

THE NEWSLETTER OF THE CHARLOTTE HARBOR NATIONAL ESTUARY PROGRAM



HARBOR HAPPENINGS

Working together to protect the natural environment from Venice to Bonita Springs to Winter Haven



Charlotte Harbor Watershed Summit

March 30–31, 2011

Charlotte Harbor Event & Conference Center, Punta Gorda

The Summit will feature 60 experts who will give oral or poster presentations on the state of the CHNEP watershed and estuaries from Venice to Bonita Springs to Winter Haven. See page 3 for details.

Program update

When I settled in Florida in 1988, I learned how Florida's native plant communities were threatened by invasive exotic plant species. Melaleuca, Australian pine and Brazilian pepper were the worst. They were so bad they were dubbed "The Terrible Three." In the late 80s, the problem seemed to be expanding, with little hope of arrest. By 1997, Australian melaleuca snout beetles, also known as melaleuca weevils (*Oxyops vitiosa*), were released in Florida. Establishment of the weevils has been confirmed in Lee County. The stands of melaleuca no longer look so vigorous and their continual march across the landscape seems to have significantly slowed or halted.

A review of the Early Action Demonstration Projects funded by the CHNEP beginning in 1997 highlights the focus on the terrible three. Removal of invasive exotic vegetation is the first example of an Early Action Demonstration Project described in our first *Comprehensive Conservation and Management Plan* (CCMP) adopted in 2000. Statewide, the terrible three have turned into the terrible 300. The 2008 CCMP update reports that 67 invasive exotic plant species have been identified in the CHNEP seven-county study area. (The poster in this issue provides more information on exotic plants in the CHNEP study area.)

Unfortunately, it seems new problem exotic species are being found in our study area every year. Our partners have become quicker to respond. As new species are introduced or ranges are expanded, partners have worked together to "nip the problem in the bud."

On Aug. 27, 2010, *Phyllanthus fluitans*, also known as floating spurge and red root floater, was found for the first time growing wild in North America north of Mexico. It happened that this sighting was in the CHNEP study area — in a canal off the Peace River, south of Horse Creek at CR 761. By early September, 20 more locations were found to be infested in the vicinity. Within a month, Ronnie Crosby of the Southwest Florida Water Management District tested the herbicide KNOCK OUT™ (active ingredient is diquat dibromide). The treatment killed some, but not all, plants. Future tests are expected. You can learn more about this popular plant for aquariums in the Fall 2010 issue of *Wildlife Weeds* (www.se-eppc.org/wildlandweeds/fullpdf/ww_Fall_2010.pdf).

In 2004, the City of Sanibel funded extermination of Nile monitor lizards (*Varanus niloticus*) before they were ever sighted on Sanibel Island. Since then, the city has made use of those funds to exterminate Nile monitor lizards, which are attempting to expand their range from Cape Coral. By September 2008, the City of Sanibel had a formal Nile Monitor Lizard Management Program, using citizen sightings to help locate this species.

Citizen volunteers are also learning how to manage exotic pest plants. On Dec. 8, 2010, several volunteers with the Lee County Hyacinth Control District's Pond Watch program attended the "Urban Pond and Aquatic Spe-



Phyllanthus fluitans. Photo by Michael Sowinski from Atlas of Florida Vascular Plants (www.plantatlas.usf.edu/).

cies Management Seminar," hosted by Lee County Extension. These dedicated citizens joined state and local government representatives and aquatic plant managers to learn native and invasive aquatic plant identification and emerging aquatic weed management issues. We were able to learn from the citizens too! Jim Ryan and Steve Wilensky shared their lessons and successes managing the stormwater ponds within their neighborhoods. My favorite quote from the seminar came from CHNEP Citizens Advisory Committee Member Ernesto Lasso de la Vega: "Every stormwater pond has its own personality."

The management of exotic pest plants and stormwater ponds are certainly common problems within the CHNEP study area. It is wonderful to see citizens, scientists, resource managers and government coming together to develop proactive, unique solutions to common problems.

Dr. Lisa B. Beever, Director



CHNEP is a partnership that protects the natural environment from Venice to Bonita Springs to Winter Haven.

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Harbor Happenings Winter 2011: Volume 14, Issue 4

The CHNEP publishes this free quarterly newsletter to provide information about the environmental "happenings" in the CHNEP study area. News items, photographs and letters are welcome and may be submitted to the CHNEP editor by mail or email. Deadlines are February 1, May 1, August 1 and November 1. The newsletter is typically distributed in January, April, July and September.

The views expressed herein are those of the authors and do not necessarily reflect the views of the CHNEP or its cooperating agencies and associations. The mention of trade names or commercial products does not constitute, in any way, an endorsement or recommendation for use.

Request a free subscription by contacting the editor.

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Charlotte Harbor National Estuary Program

Charlotte Harbor Watershed Summit

The State of Our Watershed and Estuaries

Charlotte Harbor Event & Conference Center

75 Taylor St. ~ Punta Gorda, Florida

March 30–31, 2011 • www.CHNEP.org



Chris Nappi with FDEP South District collects benthic macroinvertebrates at Yucca Pen Creek, on the eastern side of the Charlotte Harbor, to compare creeks that have mostly natural drainage basins to those that have been developed. Photo provided by Ford Walton.



Tasha Brown, an FGCU student, samples for water quality and stable nitrogen isotopes in San Carlos Park. Photo provided by Nora Demers.

The Charlotte Harbor Watershed Summit is an important step in the Charlotte Harbor National Estuary Program (CHNEP) process of bringing public and private stakeholders together to inform and educate the community regarding ongoing studies and critical environmental issues facing the region. The Summit is an opportunity to review progress and discuss current and emerging issues affecting the Charlotte Harbor watershed. Approximately 60 experts will provide oral or poster presentations on the state of our watershed and estuaries.

The CHNEP is a partnership that protects the estuaries and their watersheds from Venice to Bonita Springs to Winter Haven. This partnership gives citizens, elected officials, resource managers, and commercial and recreational resource users in the 4,700-square-mile study area a voice to address diverse resource management concerns. The watershed in the study area includes all or parts of Lee, Charlotte, Sarasota, Manatee, Polk, Hardee and DeSoto counties. Charlotte Harbor was recognized as an “estuary of national significance” and accepted into the National Estuary Program in 1995.

The CHNEP, using a cooperative decision-making process based on sound science, developed a *Comprehensive Conservation and Management Plan* (CCMP) that identifies the region’s priority environmental issues — water quality, hydrology, habitat loss and stewardship — and actions to solve them. When the CCMP was completed and accepted in 2001, it marked the beginning of action to restore and protect the estuary and its watershed. The CCMP was updated in 2008.

Thanks to generous sponsors, the CHNEP is pleased to again make the Summit a free event.

2011 Summit sponsors: • Mosaic (\$2,500) • CF Industries (\$2,000)

2011 Summit activity sponsors: • Peace River/Manasota Regional Water Supply Authority (\$1,000) • Southwest Florida Water Management District Peace River Basin Board and Manasota Basin Board (\$1,000) • Mote Marine Laboratory (\$1,000) • Jelks Family Foundation (\$500) • Scheda Ecological Associates (\$500) • Myakka Conservancy (\$300) • Janicki Environmental, Inc. (\$250) • Caloosahatchee River Citizens Association (\$100) • Florida Native Plant Society Mangrove Chapter (\$100) • Sierra Club Calusa Chapter (\$100) • Southwest Florida Watershed Council (\$100)

Please register by completing an online registration form at www.CHNEP.org. This will assist us in planning the two-day program. Additional details, including the agenda, links to prior Summits and guidance on how to participate remotely via the Internet, are available on the website.

We encourage everyone with an interest in the natural environment of southwest Florida to attend the Summit.

State of the Science on Phosphate Mining and the Environment

Sponsored by the U.S. Environmental Protection Agency

Charlotte Harbor Event & Conference Center

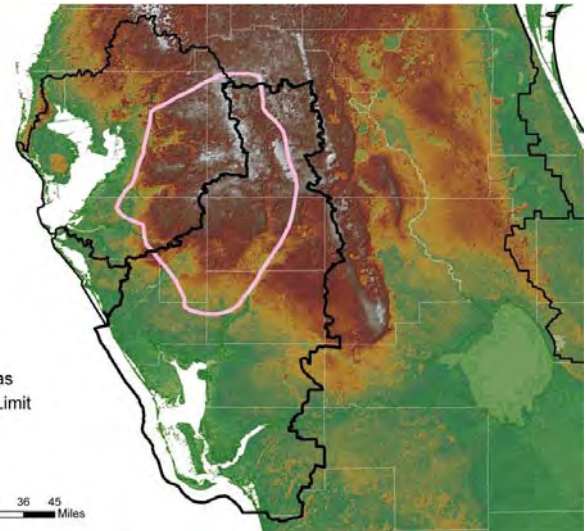
75 Taylor St. ~ Punta Gorda, Florida

March 28–29, 2011 • www.CHNEP.org

This State of the Science Conference aims to present current and detailed scientific information about the environmental effects and reclamation of phosphate mining in Florida, with an emphasis on revealing data gaps, information needs and conclusions from existing studies or research. Presentations will focus on scientific, economic and technical issues only, with an overview of the broader issues and geographic setting to be discussed as the first presentation. Existing information will be featured, as well as emerging site-specific studies.

This conference is a separate event from the prior public scoping meetings (see below) initiated by the Army Corps of Engineers for the phosphate mining area-wide environmental impact statement (EIS). Discussions during the conference are intended to focus on scientific and technical issues.

Participation is free and registration is not required, but participants are requested to register via the CHNEP website (www.CHNEP.org) to ensure sufficient seating and refreshments. As conference



details are confirmed, they will be posted at www.CHNEP.org. For more information, contact EPA Wetland Ecologist David Pritchett (404/562-8004, pritchett.davida@epa.gov).

Environmental Impact Statement on Phosphate

The U.S. Environmental Protection Agency (EPA) undertook a programmatic area-wide environmental impact statement (EIS) for the phosphate-mining region in south central Florida from 1975 to 1978. That statement was intended to address the impacts of phosphate mining for the next 20 years, at which time it was to be updated.

The Charlotte Harbor National Estuary Program asked the U.S. Army Corps of Engineers (ACOE) in 2000, 2003, 2006 and 2007 for a programmatic area-wide EIS to address cumulative impacts for all types of development — agriculture, mining and residential — in the Peace River and Myakka River basins. The CHNEP believes the statement complies with the spirit and intent of the National Environmental Policy Act (NEPA), recognizing that the ACOE permitting and funding activities in these areas have significant effects on the environment, particularly when considered cumulatively. (These letters are available on the CHNEP website under “Advocacy.”)

According to Thomas Welborn, chief of the EPA’s wetlands, coastal and oceans branch, the EPA also advocated for this area-wide EIS. (Mr. Welborn served as co-chair of the CHNEP’s Policy Committee.)

The purpose of an EIS is to ultimately help public officials make informed decisions that are a reflection of an understanding of environmental consequences and the alternatives available. An EIS is required to describe:

- Environmental impacts of the proposed action.
- Any adverse environmental impacts that cannot be avoided should the proposal be implemented.
- Reasonable alternatives to the proposed action.
- Relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity.
- Any irreversible and irretrievable commitments of resources that would be involved in the proposed action should it be implemented.

On Aug. 3, 2010, the ACOE Jacksonville District approved a memorandum for the record concerning “appropriate National Environmental Policy Act documentation for permit applications for phosphate mining in the Central Florida Phosphate District (a.k.a. Bone Valley).”

The ACOE Jacksonville District began preparing an area-wide EIS in early 2011 to examine the potential impacts of mining in the Central Florida Phosphate District. Opportunities for public participation will be provided throughout this process. The www.saj.usace.army.mil/ website provides more details about the EIS and the public process, including workshops held in October 2010.

Scoping meetings will be held at 6:30 p.m. on March 23 in Lakeland (Lakeland Center, 701 West Lime Street, 863/834-8100) and March 25 in Punta Gorda (Charlotte Harbor Event Center, 75 Taylor Street, Punta Gorda, 941/833-5444).

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Charlotte Harbor Nature Festival: Connecting with nature

The eleventh annual Charlotte Harbor Nature Festival on Nov. 20 was another great success, thanks again to the hard work of the volunteer planning committee,



sponsors, exhibitors and many others. The festival is a day to explore, learn and enjoy the natural environment of southwest Florida and “connect with nature.” Approximately 3,000 people learned about the environment through 70 educational

exhibits, musicians, guided walks, wagon rides and so much more. The festival was organized and planned by a dedicated group of volunteers representing a diverse number of organizations and associations. Festival organizers chose to make this event free to allow as many as possible to enjoy. Thanks to generous sponsors, a free tote bag was also given to visitors. The festival was funded by event sponsors and exhibitors and others donated many items for raffle. More details are at www.CHNEP.org.



Roger DeBruler (left photo) with Charlotte County Natural Resources taught children how to cast for fish during the festival. Judy Ott (above) with the CHNEP showed people how mangroves are different from most trees.

Thanks to these generous sponsors of the 2010 festival:

Eagle (\$2,500+): * Charlotte Harbor National Estuary Program * Charlotte Sun * Mosaic

Florida Panther (\$1,000+): * CF Industries * Fish Florida Foundation * Southwest Florida Water Management District * Tents & Events * WGPU Public Media

Osprey (\$500): * Florida Power & Light * Lemon Bay Conservancy * Peace River Audubon Society * South Florida Water Management District * Waste Management

Sea Turtle (\$250): * Coastal Wildlife Club * Janicki Environmental * Peace River Manasota Regional Water Supply Authority * Punta Gorda-Port Charlotte Association of Realtors

Dolphin (\$100): * Berntsson, Ittersagen, Gunderson, Waksler & Wideikis, LLP * Butwell Stone & Soil * Charlotte County Utilities * Friends of the Charlotte Harbor Aquatic Preserve * U.S. Coast Guard Auxiliary Flotilla 9-2

Free Summer Ecotour Lecture Series

Ecotour providers and the general public are invited to participate in training workshops. The workshops promote sustainable tourism practices by providing ecotour operators with information, tips and tools to minimize environmental impacts as well as to increase knowledge and skills to provide more positive and accurate tour experiences. All four workshops are held twice — once in Lee County and once in Collier County — from 6 to 8:30 P.M. The Lee workshops will be held the second Tuesday on **June 14, July 12, Aug. 9 and Sept. 13**. The Collier workshops will be held the third Thursday of the same months. The topics and locations are not yet determined. Please visit www.CHNEP.org in May to learn more.

Sustainable Communities

The sixth annual Sustainable Communities Workshop will be held on **Tuesday, Oct. 18**, at the Girl Scouts of Gulfcoast Event and Conference Center (4740 Cattlemen Road, Sarasota). The theme and presenters are not yet determined. Please visit www.CHNEP.org in September to learn more.

Association of National Estuary Programs

The Charlotte Harbor National Estuary Program is pleased to have hosted the Association of National Estuary Programs meeting in November 2010. To learn about some of the projects the CHNEP and its sister programs have undertaken, visit www.CHNEP.org where all outreach, research and restoration presentations have been saved as PDF files.

Charlotte Harbor Nature Festival: The twelfth annual festival will be held **Saturday, Nov. 19, 2011**, at the Charlotte County Sports Complex in Port Charlotte. Do you have suggestions to improve the festival or would you like to help plan it? If so, please contact Maran Hilgendorf at mhilgendorf@swfrpc.org or 866/835-5785, ext. 240.



Photo by Al Smoke.

Conservation Landscaping Workshop

A free conservation landscaping workshop for those who live in Hardee, DeSoto and Highlands counties has been held at least once a year since 2005 by the Charlotte Harbor National Estuary Program, the Southwest Florida Water Management District and many others. The 2011 workshop was a great success. One person exclaimed it was the “best Saturday of the year” and another said he was “bursting with enthusiasm.” The next workshop will be held **Saturday, February 11, 2012**, at the Turner Center in Arcadia. Please visit www.CHNEP.org to learn more.

Similar workshops are held by the Florida Native Plant Society and Florida Yards and Neighborhood Programs in Charlotte, Lee, Manatee, Polk and Sarasota and other counties.

CHNEP Offers Chance to Explore Estuaries Up Close

Muck about in the shallow waters of our local estuaries to see for yourself some of the aquatic critters that call these shallow waters home and you'll quickly understand the importance of these waters. The Charlotte Harbor National Estuary Program is pleased to sponsor wading trips through several local environmental organizations. To register, contact the organization that is offering the program of interest to you. Dates are subject to change due to weather, etc. An updated list will always be posted at www.CHNEP.org. These wading trips will all occur by October 2011.

Pine Island Sound on Pine Island at 9:30 A.M. Call Charlotte Harbor Aquatic Preserves at 941/575-5861.

- Friday, April 8, 2011

Estero Bay at Big Carlos Pass at the north entrance of Lovers Key at 10:30 A.M. Call Estero Bay Aquatic Preserve at 239/463-3240.

- Friday, April 1, 2011
- Monday, May 23, 2011

Pine Island Sound on Pine Island at 9 A.M.

Call Calusa Heritage Trail/Randell Research Center at 239/283-2157.

- Saturday, March 26, 2011
- Saturday, April 9, 2011
- Saturday, April 23, 2011
- Saturday, May 7, 2011

Cedar Point Park in Englewood at 9 A.M.

Call CHEC Cedar Point Environmental Park at 941/475-0769.

- Tuesday, March 29, 2011
- Wednesday, April 27, 2011
- Friday, May 27, 2011
- Monday, June 27, 2011
- Saturday, July 9, 2011
- Tuesday, July 26, 2011
- Saturday, August 13, 2011

Ponce de Leon Park in Punta Gorda at 9:30 A.M. Call CHEC Alligator Creek Site at 941/575-5435.

- Friday, March 18, 2011
- Tuesday, March 22, 2011

Videos: virtual wading

The CHNEP is working on its next video project — a virtual wading trip! We have contracted with WGCU Public Media to produce this series of videos, which will focus on the animals that live in and depend on the local estuaries. One longer video (less than 30 minutes) and multiple short (1–2 minute) videos will be created and will be available in September.

Since 2002, the CHNEP has used videos to help the public better understand the natural environment of southwest Florida, issues of concern and how to help protect the environment. These videos have featured approximately 40 people involved in the CHNEP.

- *Neighbor-to-Neighbor Florida-Friendly Landscaping*, 27 minutes, and ten 1-minute videos, 2008
- *Where Rivers Meet the Sea*: five 2-minute videos on estuaries, watersheds, animals, seagrasses and mangroves, 2006
- *Boating and Seagrasses*, 8 minutes, 2006
- *What's an Estuary? Now You Know*, 7 minutes, 2003, produced by the Association of National Estuary Programs
- *Keep it Picture Perfect with Clyde Butcher*, 30 seconds, 2002
- *Network of an Estuary: Charlotte Harbor National Estuary Program*, 28-minute and 8-minute videos, 2002

These 21 videos are available on a DVD from the CHNEP, and the shorter videos can also be seen on YouTube. To request your own DVD of CHNEP videos, please complete the online request form at www.CHNEP.org.

The CHNEP will create a second DVD that will include the virtual wading trip videos, *Estuaries Live* videos (see Spring 2010 issue for more details) and the Lee County School District's video based on CHNEP's *Adventures in the Charlotte Harbor Watershed* book (see Fall 2010 issue for more details). You may submit a request for this second DVD of CHNEP videos now on the CHNEP website; however, it is not expected to be available until September.



America's Great Outdoors: A Promise to Future Generations

America boasts a stunning array of magnificent lands and waterways. Our appreciation for these special places is rooted in the natural environment as well as in the rich diversity of people, stories and traditions that have become associated with them over the course of our history. Since our earliest beginnings, the lands, coasts, rivers, forests and mountains, and the resources they hold, have helped to define who we are as a people and as a nation. They have also been a source of America's wealth, providing places to reflect, relax, recreate and create lasting memories with friends and family.

However, Americans today find ourselves cut off from the natural and cultural inheritance that has shaped our lives and history. Our natural resources remain central to our economic vitality, yet they are under intense pressure from development and fragmentation, unsustainable use, pollution and impacts from a changing climate.

On April 16, 2010, President Obama launched the America's Great Outdoors (AGO) Initiative and charged the Secretaries of the Departments of the Interior and Agriculture, the Administrator of the Environmental Protection Agency and the Chair of the White House Council on Environmental Quality to develop a 21st-century conservation and recreation agenda that addresses these challenges. The result is a call for a grassroots approach to protecting our lands and waters and connecting all Americans to their natural and cultural heritage. AGO seeks to empower all Americans to share in the responsibility to conserve, restore and provide better access to our lands and waters in order to leave a healthy, vibrant outdoor legacy for generations yet to come.

Through 51 public listening sessions across the county, a plan was formulated to (1) connect Americans to the outdoors, (2) conserve and restore America's great outdoors and (3) work together for America's great outdoors.

To learn more, visit <http://americasgreatoutdoors.gov/>.

Our natural legacy faces challenges, including population pressure, loss of natural lands, new types of pollution and a changing climate, and the full consequences are yet to unfold.



In January 2010 the FPTA helped bring "Paddle Florida" to the Peace River. It was held in cooperation with the Florida Park Service, Polk County, the City of Ft. Meade and Hardee County. This has become an annual event that has hosted more than 120 participants on a three-day paddle along the Peace River Canoe Trail, part of Florida's statewide trail system managed by the Florida Department of Environmental Protection, Office of Greenways & Trails. In addition to paddling the 49 miles from Fort Meade to Gardner, the three-day trip included nightly educational lectures and live entertainment by the campfire.

Several people are working together to increase paddling opportunities on the Peace River. If you would like more information about this, please email mhilgendorf@swfrpc.org.

The Florida Paddling Trails Association

Tom McLaulin, FPTA

The Florida Paddling Trails Association (FPTA) was formed in October 2007 under the guidance of the Department of Environmental Protection, Office of Greenways & Trails to be the steward for all Florida water trails, including the Circumnavigational Saltwater Paddling Trail. The FPTA is a nonprofit 501(c)3 organization.

The major missions of the FPTA are to develop water trails, protect the environment along the trails and be a resource and voice for paddlers. Along with the water trail development, the FPTA is establishing the Florida Paddling Trails Blueway Community Program. Florida has more than 40 designated paddling trails on various rivers and streams, as well as the 1,515-mile Florida Circumnavigational Saltwater Paddling Trail.

The FPTA is inviting communities on these blueways and river trails to participate in the Blueway Community Program. If a community offers basic tourism amenities

such as lodging and restaurants, the FPTA can help them market their resources to outdoor recreation enthusiasts as a nature-based tourism destination, resulting in local economic stimulus and increased public awareness of natural Florida. Casual paddlers, day paddlers and weekend paddlers want to enjoy the outdoors, and a Blueway Community can provide the gateway to their experience, via Florida's paddling trails and blueways.

As part of their environmental commitment, the FPTA offers environmental training. Through a grant by the Elizabeth Ordwell Dunn Foundation, the FPTA has created "Paddler's Environmental Toolkit Training." This environmental education program teaches paddlers to identify environmental and wildlife problems, to solve the small problems and report the large ones. The FPTA also works with many different government and volunteer agencies to do cleanups on local waterways.

—Invasive Exotic Plants of the Charlotte Harbor Estuarine System—

Of the more than 4,000 plant species found in Florida, 1,300 or more are from other countries or regions within the United States. At least 130 of these nonnative or exotic plants are spreading rapidly throughout our natural areas. When they cause environmental or economic harm, they are considered to be invasive. Florida has more exotic invasive plants than any other state except Hawaii. Nearly one-third of the plants found growing in natural areas in Florida are exotic, and about 11 percent of those are considered to be invasive.

If not kept in check, invasive plants diminish Florida's natural diversity. Loss of native plants may also affect animals that are unable to adapt. Invasive plants can also cause serious navigation blockages, major flooding problems during storms and they can create ideal breeding grounds for mosquitoes.

Florida Exotic Pest Plant Council (FLEPPC) compiles invasive species lists that are revised every two years by professional botanists. Invasive exotic plants are termed Category I invasives when they are altering native plant communities by displacing native species, changing community structures or ecological functions or hybridizing with natives.

The five species featured in this poster were considered of greatest priority and are all Category I invasive plants.

What can you do?

You can help by replacing invasive exotic plants with native plants in your landscape! Visit www.CHNEP.org for sources and links to additional information and guidance.



Air Potato (*Dioscorea bulbifera*)
Air potato is a vine that cannot support its own weight. To capture sunlight, it climbs by twining on other plants. The life cycle of air potato in Florida begins in the late spring when bulbils and subterranean tubers from the previous year begin to sprout. Growth is rapid through the summer with bulbils appearing in mid-summer and increasing in size and numbers until late fall/early winter when the vines die back and the bulbils fall to the ground. The bulbils lie dormant until the following spring or early summer.

Old World Climbing Fern (*Lygodium microphyllum*)

This fern invades many freshwater and moist habitats in Florida, growing over trees and shrubs, and smothering whole plant communities. It is difficult for other plants to grow through the thick rachis mats produced by the fern. Infestations of climbing fern alter fire behavior by carrying fire into the tree canopies.



Brazilian pepper tree (*Schinus terebinthifolius*)

In Florida, Brazilian pepper tree is listed as a noxious weed, a prohibited plant and a Category I invasive species. The invasiveness is attributed to its enormous reproductive potential. Large quantities of fruits, or drupes, are produced per plant, and wildlife disperses the seeds in their droppings. Brazilian pepper tree outcompetes native plants because of its tolerance to conditions of extreme moisture and salinity, its capacity to grow in shady environments, and possible harmful effects on neighboring plants. In Florida, the plant readily invades disturbed sites as well as natural



The information in this poster was obtained from

...ne information in this poster was obtained from the Florida Exotic Pest Plant Council, the UF/IFAS Center for Aquatic and Invasive Plants and the FWC Invasive Plant Management Section. The CHNEP is a partnership working to protect the natural environment in Florida from Venice to Bonita Springs to Winter Haven.

The photographs in this poster were provided by Bugwood.org.

Air potato

Dan Clark, USDI National Park Service
Inset: Fred Nation, Weeks Bay National Estuarine Research Reserve

Old world climbing fern

Ken A. Langeland, University of Florida
Inset: Peggy Greb, USDA Agricultural Research Service

Brazilian pepper

James P. Cuda, University of Florida
Inset: Stephen D. Hight, USDA Agricultural Research Service

Melaleuca

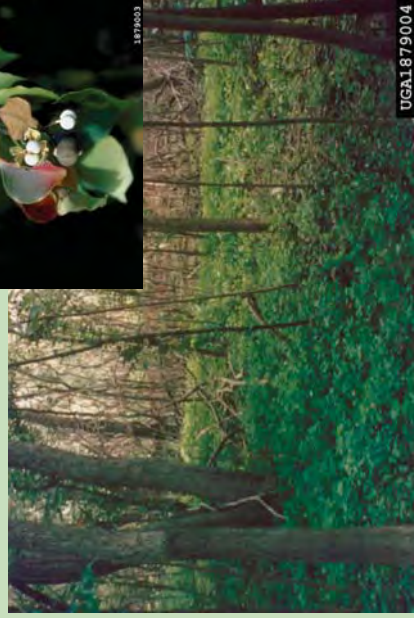
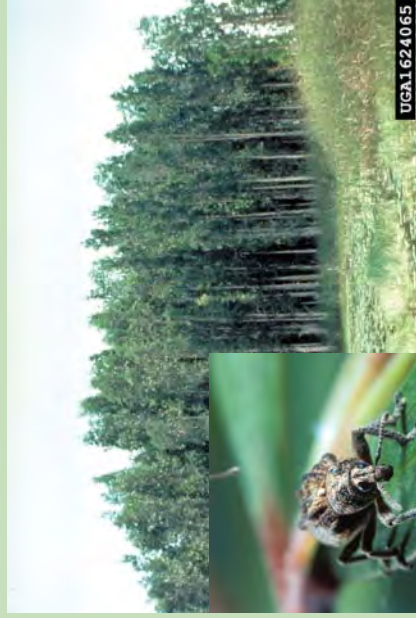
Alison Fox, University of Florida
Melaleuca leaf weevil: Stephen Ausmus, USDA Agricultural Research Service

Chinese tallow

Cheryl McCormick, University of Florida

Lather leaf

Tony Pernas, USDI National Park Service



Melaleuca (*Melaleuca quinquenervia*)

Melaleuca was planted as seed from Australia in the early 1900s in Broward County, near Davie, and in Lee County, near Estero. The present distribution of melaleuca is predominantly centered in and around the areas of original introduction. Its spread was enhanced through its use as wind breaks and fence rows, and its popularity as a fast-growing ornamental. Stands of melaleuca have limited wildlife value and are characterized by reduced species diversity. As melaleuca invades wet prairie/marsh systems, diversity is decreased by 60 to 80 percent.

Chinese tallow (*Sapium sebiferum*)

This aggressive woody invader of wetland, coastal and disturbed habitats has been shown to reduce native species diversity and richness and alter ecosystem structure and function in Florida's natural areas. Chinese tallow was introduced into the U.S. first as a seed oil crop and then as an ornamental. Its fast growth rate, attractive fall color and its ability to resist damage from pests contribute to its popularity with homeowners.

Lather leaf (*Colubrina asiatica*)

Lather leaf aggressively invades coastal regions in Florida but may occasionally be found infesting inland sites as well. It invades coastal strand, dunes, mangrove-buttonwood forests pine rockland, the margins of hardwood forests, and disturbed sites. Its sprawling growth habit enables it to smother native vegetation and it has been known to form a near monoculture if left unchecked. Its seeds float in seawater and are transported by ocean currents to other sites.

Littleton Elementary Community Forest Designation

Michael Weston, Florida Division of Forestry

Forestry and land management can mean big things that many people think are beyond their ability to work on or engage in locally. In reality, forestry and land management is about making a difference in the forest, natural area or yard that is nearby. For one school in Lee County, a big thing happened at a small forest in North Fort Myers last April.

On April 22, 2010, Dr. Carrie D. Robinson Littleton Elementary was awarded the first Community Forest Designation in the country on the five-acre preserve composed of pine forest that is behind the school. Through the efforts of the science club members — under the guidance of science teacher Susan Hassett, the support of principal Monica Broughton, and assistance from many other students, community members and sponsors — the school kicked forest management in their conservation area into high gear. It wasn't easy to get the designation and a lot of hard work took place to get the forest into shape. In January, with the assistance of the Florida Division of For-

estry, a prescribed burn cleared out undergrowth. This encourages new plant growth, benefits gopher tortoises and reduces wildfire risk. In February, the students planted more than 250 native trees and bushes in or near the preserve for an improved and more diverse forest. The students also picked up trash and turned the firebreaks used for the burn into walking trails. The science club now leads guided forest tours.

Community Forest Designation is a bridge pilot program through the Florida Division of Forestry in south Florida that seeks to provide forest management assistance and a recognition program to encourage proactive forest management on properties that are not traditionally managed (hence the term *bridge*) in the city, country, suburb or any other type of location. The program requires successful implementation of a forest management plan (for conservation and rural areas) or a tree care plan (for urban settings); creation of a group tasked with overseeing the management of the forest to include, as



needed, the control of nonnative invasive species and reduction of wildfire risks; and annual celebrations of Arbor Day. Recertification for the Community Forest Designation is done annually using a simple form.

Visit www.fl-dof.com to learn more about forestry issues or this program. The author of this article can be contacted at Michael.Weston@freshfromflorida.com.

Ten communities in the CHNEP study area have received the "Tree City USA®" designation. For details, see the Fall 2009 issue of Harbor Happenings.

continued from page 4

Environmental Impact Statement (EIS)

The Council on Environmental Quality

The environmental impact statement (EIS) requires the most rigorous level of National Environmental Policy Act compliance. First, the agency files a Notice of Intent in the Federal Register, informing the public of the upcoming environmental analysis and describing how they can become involved in EIS preparation.

The Notice of Intent begins the scoping process, a period when the agency and the public collaborate to define the range of issues to be addressed in an EIS. The agency identifies and encourages participation from interested parties, defines the role of involved agencies and determines the environmental issues relevant to the EIS. The agency also identifies any existing and required studies or analyses that can be used during EIS preparation.

While drafting the EIS, the agency prepares a Purpose and Need statement to describe the rationale for the proposed action. This statement is the basis for creating alternative solutions. Federal agencies must present reasonable alternatives in sufficient detail for readers to compare their environmental effects.

If an agency has a preferred alternative, it should be clearly identified in the EIS. Agencies must also consider a no action alternative. No action alternatives describe what would happen if the agency chooses not to pursue the action.

Once the agency has prepared a draft EIS, the document is published for public review and comment for a minimum of 45 days. The Environmental Protection Agency (EPA) will publish a Notice of Availability, announcing the availability of the document to the public.

Upon expiration of the draft public comment period, the agency considers all substantive comments, conducts further analysis if necessary and prepares a final EIS. The EPA then publishes a Notice of Availability in the Federal Register for the final EIS. This Notice begins a minimum 30-day review period. This review period must be completed before the agency makes a decision on the proposed action.

The EIS process ends with the completion of a Record of Decision. The Record of Decision explains the agency's decision, describes the alternatives the agency considered (including the environmentally preferred alternative) and discusses plans for mitigating potential environmental effects and monitoring those commitments. By continuing to monitor mitigation commitments, agencies implement National Environmental Policy Act (NEPA) requirements well after the environmental impact analysis is completed.

SOURCE: <http://ceq.hss.doe.gov/welcome.html>

The National Environmental Protection Act preamble reads:

To declare national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation.

The CHNEP website at www.CHNEP.org provides links to additional information about the EIS process.



Photo of a sunset over Gasparilla Harbor was provided by Debbie Horner for the CHNEP 2006 calendar.

Citizen Science: There's a project just for you

The CHNEP has been featuring opportunities for *you* to help our natural environment by becoming a citizen scientist. We're developing a listing of projects that will be available on our website at www.CHNEP.org. If you have a project you think should be included, please let us know by completing a form on our website.

Project Noah is a tool to explore and document wildlife using your phone app! NYU's Interactive Telecommunications Program (ITP) launched this initiative in 2010 to see

Shellfish Workshop

Scallops, oysters and clams serve as colorful indicators of the health of our estuaries. Changes in their health and population are directly affected by changes in water quality and seagrass habitat. Several research and non-profit organizations and government agencies are conducting monitoring initiatives and researching restoration efforts. To help with future efforts, the CHNEP conducted a workshop to bring these partners together to map their existing efforts and identify gaps and additional partnerships. Meeting details are available at www.CHNEP.org.

if a fun, location-based mobile application could be built to encourage people to reconnect with nature and document local wildlife by harnessing the power and popularity of smart phones to collect important ecological data and help preserve global biodiversity. To learn more, visit www.projectnoah.org.

Students' Cloud Observations On-Line (S'COOL) volunteers make and report cloud observations — type, height, cover and related conditions — from sites of their choosing anywhere in the world. Observations are sent to NASA for comparison to similar information obtained from satellite. To learn more, visit <http://science-edu.larc.nasa.gov/SCOOL/index.php>.

Clouds affect the overall temperature and energy balance of the earth. The more scientists know about clouds, the more they will know about our earth as a system. The S'COOL

observations help validate satellite data and give a more complete picture of clouds in the atmosphere and their interactions with other parts of the integrated global Earth system.

Frog Watch – Southwest Florida Amphibian Monitoring Network. Volunteers listen for the frogs that are calling at 12 predetermined stops along a roadway on the third Wednesday of June through September. To learn more, visit <http://frogwatch.net/>.

FrogWatch USA allows individuals and families to learn about the wetlands in their communities and help conserve amphibians by reporting the calls of local frogs and toads. To learn more, visit www.aza.org/frogwatch/.

Frogs and toads play an important role, serving as both prey and predator, in wetland ecosystems and are considered indicators of environmental health.

Grants are available

Throughout the year, the CHNEP offers small “micro” grants up to \$250 to assist others in their efforts to help protect the environment as defined by the program. Guidance on how to apply for the CHNEP's annual public outreach grants of up to \$5,000 is now available. Visit www.CHNEP.org to learn more and to apply.

CHNEP posters

The Charlotte Harbor National Estuary Program (CHNEP) has four posters that celebrate the beauty of the natural environment. These posters are now available for a donation to the Friends of Charlotte Harbor Estuary, Inc. The CHNEP now enjoys the assistance of the 501(c)3 not-for-profit that's also known as CHNEP Friends. Please visit their website at www.CHNEPfriends.org to place your order. All donations received help CHNEP produce education and outreach programs, such as this newsletter.



Ospreys Nesting Along the Peace River — Artist Diane Pierce features a captivating, real-life osprey river scene in this 24- x 34-inch poster.



Educational Ecosystem — Artist Shelly Castle depicts the biodiversity of plants and animals in the greater Charlotte Harbor watershed in this 26- x 39-inch poster. It also includes a drawing of the study area that depicts the major basin boundaries.



Myakka Canopy Trail #2 by Clyde Butcher — This poster of a hydric hammock is 22- by 19.5”.



Lake Hancock, Where the Peace River Begins by Clyde Butcher — This poster is 17- x 24”.

Warm Mineral Springs acquired to protect natural resource

In December 2010, both the North Port City Commission and Sarasota County Commission voted to enter into a joint agreement to acquire Warm Mineral Springs, the southernmost major spring and warmest spring in Florida. The spring discharges 9 million gallons of water each day, essentially refilling every two hours.

Both the city and county agreed to purchase the 91-acre property for \$5.5 million and agreed to a memo of understanding that provides a basis under which both entities will own and manage the springs. County funds are from a voter-approved taxpayer-funded Neighborhood Parkland Acquisition Program.

The prior owner, Cypress Lending Group, agreed to accept the below-market purchase price under the condition that they continue operating the business portion of the property for a term of 30 months, rent-free. Cypress Lending will be responsible for the maintenance of the improvements during this period of time.

The city and the county each contributed 50 percent of the purchase price and related due diligence investigations and closing costs. Each party owns an undivided 50 percent interest therein.

An interlocal agreement will be developed and approved by the city commission and the county commission within two years of closing on the property.

The Warm Mineral Springs day spa has been in operation since 1946 and draws more than 80,000 annual visitors. The City of North Port hopes to encourage economic development along the Warm Mineral Springs corridor, including the construction of a hotel and a small shopping and dining district.

The purchase also results in the preservation of a significant asset. The Warm Minerals Springs is listed in the National Register of Historic Places as one of the most important underwater archaeological sites in America. The ledges beneath the springs are the focus of many underwater archaeological investigations and have provided information about the lives of Florida Paleo Indians.



The remains of an 11,000-year-old man were pulled from the springs, along with evidence of saber-toothed tigers, giant sloths and tortoises. With the springs under public ownership, these types of discoveries and more can be protected.

The purchase of Warm Mineral Springs also will result in the protection and preservation of the area, including a considerable amount of open space. Acquisition is designed to preserve the site's geological features and includes the preservation of the water source associated with the downstream habitat of the West Indian manatee.

Warm Mineral Springs is a Critical Warm-Water Refuge

Lucy Keith

The FWC Florida Marine Research Institute collected 10 years of data on manatee use of Warm Mineral Springs, a natural warm-water site in Sarasota County. The data showed the springs to be a critical warm-water refuge for manatees in the winter months. Because of this, in 2002, FWC Bureau of Protected Species Management held a public hearing, took comments and used biologists' data to designate this site as a seasonal no entry zone. From Nov. 15 to March 15, people may not enter the water in this area either by boat or swimming. Citizens who live along the creek are allowed to come and go on the creek in order to access their property only, but they are not allowed to be on or in the water near the manatee aggregation areas. This is a very shallow creek with limited boating access.

Reprinted from the Fall 2003 issue of *Harbor Happenings*.

Warm Mineral Springs is North Port's hidden jewel, a unique geological, archaeological, ecological treasure. The spring's warm mineral-rich waters have been sought out for their soothing and healing powers for thousands of years and continue to make it a global tourist destination. The recent joint acquisition by the City of North Port and Sarasota County will ensure that this special place is protected, preserved and can be shared with our citizens and visitors now and in the future. — Tom Jones, North Port City Commissioner



Photo by Patrick M. Rose

Peace Creek Alliance: Peace River Source Gains New Ally

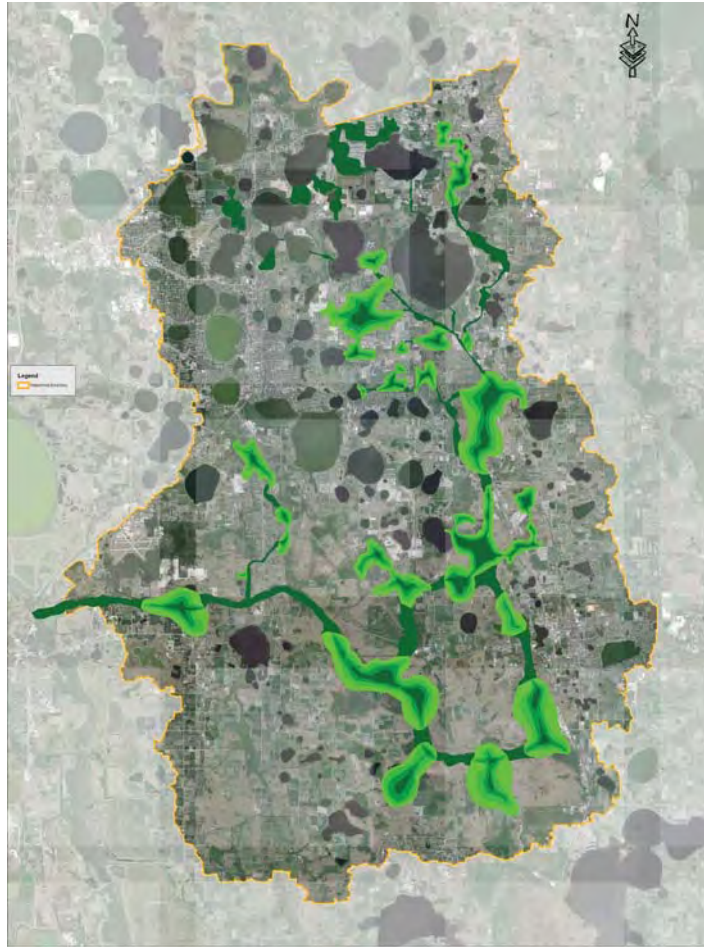
Newton Edge

The Peace Creek Alliance (PCA) is a newly created grass-roots initiative dedicated to sustainable water resource management. It will promote the preservation and the restoration of the Peace Creek watershed by properly planning for future growth, reducing the footprint of future development and mitigating impacts within the watershed.

Located in Polk County, Peace Creek joins with Saddle Creek to form the headwaters of the Peace River. But this stream and its watershed have been vastly altered from their natural state. Agricultural interests drained “worthless” wetlands and obliterated the natural creek by installing a 34-mile network of drainage canals. Water flow is now governed by water control structures, while development, roadways and industry have impacted the recharge of the remaining wetlands and the aquifer.

The PCA is dedicated to the reinforcement of the watershed’s *natural* infrastructure (lakes, wetlands, recharge areas and aquifers) as a means to manage water as opposed to *engineered* infrastructure (rationed supply, reservoirs, conduits and imported water). PCA is dedicated to the belief that using the natural infrastructure will provide multiple benefits, resulting in a less costly, more efficient water storage and delivery system for all future uses.

The PCA is seen as a stakeholder’s initiative, serving all or parts of 11 communities and unincorporated Polk County.



The PCA was initiated by George Horvath, a long-time resident of Polk County who is currently serving on the Winter Haven Planning Commission. Over the years, George has witnessed significant loss of watershed function and unsustainable water utilization. He has spent most of 2010 contributing his time and resources to laying the groundwork for a volunteer watershed advocacy group.

His vision is to create an organization that encourages and supports a well-balanced approach to meeting the economic and environmental needs of the communities of the watershed while preserving the watershed’s biodiversity for the benefit of all stakeholders.

George is assisted in this endeavor by a number of interested citizens and professionals who are engaged at different levels of water resources protection or management of the Peace Creek

watershed. PCA aims to reach out to all stakeholders, including those who may not have been active in environmental conservation efforts to date but may have an appreciation of water as a valuable, but diminishing, resource.

The main thrust of PCA’s efforts will be to support the implementation of the City of Winter Haven’s *Sustainable Water Resource Management Plan for Winter Haven and the Peace Creek Watershed*. PCA will encourage the public to become involved in the approval process. More information is available at <http://peacecreek.org>.

CHNEP Meetings and Events

These dates are tentative. Confirm dates and obtain locations and agendas at www.CHNEP.org. Additional meetings and events are also posted on this website, as are grant deadlines. All meetings are open but the public is encouraged to join the Citizens Advisory Committee. Membership is open to anyone interested in protecting the natural environment bounded by Venice, Bonita Springs and Winter Haven.

EPA Phosphate Conference	March 28-29	Citizens Advisory Committee (CAC)	August 3
Charlotte Harbor Watershed Summit	March 30-31	Management	August 5
TAC/Science Forum	April 14	Policy	August 22
Citizens Advisory Committee (CAC)	April 20	Public outreach grant applications due	September 7
Management	May 6	TAC/Science Forum	October 13
Policy	May 20	Citizens Advisory Committee (CAC)	October 19
TAC/Science Forum	July 14	Management	November 4
Submit images for 2012 calendar by	July 14	Policy	November 18
Select images for 2012 calendar	August	Charlotte Harbor Nature Festival	November 19

“Florida-Friendly Fertilizing” campaign focuses on improving area water quality

Improperly applied fertilizers are harmful to our water bodies

The Southwest Florida Water Management District (SWFWMD) kicked off a multi-media public service advertising campaign to educate residents on how to fertilize their lawns appropriately.

Many people don't know when to fertilize, how much to buy, how to read a fertilizer label and select the right fertilizer for their soil type, how much to apply, and how much water is needed to water-in the fertilizer. As a result, recent studies have shown that rising nitrate levels in many local water bodies can be traced to fertilizer.

Nitrate is a form of nitrogen that is found in inorganic fertilizers. When fertilizer is needed and applied correctly, the lawn

absorbs the nitrogen. However, fertilizers applied improperly can run off lawns and into local water bodies, harming water quality and threatening the plants and animals that depend on clean water for survival.

The campaign focuses on these Florida-friendly fertilizing tips:

- Use slow-release fertilizers.
- Always follow package directions.
- Don't fertilize before a heavy rain.
- Fertilize only when needed and only when grass is actively growing.

The SWFWMD has created a series of tools to help residents learn to apply fertilizer appropriately. By visiting WaterMatters.org/fertilizing, residents can get step-by-step

instructions on fertilizing appropriately as well as watch a series of corresponding how-to videos. Residents can also order the free 20-page “Do-It-Yourself Guide to Florida-Friendly Fertilizing.”

Fertilizing appropriately is one of the nine principles of Florida-Friendly Landscaping™, a set of guidelines developed by the University of Florida's Institute of Food and Agricultural Sciences to protect our natural resources while promoting beautiful landscapes.

Back Ten Feet: Create a Neighborhood Greenway

Susan Scott, Florida Native Plant Society Coccoloba Chapter

The “Back Ten Feet” is a starting point for the new native plant enthusiast, a plan of action, a way to turn 800 square feet of turfgrass into the beginning of a neighborhood greenway.

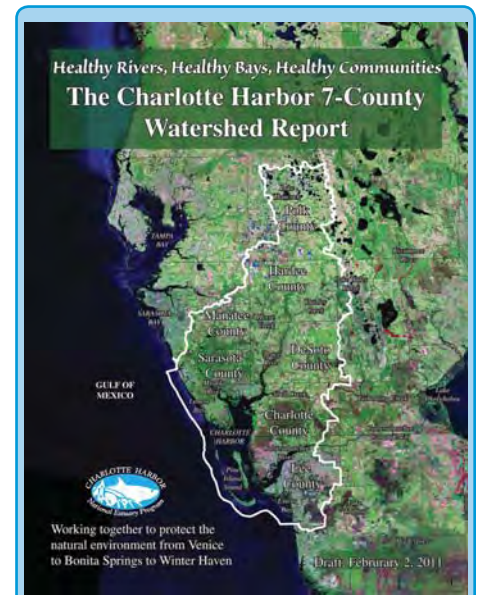
After teaching conservation landscaping classes for the last 10 years, I discovered that residents are more than willing to change their boring, lifeless sodded yards into havens for birds and butterflies once they receive the right information. They really don't want to use pesticides and fertilizers. When shown that the right drought-tolerant, bulletproof, power line-friendly native plants only require organic mulch to get by, people

are thrilled. They just need a plan for getting started since they are unfamiliar with what plants to use. By offering a starter plan that takes a portion of their yard out of the mowing equation, while providing privacy and wind protection in just a few years, they are ready to go.

I have also seen people light up with excitement when I mention what a great way this is to start a greenway in their own neighborhoods. Imagine if the neighbor behind you also decides to implement the Back Ten Feet plan. Now, instead of a 10' x 80' strip, it's a 20' x 80' strip. Think about the whole street getting on board. You've just created a greenway for about \$150 per yard, plus mulch.

Using the Back Ten Feet template, native plant nurseries can help local residents pick their own starter plan. Just choose the natives in your area that are drought-tolerant with a mature height of no more than 15–20 feet and that tolerate typically alkaline or trucked-in soils. All native plants provide food and shelter for native and migratory birds and butterflies and are often larval host plants for butterflies as well.

Now, let's get going and create thousands of miles of greenways in Florida this year, one yard at a time, starting with the Back Ten Feet!



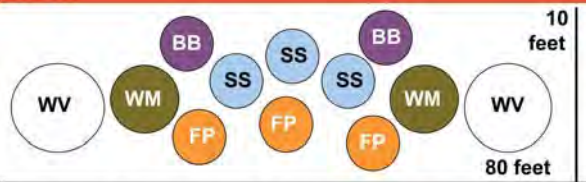
The CHNEP is publishing its *Charlotte Harbor 7-County Watershed Report: Healthy Rivers, Healthy Bays, Healthy Communities*. The 24-page report provides environmental indicators that answer these questions:

- Do our waters support diverse and healthy fish communities?
- Are the fish and shellfish safe to eat?
- Is fish and wildlife habitat increasing or decreasing?
- What is our shoreline condition?
- What lands are managed for the environment?
- Who restores nature?
- Do our river flows reflect nature?
- Is our water clean?
- Where does water pollution come from?

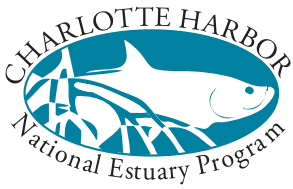
As a subscriber to *Harbor Happenings*, you will receive this important report in the mail.

Back Ten Feet DeSoto County

All you need is the back ten feet of your yard, the right native plants for food, resting and nesting and a water source.



- BB = Beauty Berry: Berries 4 birds, nectar 4 butterflies
 - FP = Florida Privet: Berries 4 birds, resting, nectar 4 butterflies
 - SS = Simpson's Stopper: Berries 4 birds, nectar 4 butterflies
 - WM = Wax Myrtle: Berries 4 birds, larval 4 butterflies
 - WV = Walter's Viburnum: nesting, resting, white flowers
- If you have low areas, use blue flag iris and spider lily for color



Harbor Happenings

Charlotte Harbor National Estuary Program
1926 Victoria Ave
Fort Myers FL 33901-3414



Not receiving *Harbor Happenings* in the mail? Request a free subscription. Visit the website at www.CHNEP.org for details.

Please let us know of any address corrections by sending an email to mhilgendorf@swfrpc.org.

Harbor Happenings en Español: Cada publicación de *Harbor Happenings* será traducida al español y publicada en el website del Charlotte Harbor National Estuary Program www.CHNEP.org. Por favor anime a sus amigos que hablan español a darle un vistazo.

CHNEP 2011 Calendar: Another stunning display of natural beauty

Thanks to the generosity of those who submitted images, the CHNEP's 2011 calendar once again displays spectacular images showcasing the beauty of the natural environment of southwest Florida.

The calendar also provides the curious reader with morsels of information about the program's committees, partnerships, management plan, grants, events, conservation landscaping initiatives, videos and printed materials.

Mailed in November to those who receive the free *Harbor Happenings* newsletter, small supplies of the calendar were also available for pickup at locations throughout the seven counties that participate in the program. Even though 15 percent more were printed this year, the calendars were picked up faster than ever.

Support the CHNEP by making a donation

Thank you to those who already generously responded to the request for financial support by mailing checks to the CHNEP or The Friends of Charlotte Harbor Estuary, Inc. The CHNEP now enjoys the assistance of the 501(c)3 not-for-profit that's also known as CHNEP Friends.



Photo of reddish egrets by Eva Furner with Coastal Wildlife Club was the December 2011 featured image.

We apologize to those who attempted to make a donation by credit card or PayPal. However, the www.CHNEPfriends.org website is now available and is accepting electronic donations.

Send us your opinions

If you haven't already, please take a few minutes to send us your thoughts on the calendar by completing either the survey incorporated into the calendar or the online survey at www.CHNEP.org.

CHNEP 2012 calendar

By July 14, you are invited to submit images for the 2012 calendar. Have you captured an image of the beauty of the natural environment? The image could have been captured today or 50 years ago in any medium (photography, oil, illustration, etc.) within the CHNEP study area

from Venice to Bonita Springs to Winter Haven. Whether you are young or old, professional or amateur, you may submit up to three digitized images for consideration in the 2012 calendar. The CHNEP is now able to accept images on a CD (as has been the practice) and by email. Please visit the website for more guidance.

In August 2011, all entries that comply with the requirements will be posted at www.CHNEP.org for the public to help select the images to be included in the calendar.

The 2012 calendar will be distributed by November.

Visit www.CHNEP.org to complete the calendar survey, obtain submittal guidance, learn how to donate, subscribe to the newsletter and view PDF files of the first seven calendars and featured images (suitable for framing).