

# Louisiana's Biggest Environmental Problem

As all who are familiar with coastal Louisiana know, we are on the losing end in our efforts to combat coastal wetland loss. This is evident to any fishermen - both recreational and commercial, hunters, bird watchers, beach combers, and especially those folks who live close to the coast. And it is easily made evident to anyone who views and understands this map.

Recent efforts have been completed to assess the magnitude of coastal land loss in Louisiana. Based on the available information, Louisiana has lost an estimated 1,900 square miles of coastal land between 1932 and 2000, roughly an area the size of the state of Delaware. Additionally, the best scientific estimates that are presented in the Louisiana Coastal Area (LCA) Land Loss Report indicate that the Louisiana coast will lose an additional 700 square miles by the year 2050.

The area currently undergoing the greatest wetland loss is the Barataria and Terrebonne basins - the area essentially between the Atchafalaya and Mississippi rivers. From 1956 to 1978, Barataria-Terrebonne accounted for 43 percent of Louisiana's coastal wetland loss. From 1978 to 1990, this area experienced 61 percent of the state's loss and from 1990 to 2000, it was 66 percent. The LCA report predicts the area's percentage of loss to be as much as 80 percent from 2000 to 2050 if no new restoration occurs. If these predictions are correct, this means that the Barataria-Terrebonne area would lose an additional 560 square miles of coastal habitats.

These coastal habitats are economically, ecologically, and culturally important not only to the residents who reside here and the folks who visit, but they are also valuable to the Nation. If these losses continue, the impacts on human populations, oil and gas infrastructure, fisheries and the seafood industry, and wildlife will be unimaginable.

It is your responsibility to educate yourself about these issues and inform your elected officials about your thoughts. Many informative products have been developed that address Louisiana's biggest environmental problem, including brochures, reports, videos, maps, cd's, etc. For more information or to find out how to receive these products, visit these Web sites:

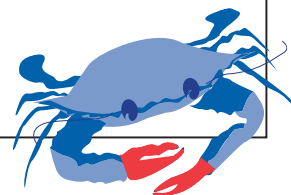
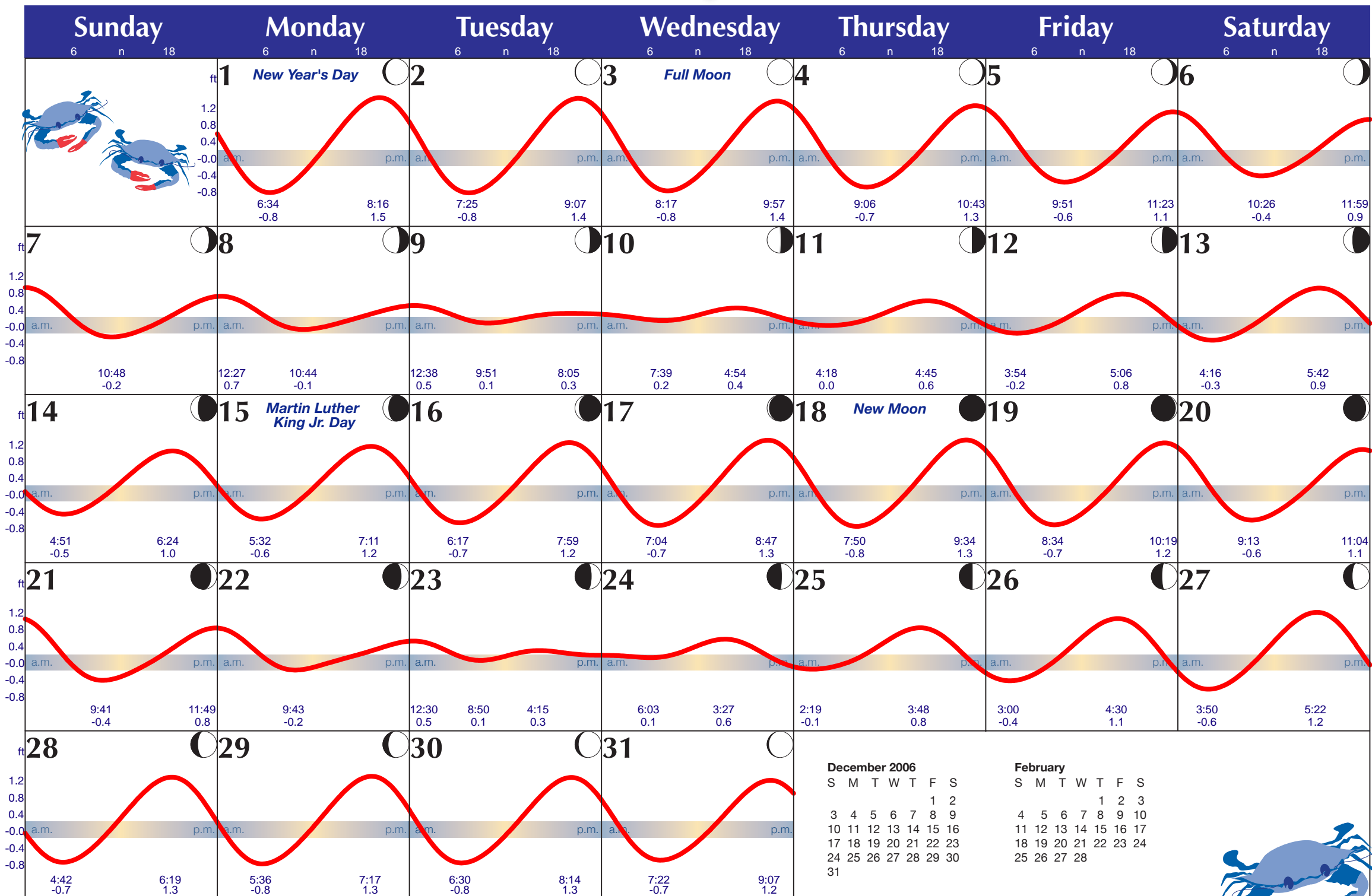
[www.lacoast.gov](http://www.lacoast.gov) • [www.savelawetlands.org](http://www.savelawetlands.org) • [www.btnep.org](http://www.btnep.org) • [www.crcl.org](http://www.crcl.org)

[www.estuaries.org](http://www.estuaries.org) • [www.americaswetland.com](http://www.americaswetland.com)



# January 2007

High Tide: Monday, January 1, 20:16 1.5 ft  
Low Tide: Tuesday, January 2, 07:25 -0.8 ft





# Barrier Islands

## Timbalier Island Dune and Marsh Creation



August 2006



June 2004



July 2004



June 2005



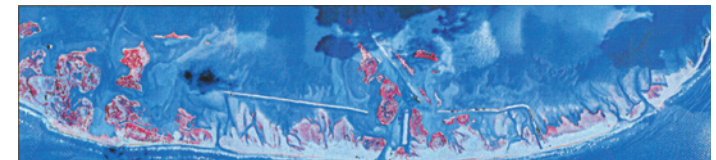
September 2006

In 2005 the Timbalier Island Dune and Marsh Creation project sponsored by the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) was completed in lower Terrebonne Parish, La. This project required pumping of 4.6 million cubic yards of sediment from a borrow site 2.7 miles out in the Gulf of Mexico to rebuild approximately 2.2 miles of the eastern end of Timbalier Island. The project area was rebuilt to a width of 1,300 ft, with a 400 ft wide dune to +8.0 ft in elevation and 800 ft of marsh behind it. Additionally, sand was pumped in the surf to rebuild the beach and 34,399 ft of sand fencing has been installed to manage the newly placed sand. Also, eight species of vegetation were planted from approximately 110,000 containers to begin establishing the important habitats these barrier shorelines provide. These plantings were the most diverse yet undertaken on a CWPPRA project.

Timbalier Island as well as past projects has provided engineers and scientists valuable lessons in finding, moving, and stabilizing sediments along the gulf shoreline to create appropriate habitats, and future projects will hopefully begin to incorporate the larger scales necessary to affect the estuary as a component of overall restoration. These shoreline projects cannot maintain themselves, however, because the processes of winds, waves, and an ever increasing tidal cycle will not simply cease. We must incorporate maintenance activities, and most importantly, initiate large marsh creation projects in the interior of the estuary. Without reducing the increasing tidal cycle by filling in the eroded areas with marsh, the ever increasing exchange of water with each tide will keep sands from remaining in the shoreline system; instead the sands will be washed out by the ever increasing tidal movements in passes, just as they are currently doing.

The project was completed shortly before Hurricanes Katrina and Rita and performed well in the project team's opinion. Some shoreline erosion occurred along the gulf side of the island and approximately 1,200 ft of the eastern end dune sands were redistributed; however, these sands appear to still be in the "system" as either overwash flats on the back sides or in offshore bars and should continue to provide sands for natural processes to continue to shape into appropriate habitats.

Pre Construction  
June 2004



Post Construction  
January 2005

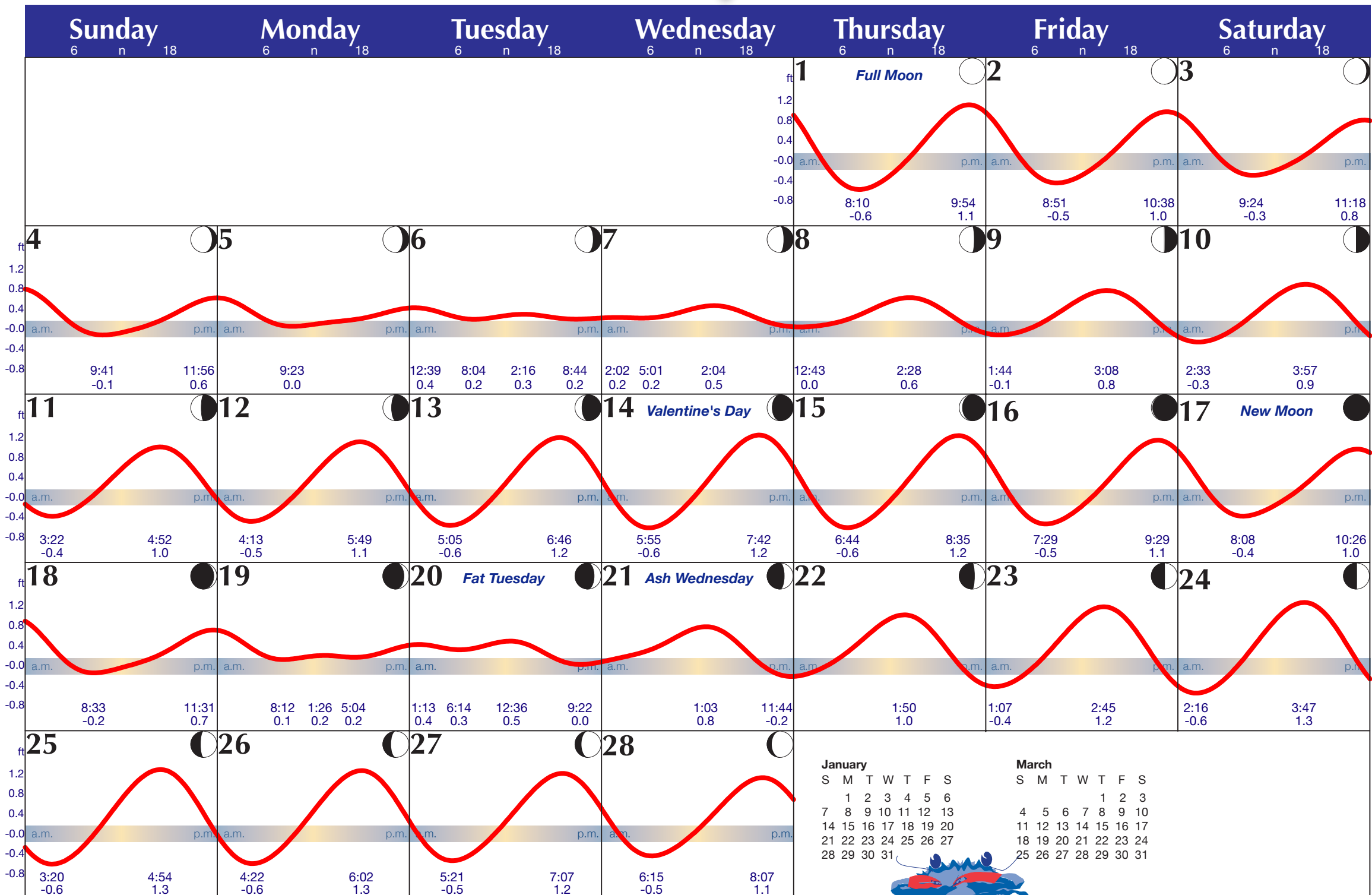


Post Katrina & Rita  
September 2005

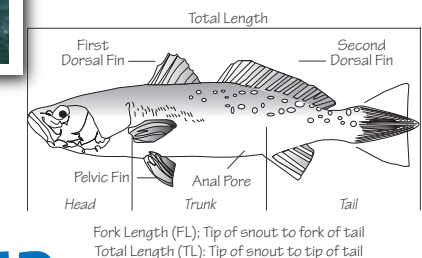
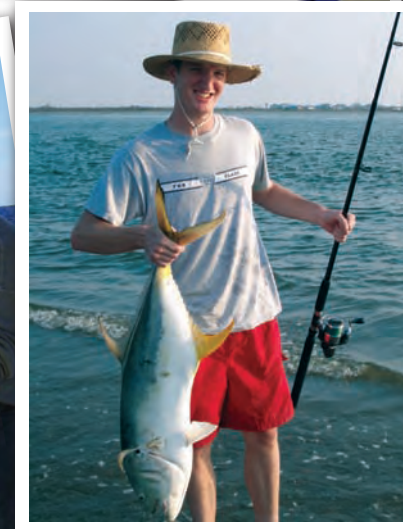


# February 2007

High Tide: Sunday, February 25, 16:54 1.3ft  
Low Tide: Wednesday, February 14, 05:55 -0.6 ft







# FRESHWATER species

# SALTWATER species

## FRESHWATER species

Black Bass (Largemouth)	None	10
Atchafalaya Basin and Lake Verret-Palourde Area	14" minimum (TL)	10
Crappie (Sac-a-lait)	None	50
Striped or Hybrid Bass	None: 2 over 30" (TL)	5 (Any combination)
White Bass	None	50
Yellow Bass	None	50
Channel Catfish	25 less than 11" (TL)	100
Blue Catfish	25 less than 12" (TL)	100
Flathead, Spotted, Yellow or Opelousas Catfish	25 less than 14" (TL)	100
Freshwater Drum (Gaspargou)	25 less than 12" (TL)	No limit over 12"

## SIZE limit

## Daily limit

## SALTWATER species

Speckled Trout
Red Fish
Black Drum
Southern Flounder
Amberjack
Cobia (Ling or Lemon)
King Mackerel
Spanish Mackerel
Red Snapper

## SIZE limit

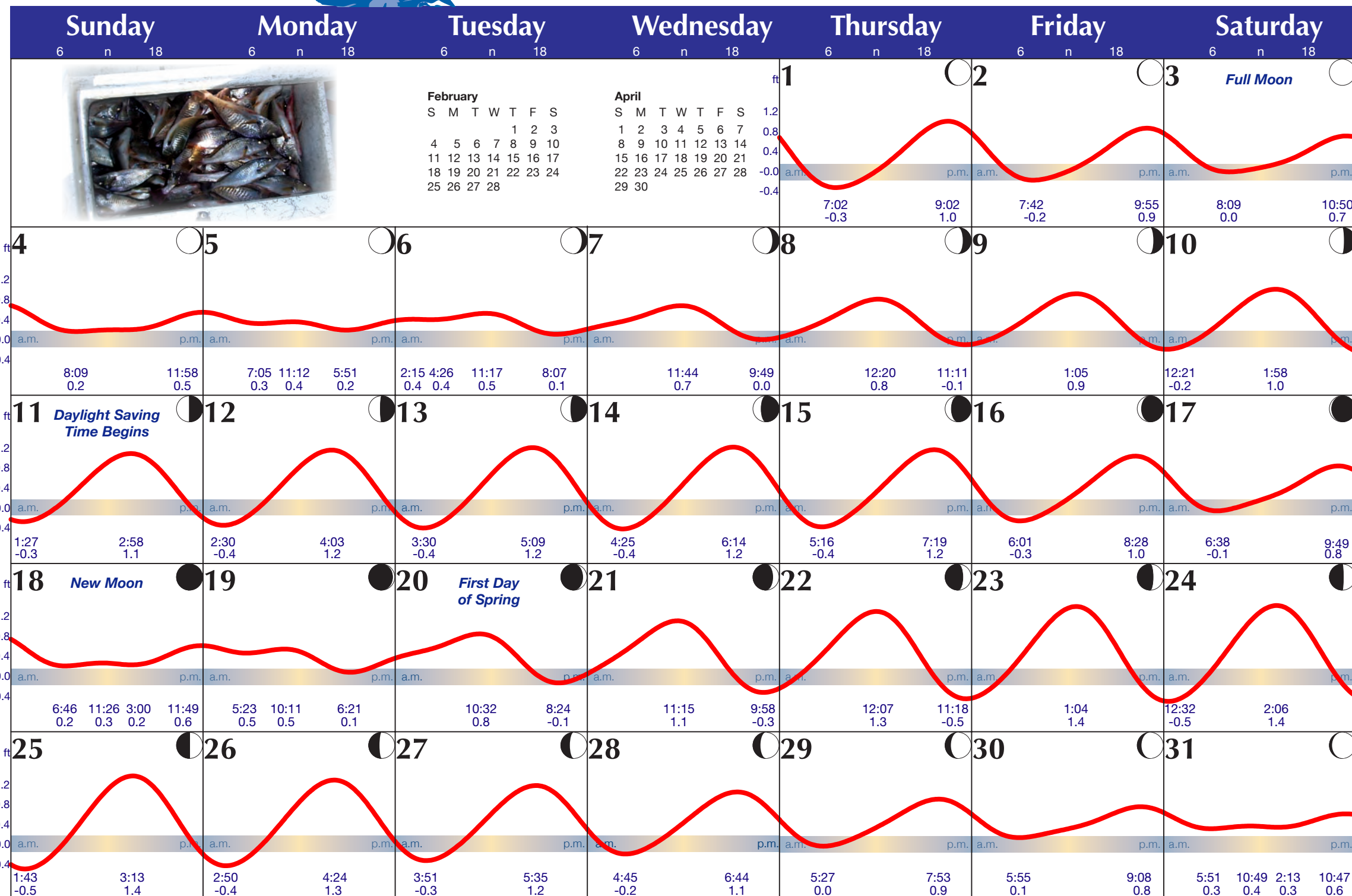
## Daily limit

12" minimum (TL)	25
16" minimum (TL), one over 27"	5
16" minimum (TL), one over 27"	5
None	10
State & Federal Reg. 28" min. (FL)	1
State & Federal Reg. 33" min. (FL)	2
State & Federal Reg. 24" min. (FL)	2
State & Federal Reg. 12" min. (FL)	15
State & Federal Reg. 16" min. (FL)	4

# March 2007



High Tide: Saturday, March 24, 14:06 1.4 ft  
Low Tide: Saturday, March 24, 00:32 -0.5 ft







## Louisiana Coastal Impact Assistance Program

The Coastal Impact Assistance Program (CIAP) was established as part of the Energy Policy Act of 2005 to assist producing states and their coastal political subdivisions in mitigating the impact from Outer Continental Shelf (OCS) oil and gas production. Currently it is believed that CIAP will provide \$523 million to Louisiana between 2007 and 2010. The 19 coastal parishes will receive 35% of the CIAP allocation (estimated at \$183 million) and the state of Louisiana will receive 65% (estimated \$340 million).

The authorized uses of CIAP funds are as follows: projects and activities for the conservation, protection, or restoration of coastal areas, including wetlands; mitigation of damage to fish, wildlife, or other natural resources; planning assistance and the administrative costs of complying with CIAP; implementation of a federally approved marine, coastal, or comprehensive conservation management plan; and mitigation of the impact of OCS activities through funding of onshore infrastructure projects and public service needs.

The State of Louisiana has worked cooperatively with the 19 coastal parishes to assemble a group of restoration, conservation, and infrastructure projects that will produce significant results in a timely manner. The restoration and conservation projects that are included in the plan embody principles of sustainable coastal restoration and protection. The plan components involving proposed expenditures of the state's share of CIAP funds include the following major categories:

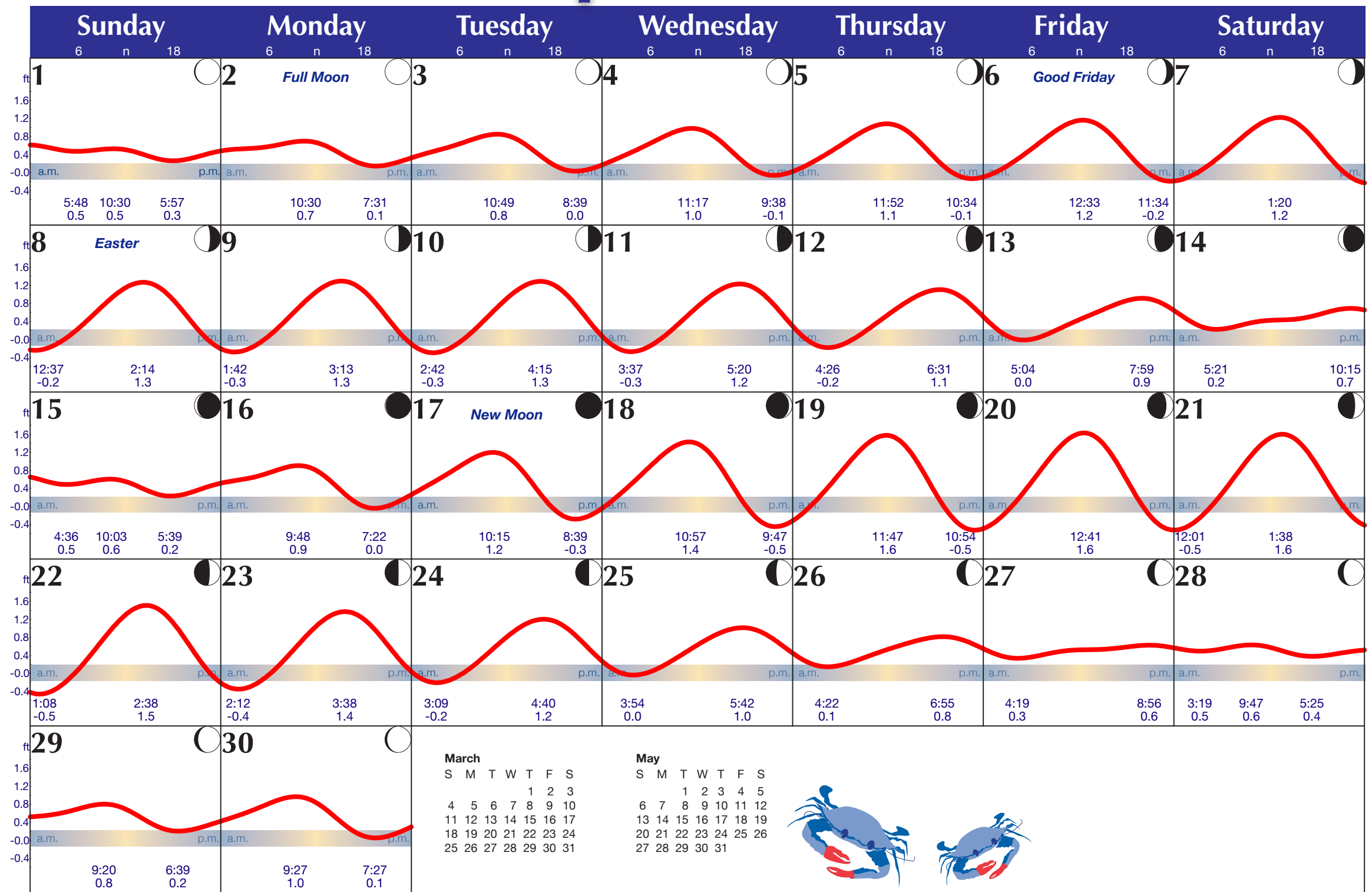
- Enhance Management of Mississippi River Water and Sediment • Protection and Restoration of Critical Land Bridges • Barrier Shoreline Restoration and Protection • Interior Shoreline Protection • Marsh Creation with Dredged Material • Coastal Forest Conservation Initiative • Infrastructure Projects to Mitigate • Onshore OCS Impacts

For more information on the CIAP program and the projects that will be funded, visit <http://dnr.louisiana.gov/crm/ciap/ciap.asp>



# April 2007

High Tide: Friday, April 20, 12:41 1.6 ft  
Low Tide: Thursday, April 19, 22:54 -0.5 ft





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# Name that plant!

Have you ever wondered what that short, shrubby plant growing in the southern-most salt marshes of coastal Louisiana is called? Or why they have straight, funny looking roots sticking up out of the ground?



These shrubby plants are called **black mangroves (*Avicennia germinans*)**. Mangroves are a tropical plant, and since coastal Louisiana has not had a hard freeze since the 1980's, we see mangroves springing up along parts of our coast. In the tropics, black mangroves can grow over 100 feet tall. Here, they rarely grow over 6 feet tall before the next freeze comes along and stunts them. The mangroves we see here are always trying to recover from the last freeze, but as temperatures rise due to global warming, we might see more mangroves along our coast!

Mangroves are a great addition to our coastal wetlands. **They provide nesting for birds, food and shelter for other critters, and their complicated root system helps hold marsh soil in place.** Those funny-looking roots sticking up out of the ground are covered with tiny white dots. These roots stick up above the regular water level, and the tiny dots are really holes that let air enter the underground roots.

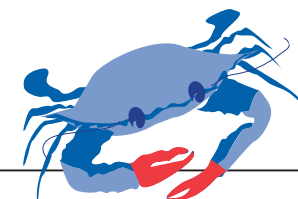
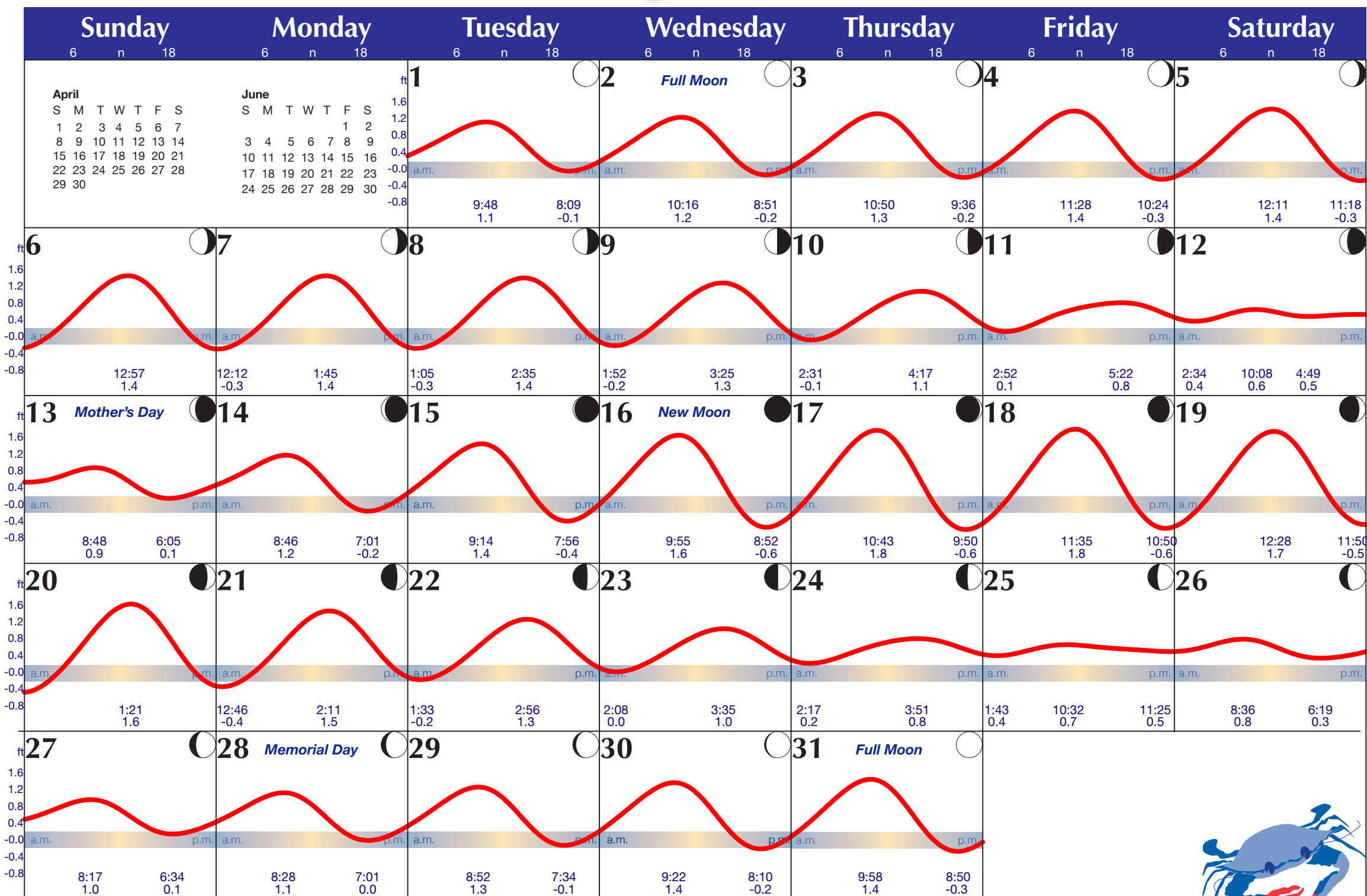
Mangroves also have a really unique reproductive strategy. Baby plants actually start growing while they're still attached to the parent plant! Most plants reproduce by making seeds that need certain things before they will sprout. This is similar to mammals having live babies and birds laying eggs.





# May 2007

High Tide: Friday, May 18, 11:35 1.8 ft  
Low Tide: Thursday, May 17, 9:50 -0.5 ft





# PORT FOURCHON

## A HIGHLY VALUABLE, YET VULNERABLE ASSET



offshore oil • commercial fishing • recreation • offshore oil • commercial fishing • recreation • offshore oil • commercial fishing • recreation

When someone says “Fourchon,” the first things people of Louisiana might think of are great fishing and seafood or a visit to the beach, but there’s something else down there, something very important to our state; Port Fourchon.

At the mouth of Bayou Lafourche, separating the Barataria and Terrebonne Basins, sits Port Fourchon, a huge, multiuse port facility servicing the offshore oil, commercial fishing, and recreation industries. The port is home to over 130 companies operating on over 600 developed acres, and it is the only deepwater port in Louisiana that can service the booming Outer Continental Shelf activities. Port Fourchon services half of the drilling rigs operating in the Gulf of Mexico and plays a role in transporting and securing 16%-18% of the total energy supplied to the United States. Every day over 270 large supply vessels and 1,000 trucks enter and leave Port Fourchon, and in 2005 alone, nearly 22 million tons of cargo were transported through the port. Not only does Port Fourchon service deep water oil activities, but it is also an economic and efficient location for moving refrigerated goods from parts of Central America into the United States.

Unfortunately, the loss of so many coastal wetlands has left the port’s infrastructure and employees highly exposed and vulnerable to storm surge from hurricanes. Large-scale coastal restoration of wetlands is needed to help preserve the longevity of this highly valuable, strategically located, port facility.



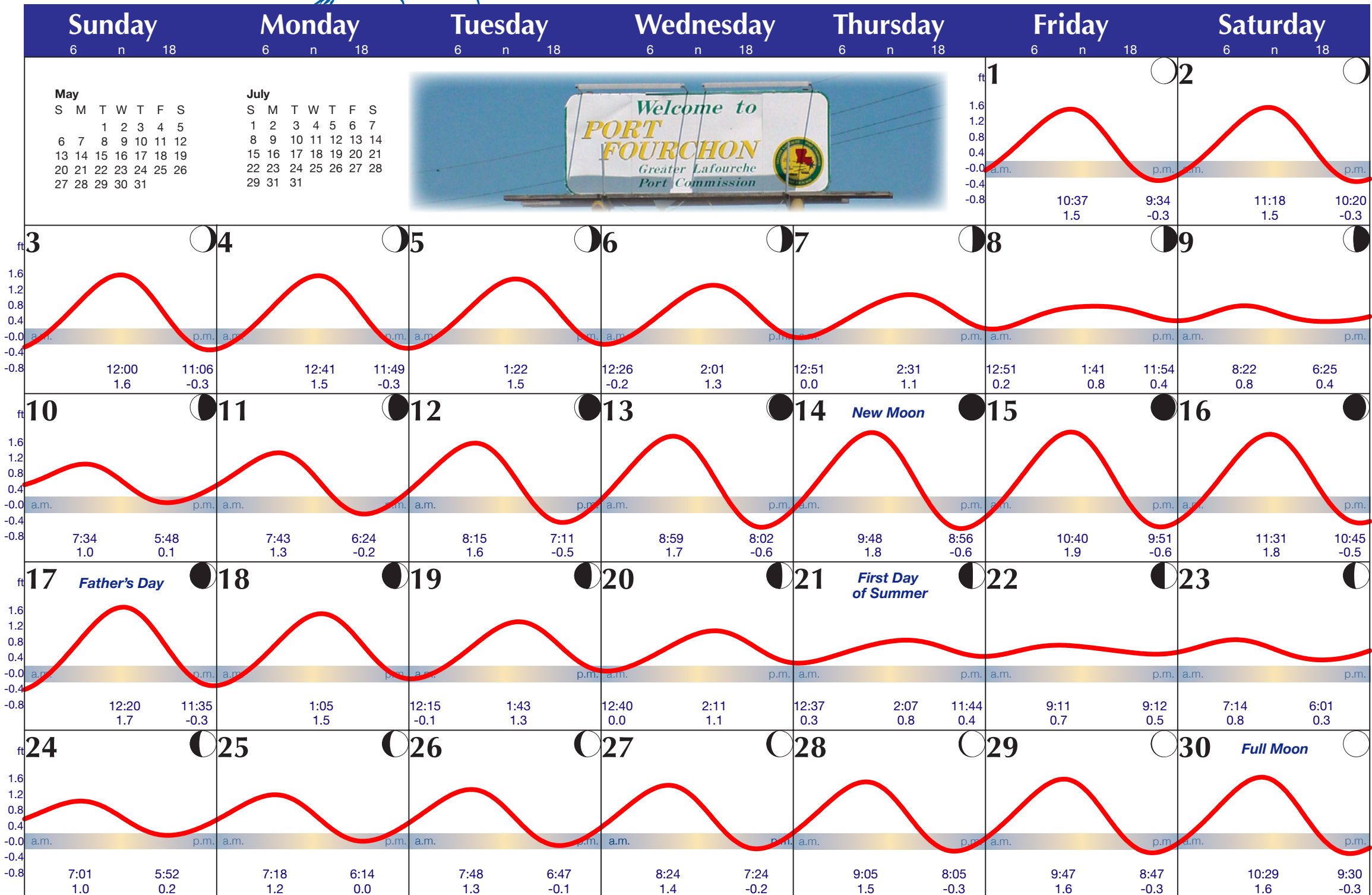
For more information about Port Fourchon, visit [www.portfourchon.com](http://www.portfourchon.com)





# June 2007

High Tide: Friday, June 15, 10:40 1.9 ft  
Low Tide: Thursday, June 14, 8:56 -0.6 ft





# JULY

## The Mother of Fishing Rodeo Months

Beginning with the International Golden Meadow-Fourchon Tarpon Rodeo on the **July 4th** weekend and ending with the International Grand Isle Tarpon Rodeo on the last weekend of the month, July always bring together friendly yet spirited competition among anglers competing in two of the nation's oldest saltwater fishing contests. Together, both fishing rodeos annually attract thousands of competing participants and many more onlookers hoping for a glimpse of a tarpon or giant blue marlin brought to the weighmaster's scales and placed on display.

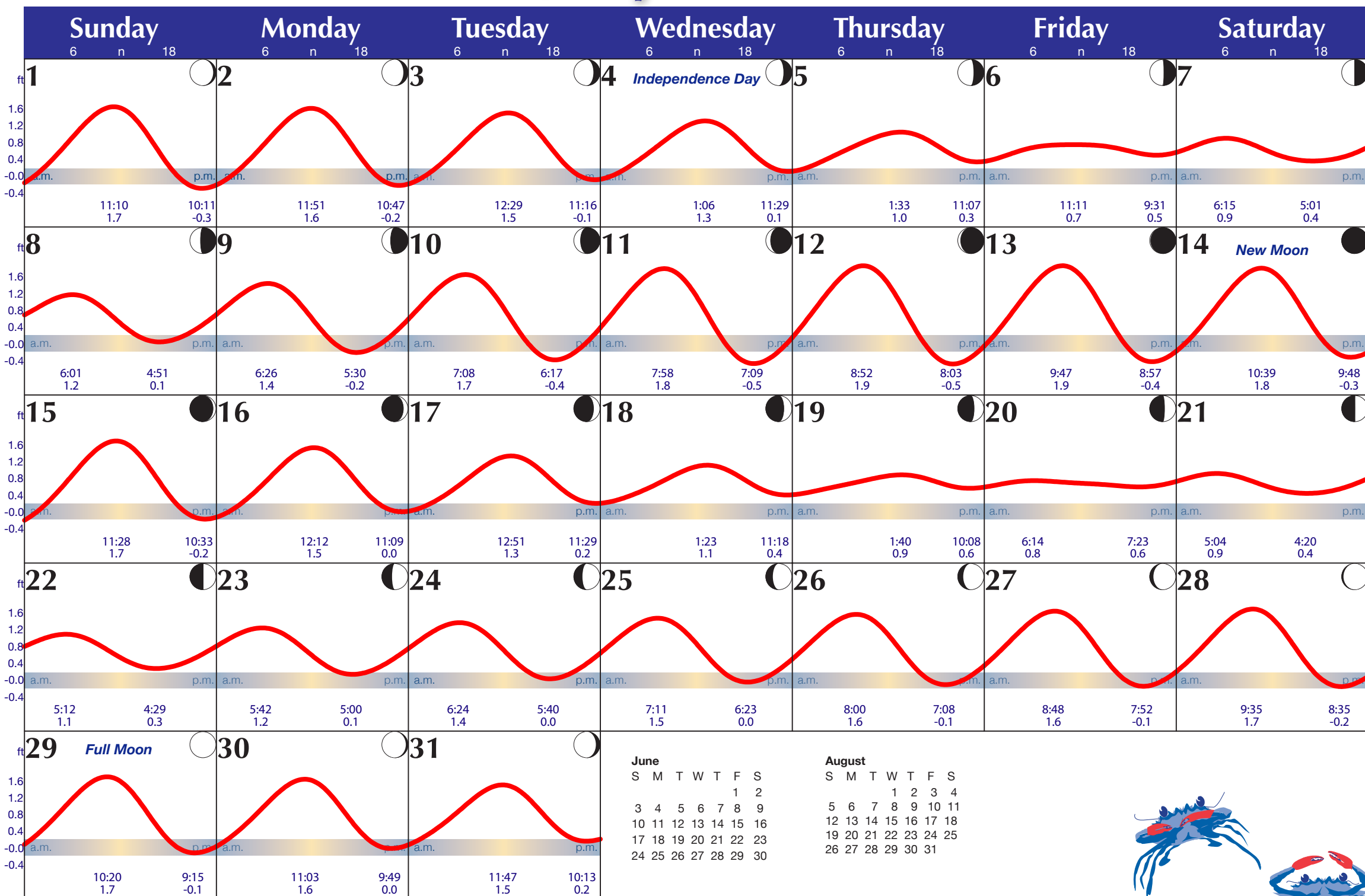
Anglers compete for awards in a "Big Game Division" which includes species such as blue marlin, dolphin, wahoo and tuna, "Shoreline Division" including species ranging from deep-water grouper to jack crevalle taken in shallower near surface waters, and an "Inside Division" including an assortment of estuarine dependent species such as speckled trout and flounder. Some rodeos offer a "Spearfishing Division" whereby spearfishermen using SCUBA equipment dive near offshore oil and gas platforms in search of trophy sized fish.



Photos by Rodney de la Gardelle

# July 2007

High Tide: Friday, July 13, 9:47 1.9 ft  
Low Tide: Thursday, July 12, 8:03 -0.5 ft







# Coastal Roots

Louisiana's wetlands are some of the nation's most valuable resources. Wetlands provide food, water, and shelter for a variety of plants and animals. They maintain water quality, protect communities from storms and provide natural flood protection. They are the center of Louisiana's commercial and recreation fishing industries. People live, work and play in Louisiana's wetlands. But the state is rapidly losing wetlands and without them, the quality of life will be diminished for the present and future generations.



Louisiana students are taking wetland loss seriously. They are learning about wetlands, restoration and community action through *Coastal Roots*, a habitat stewardship project for 4<sup>th</sup>-12<sup>th</sup> grade students developed by the Louisiana Sea Grant College Program. It is a school-based, hands-on nursery and planting project that integrates current wetland issues with horticulture and its application to coastal and habitat restoration. Students are learning by doing. To help restore habitat, they plant seeds or cuttings, raise seedlings and then plant them in degraded or declining wetlands. The project stimulates awareness of the importance of Louisiana's coastal environment and gives students a part in restoring and conserving it.

Since 2001 *Coastal Roots* students have made a difference in their state's wetland habitats. As part of their science, agriculture and other classes or after school clubs, they have raised a variety of wetland plants (bald cypress, wax myrtle, black mangrove, smooth cordgrass, live oak, bitter panicum and red mulberry) in their school nurseries. To date, 19 *Coastal Roots* schools participated in 43 planting field trips at 22 locations in the southern portion of the state. About 12,500 plants have been placed into degraded coastal habitat, contributing to the restoration of almost 30 acres of wetlands. These restored levees, marshes, swamps and bottomland hardwood forests on public and private land now provide habitat for a variety of plants and animals and resources for people of all ages to enjoy in the future.

*Coastal Roots* is managed through LSU's Department of Educational Theory, Policy and Practice. For more information or to become involved, visit the website at [www.lamar.lsu.edu/](http://www.lamar.lsu.edu/) and click on Coastal Roots or contact Dr. Pam Blanchard at [pamb@lsu.edu](mailto:pamb@lsu.edu)

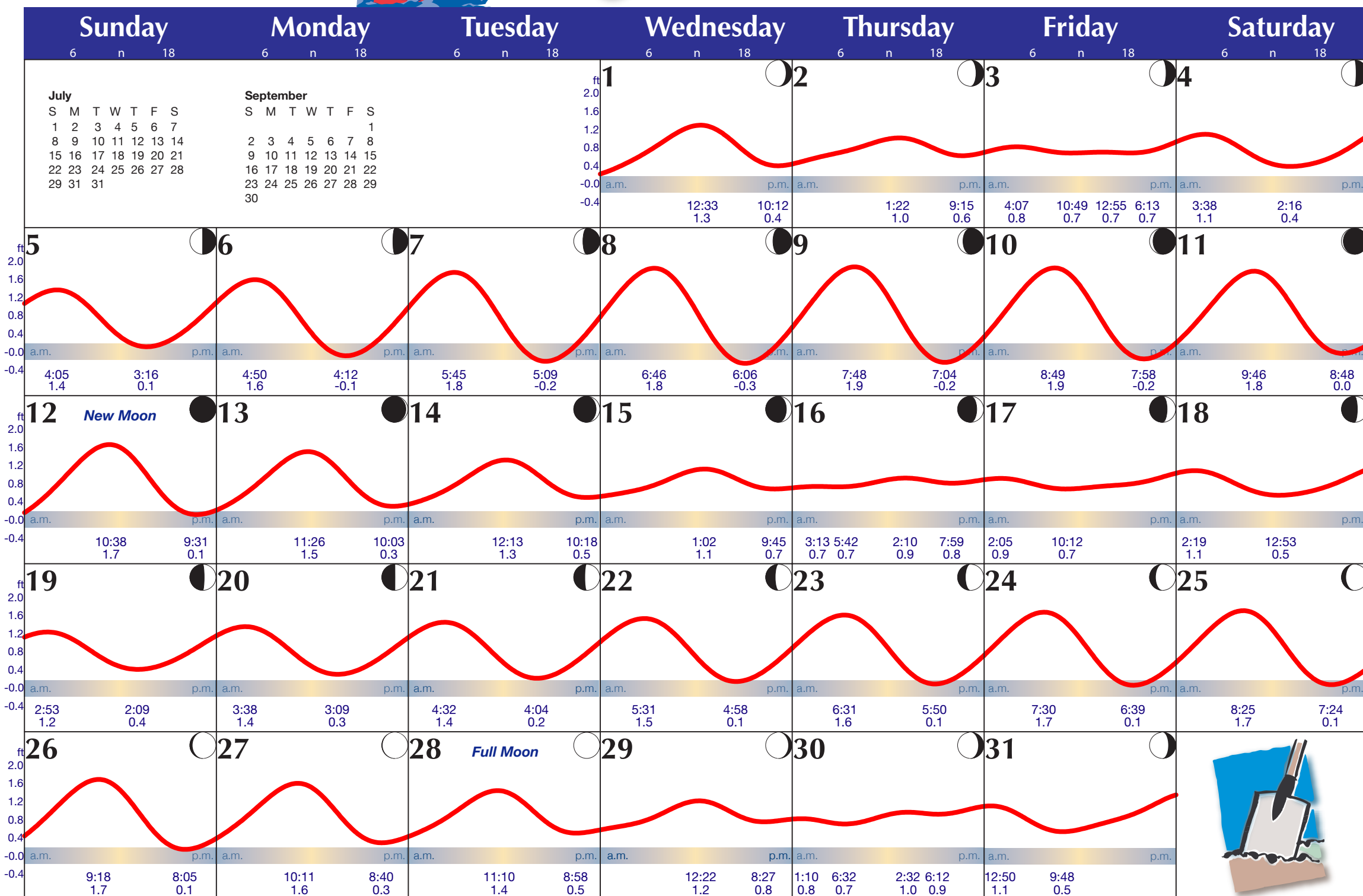




# August 2007



High Tide: Thursday, August 9, 7:48 1.9 ft  
Low Tide: Wednesday, August 8, 6:06 -0.3 ft





# What's an Estuary?.....

When you mix the fresh water of a river with the salt water of the sea, something wonderful happens...

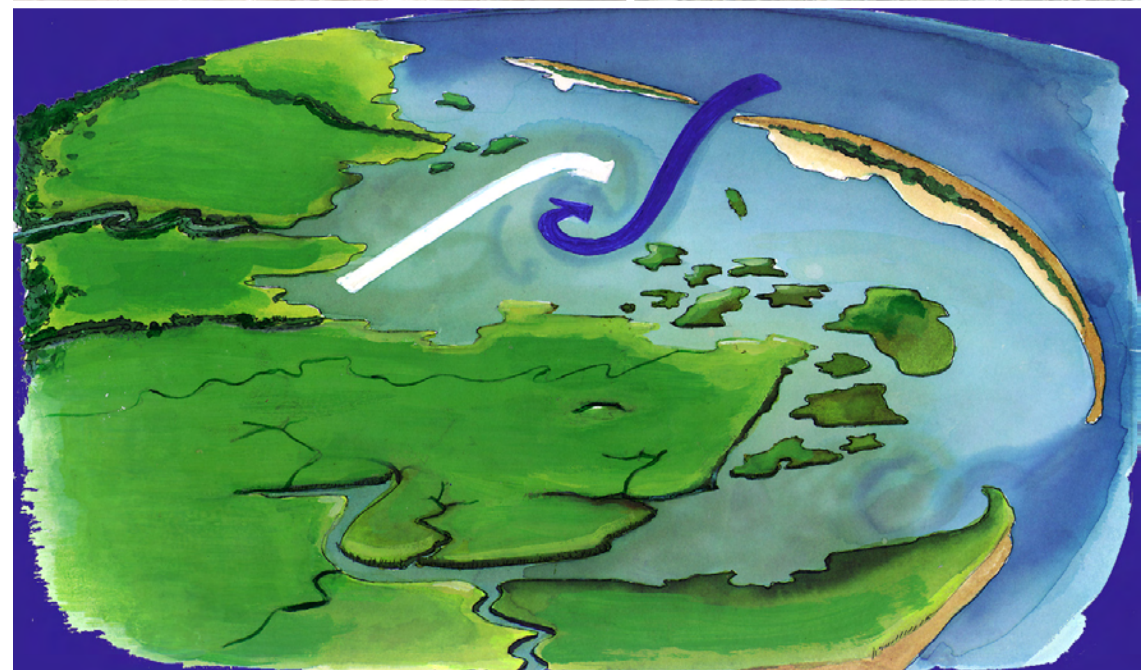
As if by magic, a life-supporting habitat is created for thousands of species of fish, birds and mammals. It's called an Estuary.

Estuaries are protected bodies of water, often partially enclosed by reefs, barrier islands or fingers of land. They are distinct from all other places on earth. In fact, estuaries are irreplaceable. They are the most productive ecosystems on the planet, containing more life per square inch than the richest farmland or deepest forest.

...Now you know

Each year, the Environmental Protection Agency and its 28 National Estuary Programs across the country celebrate National Estuary Day on the last Saturday in September. To find out more about estuaries, log on to

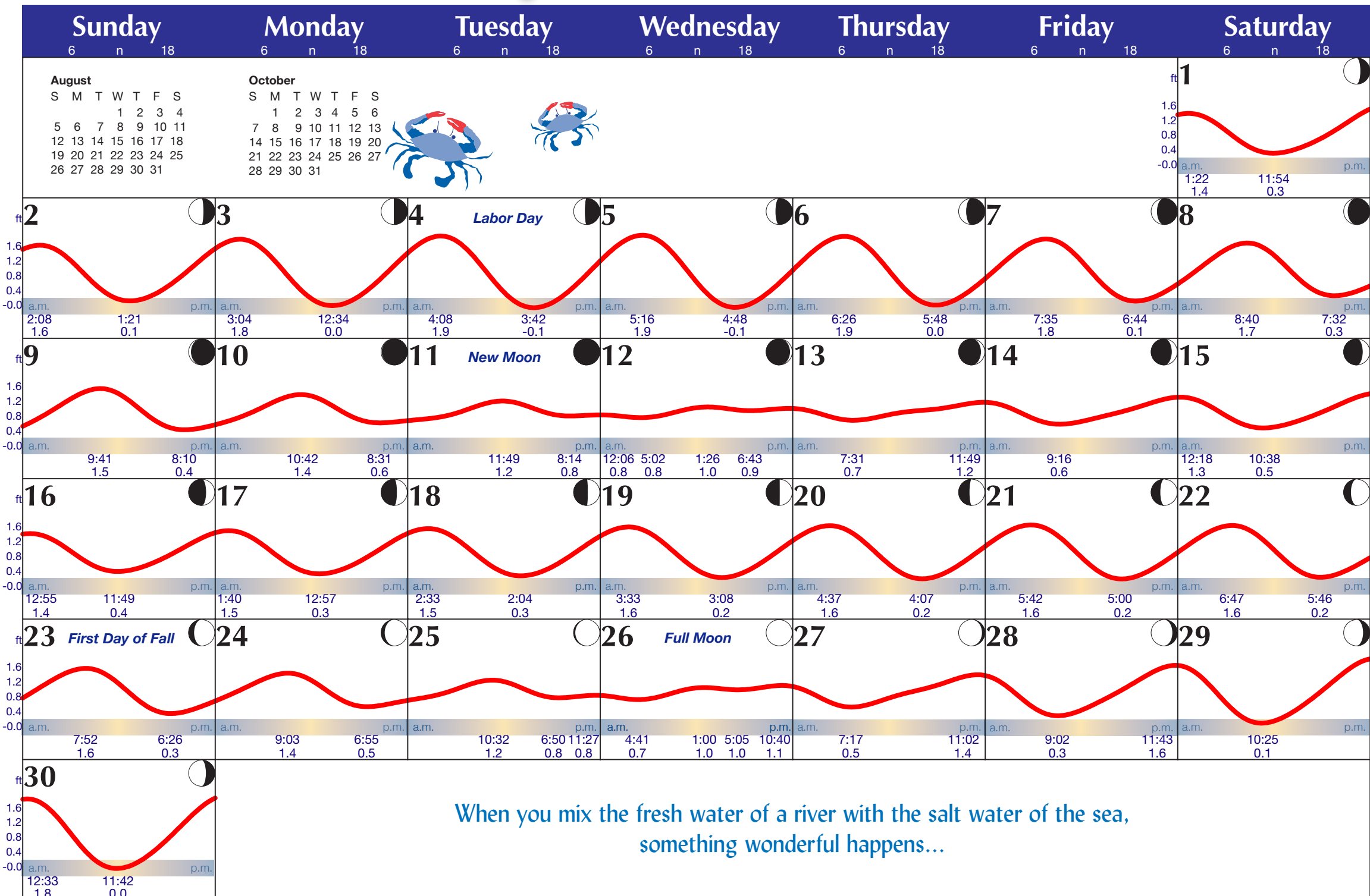
[www.btnep.org](http://www.btnep.org)



# September 2007

High Tide: Wednesday, September 5, 5:16 1.9 ft

Low Tide: Tuesday, September 4, 3:42 -0.1 ft





# Inshore Artificial Reefs

Oyster reef habitats in the Barataria-Terrebonne Bay systems have experienced significant loss through subsidence, coastal erosion and saltwater encroachment. Construction of low profile artificial reefs can reduce coastal erosion and restore hard-bottom habitat where it previously existed. Oyster reefs provide a diversity of microhabitats that may support complex ecological communities including many fish and invertebrate species.

Since natural shell is no longer available in sufficient quantity, the material of choice for artificial reef construction is limestone. The reefs are created by placing a three-foot layer of limestone on a selected site. Within a short period of time, the new reef will support oyster reef habitat.

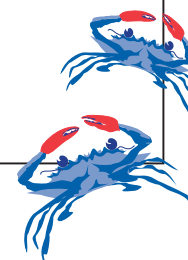
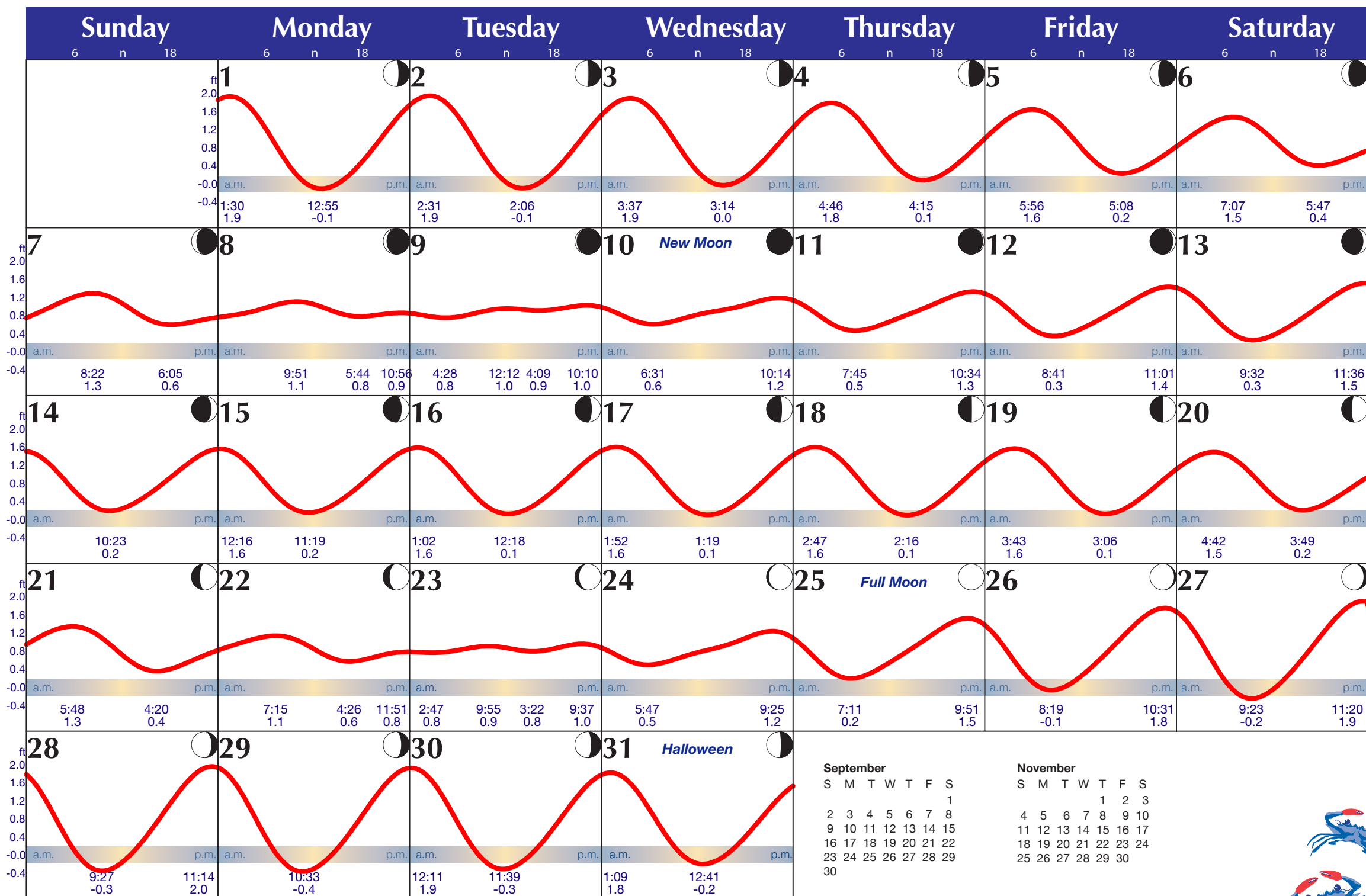
Sportsman are concerned with protecting and restoring the habitats and conserving the resources of Louisiana. The Coastal Conservation Association Louisiana and its local chapters have played the leadership role in inshore artificial reef projects such as Bird Island in Lake Pelto. In partnership with Louisiana Department of Wildlife and Fisheries and National Oceanic Atmospheric Administration, CCA Louisiana has taken the lead in promoting and funding reef projects.



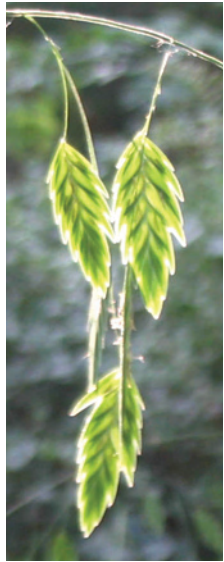


# October 2007

High Tide: Sunday, October 28, 23:14 2.0 ft  
Low Tide: Monday, October 29, 10:33 -0.4 ft



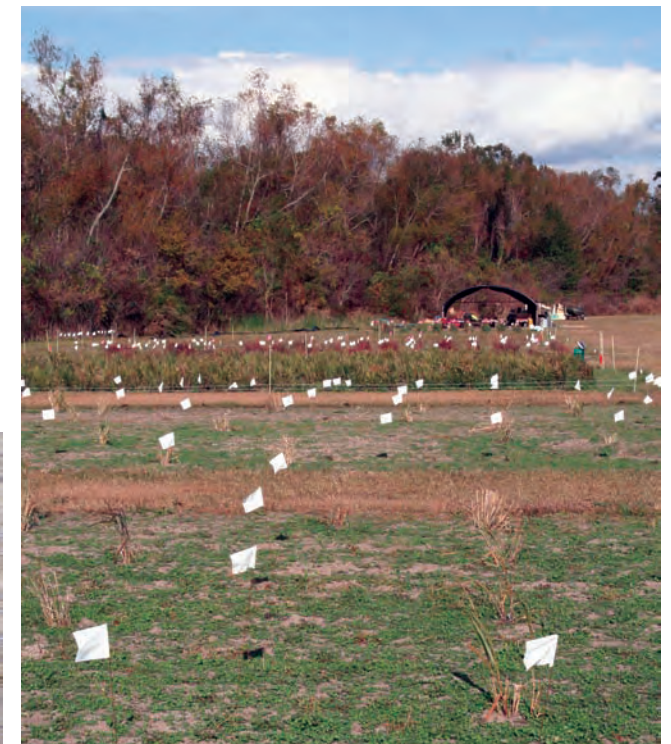
# Native Plants



Just recently, Nicholls State University partnered with USDA's Natural Resource Conservation Service and the Barataria-Terrebonne National Estuary Program to join in an effort called the *Louisiana Native Plant Initiative*. The focus of this initiative is to establish plant material collections and plant assemblages, and to evaluate the effectiveness of using certain native species of vegetation in our coastal wetland and prairie restoration efforts. All of these efforts would be designed to support the future release of Louisiana Native Plants. The *Louisiana Native Plant Initiative* is made up of many partners across the state who are evaluating such things as plant genetics, plant breeding, marketing, seed collection, remnant management, and grower infrastructure.

In March of 2006, the Nicholls State University phase as part of the overall initiative established plots on approximately four-acres at their farm near Thibodaux, Louisiana. Ten cultivated blocks of varying sizes have been established for the purpose of planting, testing, and increasing native plant materials.

To date, planting blocks have been established of inland sea oats (*Chasmanthium latifolium*), big bluestem (*Andropogon gerardii*), Indiangrass (*Sorghastrum nutans*), and gulf bluestem (*Schizachyrium maritimum*). Plans are now in the works to add to the list of species being evaluated.

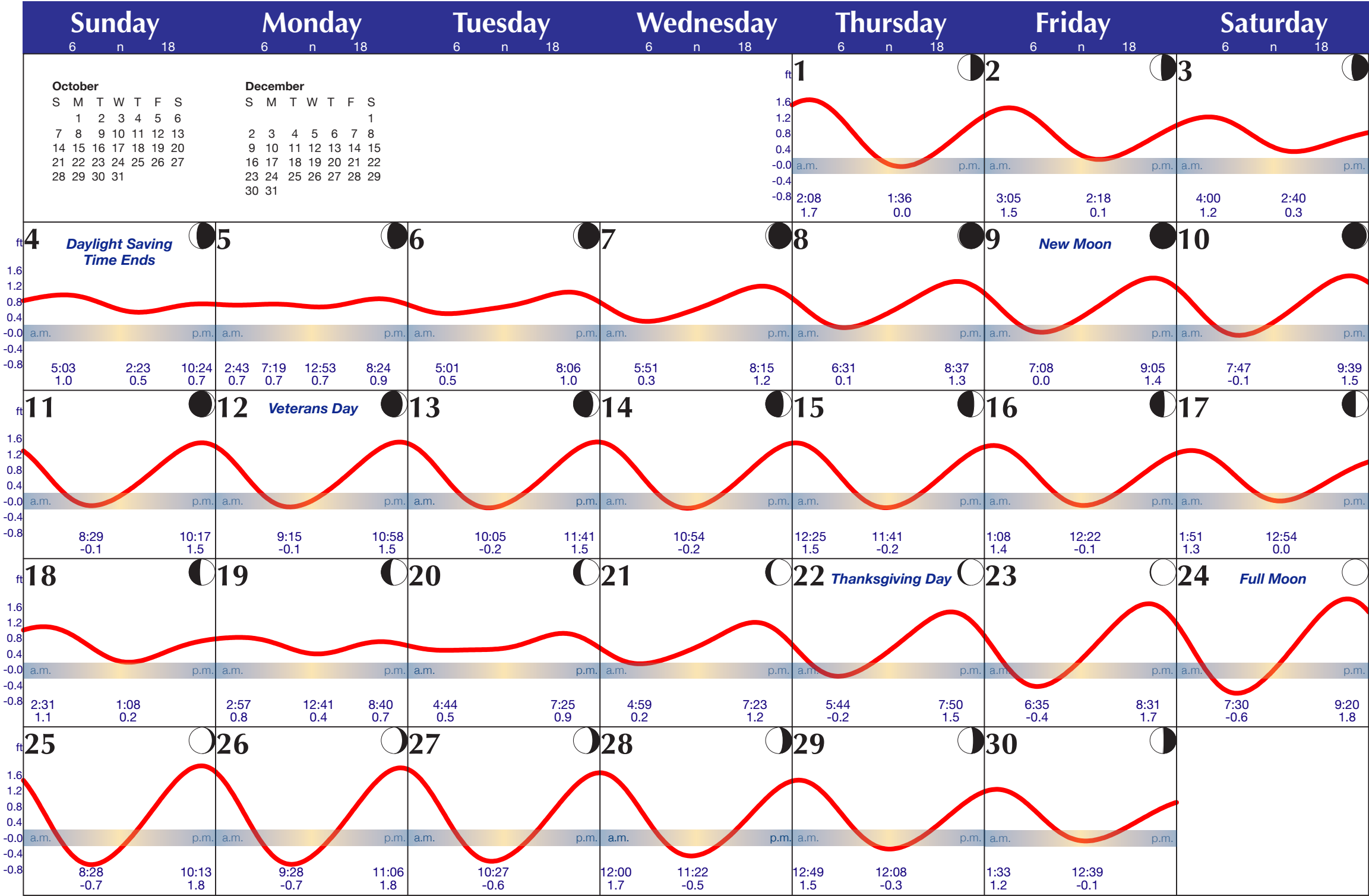






# November 2007

High Tide: Sunday, November 25, 22:13 1.8 ft  
Low Tide: Sunday, November 25, 8:28 -0.7 ft



Tides: Barataria Pass based on Pensacola, FL (NOAA) 29° 16' N 89° 57' W • Tide data provided by Tides & Currents for Windows™ by Nobeltec Corporation • (503) 579-1414 • www.tides.com





# What is the Value of our Cypress Swamps?

Cypress swamps are a symbol of the State of Louisiana and have tremendous economic, ecological, recreational, and cultural value. Next to levees, cypress swamps offer some of the highest protection of a natural feature to coastal communities from hurricane winds and surges. Approximately two million acres of swamps occur throughout Louisiana with over half in the coastal parishes. About 40% of Louisiana swamps occur in the BTNE, functioning as habitat for a variety of animals, including the bald eagle and black bear.

Constant flooding threatens many cypress swamps. Sediment cannot reach these swamps to counteract our sinking land because man-made barriers surround them. Flooded cypress swamps cannot replant themselves. The seeds have to contact dry ground in order to sprout.

Cypress swamps are under a new threat. Recent demands for cypress mulch have resulted in large-scale cutting of cypress swamps and a raging debate over whether this practice is sustainable. A group of scientists appointed by Governor Blanco determined that cypress swamps could be grouped into three sustainability classes after cutting: a) Class I swamps are dry frequently enough to replant themselves naturally, b) Class II swamps are flooded and only able to re-grow if re-planted by humans, and c) Class III swamps are not able to re-grow either by natural or artificial means. If cut, Class II and III swamps are the habitats most susceptible to conversion to marsh or open water.

As consumers, we will decide the fate of Louisiana's State Tree, either in swamps as standing, living ecosystems or as landscape mulch.

For more information go to: [www.coastalforestswg.lsu.edu/](http://www.coastalforestswg.lsu.edu/)







# December 2007

High Tide: Sunday, December 23, 9:18 1.6 ft

Low Tide: Sunday, December 23, 7:34 -0.9 ft

