Louisiana Wetland News

Spring 2000

Research and Policy Highlighted at Coastal Wetland Plant Materials Symposium

An estimated 75 producers, researchers and representatives of state and federal agencies met recently in a symposium at the National Wetlands Research Center in Lafayette to learn about the latest developments in wetland plants used in coastal restoration and marsh revegetation. Researchers at the LSU AgCenter are working with state and federal agencies to improve native marsh plants that can withstand the troublesome coastal environment. Coastal restoration is important for Louisiana. Although the state boasts 15,000 miles of shoreline and 40 percent of the nation's wetlands, it also loses an average of one acre of marshland every 24 minutes. Vegetation helps fortify coastal marshes by trapping and accumulating sediments. Coastal marshes protect against storms and provide important biological diversity.

The symposium brought together members of the wetlands plant industry so producers could learn first-hand what's going on in the business, according to Dr. Rex Caffey, a wetlands and coastal resources specialist with the LSU AgCenter, which sponsored the symposium with the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) and the U.S. Geological Survey's National Wetland Research Center.

"The industry is not very old," Caffey said, adding that wetlands plant production in Louisiana includes about 15 growers. The wetlands plant business is a viable industry that contributes to economic development as well as to coastal restoration, according to Dr. Paul Coreil, assistant director for environmental programs in the AgCenter. "The AgCenter is committed to enhancing wetlands," he said, explaining the AgCenter's role in sponsoring the meeting. The AgCenter is encouraging a strong partnership among agencies and with private industry, added LSU AgCenter Chancellor Bill Richardson. "The AgCenter is investing a great deal in this effort," he said.

Although most wetlands restoration, especially along the Gulf Coast, is managed and funded by governmental agencies, plant materials and the labor to plant them come from private contractors, Caffey said. The source of those plants initially comes from the NRCS Plant Materials Center in Golden Meadow, which is developing new varieties of a number of species for commercial use, according to Mike Materne, plant materials specialist for the NRCS. These new plants, Materne explained, are given to commercial growers to propagate and then supply to revegetation programs in the marshes and along the coast. Daniel Broussard with Coastal Plants in Abbeville explained that his company grows a variety of species for site-specific needs. "We get foundation material from the Plant Material Center," he said, adding that he vegetatively propagates the foundation material, producing his commercial supply from that. The foundation plants Broussard and other growers receive are harvested by separating smaller plants from larger ones at the Golden Meadow facility. Producers grow these plants and then separate them to make more plants that eventually end up in coastal restoration projects.

Because producing new plants by dividing other plants is time consuming and expensive, AgCenter researchers are searching for new plant varieties that can be grown quickly and in large quantities from seed. "Many marsh plants don't produce large quantities of seed," said Dr. Tim Croughan, a plant physiologist with the AgCenter's Rice Research Station in Crowley. "So we're trying to develop new varieties that can be directly seeded into marshes and barrier islands. Situations where seeding is not going to be effective mean transplants will still be needed," he assured the growers.

"Native plant species can't adapt quick enough. We need to intervene," said Dr. Steve Harrison, an AgCenter plant breeder who is working with a team of scientists to apply breeding techniques developed for

agricultural crops to native coastal plants. In addition to supplying government-sponsored projects, growers also provide plants for smaller uses, such as homes and businesses.

Of the land in Louisiana's coastal zone, 75 percent is private, Coreil said. "Camp owners, home owners and local governments also may benefit with landscaping and other plant uses on a smaller scale to control erosion on coasts and other water bodies," he said.

The impetus for this symposium resulted from a newly convened advisory committee within the LSU AgCenter. The Wetland Plant Materials Advisory Committee was established in January of this year to enhance the exchange of information among university, commercial and agency representatives involved in the expanding science, industry and policy of native wetland plant materials. Committee representatives herald from research and extension posts within the AgCenter, Sea Grant, private industry, the Louisiana Wetland Plant Producers Association, the USDA Natural Resources Conservation Service, the Louisiana Department of Natural Resources, the Louisiana Department of Agriculture and Forestry, and the National Marine Fisheries Service.

(Adapted from Rick Bogren, LSU AgCenter Communications)

Development of consistently viable and productive seed for use in coastal re-vegetation efforts is a primary goal of a research collaboration between the LSU AgCenter and the NRCS Plant Materials Center. Seed selection regimes focus on Smooth Cordgrass (Spartina altinaflora), but vegetative materials from additional species such as Black Mangrove (Avicennia germinans) (above) are also slated for release to commercial growers.

NOAA Forms Coastal Restoration Network

Thirty-five representatives from NOAA agencies involved in coastal restoration recently met in Baltimore, Maryland, for the inaugural meeting of the NOAA Coastal Restoration Network. Agency personnel were on hand from the Office of Oceanic and Atmospheric Research (OAR), through the National Sea Grant College Program; the National Ocean Service (NOS) and the National Marine Fisheries Service (NMFS). The objective of the two-day meeting was to establish a community-based habitat restoration network that focuses on and functions at a local level through grassroots efforts to restore habitat beneficial to NOAA trust resources, particularly coastal marine and anadromous fish habitat systems. By linking these offices together, NOAA hopes to coordinate restoration efforts by providing project proponents with the most appropriate technical expertise from within, and eventually outside, the agency. Some of the specific tasks outlined at the initial meeting included:

Develop and implement a plan to maintain interaction and oversight on habitat restoration projects by linking local technical experts with specific projects/sites.

Design mechanisms to select and develop restoration project sites and projects using local knowledge, and expand the NOAA Restoration Network.

Develop plans to promote coordination between NOAA restoration-based programs, including web-based sharing of information and expertise, and refine GIS capabilities to map and track projects and opportunities for restoration.

Develop and implement a plan to leverage available funding at a national and local level for grassroots habitat restoration projects.

Develop a strategy to provide opportunities for restoration training and staff development.

Since the Baltimore meeting, a "listserv" network has been established to facilitate communication and growth of the NOAA Coastal Restoration Network. Titled "RestNet", this list-server is available by subscription through Louisiana Cooperative Extension/Sea Grant. To subscribe, or to obtain additional information on about the Network, please contact Rex H. Caffey, Department of Agricultural Economics & Agribusiness, Room 131, Agriculture Administration Building, Louisiana State University, Baton Rouge, LA 70803-5604, (225) 388-2266, rcaffey@agctr.lsu.edu

Adventure Racing - Atchafalaya Style

The Atchafalaya Basin, at 800,000 acres, is the nation's largest swamp wilderness, containing significant expanses of bottomland hardwoods, swamps, bayous and backwater lakes. Fish and wildlife populations are staggering, and one-half of the migratory species in the North American flyway use the area each year. This unique wilderness was recently the venue of an epic sporting event sponsored by the Louisiana Department of Natural Resources' Atchafalaya Basin Advisory Committee.

Adventure Racing is one of the fastest growing segments of eco-tourism. The Atchafalaya Basin was recently the venue for a 2-day, 150 mile event sponsored by the Louisiana Department of Natural Resources.

Designed to capitalize on an increasing national interest in extreme sports, the "Atchafalaya Adventure Race 2000" was billed as a 150-mile southward trek of hiking, biking and canoeing through the Atchafalaya Basin. Nineteen co-ed teams of racers and support members departed on Saturday morning, April 8, from Sherburne Wildlife Management Area near Krotz Springs, La. Over the two-day race, spectators and media turned out to watch increasingly beleaguered racers trudge, pedal and paddle by such familiar locales as Ramah, Sorrel and Pigeon. Hundreds more were on hand Sunday, April 9, to celebrate and congratulate teams from Louisiana, Texas, Florida, Georgia and Mississippi as they crossed the finish line at Lake End Park in Morgan City. Throughout the event, representatives of LDNR distributed copies of the Atchafalaya Basin Master Plan and the LSU Agricultural Center disseminated educational information pertaining to the functions and values of Louisiana wetlands.

Coastal Wetlands Workshop to be held at Westwego

The Coalition to Restore Coastal Louisiana will host a day-long Louisiana Coastal Wetlands Workshop in the Barataria Basin at Westwego Saturday, June 3. Participants will explore beautiful freshwater swamps and floating marshes in the Barataria Basin while learning what's being done to enhance and protect wetlands. They will go by boat and bus to see numerous coastal restoration projects in the Davis Pond-Lake Cataouatche area.

Participants will travel by bus to the Mississippi River levee and view the Davis Pond freshwater diversion structure now under construction. They will see how Davis Pond will bring fresh water and nutrients into the Barataria estuary to enhance wetlands and fish and wildlife habitat. Then they will go by boat to Lake Cataouatche to view marshes that will receive river water when the Davis Pond structure is operating. Participants will learn how water quality and fisheries are being monitored before Davis Pond is completed. Viewing downtown New Orleans from the lake, they will see how marshes and levees are essential for storm protection. They will visit fishing camps and see how wave-dampening Christmas tree fences provide shoreline protection. After the boat tour, participants will return to Westwego for a reception and mid-afternoon discussion.

Local residents and field trip leaders will address the future of Barataria's wetlands, the richness of culture and local resources, strategies for wetlands restoration, fisheries, flood protection and water quality. The workshop is open to all interested adults. Participants must register. Space is limited to 45, so early registration is recommended. The $50 registration fee includes a bus and boat tour, speaker presentations, afternoon reception and discussion, coffee, lunch and snacks. Field trips depend on weather and boat availability. Substitutions will be made in case of inclement weather. The workshop is supported by the Barataria-Terrebonne National Estuary Program and the Jefferson Parish Environmental Department. The workshop is headquartered at City Hall Council Chambers in Westwego.

For more information or to obtain a workshop brochure, call the Coalition toll free at 1-888-LA COAST (1-888-522-6278), or contact Kay Radlauer, workshop coordinator, 1-888-522-6278 Coalition Office, 225-923-1437 Home Office, kayrad@bellsouth.net

(Source: Breaux Act News Flash)

GPS Accuracy Improves Overnight

"It is rare that someone can press a button and make something you already own worth more – but that's exactly what's happening today. All the people who've bought a GPS receiver for a boat or a car, or whether they use one in business or for recreation, will find that they are ten times more accurate as of midnight tonight." *(Dr. Neal Lane, Assistant to the President for Science and Technology, on the removal of the Selective Availability degradation to GPS on May 1, 2000)*

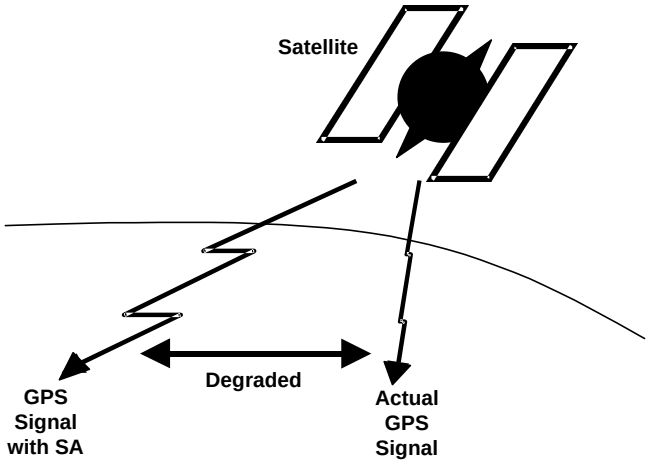
President Bill Clinton announced on May that the United States would no longer intentionally degrade the Global Positioning System (GPS) signals available to the general public. Until now, GPS users desiring increased accuracy had to purchase augmented receivers to "de-scramble" Selective Availability (SA), a distortion signal originally used for purposes of national security. Newly developed technologies enable SA to be used on a more localized basis, preventing users worldwide from being affected by regional, security-motivated, GPS degradation.

At midnight on May 1, 2000 the SA signal was set to zero, meaning that civilian users of GPS are now able to pinpoint locations up to 10 times more accurately than before. Discontinuing the use of the SA degradation signal improves the predicted accuracy of GPS for civilian users from within 100 meters (about 300 feet) to within 20 meters (about 60 feet). However, real-world users may find the accuracy to be even better, in many cases.

This is a significant step toward promoting the use of GPS for commercial, recreational and scientific pursuits. For example, consider implications to the sectors of agriculture, fisheries and wetlands management. Farmers now have improved prospects for adopting precision agriculture techniques that minimize costs and contaminants by using GPS to map fields and tailor the applications of seed and chemicals. Commercial and recreational fishermen using basic GPS have improved navigation capabilities, and enforcement agencies share a common, higher accuracy navigation system, which could reduce violations of fisheries boundaries and exclusive economic zone issues. Expanded use of basic GPS improves the capabilities to map and ground-truth wetland boundaries, vegetation types and property lines.

The improved accuracy also will benefit researchers who use GPS to sample wildlife and characterize habitat; sportsmen will have increased capacity to locate and return to specific areas of interest.According to the United States Department of Commerce, the decision should lead to "increases in productivity, efficiency, safety, scientific knowledge and quality of life (and) fuel the continued growth of the global GPS market, currently estimated at over $8 billion, as well as the market for geographic information services in general."

For additional information about this recent change to GPS, readers are encouraged to contact the Interagency GPS Executive Board on-line at http://www.igeb.gov



The intentional degradation of GPS signals by the U.S. government has been discontinued. Increased potential for GPS use in wetlands management is but one of many new opportunities created by this decision.

"Explore Coastal Louisiana" CD-ROM Available

A newly released CD-ROM provides a multimedia approach for teaching about environmental issues of Louisiana coastal parishes. "Explore Coastal Louisiana with Boudreaux" takes a novel approach to interactive learning using a series of Cajun-narrated lessons featuring maps, videos, music, quizzes and facts. The CD-ROM is designed for the general public, but high schools will find it a useful component of environmental science curricula. A teacher's guide lists how the materials can be used to satisfy Louisiana Department of Education Content Standards and also provides supplemental activities and useful resources. Science and visitors centers will find it to be a colorful and informative addition to their exhibits. The CD is a collaborative effort among the Coastal Wetlands Planning, Protection and Restoration Act, the Barataria-Terrebonne National Estuary Program and the U.S. Geological Survey National Wetlands Research Center. Copies of the "Explore Coastal Louisiana with Boudreaux" CD-ROM can be obtained on-line at: http://www.lacoast.gov/FreeStuff/cajun.htm

17 CWPPRA Projects Approved for 2000

Using the Bonnet Carré Spillway on the Mississippi River to put fresh water into Lake Pontchartrain, even when no flood threatens New Orleans, is one of 17 projects approved for funding for the coming year. The Coastal Wetlands Planning, Protection and Restoration Act task force selected that project and 16 others on January 12 for engineering and design work for the coming year, the first phase of full funding. The U.S. Army Corps of Engineers would pull a few pins from the structure when the river is high and allow as much as 4,000 cubic feet per second to flow into Lake Pontchartrain. The flow rates and time of year the pins are pulled would be controlled to minimize algal blooms in the lake, according to the proposal approved by the task force. The total cost of the project is $1 million and the task force approved Phase 1 funding of $150,706. Other projects selected and their costs are detailed below:

Restoring Chandeleur Island by planting 4,500 acres of cordgrass on shallow breaks created on the island system by Hurricane Georges in 1998. Phase 1 cost: $156,082. Total cost: $1.43 million. The task force also approved Phase 2 construction of $1.283 million to speed the project.

Conducting freshwater introduction along La. 82 to get water from lakes and marshes above the Cameron Parish highway to areas below it. Total cost: $5.88 million. Phase 1 cost: $607,138.

Highway 82 in Cameron Parish is a battlefront in Louisiana's ongoing war against coastal erosion. A recently approved CWPPRA project would introduce freshwater to fortify marshes below the highway and relieve flooding of marshes above the highway.

Building a water-control structure for South Lake Decade, southwest of Houma. Total cost: $3.96 million. Phase 1 cost: $396,489.

Building open-ended boxes called terraces in Little White Lake, Vermilion Bay and Onion Lakes in Vermilion Parish. Terraces let sediment fall out and build marsh. Total cost: $5 million. Phase I cost: $459,306.

Dredging Castille Pass at the mouth of the Atchafalaya River so the river will build small islands and a subdelta. Total cost: $31 million. Phase 1 cost: $1.48 million.

Building bypass culverts under La. 384 to send excess water in the marsh above the highway into Black Bayou in Cameron Parish. Total cost: $8.38 million. Phase 1 cost: $799,823.

Protecting the shoreline of the Gulf Intracoastal Waterway at Perry Ridge near the Sabine River. Total cost: $3.7 million. Phase 1 cost: $317,399.

Building terraces at LaBranche Wetlands in St. Charles Parish, along with shoreline protection and planting vegetation. Total cost: $9.5 million. Phase I cost: $821,752.

Putting shoreline protection along 50,000 feet of heavily trafficked Freshwater Bayou in Vermilion Parish. Total cost: $25 million. Phase I cost: $1.5 million.

Water-control structures in Little Pecan Bayou in Cameron Parish. Total cost: $15.2 million. Phase 1 cost: $1.25 million.

Filling in 138 acres of water into marsh south of the Leesville Bridge on La. 1. Total cost: $6.89 million. Phase I cost: $1.15 million.

Rebuilding Timbalier Island, creating 122 acres of beach, dunes and saline marsh. Total cost: $16.23 million. Phase 1 cost: $1.3 million.

Filling in New Cut, a 4,500-foot gap between Trinity and East islands created by Hurricane Andrew in 1992. Total cost: $7.4 million. Phase I cost: $746,274.

Restoring East and West Grand Terre islands in Barataria Bay. Total cost: $18.2 million. Phase I cost: $1.86 million.

Shoreline protection for land between Bayous Perot and Rigolettes in Jefferson Parish west of Lafitte. Total cost: $20.7 million. Phase 1 cost: $1 million.

Creating marsh in Weeks Bay in Iberia Parish. Total cost: $15.1 million. Phase I cost: $1.25.

Two demonstration projects also were approved:

Testing techniques to protect the shoreline of the Gulf Intracoastal Water way at Mandalay Wildlife Refuge west of Houma, where rocks and other structures often sink into the soil. Total cost: $1.19 million.

Periodically using a dredge to pump sediments into water being diverted from the Mississippi River into the Caernarvon Freshwater Control Structure on the Plaquemines-St. Bernard parish line. Total cost: $1.06 million.

(Source: Mike Dunne, Advocate)

USGS Wetland Training Workshops

The U.S. Geological Survey of the Department of the Interior is presenting a series of topical workshops pertaining to mapping, vegetation, photo-interpretation, remote sensing and Geographical Information Systems. The workshops are part of an effort to exchange information and provide access to spatial technologies developed at the center for natural resource survey. The workshops are available to the general public, educators and state and federal agencies.

Introduction to the Identification of Wetland Forest Trees: June 22-23

Hydric Soils and Wetland Delineation: June 28-30

Introduction to Desktop GIS (ArcView) for Natural Resources: August 8-10

Introduction to Wetland Remote Sensing and Mapping: October 25-27

Advanced Wetland Photo-Interpretation: October 30-November 1

Introduction to GPS for Natural Resource Assessment & Survey: December 5-7

For more information, please call Pat O'Neil at 318-266-8699 or e-mail Holly Nelson at holly_nelson@usgs.gov

Wetland Biogeochemistry Institute Workshops

The Louisiana State University Wetland Biogeochemistry Institute is offering short courses on various aspects of wetland identification and delineation. These courses are designed to provide the participants with practical field experience as well as a thorough understanding of the principles and science behind the course topic. Courses are held in Baton Rouge. Courses available through the remainder of 2000 include:

Wetland Delineation Training, May 22-26
Advanced Hydric Soils, May 30-June 1
Winter Plant Identification, TBA

Space is limited to 30 participants on a first-come, first-served basis. To register and receive additional details on course costs, location and accommodations, contact Karen Gros, LSU Wetland Biogeochemistry Institute (225) 388-8806, Fax (225)388-6423, wetlands@premier.net.

Wetland delineation training is one of several courses available though the USGS National Wetlands Research Center and the LSU Dept. of Wetland Biogeochemistry.

Wetland Delineator Directory Updated for 2000

The “Directory of Wetland Delineators Covering Louisiana” was updated by the Louisiana Cooperative Extension Service in January 2000. This directory was developed to provide the public and private sector a list of professionals or companies providing wetland delineation services throughout the state. To obtain a copy of the updated directory, please contact your parish extension office.

Corps Issuing New Nationwide Permits

The Corps of Engineers (Corps) is issuing five new Nationwide Permits (NWPs) and modifying six existing NWPs to replace NWP 26, which expires June 5. The Corps is also modifying nine NWP general conditions and adding two new NWP general conditions. The new NWP general conditions will increase protection of designated critical resource waters and waters of the United States within 100-year floodplains. Nationwide permits are general permits used nationally to authorize discharges of dredged or fill material that will have minimal adverse effects on the aquatic environment. The Corps is replacing NWP 26, which was used to permit certain discharges in the nation's headwaters and isolated waters, and was the general permit most frequently involving potential impacts on wetlands.

The replacement nationwide permits continue to authorize many of the same activities previously permitted under NWP 26, but they are activity-specific, with terms and conditions to ensure minimal adverse effects on the aquatic environment. The maximum acreage limit under the new and modified NWPs is one-half acre, reduced from the previous maximum of three acres. In addition, most require that the Corps be notified of activities affecting more than one-tenth of an acre, reduced from the previous requirement to notify the Corps of impacts to more than one-third of an acre.

According to Jackie Purrington, Regulatory Branch, New Orleans District COE, these changes should have little effect on Louisiana. NWP 26 authorized work in headwaters and isolated wetlands not connected by surface or subsurface hydrology. (Because) of our tributary/distributary system of streams/rivers, coupled with relatively flat terrain, we do not encounter these types of waters often. Purrington added that "…projects having a permanent above grade fill located within the 100 year floodplain, or in areas designated as critical resource waters, cannot receive a nationwide permit anyway. The 100-year floodplain limitation is what will really keep us from using any of the new NWPs announced in the Federal Register. However, since we issued only five NWP 26's annually (out of 4000 permits annually in the New Orleans District Corps), the impact is negligible."

For more information, readers should contact Ron Ventola (Ronald.J.Ventola@MVN02.usace.army.mil) or Jackie Purrington (Jackie.B.Purrington@mvn02.usace.army.mil) at the Corps of Engineers, MVN-OD-S, Regulatory Branch, New Orleans, LA, 504-862-2255. Additional information on NWP changes can be found at:
http://www.usace.army.mil/inet/functions/cw/cecwo/reg/
http://www.hq.usace.army.mil/cepa/releases/nationwidepermits.htm

Extension and Research Merge In AgCenter

In January 2000, the Louisiana Cooperative Extension Division of Economics and Natural Resources was combined with the Department of Agricultural Economics and Agribusiness at LSU. This was the first of several such mergers by the LSU Agricultural Center in an effort to promote additional partnering and communication between the Land Grant components of research and extension. The new arrangement is expected to provide for more relevant, issue-driven research projects and more science based extension programs.

As a result, the coastal and wetland resources extension program, formally housed in Knapp Hall, is now located in the Agriculture Administration Building. If you would like additional information about new arrangement, or any topic covered in this newsletter, please contact me at my new address:

Rex H. Caffey
Assistant Specialist
Coastal & Wetland Resources
Room 131, Agriculture Administration Building-LSU
Baton Rouge, LA 70803-5604
225.388.2266, 225.388.2716, rcaffey@agctr.lsu.edu

Sincerely,

Rex H. Caffey
Assistant Specialist
(Wetlands and Coastal Resources)

Extension economists and natural resource specialists recently moved from Knapp Hall into the Department of Agricultural Economics & Agribusiness located in the Agricultural Administration Building at LSU (above) .

LSU AGRICULTURAL CENTER
U.S. DEPARTMENT OF AGRICULTURE
KNAPP HALL
P.O. BOX 25100
BATON ROUGE, LA 70894-5100

Louisiana Wetland News

LSU AgCenter
Research & Extension

Sea Grant
LOUISIANA