



Coastal Roots



January 31, 2011

<http://coastalroots.lsu.edu>

VIPS Visit CR Schools

Last fall, two CR schools were the beneficiaries of some high-profile people. **EPA Administrator Lisa Jackson** met with 150 fourth and fifth grade students from **Metairie Academy for Advanced Studies** on Thursday, August 26, 2010. MAAS teacher **Mona Herbert** wrote to Ms. Jackson outlining all the work her students do as environmental stewards, part of which includes the LSU Coastal Roots Program. Ms. Jackson was very impressed and arrangements were made for her to visit the school on her August trip to the New Orleans area. Ms. Jackson met with students for 45 minutes, discussed students' stewardship work, and answered questions they had about EPA's role in making environments cleaner and healthier. (Photo, above right)



On the same day in Lafourche Parish, **Alexandra Cousteau**, the granddaughter of Jacques-Yves Cousteau, visited **Louise Dykes'** 6th grade Science class at **Larose-Cut Off Middle School**. Alexandra and her international Expedition Blue Planet team were on a 14,500-mile journey across North America to explore some of the great water treasures of the region and investigate the water issues affecting those areas. Ms. Cousteau's team was exploring the area and speaking with people from all walks of life about the environmental issues facing the community, from the loss of wetlands to the more recent oil spill. Ms. Cousteau spoke with the LCO students about her mission to increase awareness of the critical water issues that affect communities worldwide and how she hopes to inspire and empower people to take action on these matters in meaningful ways. The students also shared their stories of how the loss of our wetlands and the oil spill has affected their lives. (Photo, above left)

CR Teachers Speak at National Conference

Three CR teachers traveled to Buffalo, NY, in September for the annual national North American Association for Environmental Education meeting. **Susan Koppenol (Christ Episcopal, Covington)**, **Joann Haydel (Archbishop Chapelle, Metairie)**, and **MarLane Dows (Central High, Central)** spoke about how they use CR as a foundation for their classroom teaching (pictured at right, from right to left; Pam is at left). Pam Blanchard and Joann also attended an informative one-day workshop on "Hands-on Ecological Restoration... on School Grounds". Travel was made possible by the NOAA Bay-Watershed Education and Training Grant to the LSU CR Program. **Pam** also presented basic program information to the annual Southern Association of Marine Educators that was held in November at the NRCS Golden Meadow Plant Materials Center in Galliano, LA. There were lots of questions and these educators were quite interested in the research that **Becky Jones** is conducting with students at several CR schools. Becky is working on developing a measurement tool to help assess how students' attitudes are changed by participation in stewardship (and other types of coastal) education opportunities. In addition to these presentations, **Ed Bush** and **Pam** presented information on the development of the CR nursery rubric at the annual Restore America's Estuaries national meeting in Galveston, Texas, in mid-November. Attendees were quite interested in how the nursery rubric helps inform teachers about best practices in nursery management.



2011 Winter Workshop Set for FEBRUARY 19

This year's CR Winter Workshop is set for February 19, 2011, from 9 a.m. to 3 p.m. in the LSU AgCenter's La House Facility located at 2858 Gourrier Avenue between Nicholson Drive and River Road on the LSU Campus. Besides distributing soil and seeds for our 2011-12 restoration season, we will be practicing using eTREX GPS devices and calipers to gather data on transplanted seedlings, as well as metric calipers to measure seedling diameter. Each CR teacher will receive a stipend of \$100 for participating in the workshop. A registration form has been sent out by Pam and is also available on the home page of the Coastal Roots website. **PLEASE NOTE: If you are unable to come to the Feb 19 workshop, please make arrangements to come to LSU and pick up your soil and seeds.**

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Best Nursery Practices for Cold Temps

Dr. Ed Bush, LSU School of Plant, Environmental, and Soil Sciences

We've had some really cold temperatures these last two months. Freezing conditions seem to bring lots of worry and questions. Here are some short answers to common concerns.

How can we protect our plants from really cold air temperatures? The best way to protect your plants is to make sure you water them thoroughly when you expect freezing conditions. This will allow the soil to release moisture into the air around your plants during the evening and night, thus keeping the air somewhat warmer around the plants. It is helpful to remember that our tree seedlings begin to go dormant in the fall. Dormancy is a phase in development which allows woody plants to survive these unfavorable conditions.

Do plants feel wind chill like we do? In short, the answer is "no". Wind chill is a term that meteorologists use to express how the combination of wind speed and temperature "feel" on exposed skin. Since plants don't have nervous systems, they don't "feel" any colder than whatever the current air temperature is.

Do I need to bring my plants inside? Can mulch (hay) help protect plants? Is it necessary? Bringing plants inside is an option, and if you have plenty of student help, it might be something you choose to do on nights when we have a hard freeze. However, it is important to remember that plants tend to dry out very quickly indoors and that being without water isn't good. Mulching is not necessary, although it will help protect your plants by keeping frost away from tender vegetation and by increasing the moist air around the plant trays.

What should we do to protect the water pipes in our nursery? Most of the irrigation pipe going to your nursery is buried and will not freeze. After you've thoroughly watered your nursery, turn off your water supply at the shutoff valve AND turn the irrigation valve (the blue/black instrument that is connected by the two electrical lines to your timer) to the "off" position. You need to remember to turn both valves when go to turn on the water again. Remember, if you have plants in your nursery, you will need to water them thoroughly in the event of freezes.

CR International???

Steve Babcock, a Coastal Roots teacher and a physical and environmental science teacher at the LSU Lab School, recently traveled to the Galapagos Islands with the Toyota International Teacher Program. He was one of only 24 teachers chosen to make the trip this year. He spent two weeks in Ecuador and on the Galapagos Islands. While in the Galapagos he conducted several field investigations designed by his UHS environmental science students. You can see some of his pictures and read his blog posts at <http://toyota4education.com/pmwiki.php?n=Main.MrStevenBabcock>. He was also interviewed by NBC Channel 33 (<http://www.nbc33tv.com/galapagos-islands/teacher-granted-trip-to-galapagos-islands>).

Besides collecting data for his student-suggested projects, one of the activities he was able to do was plant trees to help restore native ecosystems through tree propagation and planting! Instead of planting cypress or wax myrtle or swamp red maple, he helped plant a species of *Scalesia*. This native plant to the islands looks like a big sunflower, but actually grows quickly to a small tree size. Steve came back from his trip thinking that perhaps it would be a great project to help get a Coastal Roots nursery started so that the students at a local school could get involved in helping restore the local ecosystem. Steve is looking into grant opportunities to help fund a CR nursery at the equator!

What an adventure!

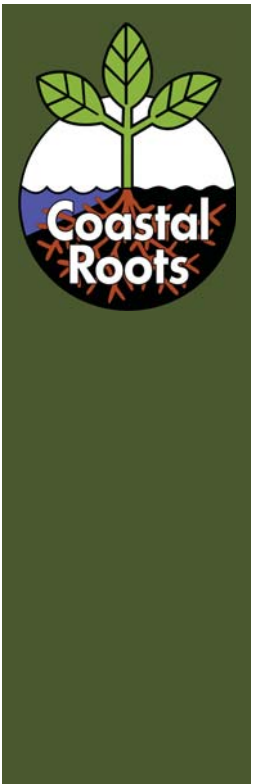


Top: Moving *Scalesia* seedlings to a planting site. Bottom: Steve carefully planting a seedling. Photo credit: S. Babcock.

Coastal Plain Conservancy Funds Bus Transportation



The Coastal Plain Conservancy (CPC), a new partner for Coastal Roots, is regional nonprofit land trust, located in the southwestern parishes of Louisiana. It is dedicated to “preserving the lands that define the coastal plain’s distinct landscape”. With tight budgets both at home and school, funding from the CPC is helping to defray the bus transportation costs for CR schools making restoration trips this year. In addition, the CPC has helped identify restoration sites in southwestern LA.



Thank you!

ASH 6th Grade Goes Kayaking with Artist Boat!

As is the case with Coastal Roots and Artist Boat, collaborations can bring great opportunities. When **Karla Klay**, director of **Artist Boat** (artistboat.com; a non-profit organization out of Galveston, Texas), asked if we could let our CR teachers know about a professional development opportunity this past summer, Pam sent it out to everyone. **Mary K. Clack**, teacher at **Academy of the Sacred Heart** in Grand Coteau, took advantage. As a result, Ms. Clack’s students learned about Louisiana wetlands upclose and in person! Students tested Lake Martin (just south of Breaux Bridge, LA) for water temperature, turbidity, pH, salinity and dissolved oxygen. While spending the day in kayaks, they created water color landscapes, ate lunch on the water, and learned about Louisiana wetlands!!! It was a great day!



2010-11 LSU Coastal Roots Schools

- | | |
|--|---|
| 1 Pierre Part Elementary (Pierre Part, Assumption Parish) 2001 | 24 Archbishop Chapelle High (Metairie, Jefferson Parish) 2008 |
| 2 Abbeville High (Abbeville; Vermilion Parish) 2001 | 25 LSU Laboratory School (Baton Rouge, E. Baton Rouge) 2008 |
| 3 St. Joseph’s Academy (Baton Rouge, East Baton Rouge Parish) 2001 | 26 Reeves High (Reeves, Allen Parish) 2008 |
| 4 St. Louis, King of France (Baton Rouge, East Baton Rouge Parish) 2002 | 27 Holy Cross School (New Orleans, Orleans Parish) 2009 |
| 5 Harry Hurst Middle (Destrehan; St. Charles Parish) 2003 | 28 Franklin High (Franklin, St. Mary Parish) 2009 |
| 6 Our Lady of Mercy (Baton Rouge, East Baton Rouge Parish) 2003 | 29 Iberville Science and Arts Academy East (St. Gabriel, Iberville Parish) 2009 |
| 7 St. James Science & Math Magnet (Vacherie, St. James Parish) 2004 | 30 Bishop Noland Episcopal Day School (Lake Charles, Calcasieu Parish) 2009 |
| 8 Lafayette Middle (Lafayette; Lafayette Parish) 2005 | 31 Schools of the Sacred Heart (Grand Coteau, St. Landry Parish) 2010 |
| 9 Albert Cammon Middle (St. Rose; St. Charles Parish) 2006 | 32 Iberville Science and Arts Academy West (Plaquemine, Iberville Parish) 2010 |
| 10 St. Charles Parish Satellite School (Luling; St. Charles Parish) 2006 | 33 Point aux Chenes Elementary (Montegut, Terrebonne Parish) 2010 |
| 11 R.K. Smith Middle (Luling, St. Charles Parish) 2006 | 34 J.B. Martin Middle (Paradis, St. Charles Parish) 2010 |
| 12 St. Martin Episcopal (Metairie, Jefferson Parish) 2007 | 35 Zachary Elementary (Zachary, East Baton Rouge Parish) 2010 |
| 13 Christ Episcopal (Covington; St. Tammany Parish) 2007 | 36 Covington High (Covington, St. Tammany Parish) 2010 |
| 14 Metairie Academy for Advanced Studies (Metairie; Jefferson Parish) 2007 | 37 Belle Chasse Academy (Belle Chasse, Plaquemines Parish) 2010 |
| 15 Isidore Newman School (New Orleans; Orleans Parish) 2008 | 38 Northside High (Lafayette, Lafayette Parish) 2010 |
| 16 Belle Chasse Middle (Belle Chasse; Plaquemines Parish) 2008 | 39 Patrick Taylor Science & Technology Acad (Jefferson, Jefferson Parish) 2010 |
| 17 Central High (Central Community Schools, E. Baton Rouge Parish) 2008 | <small>Installations Scheduled for Spring 2010</small> |
| 18 South Cameron High (Grand Chenier, Cameron Parish) 2008 | 40 L. Leo Judice Montessori Elementary (Lafayette, Lafayette Parish) |
| 19 Grand Lake High (Lake Charles, Cameron Parish) 2008 | 41 W.J. Fischer Accelerated Academy Charter (New Orleans, Orleans Parish) |
| 20 Johnson Bayou High (Cameron, Cameron Parish) 2008 | 42 McGehee School (New Orleans, Orleans Parish) |
| 21 St. Paul’s Episcopal (New Orleans, Orleans Parish) 2008 | DEMONSTRATION NURSERIES |
| 22 Larose-Cutoff Middle (Cutoff, Lafourche Parish) 2008 | UNO Coastal Education & Research Facility (New Orleans, Orleans Parish) 2010 |
| 23 Westdale Heights Acad. Elem Magnet (Baton Rouge, EBR Parish) 2008 | MS Coastal Research and Extension Center (Biloxi, MS) 2009 |

2010-11 Mississippi Coastal Roots Schools

- 1 Wool Market Elementary (Biloxi, Harrison County) 2009

Putting Down Roots - LSU Coastal Roots Plantings from October through December 2010



Reeves High
October 14, 2010
Bea's Beach, Cameron Parish



Larose-Cutoff Middle
October 29, 2010
Grand Isle State Park



Christ Episcopal
November 11, 2010
Fontainebleau State Park



Belle Chasse Middle
November 12, 2010
Woodland Plantation



Zachary Elementary*
November 18, 2010
Grand Isle State Park



Iberville MSA Academy - East
November 19, 2010
BREC Hooper Road Park



Our Lady of Mercy School
December 2, 2010
Fontainebleau State Park



Archbishop Chapelle High
December 9, 2010
Davant Park, Plaquemines Parish



LSU Lab School (HS)
December 10, 2010
Fontainebleau State Park



Westdale Heights Acad Elem Magnet
December 10, 2010
Fontainebleau State Park



Metairie Academy for Advanced Studies
December 16, 2010
Jean Lafitte National Park - Barataria Preserve

*Photo releases unavailable for **Harry Hurst Middle, November 4, 2010, Wetland Watcher Park***

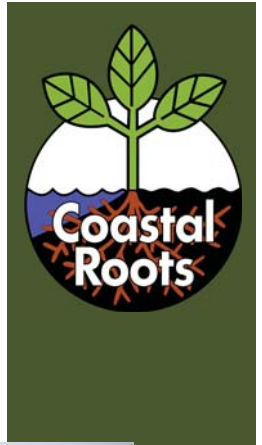
*Photo credits: * Frances Spencer; all others by LSU Coastal Roots staff*



We Are So Proud!

Episcopal Day School (Lake Charles) has received a number of awards to support their efforts to become a more green school! Last fall they received a Leadership in Education, a Distinguished Service Citation, and a Youth Leadership award from Keep Louisiana Beautiful. They will use the award money to start a sustainable garden and support their green initiatives. Congratulations!

Pam Briere, teacher at **St. Martin's Episcopal School (Metairie)** received Farm Bureau's 2010 Ag in the Classroom Teacher of the Year (<http://il.youtube.com/watch?v=4gXeCC9C0el&feature=related>)! She works to connect the world outdoors with the content her students learn in the classroom. Congratulations!



HS Science Project on Coastal Restoration Topics!

One of the neat things that CR directors Pam Blanchard and Ed Bush witness each year are the student science fair projects that are conducted specifically on coastal environmental and restoration topics. One project that caught our eye this year was on the production of the Louisiana iris. Populations of this native Louisiana plant were all but wiped out by storm surge inundations in our coastal parishes from hurricanes of the last six years. **Leigh Ann Week (St. Joseph's Academy, Baton Rouge)**, investigated whether propagation by tissue culture or rhizome division would be the most efficient way of producing large numbers of new plants (photograph at right). Also, **Molly Toups (St. Joseph's Academy)** conducted an experiment on the effects of humidity on the longterm storage of black mangrove seeds. Another project, this one on the effect of salinity on the health of water hyacinth (an invasive species to fresh water bodies in Louisiana), was completed by **Jenna Zeringue (Patrick F. Taylor Science & Technology Academy, Jefferson)**. She found that water hyacinth died quickly when introduced to higher levels of salinity. These projects are just three scientific studies that were conducted this year by students at CR-affiliated schools.



Clean Nurseries and Cheery Smiles

As winter comes to an end, students and teachers will need to again be mindful of getting their plant nurseries ready for another crop of seedlings. Students at Westdale Heights Academic Magnet in Baton Rouge (two photos to lower left) clean their empty yellow plants cells in soapy water and give them a good rinse. The thorough cleaning rids the cells of any left over soil diseases. Students at Belle Chasse Academy on the Belle chasse Naval Air Station (two photos to the lower right) clip "extra" cypress seedlings from their cells (yes! we know it is SO painful) so that the remaining seedling can use the nutrients to grow as large as possible before planting. Sweeping the yard of grass clippings, soil and leaves will keep weed problems and plant disease to a minimum. Great job!



Helpful Hands



Kevin Mahé, a volunteer at Jean Lafitte National Park - Barataria Preserve, spent his day off on January 27th leading nature walks for 120 3rd and 4th grade students from **Isidore Newman School** (New Orleans). Teacher Jennifer Williams had students divided into two large groups, so that while one planted their restoration seedlings, the other group was enjoying a nature walk under the leadership of Mr. Mahé. He has been volunteering at the National Park for about a year and **Ranger Stephanie Click** tells us he is

very knowledgeable about the plants and animals that are found in the park. We thank him for his generous gift of time!



MS Coastal Roots Program Growing!

Dr. Gary Bachman, MS Coastal Research and extension Center, Biloxi, MS

The 1st Mississippi Coastal Roots Summer Teacher Workshop was held on July 12 and 13, 2010. The workshop was attended by elementary and secondary teachers interested in participating in the MS CR project. On the first day, a joint workshop was held at the Grand Bay National Estuarine Research Reserve (NERR) in Moss Point, Mississippi. Teachers interested in the MS CR Program joined 4th grade educators from Moss Point, MS, in a coastal environmental education workshop hosted by the Grand Bay NERR staff. Highlights included information on invasive plant species and a field trip to the coastal pine savannah. In addition, Dr. Pam Blanchard gave an overview and history of the LSU CR Program. The second day was held at the



Coastal Research and Extension Center in Biloxi and consisted of an overview of the Coastal Roots project and plant nursery (Drs. Ed Bush and Gary Bachman), measurement of water quality parameters (Dr. Chris Boyd), and restoration opportunities with Mississippi Department of Marine Resources (Ali Leggett).



Can yards were installed at newly participating schools in Ocean Springs, Gulfport, and Long Beach, Mississippi. Two more installations nursery installations are scheduled at schools in Gulfport and D'Iberville in the next couple of weeks. The first native plant crops will be started from seed in these school nurseries in early spring 2011. Our first Winter Teachers Workshop this March.

Check Out CR Nursery Videos and Monthly Calendars!

Becky Jones, a graduate student supported by the Coastal Roots NOAA B-WET grant, is one very talented lady! She, with the help of Janina Fuller, a former graduate assistant for CR, has directed, filmed, and edited a number of helpful videos to assist teachers in understanding some of the best practices used in maintaining a working plant nursery. Check out her list of video productions:

- 👉 Fertilizing Your Plants
- 👉 Cleaning the Riser Screens
- 👉 Shade Cloth Installation
- 👉 Thinning Your Seedlings
- 👉 Programming Your Timer
- 👉 Using the Green Template to Plant Seeds
- 👉 Changing the Timer Battery
- 👉 Using the Garmin eTREX on Your Trip

All these videos can be streamed from the CR website at <http://coastalroots.lsu.edu/Nlcanyard.html>

Becky is also designing monthly calendars to help teachers and students keep up with what to do each month in CR nurseries. These calendars can be accessed on the CR Program Calendar page (<http://coastalroots.lsu.edu/Plcalendar.html>). We hope these tools help you produce more robust seedlings and grass plugs!



Nursery Visits Will Begin Soon!

CR staff use a rubric to review your plant nurseries. Rubrics can be downloaded from the CR website at <http://coastal-roots.lsu.edu/TIclassrooms.html>. Now is a good time to get your yards in shape for your new crop of seedlings.

At left, Belle Chasse Academy's (Belle Chasse Naval Air Station) very clean and neat nursery. Great job!

Helpful Hands

A group of **UNO's Sigma Gamma Epsilon** (Earth Science) members and their friends helped chaperone one of the Coastal Roots plantings at Jean Lafitte National Historic Park and Preserve - the Barataria Unit. This particular planting involved a large number of students and their assistance helped ensure the safety of the students as well as the proper planting of the seedlings. Many thanks to this great group of stewards!



CR Outreach in Action: A Busy Fall Semester



Voice of the Wetlands Celebration

Pam and her son, **Paul Blanchard**, attended the Voice of the Wetlands Celebration in Houma on October 9, 2010, to raise awareness of what the schools participating in the CR Program are doing to help restore coastal ecosystems.

Photo, top left.

Assumption Parish Farmer's Market

Pam brought the Coastal Roots exhibit to the Assumption Parish's Farmer's Market, which was held October 23, in Pierre Part. Visitors were able to learn about CR and help plant some bitter panicum cuttings. Bitter panicum, a beach dune grass, is being grown by several CR schools with

restoration sites either on Grand Isle or in Cameron and Vermilion parishes. We thank **Shane Theall**, agriscience teacher at Abbeville High School, for providing the cuttings from the AHS greenhouse, and his students for helping to make and bundle the cuttings. *Photo at left.*

Wild Things Celebration

Coastal Roots presented an exhibit at the 2010 Wild Things Celebration. This event, held in Lacombe, LA, on October 16, 2010, celebrates National Wildlife Refuge Week. Participants were treated to displays, presentations, tours, and music during the day long event. Visitors to the event helped Pam plant several hundred bitter panicum cuttings. *Photo below, middle left.*

LSU Ocean Commotion

Coastal Roots was once again present at the LSU Ocean Commotion exhibit that was held November 9, 2010. **Dr. Ed Bush, Becky Jones** and **Jenny Andry**, along with many students from **St. Joseph's**

Academy (Baton Rouge) helped K-8 visitors to the event plant sprigs of bitter panicum. Again, thanks to Abbeville High School for providing the cuttings. *Photo below, lower middle.*

LSU Day

Coastal Roots was also present at LSU Day on November 13, 2010, a day set aside to celebrate LSU's 150th birthday. **Becky Jones, Jenny Andry** (pictured below right), and **Sarah Smith** helped Tiger fans gathered for the LSU Homecoming Game against UL Monroe, plant hundreds of bitter panicum cuttings. *Photo below, lower right.*



Compendium of Coastal, Wetland, & Restoration Info

The Compendium is a resource to help you locate lessons and activities that focus on restoration and stewardship of Louisiana's coastal habitats. It is a collection of high quality, stable educational materials that are available on the Internet or through local workshops that focus on pertinent and often urgent environmental issues facing our state. You can download this resource from the CR website at <http://coastalroots.lsu.edu/TIclassrooms.html>



LSU Coastal Roots Calendar

January 13	PLANTING: Schools of the Sacred Heart, Avery Island
January 18	PLANTING: St. Joseph's Academy, Fontainebleau State Park
January 25	PLANTING: Pointe aux Chenes Elementary, LDWF Pointe aux Chenes WMA
January 27	PLANTING: Isidore Newman (3 rd /4 th grades), Jean Lafitte National Park
February 1	PLANTING: St. Louis, King of France, Fontainebleau State Park
February 3	PLANTING: Pierre Part School, Maple Bayou Hunting Club
February 8	PLANTING: Belle Chasse Academy, Bonne Carré Spillway
February 10	PLANTING: Bishop Noland Episcopal Day School, Coastal Plain Conservancy's Green House
February 11	PLANTING: St. James Science and Math Academy, Bonne Carré Spillway
February 12	EXHIBIT: Louisiana Environmental Education Symposium, Baton Rouge
February 15	PLANTING: Isidore Newman (5 th /7 th grades), Jean Lafitte National Park
February 17	PLANTING: Franklin High, Palmetto Island State Park
February 19	LSU CR Winter Workshop, Baton Rouge (LSU)
February 22	PLANTING: RK Smith, Bonne Carré Spillway
February 24	PLANTING: Archbishop Chapelle, TBA
February 25	PLANTING: St. Martin Episcopal, LDWF Pointe aux Chenes WMA
March 3	PLANTING: JB Martin Middle, LDWF Pointe aux Chenes Wildlife Management Area
March 15	PLANTING: Covington High, Fontainebleau State Park
April 17	EXHIBIT: Louisiana Earth Day, Baton Rouge



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"Unless someone like you cares a whole awful lot, nothing is going to get better. It's not."

- Dr. Seuss, The Lorax

At left, REEVES HS students send a message at the conclusion of their restoration trip at Bea's Beach in Cameron Parish, 2010.

LSU Coastal Roots Restoration Partners

We thank our restoration partners for their willingness to work with and educate our LSU Coastal Roots students about the restoration needs of their site as well as other important coastal issues.

- Avery Island, Inc.
- Baton Rouge Recreation (BREC) – Dept. of Conservation
- Bea's Beach, Cameron Parish
- Cheniere au Tigre
- City Park, New Orleans
- Coastal Plain Conservancy
- Grand Isle Port Commission
- Jean Lafitte National Historic Park & Preserve
- LDWF Pointe aux Chenes WMA
- Louisiana State Parks
- Maple Bayou Hunt Club
- NRCS Coastal Prairie Restoration
- Plaquemines Parish Coastal Zone Management
- US Army Corps of Engineers, Bonne Carré Spillway
- Wetland Watcher Park, St. Charles Parish
- Woodland Plantation

LSU Coastal Roots Seedling Nursery Program



LSU Coastal Roots: Helping the LA coast one seedling at a time!

<http://coastalroots.lsu.edu>