production of one given crop, with all of that crop being sold. Forest gardens are optimized to produce the most food of the greatest variety in the least space to meet one household's dietary needs. As a result, forest gardens tend to be rather densely planted with a lot of diverse plants. Use of vertical space is optimized, as well as horizontal, with different size plants sharing the same ground. Vines are encouraged to climb on taller, stronger plants.

Continued on Page 5



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PRESIDENT'S MESSAGE



In June I was privileged to attend the Florida Lake Management Society conference in Daytona Shores. I was encouraged to see that, despite staff reductions and low morale, our state and local environmental agencies still have talented and knowledgeable people who are doing good science in an attempt to better understand ecosystems and protect natural resources. Unfortunately, good policy does not always follow good science, and it's up to us to elect public officials who place a high value on effective, science-based environmental management. At present, our state government is failing us in this regard, with business interests trumping science in policy decisions. Funding for environmental land management and land acquisition has been reduced to almost nothing.

In a desperate attempt to restore this necessary financial support, the Florida Water and Legacy Campaign was created to force the Florida Legislature to allocate money for public lands management via an amendment to the Florida constitution. Time is running out for the campaign; at the rate signatures are being collected, it will not reach its goal of getting an amendment on the 2014 ballot. A million signatures are required, and over 100,000 are still needed. If you can help with the

campaign, I urge you to do so. To find out how, visit www.FloridaWaterLandLegacy.com.

The frequent downpours we've had recently are a boon to our landscapes, making it a great time to add new plants in the garden. You can learn how to start your own plants at our propagation workshop on Sat., Sept. 7th at Moccasin Lake Park in Clearwater. Katy Roberts and Candy Arnold will teach this hands-on class, which will cover seeds, cuttings, and ferns. We're making progress with plans for this fall's 7th Annual Native Plant Landscape Tour, and have some great gardens for you to visit. Mark your calendars for this fun event, which will happen on Saturday, Oct. 5th, in Largo, Seminole, and St. Pete. I hope to see you there!

Jan Allyn

Web Help Needed

Do you have a basic knowledge of how websites work and know a little HTML? If so, we could use your assistance to update the chapter's website with program info on a monthly basis. If you'd like to explore this volunteer opportunity, please contact Jan: (727) 244-0312 or jallyn@tampabay.rr.com.

Upcoming Programs

Most member meetings are held at 7 pm on the first Wednesday of the month at Pinellas County Extension, 12520 Ulmerton Road, Largo, Florida. These events are organized by the Pinellas Chapter of the Florida Native Plant Society -- free and open to the public. Complimentary refreshments.

7 August 2013

Wednesday 7 pm

Holly Greening: *Working Together, YOU Are Saving Tampa Bay*

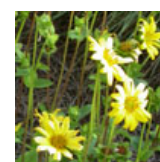
The executive director of The Tampa Bay Estuary Program will illustrate how a scientifically sound, community-based management plan is restoring Florida's largest open-water estuary. We've regained 7,600 acres of seagrass, a key indicator of the bay's health since the Estuary Program was created. A net increase of 433 acres of emergent tidal wetlands has been documented from 1995-2007. Overall water quality in Tampa Bay is as good as it was during the 1950s, despite more than quadrupling the human population in the watershed during that time.

4 September 2013

Wednesday 7 pm

Landscape Tour Preview

Get a sneak peek of our 7th Annual Native Plant Landscape Tour. Gardens in Largo, Seminole and St. Petersburg will be featured. Tickets for the tour will be available at the September meeting. Come join the fun and get inspiration for plants, projects and features for your own garden.



Welcome New Members

Jo Barr
Geri DeBilzan
Ray Dabkowski and Tim Marshall
Jessica Heger
Erin Goergen
T.W. Jones
Carlton Rowell
Thomas Tripp

Field Trips and Workshops on page 4

NATIVES FOR CONTAINERS: PINE-HYACINTH, *CLEMATIS BALDWINII*

by Jan Allyn

At our plant sales, people often ask us to recommend natives they can grow in a container. I usually don't have a ready suggestion. However, I recently realized just such a wildflower thrives in my own yard. Pine-hyacinth, *Clematis baldwinii*, is a dainty little understory plant that is perfectly happy in the bright indirect light of a patio. It has small, lavender bell-shaped flowers and will thrive in average garden soil. It is one of 53 species of *Clematis* that grows in the U.S. There are seven species in Florida but this is the only one that is endemic (grows only in Florida), and it has been documented in most peninsular Florida counties.

The new, slender stems of pine-hyacinth shoot straight up at first, but they are soon overwhelmed by their own weight and bend to the ground to continue growing laterally. The shape of the leaves may vary, even on the same plant, and can range from narrowly oblong to obovate; leaves may be entire or develop two or three lobes.

Clematis seeds are just as interesting as the flowers, with the seedhead first composed of a cluster of silky threads and then developing into a woolly-looking starburst. The plant is very difficult to propagate from cuttings and the seeds can be somewhat slow to germinate. In a 2006 article from *The Palmetto*, Rufino Osorio advises

planting them in winter and gives this advice on how to hasten their sprouting:



Pine-hyacinth, *Clematis baldwinii*, blooms and reproduces in a patio container. Photo courtesy of Jan Allyn

“First, the "tails" should be cut off from each single-seeded fruit. Then the seedlike fruits are soaked in a cup of water for about 4 days. During this period, it is important that bacteria and fungi not be allowed to cloud the water and the water should be changed frequently. The fruits are then sowed normally in a pot filled

with a good potting mix. The soil in the pot should be kept moist and under cool, but not freezing, temperatures.”

Although it's easy to grow, this lovely little plant may get lost in the garden; its creeping stems can be somewhat fragile so it should be planted where it won't be trampled. Once established, the plants are virtually carefree.

My pine-hyacinth started out in a small flowerbed just outside our garage, but it was crowded by several coonies and never seemed happy. About a year ago I moved it to its own pot on the lanai where it now thrives. At the moment it has eight flowers and a couple of seedlings volunteered in the container. When they get a bit bigger, I plan to move them to their own pots, and if I'm feeling generous, I'll bring one for our silent auction!

This article includes information from a presentation produced by Mark Hutchinson of the Hernando FNPS Chapter. To view it and presentations of other plant species, visit <http://www.fnps.org/resources/pubs>.

Your photos and ideas on container-grown native Florida plants are welcome. jallyn@tampabay.rr.com

Quercus laevis (turkey oak)
 Yīrīdīs, ēlāta, s̄cāndēns, āgnatīcā,
 Pāge 6 Puzle Answers: ānūēns,

PINELLAS CHAPTER NEWS



Field Trips

24 August 2013 Saturday

8 am - 1 pm

Tampa Bay Scallop Search

We will join Tampa Bay Watch at Fort DeSoto Park to look for bay scallops, indicators of water quality. Volunteer scallop searches are part of Florida's efforts to restore bay scallop populations. These are no-take outings conducted in areas presently closed to scalloping. Volunteers snorkel and search for scallops, recording the numbers to help monitor and document the health and status of returning scallop populations. Volunteer searchers should provide their own boats/canoes/kayaks if they are able. A few spaces will be available with other boat captains. Registration for this event is online at the Tampa Bay Watch website, <http://www.tampabaywatch.org/>. Please register early as space is limited!

21 September 2013 Saturday

8:30 am

Permaculture in Action

Field trip to see Andy Karpinski's garden in Clearwater. See permaculture in action. Andy's yard has natives, edibles, rain barrels, solar panels, and more. He is working to get "off the grid" and be entirely self-sustaining. Come and learn how to have a more sustainable landscape! To RSVP and get directions, email Andy at ak@stonemarmot.com.

Workshops and Courses



7 September 2013 Saturday

10 am - 2 pm

Hands-On Plant Propagation Workshop

Moccasin Lake Nature Park, Clearwater

Katy Roberts and Candy Arnold will teach you how to get more plants! Learn to grow plants from seeds, start cuttings, and grow ferns. Bring your lunch, gardening gloves, trowel and a pair of clippers. Other materials will be provided. Fee \$10, which includes \$3 park entrance. Agenda and online registration using PayPal at <http://pinellas.fnpschapters.org>, or call Katy at 727-726-1455.

31 August 2013 Saturday

Workshop 1 - 5 pm, Tasting 5:30 - 7:30 pm

Wine-Making Workshop at Brooker Creek Preserve

Please join Dr. Craig Huegel and Steen Sigmundsen as they teach us how to make wine. Craig will demonstrate how to make wine using natural fruits while Steen shows us winemaking with fruit juices. The workshop will take place during the day in the auditorium kitchen at the Preserve. The tasting will take place after the workshop at Barb Hoffman's home only three miles from the Preserve. RSVP to fobcp@tampabay.rr.com. \$25 per person, benefits Friends of Brooker Creek Preserve.

4 September (6 - 9 pm)

7 and 14 September (8 am - 4:30 pm)

21 September (8 am - 12:30 pm)

Florida Master Naturalist Special Topics Course: Habitat Evaluation

This course provides training in principles and commonly-used techniques for evaluating wildlife habitat. Learn to understand the reasons for evaluating wildlife habitat at different scales and the methodologies used to do so. The course includes both classroom instruction and hands-on experience, to equip students to participate in data collection for habitat evaluation projects, and covers large-scale habitat evaluation, local-scale habitat evaluation, and water quality monitoring. Cost: \$150. Register at <http://www.masternaturalist.ifas.ufl.edu>.

27 - 28 September

Florida Wildflower Symposium Enchanted Forest, Titusville

Participate in one of three field trips, then have dinner with other wildflower enthusiasts on Friday, Sept. 27, at the Dixie Crossroads restaurant. Enjoy inspirational keynote speaker, artist Xavier Cortada, and learn about his FLOR 500 project. On Saturday at the Enchanted Forest, there will be presentations, walks and workshops on Florida's wildflowers, pollinators, nature photography, landscaping and more. Registration will begin in late July. Visit <http://www.flawildflowers.org/> to find out how to sign up.

Permaculture and Native Plants

Continued from Page 1

The forest garden can look like an untamed jungle to those accustomed to North American gardens, where annuals are planted in nice, neat rows. But forest gardening has been successfully practiced for thousands of years in many parts of the world.



A forest garden can look more jungle-like compared to traditional row gardens.

At first, the best path to this forest garden may appear to be by using edible native plants. Many Florida native plants are indeed edible (*references 1 and 2*). Green Deane's "Eat The Weeds" website (www.eattheweeds.com) is a source for information on edible Florida plants, both native and non-native.

But using wild plants for food presents some problems. Most of the plants we are used to eating have gone through many generations of selection and cross-breeding. This process has resulted in plants that:

- taste better,
- are richer and denser in nutrients,
- are easier to grow and harvest, and
- are more pest resistant.

Native coonies and palms are good examples of the problems with using wild plants for food. These plants do provide food that is rich in nutrients, but also take at least a decade to get to a size worth harvesting, and harvesting the food portion kills the plant. Processing is required to get rid of toxins found in the edible portion of coonies.

There are reasons almost no one lives on a wild plant diet anymore. Wild plants require far more land to meet one's dietary needs than is needed for plants specifically bred for food. You would also have to get use to the bland or bitter tastes common in wild plants. What roles can native plants play in an edible garden?

1. Wild edible natives can be used to add variety to your diet, for example, as spices and garnishes.
2. Native plants can replace non-natives to perform non-food functions in the garden: as green mulches, nitrogen fixers, places for predator insects to feed, hide, and breed when their edible hosts are dormant, and to attract native pollinators.

3. Even though you may like to have your whole yard planted with edible plants, real world conditions may not make that desirable. Use natives instead of food-producing plants along streets, driveways, or pressure-treated fences to minimize effects of ambient toxins or neighboring use of pesticide or herbicide.
4. When many pre-1970 Florida houses were built, Chlordane or DDT was poured around the foundation as a termite barrier. Native plants would be ideal for this situation, especially if they also perform other functions, such as windbreaks, shade, or hosts for beneficial wildlife.

My own yard has native plants, such as sunshine mimosa, beach sunflower, and porterweed by the street and driveway. Natives, such as firebush, wild coffee, goldenrod, and Simpson's stopper, line the neighbors' pressure-treated fences. Native sage, mint, purslane, spiderwort, and rain lilies are allowed to mix with my sweet potatoes, moringa, chaya, cassava, and Seminole pumpkins. Peas and beans climb over American beautyberry and native palms.

Permaculture with native plants provides a way to grow food in as small a footprint and with as positive an impact to the environment as possible. But in Florida it is still a matter of trial and error to find out what works. Permaculture originated in temperate Australia and was inspired and modeled after the forest gardens in the tropics. There is a lot of experience and data on temperate and tropical permaculture. But our climate is subtropical. Many temperate plants can't survive the summers or need more chill hours to bear fruit than our winters provide. And most tropical plants can't survive the occasional winter freeze. Some of our local chapter members are contributors to a website (<http://www.gaiasguardians.info/>) that provides results from local studies and trials.



Native plant buffer-zones keep toxins associated with roads, driveways, and fences away from food plants.

References

1. Deuerling, Richard J. and Lantz, Peggy S. *Florida's Incredible Wild Edibles*. The Florida Native Plant Society: Orlando, FL. 1993.
2. Peterson, Lee Allen. *Peterson Field Guide: Edible Wild Plants*. Houghton Mifflin: Boston, MA. 1977.



From Our Members

Simpson Stopper Time

Beautiful photo (above) of a red-bellied woodpecker eating Florida native, Simpson stopper (*Myrcianthes fragrans*) berries. "The mockingbirds and these guys face off over the berries almost dawn to dusk now." *Photo courtesy of Frank Brandt*

Join Us

9 August 2013 Wednesday 9-11 am Brooker Creek Preserve Tarpon Springs

Join a Brooker Creek Naturalist to explore the fascinating plants found on the Preserve. Learn to identify wildflowers, ferns, epiphytes, trees and more. The ecology of various plant communities will also be examined. Best suited for adult participants. Come prepared with your camera and questions! To register, call (727) 453-6800 or visit [brookercreekpreserve..eventbrite.com](http://brookercreekpreserve.eventbrite.com) on the web. Free.

28 September 2013 Saturday National Estuaries Day Coastal Cleanup at Weedon Island Preserve, St. Petersburg

Space is limited. For more information please contact Libby Carnahan at lcarnahan@ufl.edu or 727-453-6522

31 August and 28 September

8 - 10 am Wildflower Garden at Brooker Creek Preserve

Volunteer opportunity. Join the Friends of Brooker Creek Preserve and get your gardening hands dirty in the preserve's wildflower garden. Please bring your garden gloves and hat and meet outside of the auditorium. Morning snacks are usually provided! No RSVP necessary... Just show up!

Florida Conservation Artists and Communicators

ArtsLINC is a fiscal agency program to assist people who have a conservation project in mind that can benefit from LINC's non-profit status to fundraise for their project. For select projects, LINC will serve as a Fiscal Agent for a five percent administrative fee. LINC sponsors projects that focus public attention on conservation issues in Florida through visual arts, photography, film, journalism, storytelling or other artistic forms. Deadlines are September 1, December 1, March 1, June 1.

A sample project is Eric Zamora's photographic project to document the beauty and wildlife of the Nature Coast. Visit LINC's website, <http://linc.us/> for information and application.

JUMBLED LATIN PUZZLE:

This is like the classic Jumble puzzle, but it has definitions instead of letters. Fill in the Latin words for the plant characteristics shown, then unscramble the circled letters to find the scientific name of a native tree with a distinctive leaf shape. (Example: "Upright"= *erectus*).

"Golden"							
	○			○			
"Green"							
	○		○				○
"Tall"							
	○	○					
"Climbing"							
	○	○				○	
"Water-loving"							
		○				○	○

ANSWER: _____

Answers on page 3

Community and volunteer support

“Those who dwell among the beauties and mysteries of the earth are never alone or weary of life.” -Rachel Carson

Committee Chairs and Coordinators

Advocacy/Conservation: Candace Arnold
 Artist: Cathy Vogelsong
 Events/Displays: Andy Karpinski
 Hospitality: Andy Karpinski and Mary Ann Beekman
 Membership: Ellen Clayton
 Newsletter: Ellen Raabe
 Programs/ Field Trips: **Open - volunteers needed!**
 Publicity: Candy Arnold
 Sales/Merchandise: Jane Williams and Jan Allyn
 Scholarships: Cindy Peacock
 Social Media: Jan Allyn
 Volunteer Coordinator: Mary Ann Beekman
 Web Master: Jan Allyn

Interim Committees:

Budget Committee: Cindy Smith
 Plants Sales: Tiffany Custer and Bruce Turley
 Landscape Tour: Monica Pinnell and Jan Allyn

Chapter Directory

Officers

Jan Allyn, President jallyn@tampabay.rr.com
 Candace Arnold, Vice President candacearnold@tampabay.rr.com
 Monica Pinnell, Secretary, cora65@msn.com
 Cindy Smith, Treasurer csmith55@tampabay.rr.com
 Debbie Chayet, Chapter Representative dchayet@verizon.net
 Alexa Wilcox-Huegel, Past President, alexa776@tampabay.rr.com

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Mary Ann Beekman, mbeekman@tampabay.rr.com
 Andrew Karpinski, ak@stonemarmot.com
 John Pinnell, cora65@msn.com
 Katy Roberts, kroberts@ij.net

Volunteer Support



To the volunteers who help plan our programs, field trips, plant festivals, and conduct general behind-the-scenes efforts for the Pinellas Chapter of FNPS, including contributions to this newsletter, THANK YOU!

Wilcox Nursery
 12501 Indian Rocks Road (727) 595-2073
 Largo, Florida 33774 wnursery@tampabay.rr.com
 FAX: (727) 674-0731 www.wilcoxnursery.com
Bruce Turley
Tiffany Custer

Detail Divas
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FLORIDA NATIVE PLANT SOCIETY

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

Join us at monthly meetings for inspirational speakers, on field trips to see natural habitats, at plant sales, or visit local plant nurseries specializing in native plants. Visit us online.

Pinellas Chapter web address: <http://pinellas.fnpschapters.org/>

FNPS Blog: <http://fnpsblog.blogspot.org/>

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Pinellas Chapter FNPS



Pinellas Chapter of the Florida Native Plant Society

December 2012 – January 2013

Pinellas Chapter Florida Native Plant Society
P.O. Box 1661
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