



BARATARIA-TERREBONNE NATIONAL ESTUARY PROGRAM TIDAL GRAPH CALENDAR



2012



BARATARIA-TERREBONNE NATIONAL ESTUARY PROGRAM

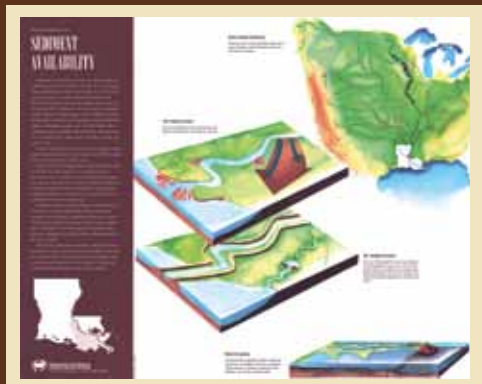
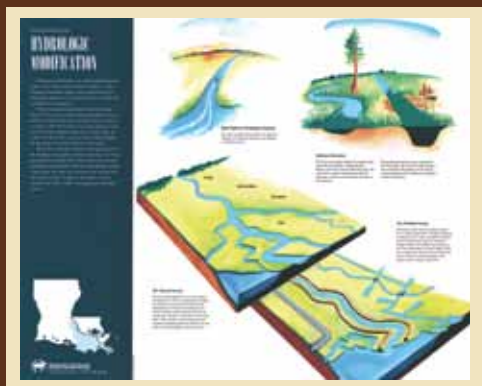
Established in 1991, the mission of the Barataria-Terrebonne Estuary Program (BTNEP) is the preservation and restoration of the Barataria-Terrebonne estuarine system, the 4.2 million acre region between the Atchafalaya and Mississippi River basins. The BTNEP strives to rebuild and protect the estuary for future generations through the implementation of a science-based, consensus-driven plan that utilizes partnerships focused on the estuary's rich cultural, economic and natural resources.



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PRIORITY PROBLEM POSTERS

The BTNEP Priority Problems poster series educates stakeholders about the challenges facing our wetlands and how they can be addressed.



By the 1980's scientists, governmental officials, and the public were becoming more aware of the disappearance of coastal Louisiana, our degrading water quality, and changes to our living resources. In response to these threats to our homes, culture, and livelihood, Governor Buddy Roemer nominated the Barataria-Terrebonne estuarine complex for inclusion in the National Estuary Program in 1989. In September of 1990, the United States Environmental Protection Agency (EPA) and the State of Louisiana committed to a cooperative agreement under the National Estuary Program to form the Barataria-Terrebonne National Estuary Program (BTNEP), one of 28 nationally recognized significant estuaries in the United States and its territories. The Program's charter was to develop a consensus-driven plan utilizing a coalition of government, private, and commercial interests to preserve the Barataria and Terrebonne basins. This coalition underwent a five year planning process through which they identified problems, assessed trends, developed resource management strategies, recommended corrective actions, and sought implementation commitments. The culmination of this process is the Comprehensive Conservation and Management Plan, or CCMP. The CCMP contains 51 action items addressing the environment, economics, coordinated planning, and citizen involvement. The coalition of stakeholders that formed the CCMP (now called the Management Conference) acts as a board of directors. Together, the Management Conference and the BTNEP program office continue to implement the action plans of the CCMP through research, restoration, outreach, and education. The mission of the Barataria-Terrebonne National Estuary Program (BTNEP) is the preservation and restoration of the Barataria-Terrebonne estuary system, the 4.2 million acres between the Atchafalaya and Mississippi river basins. BTNEP strives to rebuild and protect the estuary for future generations through the implementation of a science-based, consensus-driven plan that utilizes partnerships focused on the estuary's rich cultural, economic, and natural resources.

Since its inception, BTNEP has been a critical partner in federal, state, and local efforts to restore coastal Louisiana. Now more than ever, BTNEP's outreach specialists and scientists are instrumental in the planning, design,



and implementation of the most innovative and effective strategies in coastal restoration. In addition to restoring our diverse ecology, BTNEP is committed to preserving our unique culture and the coastal economy that drives our state and the nation. This 2012 Tidal Graph Calendar highlights just a few of the hundreds of BTNEP projects executed over the past two decades. We have not accomplished this alone. The members of the BTNEP Management Conference, our partner organizations in coastal restoration, and devoted citizens help to design our programs, choose our projects, and implement our mission. The passion of our people lies at the heart of our program and is felt in all of our efforts.

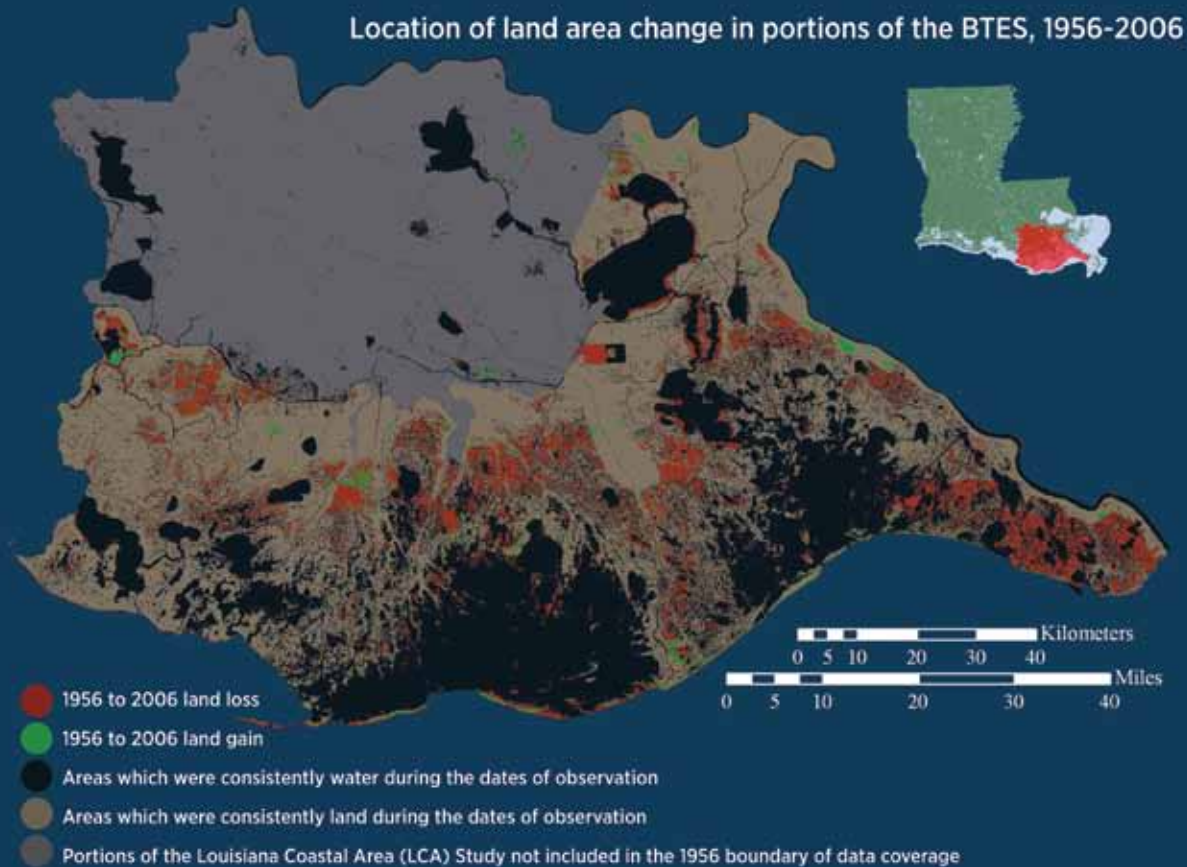
Our work is far from over. Coastal Louisiana continues to disappear at an alarming rate. Each year more of our people watch the land where they work, fish, or live sink below the water. Even with the nation's attention now focused on our fragile wetlands, we need to remain vigilant. Your voice is more important than ever. Over the coming months and years, decisions will be made that will shape the future of Louisiana. Our people have a right to dictate their own future. We must preserve not only our wetlands, but also our communities, our fisheries, and our way of life.

Please enjoy this year's calendar. We look forward to continuing our work with you for the preservation, protection, and restoration of our great home.

**BARATARIA-TERREBONNE
NATIONAL ESTUARY PROGRAM**

COASTAL LAND LOSS

Data were filtered to depict areas of loss and gain greater than approximately 1.4 ha in size to remove noise and increase the confidence of the depicted trends. Data were adapted from USGS SIM 3019 by collapsing loss and gain from multiple time periods into loss or gain categories during the entire period of record to facilitate ease of interpretation. Data are intended only for visual interpretation. Neither "loss" nor "gain" implies permanence of that condition outside of the bounds of the observation period.



WHY IS THE BTES LOSING LAND?

The most important factor contributing to land loss in the BTES is subsidence, a complex process in which marsh sediments compact and sink under their own weight. Historically, annual floods over the banks of the Mississippi River provided freshwater and sediment inputs to BTES marshes and kept them above water. Levees were constructed to protect communities across the nation from these floods, but they also prevent water and sediment from reaching BTES marshes.

Subsidence drowns coastal marshes, causing chemical changes in wetland soils, which eventually kill marsh vegetation. Without plant roots to hold it together, marsh soil breaks up and is carried away by wave action. The end result is that marsh is converted to open water. This additional volume of water causes an increase in the tidal prism, forcing passes to enlarge and reducing the lengths of barrier islands, which protect interior marshes from wave action and hurricanes. Barrier islands are also subsiding, and due to both these stressors, ultimately disappear without new sediment inputs.

Other human-caused and natural factors can influence land loss rates in the BTES. For example, canals and raised roadbeds, breached natural ridges, and other hydrologic modifications can interrupt tidal exchange and allow salt water intrusion. Researchers suspect that drought conditions in 1999 and 2000 severely stressed marsh plants throughout the BTES, resulting in large tracts of marsh dying in a phenomenon dubbed the brown marsh syndrome.

BARATARIA-TERREBONNE ESTUARY SYSTEM

While much of coastal Louisiana is losing land, the BTES experiences more than 50% of the state's total land loss. The map above shows where this land loss has occurred (in red).

BTES residents, state environmental managers, and the U.S. Congress have begun to recognize the land loss crisis confronting coastal Louisiana, and we have taken important steps towards addressing this problem, especially through programs such as the 2012 Louisiana State Master Plan, the Coastal Wetlands Planning, Protection, and Restoration Act.

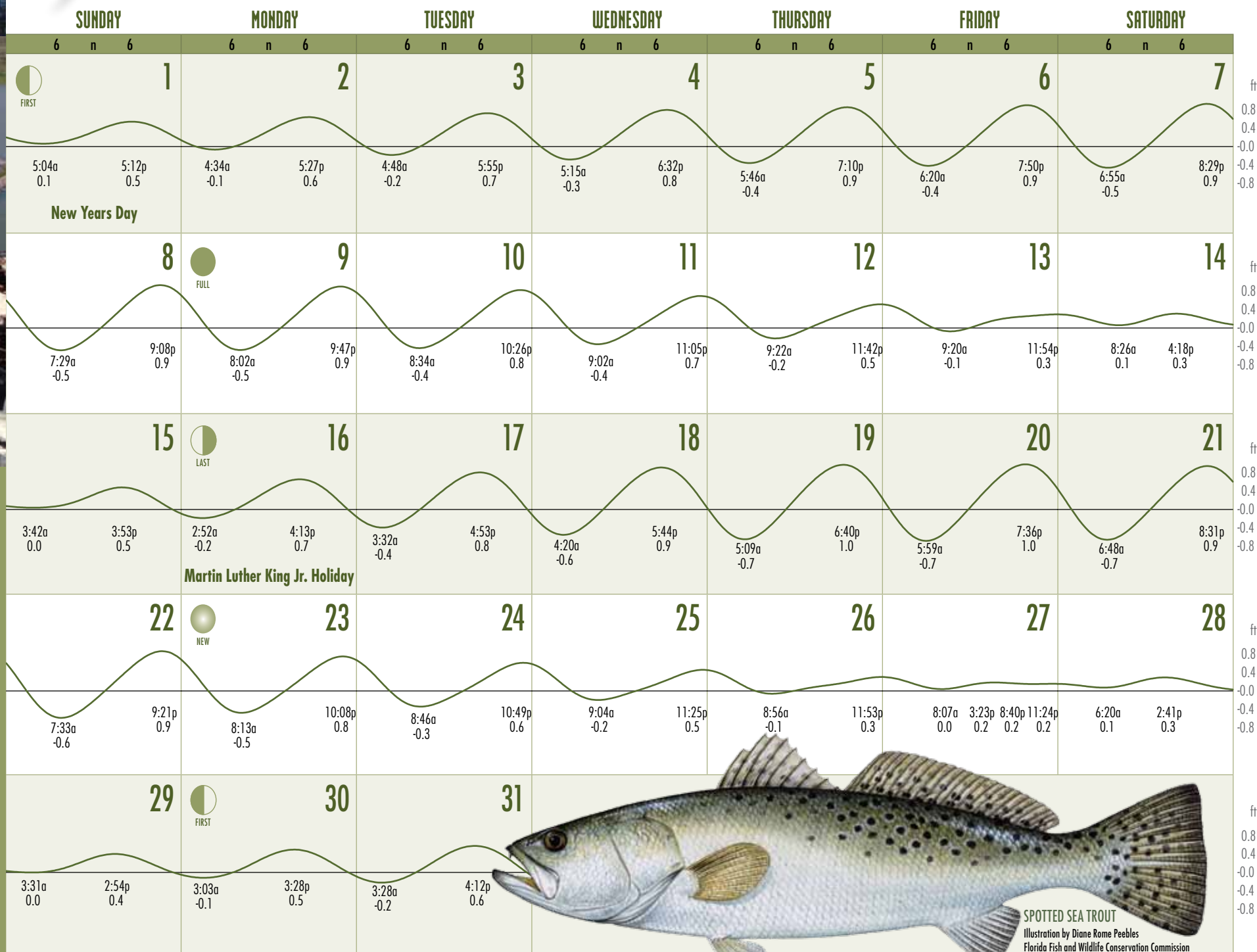
Map: Adapted by USGS from: Barras JA, Bernier JC, and Morton, RA. 2008. Land area change in coastal Louisiana—A multidecadal perspective (from 1956 to 2006). U.S. Geo-logical Survey Scientific Investigations Map 3019, scale 1:250,000, 14 p. pamphlet.

Erosion illustration courtesy of Diane Baker

LOUISIANA IS DISAPPEARING.



JANUARY 2012



High Tide:

January 20
7:36 pm • 1 ft

Low Tide:

January 20
5:59 am • -0.7 ft



Barataria-Terrebonne National Estuary Program: P.O.
Box 2663, NSU Campus, N. Babington Hall, Room 105,
Thibodaux, LA 70310 • 1.800.259.0869 • www.btnep.org

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15°48' N 89d 57' 24" W - Tides & Currents by Jeppesen
Marine • www.nobeltec.com • Tide adjustment table can be
found on the inside back cover

SPOTTED SEA TROUT
Illustration by Diane Rome Peebles
Florida Fish and Wildlife Conservation Commission

ATTRACTING WILDLIFE & PROVIDING FOR WILDLIFE NEEDS

NATIVE VERSUS EXOTIC

Native plants and animals of our estuary co-evolved here over countless generations.

They are interdependent; plants need animals to help fertilize them and animals need plants for food and shelter. Exotic plants, which originate from other parts of the world, did not co-evolve with local wildlife, so those interdependent relationships never formed. Compared to native plants, exotics are generally less attractive to local wildlife and less likely to survive seasonal extremes in rainfall and temperature. In addition, exotics have the potential to become invasive pests, spreading rapidly and destroying the habitat value of entire ecosystems.



THE URBAN FOREST

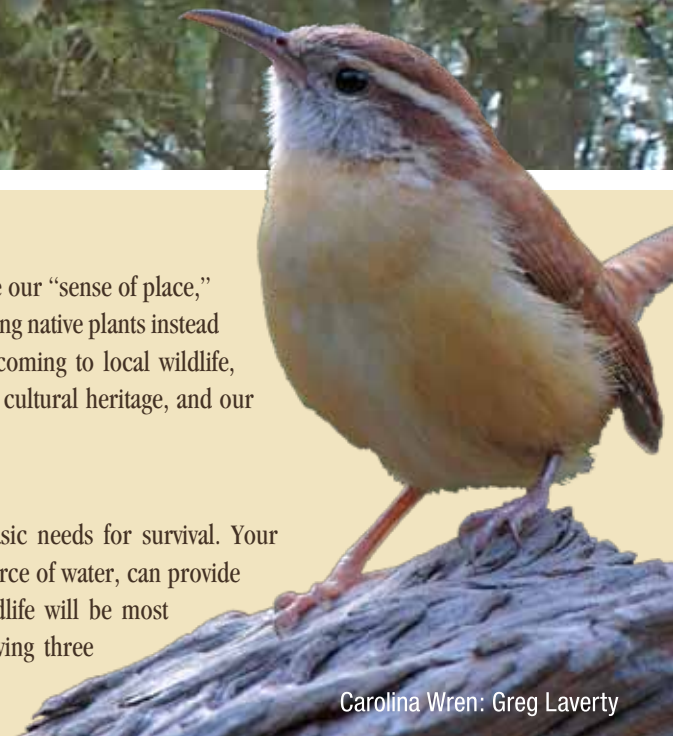
Louisiana's wild habitats, once vast and teeming with wildlife, are being lost to subsidence, erosion, and urban and industrial development. Our remaining wild areas are shrinking and becoming more divided and isolated. But humans can have a positive impact on the environment as well. The plants we put in our cities and towns and the animals that are attracted to them make up habitats known as urban forests. These areas are vitally important because they reconnect the remaining patchwork of divided wild habitats. Regardless of your interest in plants or wildlife, your own backyard is a part of the urban forest. By carefully considering what plants to use, you can greatly increase the wildlife habitat value there.

OUR CULTURAL HERITAGE

The native plants and animals around us define our "sense of place," forming the basis of our cultural identity. By using native plants instead of exotic ones to create habitats that are welcoming to local wildlife, we are sustaining our ecological integrity, our cultural heritage, and our sense of place.

THE ESSENTIALS

Just like humans, animals require certain basic needs for survival. Your backyard, stocked with native plants and a source of water, can provide each of these requirements. Put simply, wildlife will be most attracted to a garden that provides the following three essential elements: food, habitat and water.



Carolina Wren: Greg Laverty



Photo by Dennis Demcheck

FEBRUARY 2012

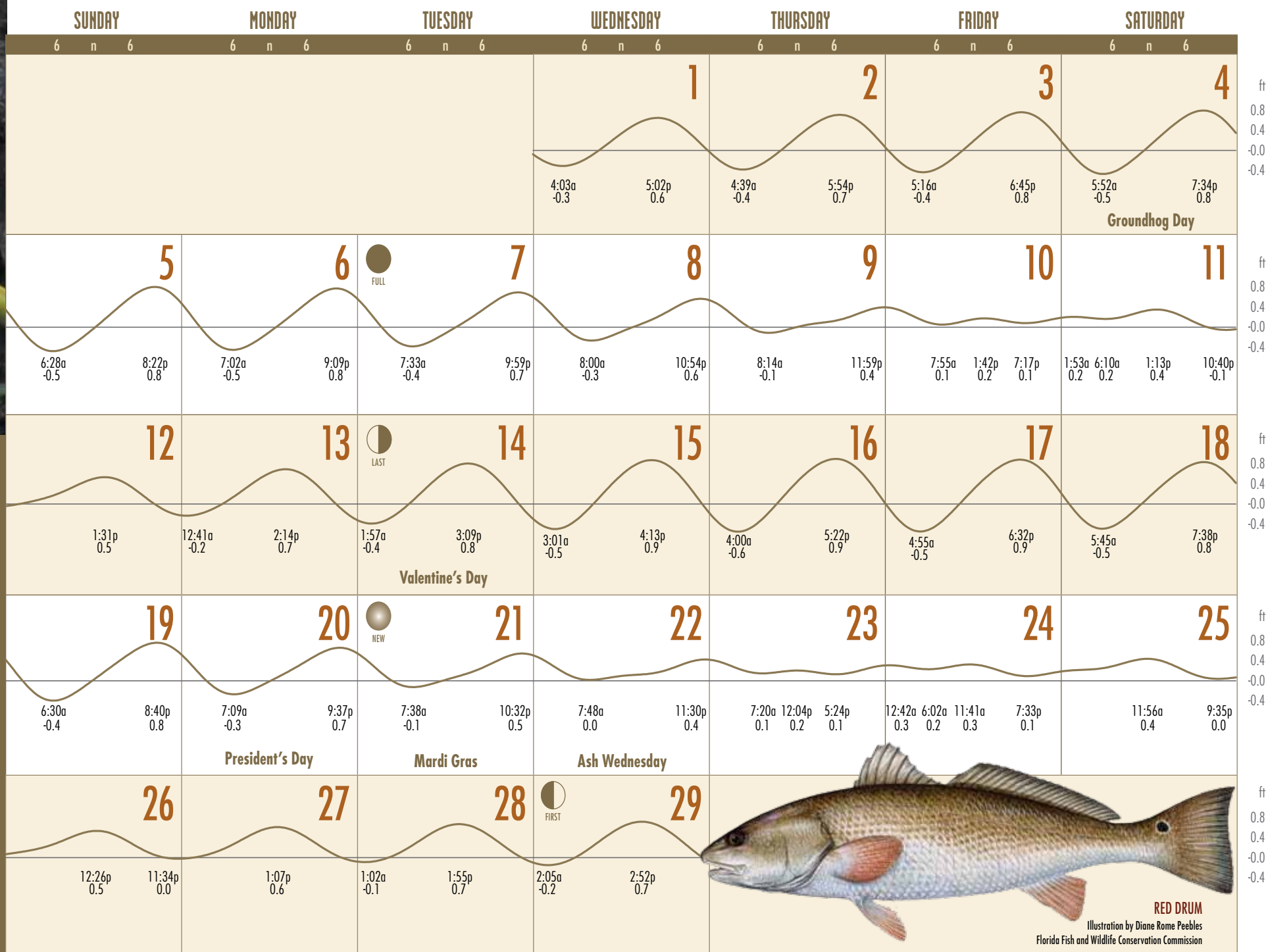
High Tide:
February 16
5:22 pm • 0.9 ft

Low Tide:
February 16
4:00 am • -0.6 ft

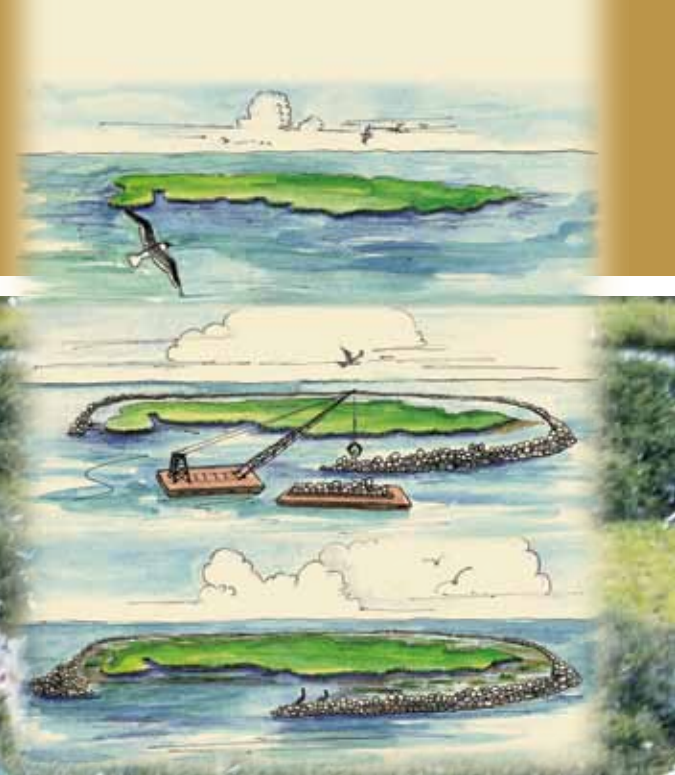


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RESTORING SMALL ISLANDS IN BARATARIA BAY: PROVIDING HABITAT FOR NESTING BIRDS



At the height of the oil spill during the spring and summer of 2010, it was common place to turn on the nightly news and see the impacts oil was having along our coast, particularly to birds. Oiled Brown Pelicans served as the poster child to demonstrate the devastating impacts that was unfolding daily in front of us. However, they weren't the only species of bird to be impacted by the spill. Like Brown Pelicans, other birds considered colonial nesters, were also highly impacted. Oiled terns, gulls, egrets, and herons were being found up and down the coast and were considered a common occurrence.

Now, a year and half into the future, plans have been in the works to address the habitat and animals that were impacted. One of the many under consideration, is the restoration of a series of small islands in lower Barataria Bay in western Plaquemines Parish. These islands are important to many species of colonial nesting wading birds and seabirds including Brown Pelican, Great Egret, Tricolored Heron, Laughing Gull, and

others. These birds choose to nest on these islands for two reasons; their isolation from mainland marsh and barrier islands, and their exceedingly small size.

With many of these bird species showing population declines even before the oil spill, the Barataria-Terrebonne National Estuary Program formed a partnership with the American Bird Conservancy (ABC) and developed a plan for restoring these islands. We've collectively worked with ABC to raise funds through private donations. Through those efforts, Shell Oil Company has made a generous pledge of one million dollars toward the restoration of these islands. With this initial donation, we're hoping to raise enough awareness and momentum to make these island restoration projects a reality.

Louisiana's coastal fishermen should be in favor of this concept. The reason is simple. For what fisherman has never looked into a grey morning sky in search of diving Laughing Gulls to show them the way? If for nothing else, the restoration of these islands is essential.



MARCH 2011

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

SHEEPSHEAD

Illustration by Diane Rome Peebles
Florida Fish and Wildlife Conservation Commission



4

5

6

7

8

FULL

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10

11

12

13

LAST

14

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21

NEW

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23

24

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28

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FIRST

30

31

High Tide:

March 14

2:21 pm • 1.0 ft

Low Tide:

March 14

1:18 am • -0.3 ft



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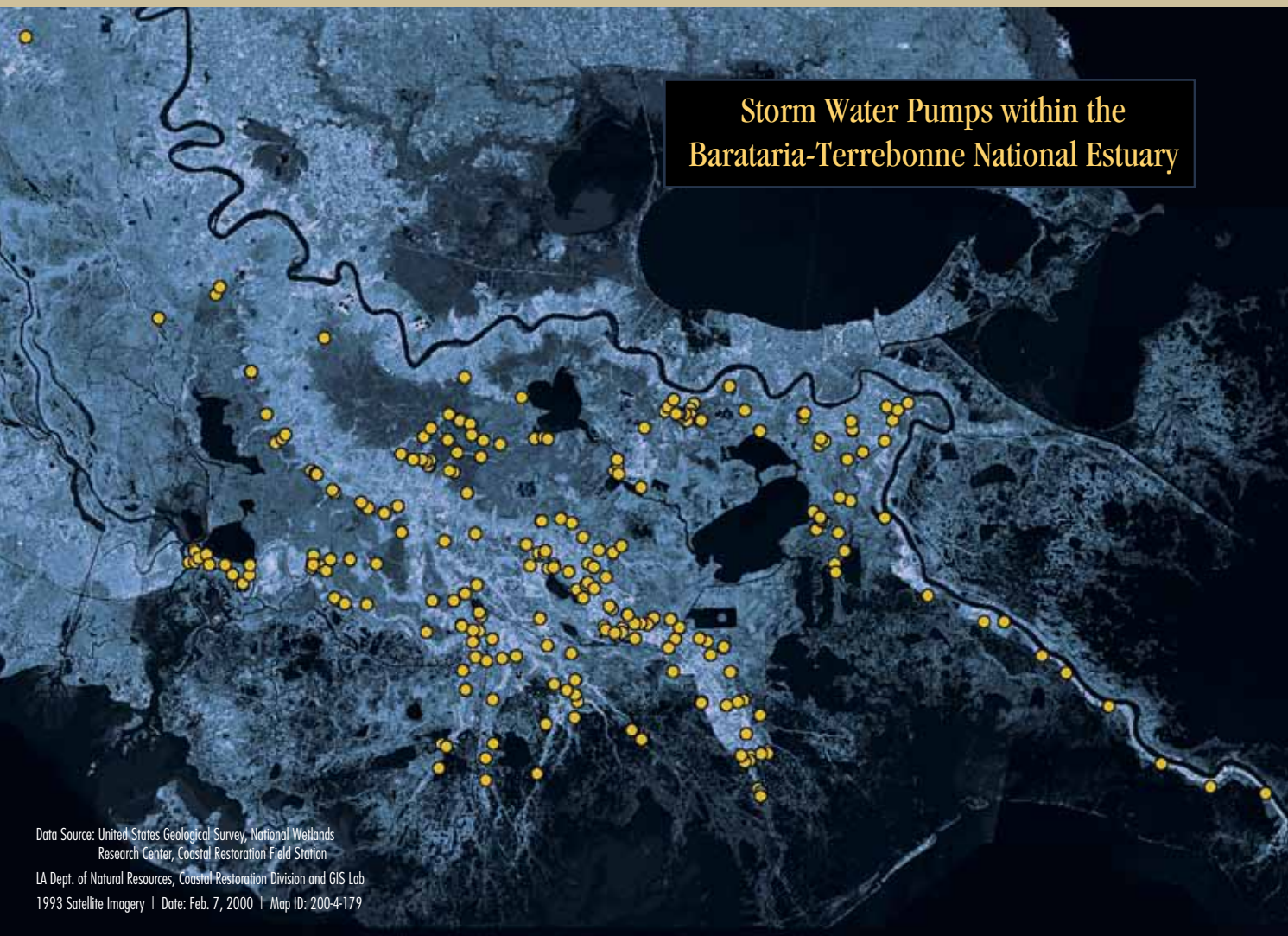
First Day of Spring

St. Patrick's Day

STORM WATER REDIRECTION



Storm Water Pumps within the Barataria-Terrebonne National Estuary



Data Source: United States Geological Survey, National Wetlands Research Center, Coastal Restoration Field Station
LA Dept. of Natural Resources, Coastal Restoration Division and GIS Lab
1993 Satellite Imagery | Date: Feb. 7, 2000 | Map ID: 200-4-179

There are over 256 storm water pumping stations in the Barataria-Terrebonne National Estuary associated with levee systems. Levees protect communities from high tides and hurricane storm surge. Storm water pumps protect from flooding by moving rain water outside of the levee system. Pumping storm water into canals has the adverse effect of delivering polluted storm water directly to shellfish growing areas and bypassing wetlands that are in need of freshwater, nutrients, and sediment.



Storm water redirection uses storm water pumping stations as miniature freshwater diversions to wetlands. Redirection of storm water into adjacent wetlands can be achieved by diverting outfalls directly into wetlands or by blocking outfall canals to force sheet flow through adjacent wetlands. Pumps deliver freshwater, nutrients, and sediment to nourish adjacent wetlands, re-establish the salinity gradient, and increase the residence time of the storm water in the wetlands; reducing disease-causing bacteria and improving the water quality of oyster-growing waters.

Working with Terrebonne Parish officials, the Barataria-Terrebonne National Estuary Program (BTNEP) and Louisiana State University completed a storm water redirection project in the Pointe aux Chenes Wildlife Management Area (WMA) in 2009. Data were collected before and after a pump station in the community of Pointe au Chien was installed.

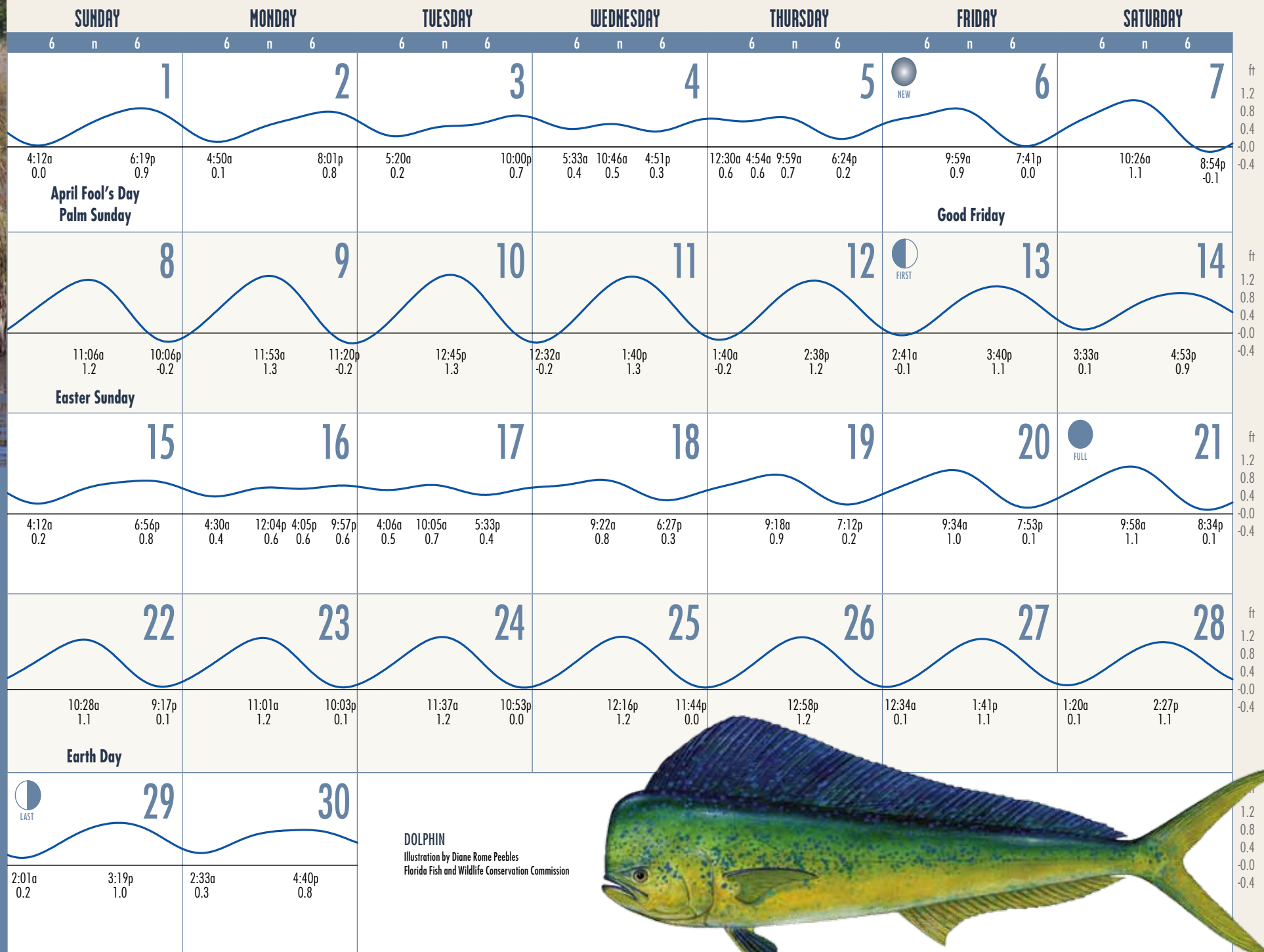
All pre- and post-discharge data collection was completed in late 2008. Data collected included water levels, total suspended solids, nutrients, fecal coliform bacteria, salinity, vegetative cover/composition/response, soil composition, and sedimentation. Results indicate a decrease in salinity, fecal coliform, and nutrients and increased vegetated biomass and sedimentation near the outfall of the pumps. Water control flap gates in the Isle de Jean Charles culvert aid the decrease in salinity throughout the receiving area.

Results from the Pointe aux Chenes Storm Water Redirection Project will help educate coastal communities on the beneficial use of storm water pumps as miniature freshwater diversions to maximize wetland nourishment, shellfish protection, and community protection throughout coastal Louisiana.





APRIL 2012



High Tide:

April 10
12:45 pm • 1.3 ft

Low Tide:

April 9
11:20 pm • -0.2 ft

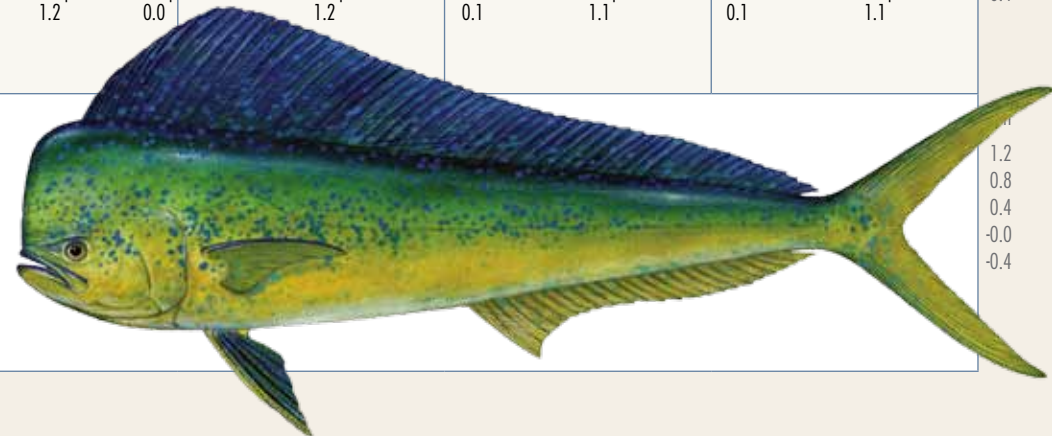


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DOLPHIN

Illustration by Diane Rome Peebles
Florida Fish and Wildlife Conservation Commission





ASIAN CARP

THE IMPACT ON THE ESTUARY



BIGHEAD CARP



Photo by
Brac Salvors - LDWF

Four of Louisiana's five species of Asian carp - silver, bighead, grass and common - were found in a 2008 survey of the Davis Pond diversion channel (above).

Photo by
Brac Salvors - LDWF

There are at least five species of non-native carp in the waters of the Barataria-Terrebonne estuary. The common carp (*Cyprinus carpio*) has been here the longest. It was deliberately introduced to the US in the 19th century by immigrants who intended to recreate one of Europe's favorite fisheries in their new land. Since the common carp has been so well-established for so long here, it is impossible to measure the full scope of ecological impacts from its invasion. Scientists call such species "naturalized."

Grass carp (*Ctenopharyngodon idella*) are also commonly found in our waters. They were introduced to help the aquaculture industry, as they are good at controlling aquatic plant growth in catfish ponds. In Louisiana, the importation of grass carp is limited to specimens that are genetically screened to ensure that they cannot reproduce, but these regulations do not apply to neighboring states, nor is the process fool-proof. This has resulted in numerous escapes from aquaculture facilities in several states, leading to large reproducing populations in the wild.

The silver carp (*Hypophthalmichthys molitrix*) is a relative newcomer to the area. Also introduced

by the aquaculture industry, it escaped into the upper Mississippi River system and has been slowly making its way downstream over the last 20 years. River diversions and spillway openings have further spread this species through the estuary. The silver carp can grow very large - up to 50 pounds - and is a filter feeder, meaning that it consumes large quantities of plankton and tiny larval fish. This is a double-whammy; not only is the carp removing the plankton that our tiny native fish need to feed on, but it is eating the larval fish themselves as well! This invasive species is sure to have a significant impact on local fisheries in the future. And if that weren't bad enough, the silver carp has the dangerous habit of leaping out of the water when startled. Large adults have caused serious injuries to boaters, and even a few fatalities.

The bighead carp (*Hypophthalmichthys nobilis*) is very similar to the silver carp, and has also recently arrived here via the aquaculture industry. It, too, grows very large, feeds on plankton and larval organisms, and is likely to have negative fisheries impacts. The native species most likely to experience impacts from competition with carp are the paddlefish, buffalo, and gizzard shad.


Black carp (*Mylopharyngodon piceus*) are as yet much less widespread than the other Asian carp species, but have been recently documented in the Atchafalaya and lower Mississippi Rivers. They feed on snails and other mollusks, and so have the potential to steal resources away from native fish and alter food webs.

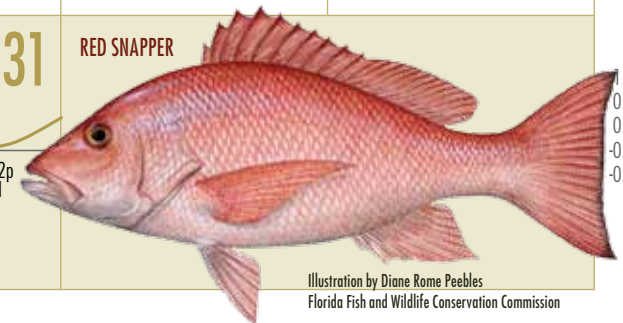
A hoop net full of silver carp near the Atchafalaya River.



Photo courtesy of LDWF



SUNDAY			MONDAY			TUESDAY			WEDNESDAY			THURSDAY			FRIDAY			SATURDAY																													
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						Cinco De Mayo																																									
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Mother's Day																																															
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						27			28			29			30			31			RED SNAPPER																										
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						Memorial Day																		Illustration by Diane Rome Peebles																							



BARATARIA-TERREBONNE FIRST LAND THEY SEE

Some of the best bird watching in the world is in our estuary. Check BIRDS.BTNEP.ORG for great birding links and resources.

Coastal Indian Blanket
Photo by Celeste Regal



Scarlet Tanager
Photo by Bill Bergen

Painted Bunting
Photo by Charlie Hohorst

LOUISIANA SITS ATOP ONE OF THE MOST IMPORTANT MIGRATORY PATHWAYS IN THE WORLD.

Whether traveling across the open gulf or overland, many arctic and tropical migrants rely on our rich estuary for water and food. Millions each year arrive at our coast exhausted and hungry.

Land loss, Louisiana's gravest environmental crisis, has dramatically impacted migratory birds. Coastline recession due to the disappearance of barrier islands, forested ridges, and wetlands makes migration to the coast more perilous, as birds have to fly longer distances with less abundant sources of food and fresh water.

By helping to maintain a healthy urban forest with appropriate food-producing native plants, you can provide critically needed habitat for migrating birds and other wildlife.



RUSTIC PATHWAYS PARTNERSHIP

BTNEP VOLUNTEER PROGRAM

In response to a string of natural and man-made disasters that have recently plagued Louisianans, people from across the country have shown overwhelming compassion and support for coastal communities by volunteering to rebuild homes and restore neighborhoods.

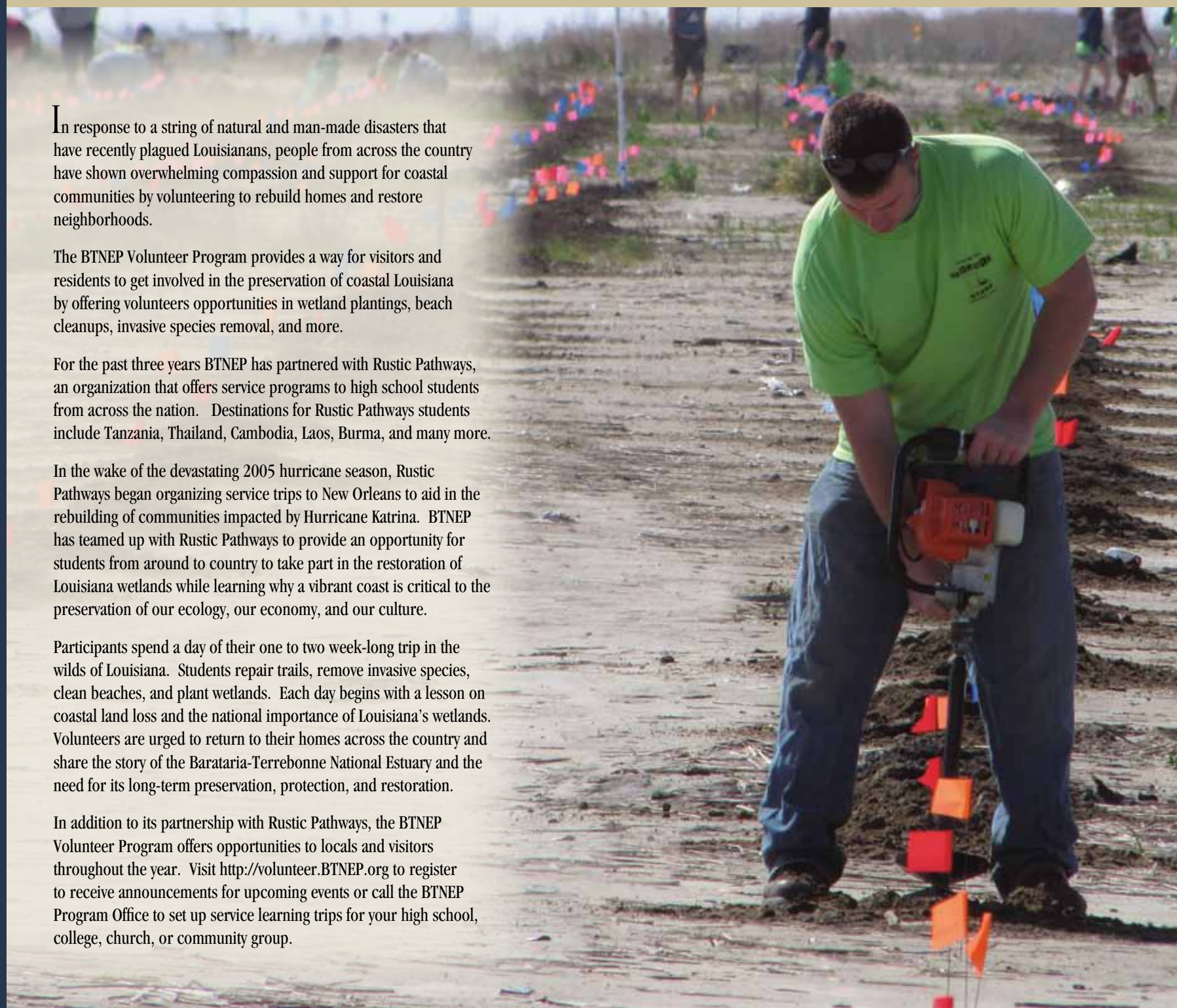
The BTNEP Volunteer Program provides a way for visitors and residents to get involved in the preservation of coastal Louisiana by offering volunteers opportunities in wetland plantings, beach cleanups, invasive species removal, and more.

For the past three years BTNEP has partnered with Rustic Pathways, an organization that offers service programs to high school students from across the nation. Destinations for Rustic Pathways students include Tanzania, Thailand, Cambodia, Laos, Burma, and many more.

In the wake of the devastating 2005 hurricane season, Rustic Pathways began organizing service trips to New Orleans to aid in the rebuilding of communities impacted by Hurricane Katrina. BTNEP has teamed up with Rustic Pathways to provide an opportunity for students from around the country to take part in the restoration of Louisiana wetlands while learning why a vibrant coast is critical to the preservation of our ecology, our economy, and our culture.

Participants spend a day of their one to two week-long trip in the wilds of Louisiana. Students repair trails, remove invasive species, clean beaches, and plant wetlands. Each day begins with a lesson on coastal land loss and the national importance of Louisiana's wetlands. Volunteers are urged to return to their homes across the country and share the story of the Barataria-Terrebonne National Estuary and the need for its long-term preservation, protection, and restoration.

In addition to its partnership with Rustic Pathways, the BTNEP Volunteer Program offers opportunities to locals and visitors throughout the year. Visit <http://volunteer.BTNEP.org> to register to receive announcements for upcoming events or call the BTNEP Program Office to set up service learning trips for your high school, college, church, or community group.



JULY 2012



High Tide:

July 2

9:03 am • 1.5 ft

Low Tide:

July 1

7:28 pm • -0.4 ft



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FISHING IN BARATARIA-TERREBONNE LANDING THE BIG ONE



FRESHWATER SPECIES		SIZE LIMIT	DAILY LIMIT
Largemouth and Spotted Bass (Atchafalaya Basin and Lake Verret-Palouche Area)	None	10"	10
Crappie (Sac-a-lait)	None	14" Minimum (TL)	50
Striped or Hybrid Striped Bass	None	2 over 30" (TL)	5 (Any combination)
White Bass	None	None	50
Yellow Bass	None	None	50
Channel Catfish	25 less than 11" (TL)	100	100
Blue Catfish	25 less than 12" (TL)	100	100
Flathead Catfish (Spotted, Yellow or Opelousa)	25 less than 14" (TL)	100	100
Freshwater Drum (Gaspargou)	12" Minimum (TL)	25	25

SALTWATER SPECIES		SIZE LIMIT	DAILY LIMIT
Speckled Trout* (Cameron & Calcasieu Parishes**)	12" Minimum (TL)	25	25
Red Fish*	12" Minimum (TL), two over 25"	15	15
Black Drum	16" Minimum (TL), one over 27"	5	5
Southern Flounder	16" Minimum (TL), one over 27"	5	5
Amberjack	None	10	10
Cobia (Lang or Lemon Fish)	State & Federal Reg. 30" Min. (FL)	1	1
King Mackerel	State & Federal Reg. 33" Min. (FL)	2	2
Spanish Mackerel	State & Federal Reg. 24" Min. (FL)	2	2
Red Snapper***	State & Federal Reg. 12" Min. (FL)	13	13
	State & Federal Reg. 16" Min. (TL)	2	2



www.btneq.org

Louisiana has become a paradise for both freshwater and saltwater fishing. In order to maintain healthy and productive fish populations, BTNEP works with its stakeholders on improving habitats, supporting regulations of catches and balancing the populations of fish species sharing the aquatic environment.

For more information on recreational fishing in Louisiana, see the back cover and visit the Department of Wildlife and Fisheries website at wlf.louisiana.gov/fishing.

To receive a free fishing regulation ruler, contact us at BTNEP.org.

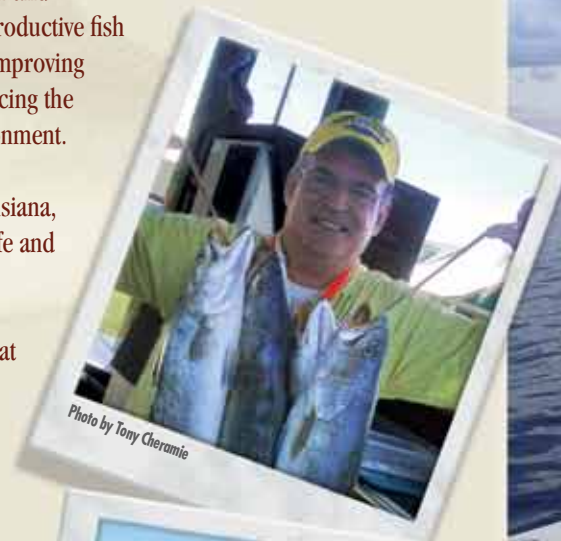


Photo by Tony Cheramie



Photo by Brian Saucier



Photo by Rex Caffey



Photo by Brian Saucier

Photo by Brian Saucier



AUGUST 2012

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

6

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6

6

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6

n

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6

6

n

6

6

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6

6

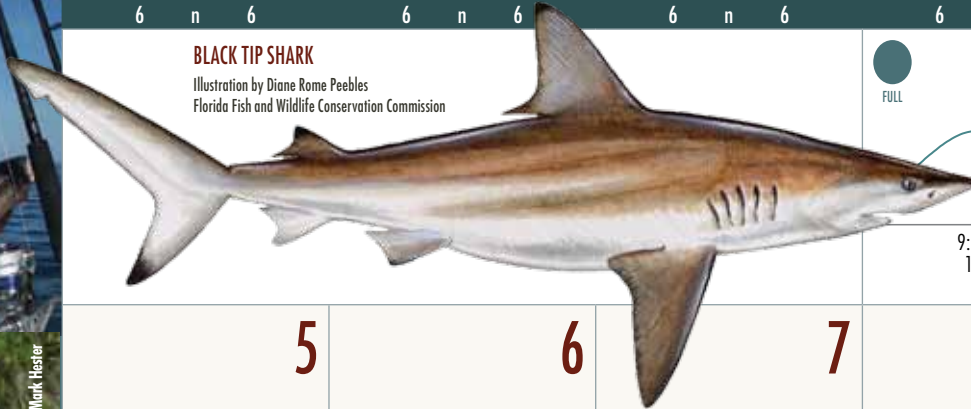
n

6

BLACK TIP SHARK

Illustration by Diane Rome Peebles

Florida Fish and Wildlife Conservation Commission



FULL

1

2

3

4

9:59a
1.4

8:48p
0.0

10:49a
1.2

9:20p
0.1

11:35a
1.1

9:37p
0.3

12:16p
0.9

9:23p
0.5

5

6

7

8



LAST

9

10

11

12:49p
0.8

8:18p
0.6

3:23a
0.7

5:57p
0.6

3:08a
0.9

3:17p
0.5

3:29a
1.0

3:35p
0.3

4:06a
1.1

4:11p
0.3

4:53a
1.1

4:50p
0.2

5:46a
1.2

5:29p
0.1

12

13

14

15

16



NEW

17

18

6:39a
1.2

6:07p
0.1

7:30a
1.3

6:42p
0.1

8:19a
1.3

7:14p
0.1

9:05a
1.3

7:43p
0.1

9:50a
1.3

8:09p
0.2

10:37a
1.2

8:28p
0.3

11:30a
1.1

8:34p
0.5

19

20

21

22

23



FIRST

24

25

12:34p
0.9

8:10p
0.6

2:04a
0.8

8:08a
0.6

2:27p
0.8

6:29p
0.7

1:45a
0.9

11:05a
0.5

2:04a
1.1

1:04p
0.3

2:43a
1.3

2:22p
0.2

3:37a
1.4

3:27p
0.1

4:39a
1.5

4:27p
0.0

26

27

28

29

30



FULL

31

5:47a
1.5

5:23p
0.0

6:58a
1.5

6:14p
0.1

8:07a
1.4

7:00p
0.2

9:13a
1.3

7:40p
0.3

10:16a
1.2

8:08p
0.5

11:19a
1.1

8:14p
0.6

High Tide:

August 26

5:47 am • 1.5 ft

Low Tide:

August 1

8:48 pm • 0.0 ft



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ft
1.6
1.2
0.8
0.4
-0.0

ft
1.6
1.2
0.8
0.4
-0.0

ft
1.6
1.2
0.8
0.4
-0.0

ft
1.6
1.2
0.8
0.4
-0.0

ft
1.6
1.2
0.8
0.4
-0.0

BTNEP SHADE HOUSE GROWING WOODY SPECIES



In early 2001, the Barataria-Terrebonne National Estuary Program (BTNEP) and the Greater Lafourche Port Commission (GLPC) fostered a partnership with other organizations to reestablish a chenier ridge and adjacent coastal marsh habitats in southeast Louisiana at Port Fourchon in lower Lafourche Parish, La. Louisiana's unparalleled coastal wetland loss is well documented, but of equal importance are the distributary ridges and chenier ridges that are also being lost at an alarming rate. These ridge habitats and associated wetlands are extremely important to many terrestrial animals including the millions of migrating Neotropical songbirds that cross the Gulf of Mexico in the spring each year on their way to their breeding grounds in the eastern United States and Canada. Upon reaching land, the exhausted birds must feed and rest in surroundings that provide them protection from predators. The first lands they see, in many cases, are Louisiana's heavily wooded chenier ridges.

Vegetative plantings begin as soon as each phase of construction of the ridge is finished. Herbaceous grasses and woody plants are selected that can tolerate the harsh growing conditions of the site. Herbaceous plantings help to prevent erosion and promote healthy soil development for the establishment of woody species. The woody species selected are those known to be important to Neotropical migrant songbirds. The selected species provide either food or protection or both for the migrating birds. Some of the selected species include live oak, hackberry, red mulberry, wax myrtle and salt matrimony vine.

Partnerships with the Plant Materials Center of the Natural Resources Conservation Service (NRCS) and others provided the grasses and woody species needed to plant the ridge. Through the years, BTNEP has taken a greater role in collecting and growing out the woody species needed for planting the ridge. Recently, as BTNEP's needs expanded, we

moved our plant nursery operation from a shared facility at the Nicholls State University (NSU) farm to a larger site on the farm.



Through partnerships with Bayou Grace Community Services and Rustic Pathways, well over 100 volunteers provided assistance throughout the construction of the new BTNEP shade house. The new 3,600 square foot shade house allows ample room for the potting and "grow-out" of woody species needed to establish the ridge at Fourchon into a forested habitat for migrating Neotropical songbirds. The additional space also allows BTNEP to grow extra woody species for maritime forest plantings on Grand Isle and in other suitable locations throughout the Barataria-Terrebonne National Estuary.





SEPTEMBER 2012

High Tide:
September 22
2:50 am • 1.6 ft

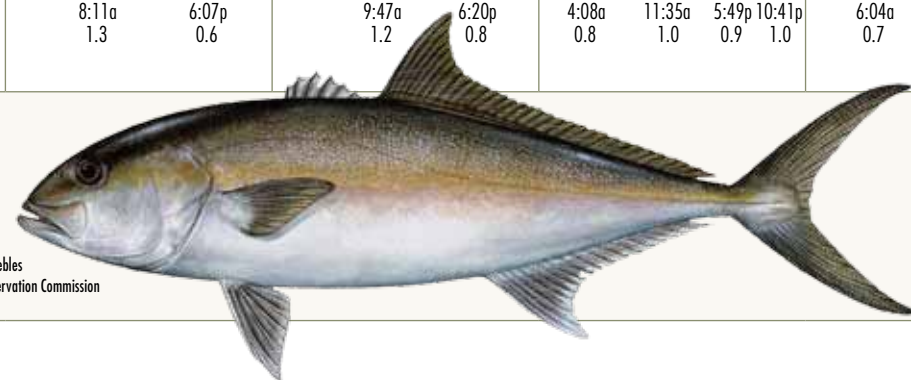
Low Tide:
September 22
2:53 pm • 0.2 ft



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Tides from: Barataria Bay, Grand Isle, East Point, 29d
15°48' N 89d 57' 24" W - Tides & Currents by Jeppesen
Marine • www.nobeltec.com • Tide adjustment table can be
found on the inside back cover

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
6 n 6	6 n 6	6 n 6	6 n 6	6 n 6	6 n 6	6 n 6
						1 ft 1.6 1.2 0.8 0.4 -0.0
						2:30a 3:52a 12:30p 7:33p 0.7 0.7 1.0 0.8
2	3	4	5	6	7	8 LAST
12:29a 7:03a 2:17p 5:39p 0.8 0.7 0.8 0.8	12:19a 9:02a 1.0 0.6 Labor Day	12:38a 10:53a 1.1 0.6	1:10a 12:32p 1.2 0.5	1:51a 1:50p 1.2 0.4	2:40a 2:52p 1.3 0.4	3:36a 3:45p 1.3 0.4
9	10	11	12	13	14	15 NEW
4:39a 4:31p 1.3 0.3	5:45a 5:11p 1.3 0.3	6:49a 5:46p 1.3 0.4	7:53a 6:17p 1.3 0.4	8:58a 6:43p 1.3 0.5	10:09a 6:59p 1.2 0.7	3:13a 11:34a 6:50p 11:41p 0.8 1.1 0.8 0.9
16	17	18	19	20	21	22 FIRST
6:06a 1:43p 5:39p 11:20p 0.7 1.0 0.9 1.1	7:55a 11:35p 0.6 1.2	9:31a 0.5	12:10a 11:03a 1.4 0.3	12:55a 12:27p 1.5 0.2	1:49a 1:44p 1.6 0.2	2:50a 2:53p 1.6 0.2 First Day of Autumn
23	24	25	26	27	28	29 FULL
3:59a 3:54p 1.6 0.2	5:15a 4:48p 1.5 0.3	6:40a 5:33p 1.4 0.4	8:11a 6:07p 1.3 0.6	9:47a 6:20p 1.2 0.8	4:08a 11:35a 5:49p 10:41p 0.8 1.0 0.9 1.0	6:04a 10:21p 0.7 1.1
30	31	GREATER AMBERJACK Illustration by Diane Rome Peebles Florida Fish and Wildlife Conservation Commission				
7:19a 10:33p 0.7 1.2						





PIPELINE SEDIMENT DELIVERY

Each year, the federal government spends hundreds of millions of dollars to maintain the Mississippi and Atchafalaya Rivers for navigation by removing sediment from the river bottom. While some of this dredged material is used beneficially, the majority of it is lost to the deep waters of the Gulf of Mexico. If we are to restore our coastal heartland, it is imperative that all material be used beneficially.

The transport and strategic placement of dredge material from the Mississippi and Atchafalaya Rivers, as well as from offshore sources via pipeline, is called Pipeline Sediment Delivery. Pipeline Sediment Delivery (PSD) can introduce large sediment loads to subsiding and deteriorating coastal wetlands, providing a platform on which marsh vegetation can grow. This flexible sediment delivery system can also repair and restore important ridges and cheniers, re-creating the topographical variety required for a diversity of plant growth. Combined with small and medium freshwater diversions and complete barrier island restoration and maintenance, Pipeline Sediment Delivery can facilitate the rebuilding, restoration, and sustainability of Louisiana's wetlands. When sediment is added through Pipeline Sediment Delivery (PSD), the salinities of waterways and bays are not heavily impacted, allowing the local ecology to remain similar to pre-restoration conditions.

The Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) has initiated a multitude of projects in the past that utilized sediment dredging techniques targeting marsh and barrier island restoration. For effective system-wide restoration, these projects must continue, but on a much larger scale.

In 2009, work began on The Mississippi River Long Distance Sediment Pipeline Project, a Coastal Impact Assistance Program (CIAP) project administered under the Louisiana Office of Coastal Protection and Restoration. Plaquemines, Jefferson and Lafourche Parishes are working together to build an infrastructure network that will deliver much needed



sediment to all three parishes. The Mississippi River Long Distance Sediment Pipeline project will harvest sediment from the bed of the Mississippi River and pump it to strategically chosen areas within the Barataria Basin. The primary goal of the project is to establish a long-distance pipeline network for conveying renewable Mississippi River sediment to build marsh and ridges in Plaquemines, Jefferson, and Lafourche parishes. The project will bring a new source of sediment into a system experiencing some of the highest land loss rates on Earth. This project will not only be an example of what can be accomplished with pipeline sediment delivery, but also what can be attained by pooling the resources of partners who could never achieve such an ambitious goal alone.

Louisiana cannot afford to waste the valuable sediment resources that are currently lost to the deep gulf waters beyond the continental shelf. In addition to utilizing sediment dredged for navigation, dedicated dredging projects can mine the depositional areas along the lower reaches of the Mississippi and Atchafalaya Rivers. Millions of cubic yards of riverbed sediment could and should be harvested to help restore our coastal landscape.

Pipeline Sediment Delivery is a way to efficiently capture, in a relatively short period of time, the lifeblood of sediment that has made coastal Louisiana such a rich and diverse environment.



Photo courtesy of
Kougal Communications

Pipeline Sediment Delivery is a way to efficiently capture, in a relatively short period of time, the lifeblood of sediment that has made coastal Louisiana such a rich and diverse environment.



OCTOBER 2012

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

6 n 6

6 n 6

6 n 6

6 n 6

6 n 6

6 n 6

6 n 6

1

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6

8:22a
0.6 10:58p
1.3

9:22a
0.5 11:29p
1.4

10:23a
0.5 12:07a
1.4

11:27a
0.5 12:48a
1.4

12:33p
0.5 1:34a
1.4

1:34p
0.4

7  LAST

8

9

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13

2:24a
1.4 2:26p
0.4

3:20a
1.4 3:11p
0.5

4:24a
1.3 3:49p
0.5

5:42a
1.3 4:20p
0.6

7:23a
1.2 4:42p
0.7

2:13a
0.9 9:29a
1.1 4:42p
0.8 10:23p
1.0

4:54a
0.8 12:13p
1.0 3:47p
1.0 9:45p
1.1

Columbus Day

Yom Kippur

14  NEW

15

16

17

18

19

20

6:17a
0.6 9:46p
1.3

7:27a
0.4 10:11p
1.5

8:36a
0.3 10:48p
1.6

9:45a
0.2 11:34p
1.7

10:56a
0.1 12:24a
1.7

12:06p
0.1 1:18a
1.7

1:13p
0.1

 FIRST

21

22

23

24

25

26

27

2:14a
1.6 2:13p
0.2

3:12a
1.4 3:04p
0.4

4:15a
1.3 3:42p
0.5

5:53a
1.1 3:58p
0.7 11:44p
0.9

4:23a
0.9 9:22a
0.9 3:26p
0.8 9:51p
1.0

5:43a
0.7 9:11p
1.1

6:32a
0.6 9:10p
1.2

28  FULL

29

30

31

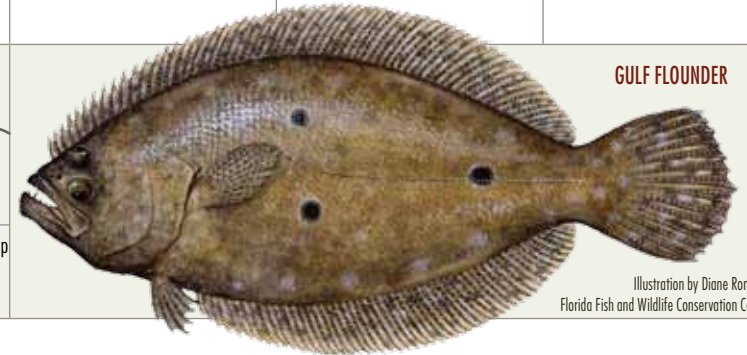
6:15a
0.5 8:27p
1.3

6:56a
0.4 8:52p
1.4

7:38a
0.3 9:23p
1.4

8:20a
0.3 9:57p
1.4

Halloween



GULF FLOUNDER

Illustration by Diane Rome Peebles
Florida Fish and Wildlife Conservation Commission

High Tide:

October 19

12:24 am • 1.7 ft

Low Tide:

October 19

12:06 pm • 0.1 ft



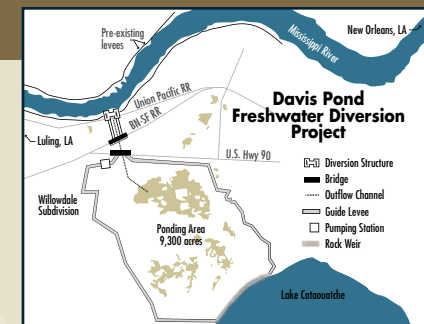
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DIVERSIONS

PROVIDING FOR WILDLIFE NEEDS

By strategically managing fresh water inputs through diversion structures, we can introduce enough fresh water to mimic historic salinity gradients, protecting and nourishing existing and newly restored wetlands.



When early settlers began to construct levees along the Mississippi River and its distributaries, they were unaware that they were laying the groundwork for the disappearance of coastal Louisiana. Spring flooding and shifting delta lobes created and sustained coastal Louisiana but these natural processes made development difficult. To combat flooding, settlers constructed levees to protect their property. Eventually the federal government would undertake a massive public works project to levee the entire Lower Mississippi River. Today, communities exist in Louisiana and throughout the Mississippi River Valley because levees protect them from devastating spring floods.

When the levee construction was completed, fresh water and sediment could no longer annually flow over south Louisiana, which allowed salt water from the Gulf of Mexico to creep farther inland. Subsidence, a natural deltaic process, could no longer be offset by annual deposits of sediment. Saltwater intrusion killed plants that were accustomed to fresher environments. This limited biological diversity and allowed fragile marsh soils to be washed away without the protection of plant roots.

Today, much of our coastal land loss can be attributed to the management of the Mississippi River. To combat this loss we must, when practical, mimic the historic role of the river. The economy of much of Louisiana is based on the Mississippi River and the communities that surround it. Removing the levees and allowing annual flooding and the migration of the delta would make these communities uninhabitable. The various channels of the Mississippi River converged north of Baton Rouge, meaning that fully returning

to the historic process would mean abandoning many communities, such as: New Orleans, Houma, Morgan City and all surrounding areas—an unwelcome scenario. Also, the land building capacity of the river has been limited in recent history by the construction of locks and dams throughout the Mississippi River Valley. Turbulent water that once carried sediment is now slowed behind these structures. Without movement, the water can no longer keep the sediment suspended, and soil particles fall to the bottom. This means the river today carries as little as 50% of the sediment load it did when it built our coast.

Despite these changes, the river remains a useful tool in coastal restoration. By strategically managing fresh water inputs through diversion structures, we can introduce enough fresh water to mimic historic salinity gradients, protecting and nourishing existing and newly restored wetlands.

There are two types of structures that are being used to reintroduce fresh water into Louisiana's wetlands. Although both are fresh water diversions, the term "diversion" most commonly refers to large box culverts that are placed under or through the flood control levee. These use the force of gravity to carry fresh water into adjacent wetlands. Siphons, the second type of diversion structures, are pipes that are placed over the top of the flood control levee. They use a difference in elevation to siphon river water through the pipes to be distributed into nearby wetlands. Siphons typically carry less water than diversions. The Davis Pond Diversion was designed to carry 10,650 cubic feet of river water per second when operated at its maximum while the Naomi Siphon is designed to divert 2,100 cubic feet per second.

NOVEMBER 2012



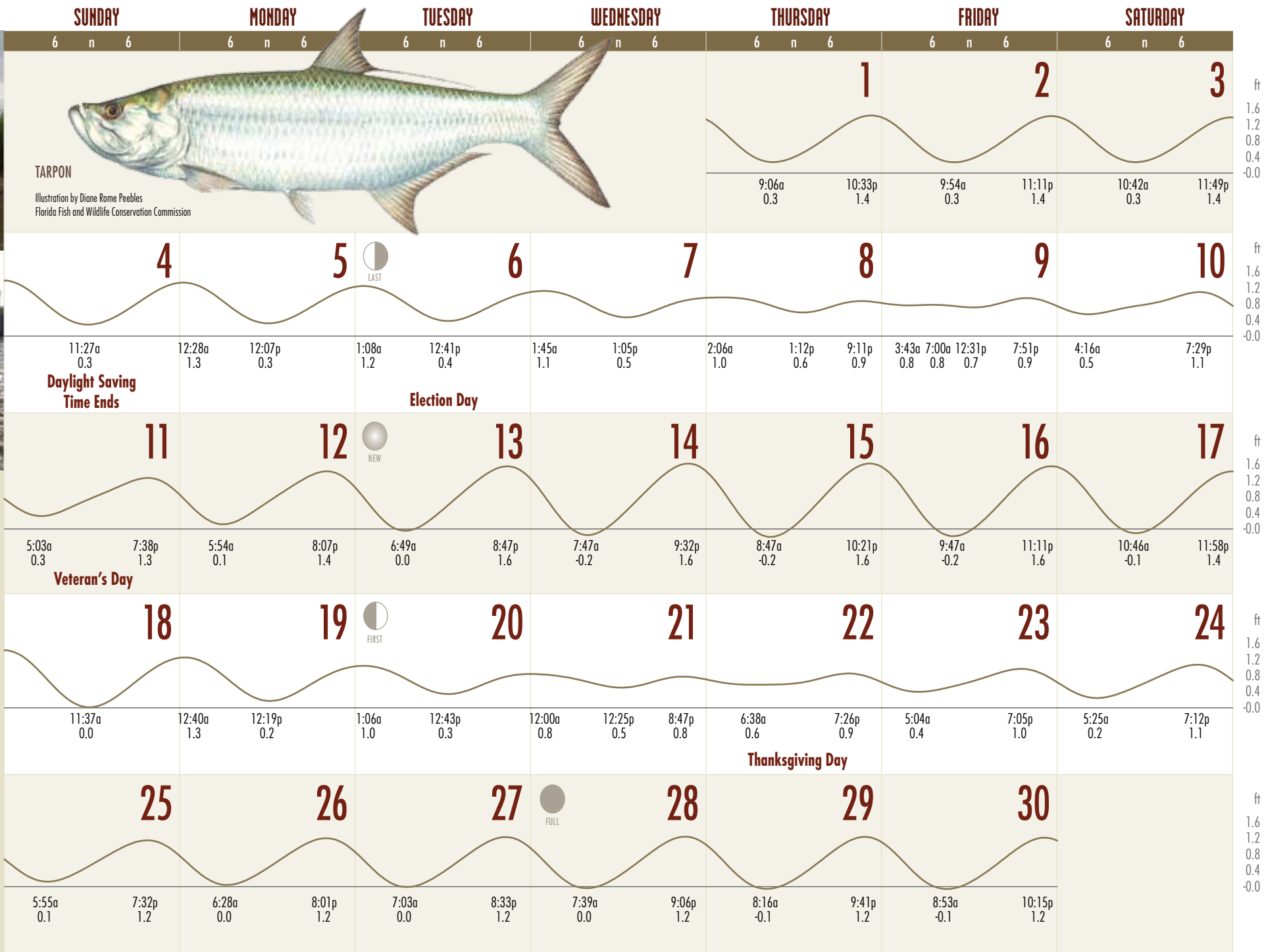
High Tide:
November 15
10:21 pm • 1.6 ft

Low Tide:
November 15
8:47 am • -0.2 ft



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PUTTING IT ALL TOGETHER YOU CAN MAKE A DIFFERENCE

HOW TO MAKE A DIFFERENCE

For more information about how you can work with BTNEP and its partners please visit www.btnep.org.



This calendar has introduced you to a unique method of preserving, protecting, or restoring our wetlands, our communities, and our livelihood through various coastal restoration and protection techniques. Not one of these techniques alone is the answer. Each technique is a piece of the comprehensive plan to restore coastal Louisiana and will lead to a vibrant coastal system that maintains the diverse ecology of our region while providing the protection necessary for the survival of our communities and our way of life.

LOUISIANA IS DISAPPEARING.

In the last century, 1900 square miles of Louisiana has turned to open water. If this trend continues, the equivalent of a football field of land can sink below the waves on average every 38 minutes. Averages indicate that while you enjoyed this calendar over the last year, approximately 24 square miles of wetlands vanished. These numbers are remarkable,

but the trend can be reversed. Large-scale restoration utilizing all of the techniques at our disposal must begin immediately.

YOU CAN MAKE A DIFFERENCE.

A commitment must be made by state and federal leaders to provide the funding necessary to initiate meaningful large-scale restoration to protect this national treasure. Your voice is the final and most important tool in coastal restoration. By sharing the knowledge you've gained here and by voicing your experiences in coastal Louisiana, you can help to build the sentiment needed to focus the world's attention on the plight of our fragile ecosystem. We encourage you to participate in the political process so that those that represent you can understand you and your interests related to coastal restoration.



Red-bellied Woodpecker
Photo by David Cognolatti



DECEMBER 2012

SUNDAY

MONDAY

TUESDAY

WEDNESDAY

THURSDAY

FRIDAY

SATURDAY

6 n 6

6 n 6

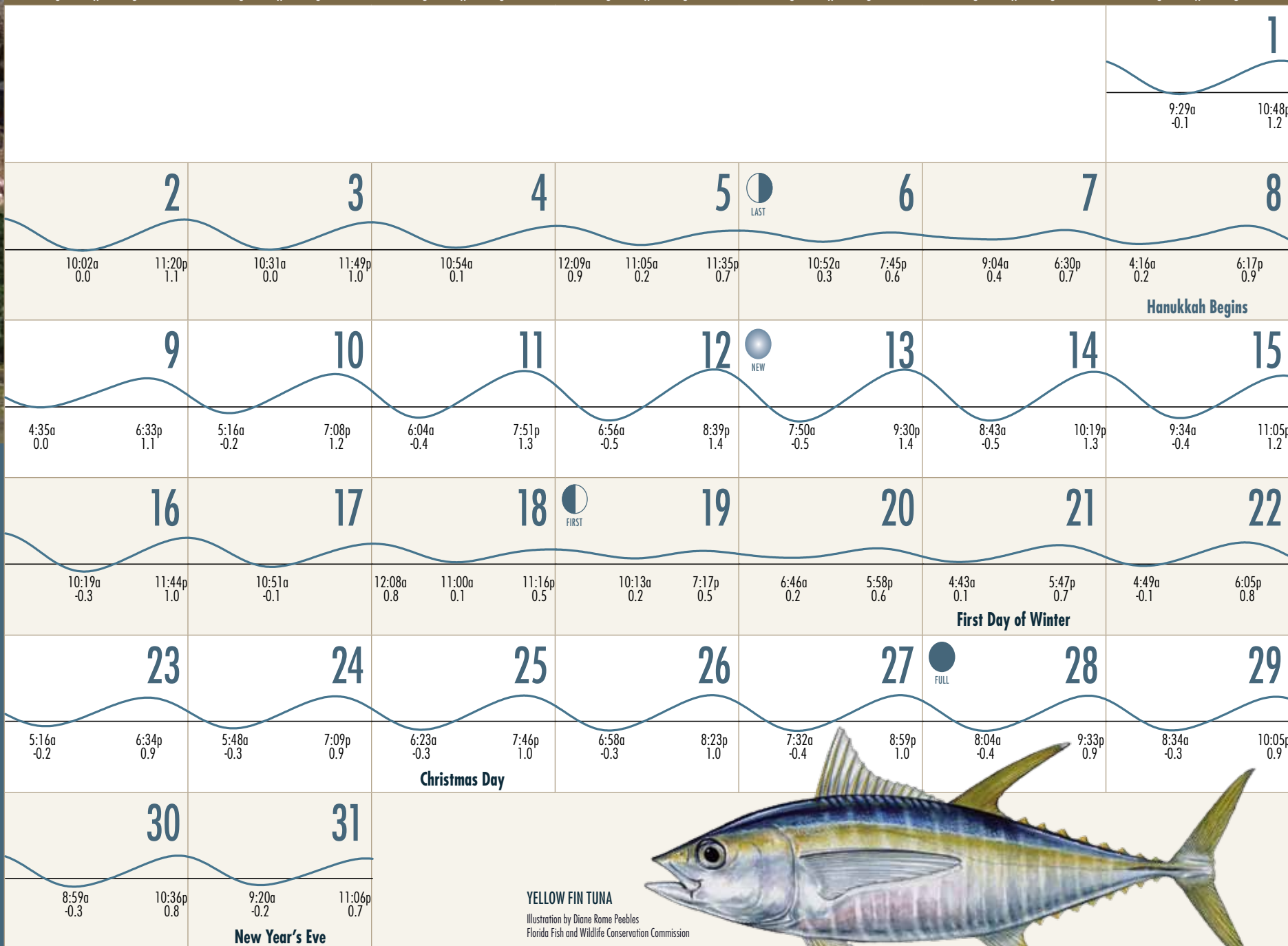
6 n 6

6 n 6

6 n 6

6 n 6

6 n 6



High Tide:

December 12

8:39 pm • 1.4 ft

Low Tide:

December 13

7:50 am • -0.5 ft

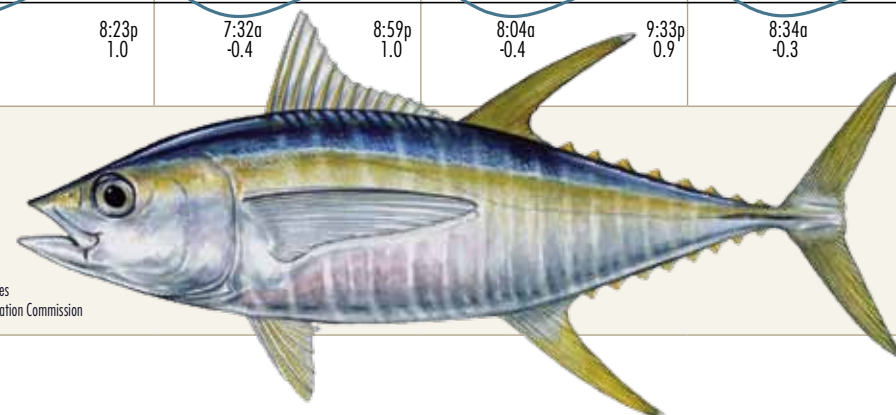


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YELLOW FIN TUNA

Illustration by Diane Rome Peebles
Florida Fish and Wildlife Conservation Commission



TIDE CORRECTIONS

To find the best time to fish your favorite locations, find a location that is closest to your area and add or subtract the time from the corresponding daily prediction.

AREA	LOW (Hours:Minutes)	HIGH (Hours:Minutes)
Shell Beach, Lake Borgne	+5:10	+4:01
Chandeleur Lighthouse	+0:38	+0:05
Venice, Grand Pass	+1:28	+1:06
Southwest Pass, Delta	-0:29	-1:29
Empire Jetty	-1:35	-2:03
Bastian Island	+0:22	-0:19
Quatre Bayou Pass	+0:27	+1:18
Independence Island	+2:09	+1:29
Caminada Pass	+1:44	+1:14
Timbalier Island	+0:33	-0:41
Cocodrie, Terrebonne Bay	+2:50	+1:10
Wine Island	+1:12	+0:08
Raccoon Point	-0:10	-1:03
Ship Shoal Light	-1:40	-2:54

Charts in this calendar are intended for use solely as a reference guide to Louisiana fishing. It is not intended for navigational use. BTNEP makes no warranty, expressed or implied, with respect to the accuracy or completeness of the information contained in these charts. BTNEP assumes no liability with respect to the use of any information contained in this document.



2012 TIDAL GRAPH CALENDAR

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Design and layout by: deGravelles & Associates

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Thibodaux, LA 70310

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FISHING REGULATIONS

This is not a comprehensive or official copy of the laws in effect and should not be utilized as such. Size and creel limit regulations are presented for selected species only. These species as well as other species may be managed by seasons, quotas and permits. Different regulations for bass, catfish and crappie may apply within specific areas. Contact the Louisiana Department of Wildlife and Fisheries (LDWF) for specific information.

FRESHWATER SPECIES

SPECIES	SIZE LIMIT	DAILY LIMIT
Largemouth and Spotted Bass	None	0
(Atchafalaya Basin and Lake Verret-Palourde Area)	14" Minimum (TL)	10
Crappie (Sac-a-lait)	None	50
Striped or Hybrid Striped 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 Catfish (Spotted, Yellow or Opelousas)	25 less than 14" (TL)	100
Freshwater Drum (Gaspergou)	12" Minimum (TL)	25

100 total of
these three
species

SALTWATER SPECIES

SPECIES	SIZE LIMIT	DAILY LIMIT
Speckled Trout*	12" Minimum (TL)	25
(Cameron & Calcasieu Parish**)	12" Minimum (TL), two over 25"	15
Red Fish*	16" Minimum (TL), one over 27"	5
Black Drum	16" Minimum (TL), one over 27"	5
Southern Flounder	None	10
Amberjack	State & Federal Reg. 30" Min. (FL)	1
Cobia (Ling or Lemon Fish)	State & Federal Reg. 33" Min. (FL)	2
King Mackerel	State & Federal Reg. 24" Min. (FL)	2
Spanish Mackerel	State & Federal Reg. 12" Min. (FL)	15
Red Snapper***	State & Federal Reg. 16" Min. (TL)	2

* For Red Drum (Redfish) and Spotted Seatrout (Speckled Trout): Recreational saltwater anglers may possess a two day bag limit on land; however, no person shall be in possession of over the daily bag limit in any one day or while fishing on the water, unless that recreational saltwater angler is aboard a trawler engaged in commercial fishing for a consecutive period of longer than 25 hours.

** (Cameron & Calcasieu Parishes) Daily take and possession limit of 15 Spotted Seatrout (Speckled Trout): no person shall possess, regardless of where taken, more than two spotted seatrout exceeding 25 total inches in length, which are considered part of the daily bag and possession limit in state and coastal territorial waters South of 1-10 at the Louisiana/Texas border to its junction with LA HWY 171, south to Hwy's 14 and 27 near Holmwood, south along Hwy. 27 to Hwy. 82 to the Gulf of Mexico.

*** There are specific regulations for Red Snapper and Shark. Contact the LDWF for more information.

FORK LENGTH (FL): Tip of snout to fork of tail. TOTAL Length (TL): Tip of snout to tip of tail.

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