



**2008 Barataria-Terrebonne
National Estuary Program Tidal Graph Calendar**



*Louisiana
Geological
Survey*

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Cover: Carte reduite du Golphe du Mexique et des Isles de l'Amerique [Map of the Gulf of Mexico and the American Islands].

(Jacques Bellin 1764. Le Petit Atlas Maritime. [Paris]. 1:plate 47).

Courtesy Special Collections, LSU Libraries, Louisiana State University (Special Collections).

Our cover is an overview of the Gulf of Mexico and Caribbean in 1764 by **Jacques Nicolas Bellin**, father of modern hydrography and Royal French Cartographer at the height of French cartographic authority. Here the **Barataria Terrebonne National Estuary (BTNE)** is shown in its correct and internationally prominent position within the **western half of the last natural delta of the Mississippi** and between the “**Entrée du Mississippi**” (entrance to east fork of the Mississippi, where the east fork refers to current Mississippi River below Donaldsonville) and the “**Fleuve Mississippi**,” Mississippi River. Bellin broadly, but correctly, depicts his “**Fleuve Mississippi**” as the intermingled outflows of the **west fork of the Mississippi (Bayou Lafourche)** and the streams we now call Bayou Plaquemine and Atchafalaya River.

The Barataria-Terrebonne National Estuary (BTNE) on the Eve of European Conquest, 1699

On March 2, 1699, the French scientist/explorer **Pierre le Moyne d'Iberville** sailed over one of three shallow sandbars marking the barely navigable mouths of the east fork of the Mississippi River, into a wilderness paradise filled with bison, parakeets, endless marshes, swamps of ancient cypress, impenetrable cane brakes, and cheniers of magnificent live oaks. The western shore of this paradise, BTNE, was characterized by vast offshore oyster reefs, islands forming from huge drift trees, schools of white shrimp, and a coastline advancing into – rather than retreating from – the sea. Seasonally, sheets of fresh water flowed through BTNE into the gulf through at least six rivers: the Atchafalaya, Plaquemine, Mississippi's west fork (Bayou Lafourche), **Barataria (Barataria Pass)**, **Bastian (Bastian Pass)**, and Mississippi's east fork (the Mississippi below Donaldsonville).

Iberville's entry into the Mississippi was a monumental feat – a tribute to his keen powers of deductive reasoning and amazing luck. In 1698, as Iberville prepared for his first voyage to Louisiana, he studied the accounts of **René Robert Cavelier de la Salle**. In 1682 la Salle explored the Mississippi by land and described its two major branches at present day Donaldsonville. However, la Salle was unable to find the Mississippi by sea in 1684. Not surprisingly la Salle's accounts provided Iberville (and therefore all of Europe) with little insight on the outfalls of the Mississippi into the Gulf. While Iberville pondered the diffuse 'plan' he could base on la Salle's accounts, unpublished Spanish state secrets, such as the **Juan Bisente** chart (image above; Pelletier 2002), came into his hands. (These secrets were unpublished Spanish surveys of the northern Gulf Coast.) Bisente's chart was based on those of the Mexican pilot **Juan Enriquez Barroto**, who had mapped the eastern coast of Louisiana in 1687. With keen insight, Iberville recognized the Spanish River Palazada as the most likely candidate for la Salle's Mississippi River and focused his search accordingly.

On his first voyage up the Mississippi, Iberville was haunted by a single misimpression – he thought he was on the west fork of the river (Bayou Lafourche) (e.g. McWilliams 1981; Detail of Cox 1727 in Lemmon et al. 2003, p. 44).

This misimpression was due to Iberville's limited ability to understand the dialects of the two groups of Native Americans (**Bayougoula and Biloxi**) he met while searching for the Mississippi. The Bayougoula told Iberville of their village on the Mississippi and the Biloxi of their village on the Pascagoula. Iberville mistakenly thought that the Biloxi's Pascagoula might be the Mississippi's east fork and entered the east fork of the Mississippi thinking it the west. Once above present day New Orleans, Iberville began an almost desperate search for the fork in the river to prove his discovery.

While Iberville's mistake would be corrected by the following year, his search for both forks underscores for us the mighty, delta-building forces which were at work in BTNE in 1699. The French and Spanish accounts of the river clearly show that, in 1699 the Mississippi had not abandoned its natural delta plane. Rather it flowed through a huge arc of its own creation from the northern shores of what is now Saint Bernard Parish, through BTNE, to the Atchafalaya-Vermilion Bay Complex.

Unfortunately, though provided by **Father Pierre Francois Xavier de Charlevoix** (1744) with sound scientific advice, the French court implemented an environmentally disastrous policy which leveed the river and cleared and drained the cypress swamps.

In this calendar we explore the historical ecology of BTNE from ca. 1680 to ca. 1938, a time period that begins with European conquest and ends with the first major industrial uses of the system's living resources. Our guides are the most authoritative first-hand accounts of the earliest witnesses who have left us written or illustrated documentation of this magnificent system and its abundance. They include the surveys of Barroto, Iberville, and Evia; the authoritative and rare maps of Jansson, de l'Isle and Bellin; the observations/insights of the French priests du Ru and Charlevoix; the haunting landscape views of Fonville Winans, Chasteaumont, William Hamilton Gibson and Rebecca Harding Davis, Frank Schoonover, the "Tate Album", and Edward Kemble and Eugene Smalley. These valuable lessons are gifts from the past awaiting use by those seeking a better future for our children.

Our estimates of current locations of historic sites mentioned are in parentheses. Given space limits, each reference is given in the first appropriate section along with a hypertext link if a publicly available electronic source is available.

With the exception of the covers, our presentation is chronological. **Cover**. In 1764 the Royal Cartographer Bellin published this authoritative view of BTNE between the two major outflows of the Mississippi River. **January**. Jansson's map (ca. 1653) of North America demonstrates Europe's uncertainty over the location of the Mississippi River. This uncertainty continued until 1699 when Iberville correctly interpreted the 1682 and 1687 discoveries of la Salle and Barroto. **February**. In 1682, la Salle encountered the west fork of the river (Bayou Lafourche) as he descended the Mississippi. Based on la Salle's and Iberville's findings, de l'Isle's map (1703) provided Europe with its first authoritative view of the location of the Mississippi River and its two main forks. **March and April**. Barroto in 1687 searched for la Salle; mapped the Louisiana coast from the Sabine River to Southwest Pass; and encountered BTNE's vast offshore oyster reefs, drift trees, and River of Watering (Barataria Pass). **May**. The major natural distributaries of the Mississippi through BTNE are shown in Bellin's authoritative map (1764). Iberville's quote reveals his brilliant use of the Spanish and French accounts to narrow his search for the Mississippi. **June**. The Marquis de Chasteaumont in 1699 describes Native Americans hunting herds of bison along the northern Gulf Coast. **July**. Father du Ru watches Carolina parakeets sing in the cypress in 1700. **August**. Father Charlevoix describes the extent and fate of the vast oak forest which filled much of Barataria in 1722. **September**. Rebecca Harding Davis (1887) and William Gibson watch the extermination of BTNE's vast swamps of majestic, ancient cypress from the comfort of a train. **October**. Frank Schoonover (1911) visits a shrimp drying platform in northern Barataria Bay and watches as shrimpers under sail hunt great schools of white shrimp. **November**. The "Tate Album" (ca. 1915) independently confirms Schoonover's account of the abundant harvest of white shrimp. **December**. Edward Kemble and Eugene Smalley (1888) wander through the cucumber and squash fields and live oaks out onto Grand Isle's broad beach and watch the gatherers of driftwood. **Back**. Father Charlevoix (1744) provides amazing insight on the critical link between BTNE and the natural flows of the Mississippi River.

Lemmon, A. E., J. T. Magill, and J. R. Wiese. 2003. Charting Louisiana. Historic New Orleans Collection.

McWilliams, R. G. 1981. Iberville's Gulf journals. University of Alabama Press.

Pelletier, M. 2002. The working method of the new cartographers. Terra Incognita. 34:60-72. http://www.sochistdisc.org/2002_articles/pelletier.htm

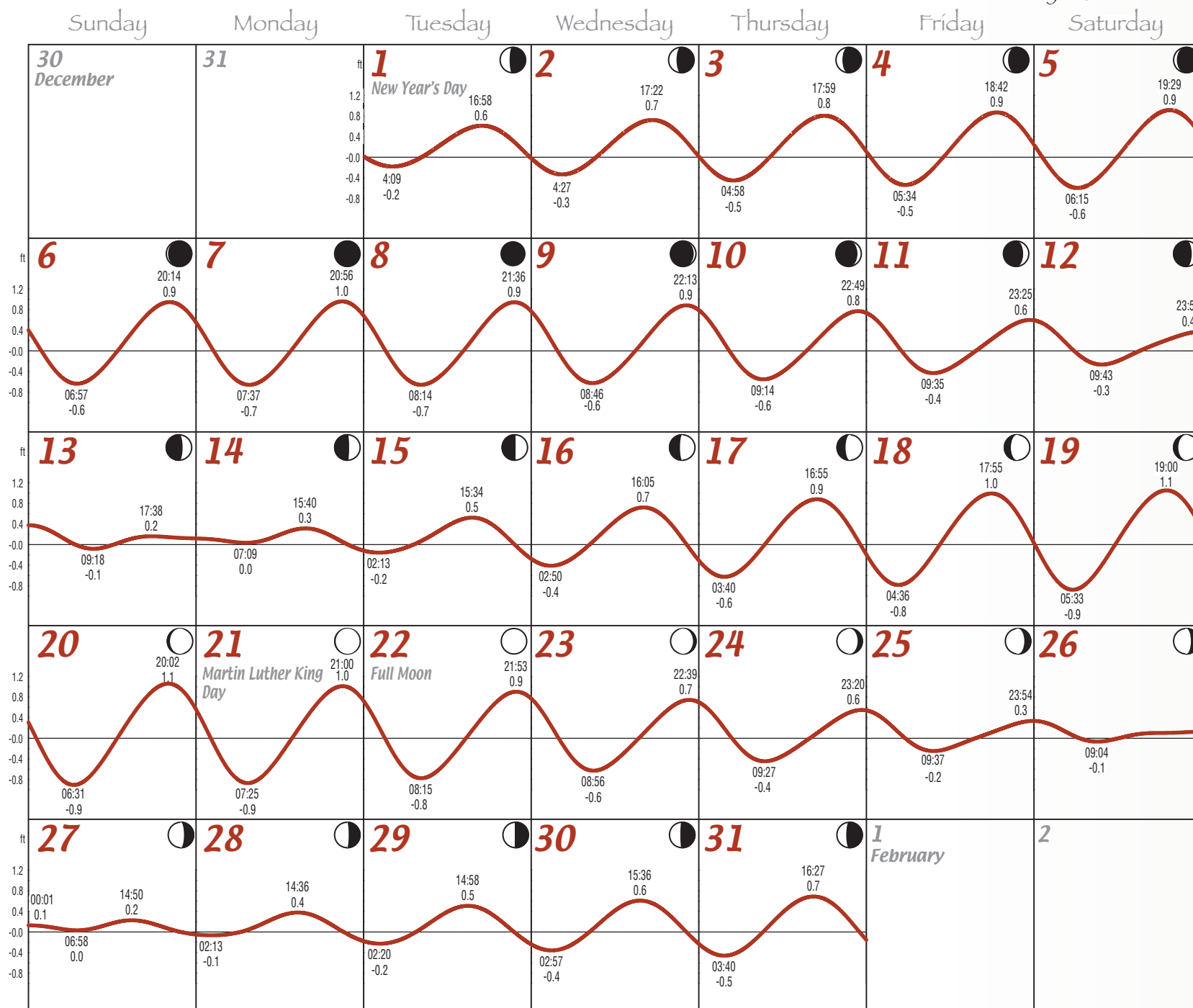


American Septentrionalis [North America].
(Jan Jansson, ca. 1653, Amsterdam.)

<http://louisdl.louislibraries.org/>. Courtesy Special Collections.

January 2008

Monthly High & Low
High: January 20, 20:02 1.1 ft
Low: January 20, 06:31 0.9 ft



[To find the Mississippi], I will go and examine the lands 50 or 60 leagues west of the Cape of Florida...and will continue my route to Saint Louis Bay (Matagorda Bay) where I will get news of the French which Mr. la Salle left (Iberville June 18, 1698, in Margry 1880, 4:53-55).

In 1698, Spain, England, and France were in a fierce competition to secure their conflicting claims to the northern coast of the Gulf of Mexico. **Pierre le Moynes d'Iberville** was selected by the French Court to solidify **René Robert Cavalier de la Salle's** tenuous 1682 French claim to Louisiana by establishing a settlement along the forks of the Mississippi.

As Iberville prepared for his voyage of hopeful conquest and possible conflict, he studied the authoritative European accounts of the Gulf of Mexico and the course of the Mississippi. As evidenced by January's quote and map, they were of little use. La Salle had failed to relocate the Mississippi in 1684. Spain had mapped the Louisiana coast during its 1684-87 efforts to find and imprison la Salle, but Spain kept her results secret. She did not want them available to her colonial competitors or to the pirates that preyed on her vessels filled with plunder.

In January's quote, Iberville discusses the broad uncertainty in Europe over the location of the mouths of the Mississippi. This uncertainty would vanish when the French court presented Iberville with some of Spain's secrets (e.g. Juan Bisente chart in the Introduction).

January's map was an authoritative European view of North American at the time of Iberville's 1698 letter, though the map predated la Salle's descent of the Mississippi. Note the map's broad, incomplete territorial claims; wildlife of the unconquered heartland; sea monsters and warships; California Island; and westward location of a Mississippi-like river.

Margry, P. 1880. Découvertes et établissements des Français dans l'ouest et dans le sud de l'Amérique Septentrionale (1614-1734). [http://memory.loc.gov/cgi-bin/query/r?intl/ascfbib@field\(NUMBER+@odi\(gctr+0020\)\)](http://memory.loc.gov/cgi-bin/query/r?intl/ascfbib@field(NUMBER+@odi(gctr+0020))).

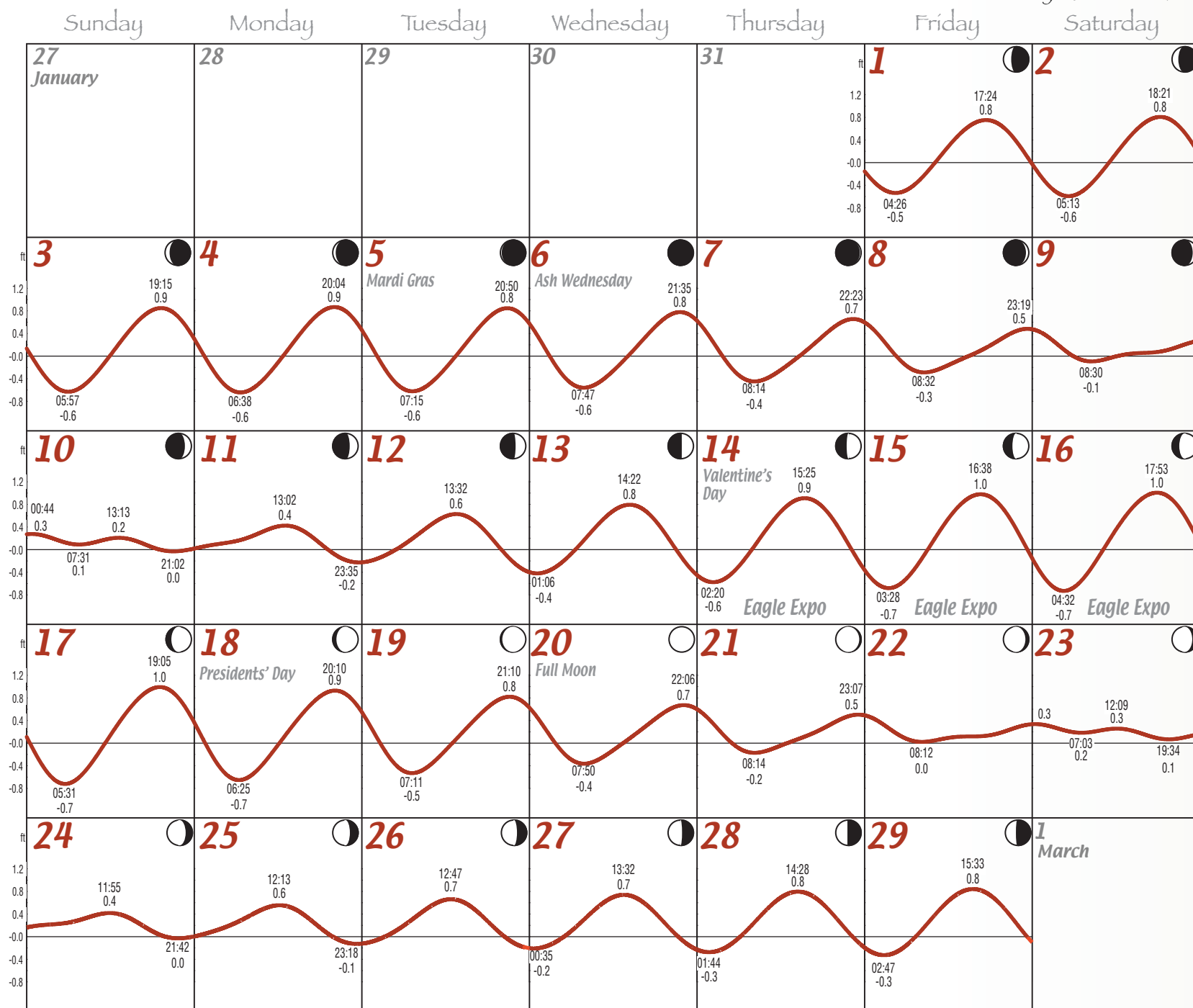


Carte du Mexique et de la Floride des Terres Angloises et des Isles Antilles du cours des environs de la rivere de Mississipi. Dressée sur un grand nombre de mémoires principaux sur ceux de M^{rs}. d'Iberville et le Sueur [Map of Mexico and Florida].

(Guillaume de l'Isle 1703). Courtesy Special Collections.

February 2008

Monthly High & Low
High: February 16, 17:53 1.0 ft
Low: February 16, 04:32 -0.7 ft



We crossed a great canal (Bayou Lafourche), which went towards the sea on the right. Thirty leagues farther on we saw some fishermen on the bank of the river, and sent to reconnoiter them. It was the village of the Quinipissas (near the Bonnet Carrie), who let fly their arrows upon our men. Twelve leagues from this village is the Tangiboas. We proceeded on our course, and after sailing 40 leagues, arrived at the sea on April 7th (Tonti 1693 in Falconer 1844, 68-69).

Despite la Salle's weak description of the Louisiana coast, one thing remains clear: la Salle's Mississippi had two major forks as described above by **Henry de Tonti**, la Salle's loyal friend, with estimates of leagues traveled and important milestones (the villages of the **Quinipissas** and **Tangiboas**) between the fork and the eastern mouth of the Mississippi.

February's illustration is Europe's first accurate view of the outflow of the Mississippi, published in 1703 by the first Royal French Cartographer, **Guillaume de l'Isle**, "the first truly scientific cartographer" (e.g. Martin and Martin 1984 p 93). De l'Isle's map shows the fork in the river that la Salle described and Iberville rediscovered. In the detail, all or most of the BTNE coast lies between **Lac de l'Ascension** (Atchafalaya Bay) and Embouchure Mississippi (Bird's Foot Delta). In addition, the west fork of the Mississippi connects with **Lac de l'Ascension**, reflecting the connectivity between Bayous Lafourche and Plaquemine and the Atchafalaya.

Falconer, T. 1844. On the discovery of the Mississippi. S. Clarke, London.

Martin, J. C. and R. S. Martin. 1984. Maps of Texas and the Southwest, 1513-1900. University of New Mexico Press.



***Oystering near
Taylors Bayou, ca 1915.***

*Col. Joseph H. Tate Photograph Album
(Images 55-6, 67-9), Mss. #4963,
Louisiana and Lower Mississippi Valley
Collections, LSU Libraries, Baton Rouge,
LA (LLVMC). Courtesy LLVMC.*



March 2008

Monthly High & Low
High: March 14, 16:01 1.1 ft
Low: March 14, 02:59 -0.5 ft

*This coast is very shallow and there is much
driftwood upon the oyster banks
(Barroto 1687 in Weddle 1987, 190).*

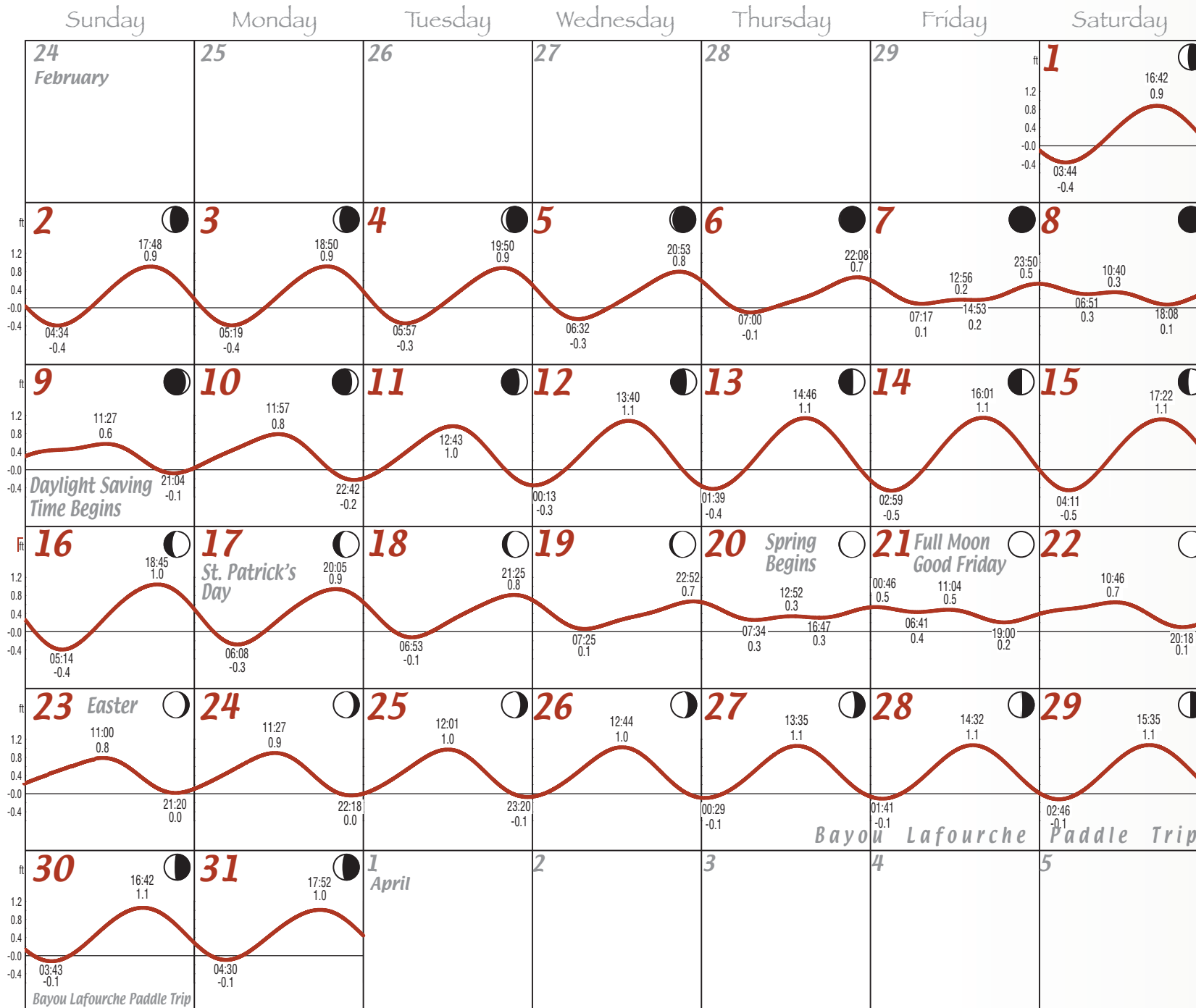
*From the western point of Ultima Island
(Last Island) the oyster banks stretch 16 miles to the
southwest and 10 miles to the south.
They can be coasted in two fathoms of water, and if
the tide is out, they are visible
(Evia 1785 in Hackett 1931, 358).*

When la Salle descended the Mississippi he was invading Spanish territory. In response, the Spanish sent out expeditions to imprison the intruders. **Juan Enríquez Barroto**, chief pilot on one of these expeditions, mapped the Louisiana coast from the Sabine River to Southwest Pass. In our first March quote, Barroto describes the occurrence of vast offshore oyster reefs and floods of drift trees along BTNE's coast.

Almost 100 years later, Louisiana was again owned by Spain and a different Spanish surveyor, **Don José de Evia** was sent in 1785 by the Spanish Governor of Louisiana to map BTNE's offshore oyster reefs, a serious navigation hazard especially south of **Last Island**. Evia independently confirms Barroto's 1687 observations on BTNE's offshore oyster reefs and drift trees, so important in coastal advance and protection under the natural outflows of the Mississippi.

In 2007 LSU's Hill Memorial Library acquired a remarkable photographic album from the heirs of Col. Joseph H. Tate, a 1917 West Point graduate. Though unsigned, undated, and briefly annotated, the album appears to follow Tate as he explores southern Louisiana in about 1915.

March's illustrations are from the Tate Album. They document an oyster harvesting village apparently operated by the "Louisiana Oyster and Fish Company" near **Taylors Bayou** on the BTNE coast, perhaps reflecting a remnant of the vast offshore oyster reefs Barroto and Evia encountered.

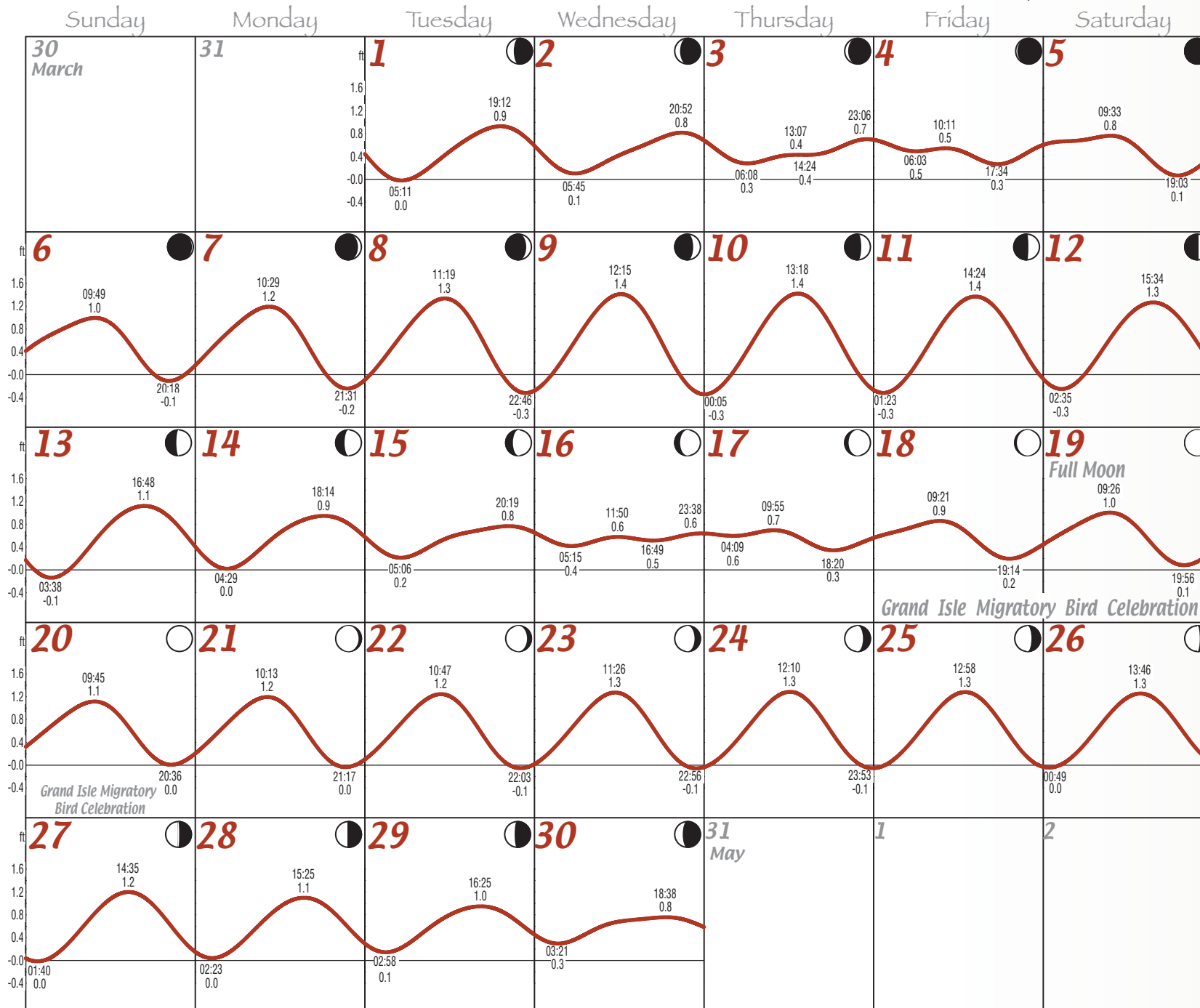




1938 Grand Isle.
*Fonville Winans Photograph Collection
(Fonville image 185B), Mss. #4605,
LLMVC, reproduced courtesy of
James and Meriget Turner.*

April 2008

Monthly High & Low
High: April 10, 13:18 1.4 ft
Low: April, 00:05 -0.3 ft



I called [this] Río de la Aguada [River of the Watering] (Barataria Pass), because so much fresh water and some driftwood comes out of it. Today we made almost the whole watering

(Barroto 1687 in Weddle 1987, 191-2).

December to May, when the Mississippi is swollen and discharges through it (the Atchafalaya) and Barataria, a strong current reaches three leagues out to sea, where fresh water is found

(Evia 1785 in Hackett 1931, 356).

As Barroto continued his 1687 search for la Salle and his mapping of our coast, he also looked for drinking water – often finding none. However, one river he discovered had so much fresh water flowing out of it into the Gulf that he called it **Río de la Aguada, River of the Watering (Barataria Pass)**. April's first quote allows Barroto to tell us of this good news. April's second quote by the Spanish surveyor Evia tells us that this freshwater outflow continued until at least 1785 showing the Mississippi had not yet been forced to completely and artificially 'abandon' its last natural delta.

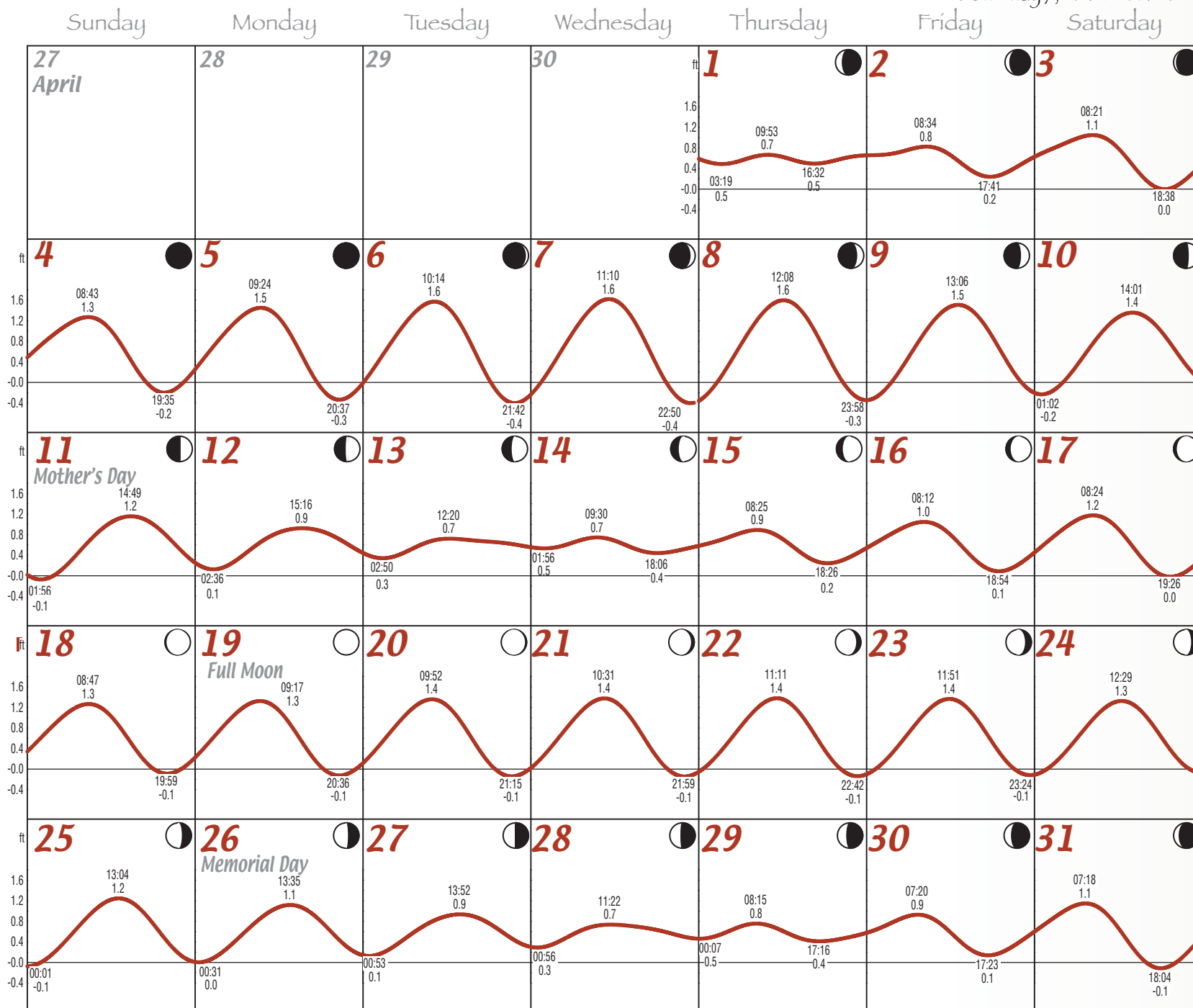
April's illustration is a view of **Grand Isle** captured by **Fonville Winans** – arguably Louisiana's first great modern photographer – in this stunning, early aerial photograph. Note the broad sandy beach, the dense groves of live oaks, and evidence of rich soil, all indicative of a natural system which would have been immediately downstream from Barroto's River of the Watering.



Flow of the Mississippi River through BTNE. (Bellin 1764). Courtesy Special Collections.

May 2008

Monthly High & Low
High: May 7, 11:10 1.6 ft
Low: May 7, 21:42 -0.4 ft



I have learned nothing new regarding the Mississippi. I shall continue with my original plan which is to go and search in the region of the bay of Lago de Lodo (Chandeleur/Breton Sound) (Iberville December 19, 1698, in Margry 1880, 4:88-89).

The Mississippi receives the whole drainage of the continent between the Rocky and Appalachian ranges. Below Bayou Sara it occupies the land, forcing itself seaward, not only by more than three hundred bayoux, many of which are mighty rivers, but by sluggish, scarce-moving streams, by a perpetual soaking, creeping, oozing, through all the earth, showing itself on the surface in countless lakes, ponds, and enormous dismal swamps, and above it in incessant heavy rolling fogs and mists. The shores of Bayou Plaquemine resemble those of La Fourche. When the Mississippi is gorged, its waters rush through this outlet with a force equal to that of the St Lawrence below Niagara. It overflows into the Atchafalaya, or the Old River, as it is sometimes called, because of an Indian tradition that it was ages ago the Mississippi itself (Harding-Davis 1887, 75:754-6).

Iberville's uncertainty on the Gulf location of the Mississippi ended when he acquired Barroto's descriptions and saw la Salle's Mississippi must be the Spanish **River Palisada**. Iberville's quote demonstrates his linking of these two widely divergent accounts (la Salle's by land, Barroto's by sea).

In May's illustration, Bellin describes the Mississippi's major outflows through BTNE by combining coastal features observed by Barroto – **Riv. Barataria (Barataria Pass)**, **R au Bastien (Bastien Pass)** – with French, inland observations on the connectivity of **Riv du Vermouu (Atchafalaya)**, **Riv Plaquemine (Bayou Plaquemine)** and **Riv des Chetis (Bayou Lafourche)**. Bellin's description is enhanced by our second quote.

Bellin, J. 1764. Carte reduite des costes de la Louisiane et de la Floride / dressée au Dépôt des cartes, plans et journaux de la Marine. [Paris]. <http://cdl.louisiana.louisiana.org/>

Harding-Davis, R. 1887. Here and there in the South. Harper's New Monthly Magazine. <http://cdl.library.cornell.edu/cgi-bin/moa/moa.cgi?notisid=ABK4014-0075-89>

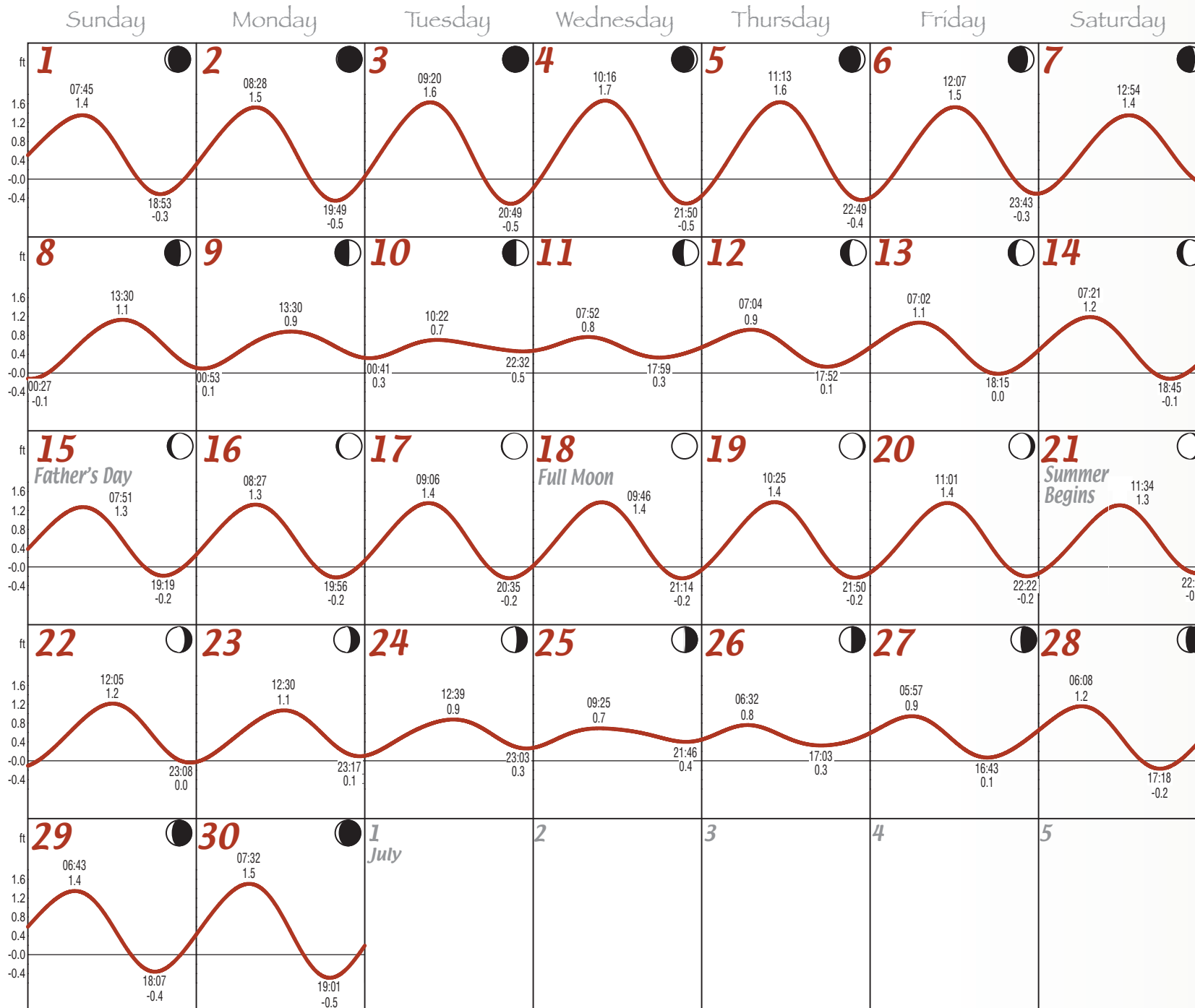


Bison.

(detail from Jan Jansson ca. 1653). Courtesy Special Collections.

June 2008

Monthly High & Low
High: June 4, 10:16 1.7 ft
Low: June 3, 20:49 -0.5 ft



When the Natives go hunting they set fire at the windward end of the savannah where the bison are and the fleeing animals will pass the areas where the hunters are stationed, and there they kill as many of them as they wish. While I was along the coast, I saw these fires almost every night
(Chasteaumorant June 23, 1699, in Margry 1880, 4:108).

Bison were a common feature of the Louisiana and northern Gulf coast. Iberville found and hunted them when he first landed at Head of Passes and feasted on bison with the Native Americans as a sign of friendship. They remained common to the early French settlers who named many of their bayous Bayou Boeuf after this "beaste sauvage" before it became extirpated in Louisiana.

June's quote is an astonishing historical insight into the methods used by the Native Americans to hunt herds of bison on the northern Gulf coast. It is by the **Marquis de Chasteaumorant**, Iberville's military escort of 1699.

June's illustration is a detail taken from Jansson's map of North America (ca. 1653). Jansson's detail reminds us of how abundant these great animals were in North America before European conquest.

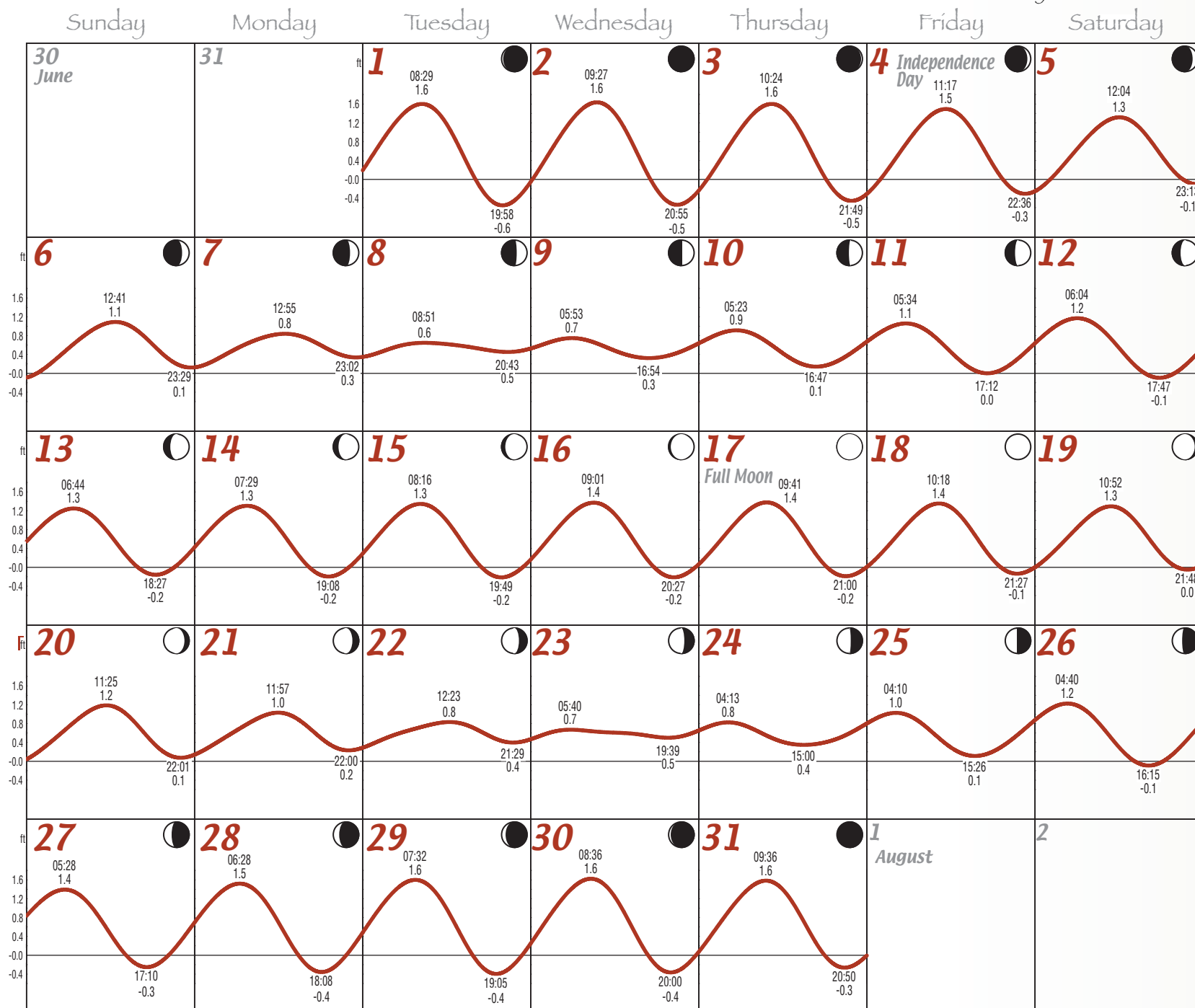


Parakeet on the bayou.

*(Gibson illustration in Harding-Davis 1887, 747).
Courtesy Louisiana State University Libraries (LSUL).*

July 2008

Monthly High & Low
High: July 2, 09:27 1.6 ft
Low: July 1, 19:58 -0.6 ft



*There are parquets by the thousand.
They are not as good to eat as they are beautiful.
The famous Fork of the Mississippi
(Bayou Lafourche) is now in sight. I would not have
distinguished one branch from the other. Coming
down stream the branch on the left seems as broad as
it does as we pass it on our right
(du Ru 1700 in Butler 1934, 17-18).*

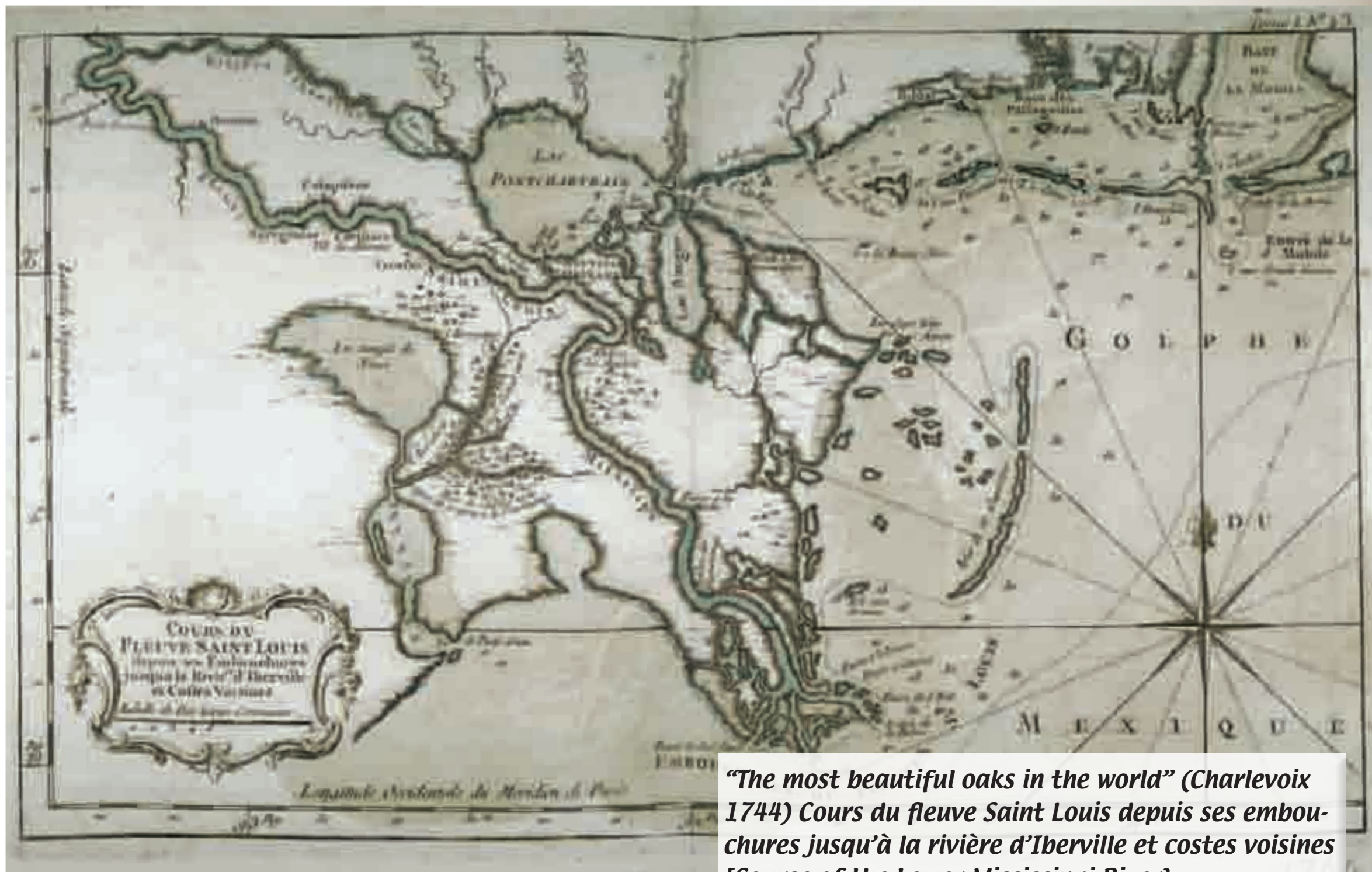
Before its extinction, the Carolina parakeet was a very abundant bird in Louisiana's virgin cypress swamps. Because it was the only bird commonly observed feeding on the seeds contained in the woody fruit of the cypress, the French considered it important in cypress reseedling.

July's quote is from **Father Paul du Ru**, a Jesuit priest who, in 1700, accompanied Iberville on his second journey up the Mississippi River and established a mission among the Bayougoula. In this quote, Father du Ru is traveling with Iberville towards the Bayougoula village and, as he approaches the fork in the river (Bayou Lafourche), Father du Ru notes the abundance and beauty of the parakeets in the cypress.

The naturalist, illustrator, and author **William Hamilton Gibson** provides us with this haunting view of a Carolina parakeet along a Louisiana bayou.

Surely our state became less beautiful with the passing of North America's only native parakeet.

Butler, R. L. 1934. Journal of Paul du Ru. The Caxton Club, Chicago.

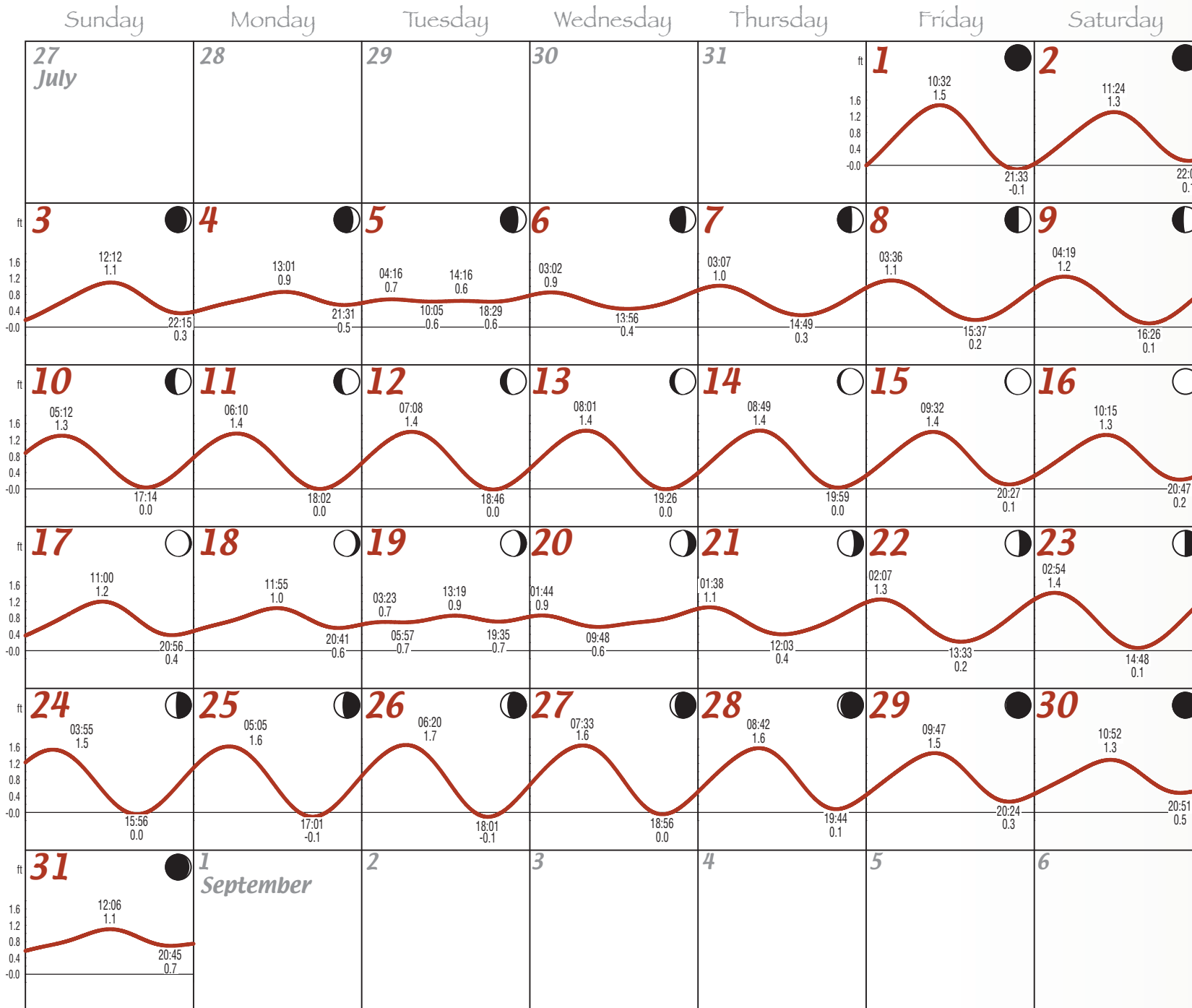


“The most beautiful oaks in the world” (Charlevoix 1744) Cours du fleuve Saint Louis depuis ses embouchures jusqu'à la rivière d'Iberville et costes voisines [Course of the Lower Mississippi River].

*(Jacques Bellin 1764. Le Petit Atlas Maritime. [Paris]. 1:plate 43).
Courtesy Special Collections.*

August 2008

Monthly High & Low
High: August 26, 6:20 1.7 ft
Low: August 26, 18:01 -0.1 ft



Large sailing vessels can ascend from the sea up to Lake Cheitmachas (the Atchafalaya's Grand Lake), and nothing can prevent them from obtaining the most beautiful oaks of the world, the whole coast is covered with them
(Charlevoix 1744, 3:444).

Iberville did not find a suitable place to establish a settlement on the Mississippi River in 1699 and hoped that the fort he built at Ocean Springs, Mississippi, would secure France's claim to Louisiana. Events quickly proved that this would not work. In 1720 the French court sent the scholar and priest **Father Pierre Francois Xavier de Charlevoix** to Louisiana and New France to make recommendations on settlement patterns along the Mississippi and to search for an all-water route to the Pacific Ocean. Upon his return to Europe, Father Charlevoix collaborated with the French Royal Cartographer Bellin and informed Europe of BTNE's magnificent oaks – oaks which were very desirable for the construction of sailing vessels. In this 1764 map, Bellin provides us a view of some of these oaks, soundings through the lower reaches of the Barataria estuary, and a suggestion that floating marsh filled Lake Salvador.

Charlevoix, P. 1744. Histoire et description générale de la Nouvelle France. Paris.

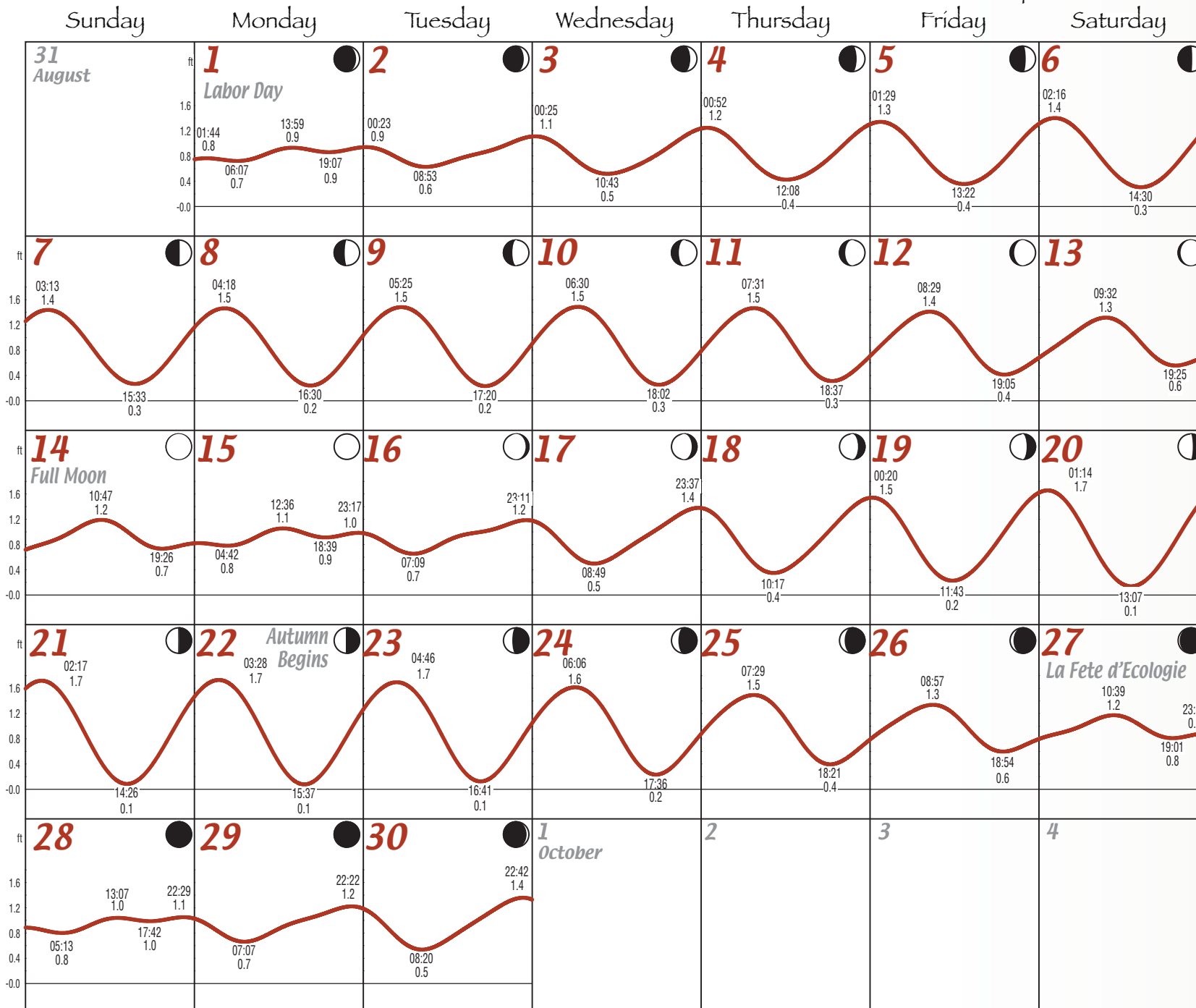


Harvesting the virgin cypress.

(Gibson illustration in Harding-Davis 1887, 753.). Courtesy LSUL.

September 2008

Monthly High & Low
High: September 22, 03:28 1.7 ft
Low: September 22, 15:37 0.1 ft



*Interminable swamps of giant cypresses.
strange red and orange birds flashed through the
somber recesses. On the border of that coast country
of Louisiana which fronts the Mexican Gulf between
Barataria and Calcasieu bays, a remarkable region,
unlike any other in North America*
(Harding-Davis 1887, 754).

When Iberville sailed into "Baton Rouge" (Devil's Swamp) in 1699, it was a majestic, lake-like cypress swamp with towering trees of immense diameter and ancient age. The next year, 1700, Iberville began Europe's harvest of Louisiana's cypress when he ordered the construction of an ill-conceived and ill-fated fort near the mouth of the east fork of the river (du Ru 1700 in Butler 1934).

September's illustration is by nineteenth century naturalist William Hamilton Gibson. It is of a virgin cypress swamp as it was being harvested within or west of BTNE. Note that the center tree was notched to kill it (as was the practice in the dry season); and that three men to the right of the base of this tree are poling out trees that have been felled during this, the wet season.

September's quote is by Rebecca Harding Davis as she traveled by rail through this cypress forest. Her quote, when combined with Gibson's illustration, provides us with one last view of the majestic stands of cypress which once lined the Mississippi and filled our coast.

Today, all but a few parcels of the once vast virgin cypress swamps in Louisiana are gone.

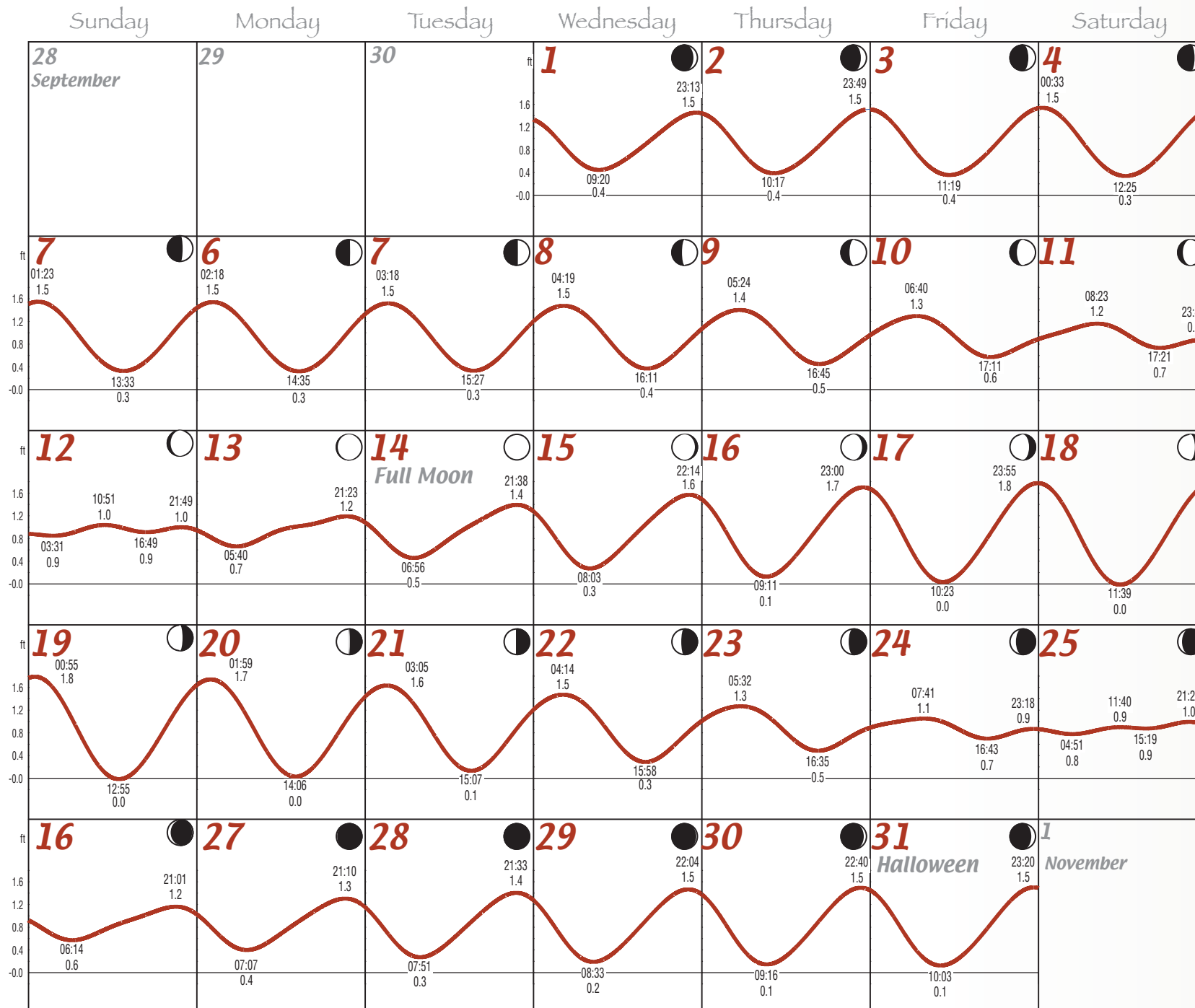


Manila Village, a shrimp drying platform.

(Schoonover 1911) Courtesy LSUL.

October 2008

Monthly High & Low
High: October 19, 00:55 1.8 ft
Low: October 19, 12:55 0.0 ft



Barataria Bay, Grand Isle, East Point, 29d 15' 48" N 89d 57' 24" W - Tides & Currents by Jeppesen Marine - www.nobeltec.com

[approaching Manila Village] A great fleet of sailing-boats with red sails drying in the sun. A long wharf that ran back to a huge platform. Twenty or more houses, all raised high above the water upon posts of cypress like a miniature Venice (Schoonover 1911, 81).

[drying shrimp] Hundreds of baskets of shrimp drying beneath four days of the hot sun. Once the shrimp are dry, round and round upon the poor shrimp they dance to the chant of a Mexican Indian. Pick up a handful, a dozen or more dried shrimps all perfectly cleaned and about half as long as your finger (81-82).

[evening approaches] A young girl came along the single-plank path. Long, straight, black hair waved across her olive-brown face. She carried a baby in her arms. She passed with the sureness of an Indian. The cool of the evening was creeping over the swamp. From the deep marsh came the songs of the night. And over the community settled a spirit of quiet and rest (82-83).

[morning harvest] We followed the old Captain as he made cast after cast. The schooner drops the peak of the sail and a seine is played out. Presently a lot of men, maybe a dozen, are pulling in the marsh at a long rope. The live shrimp are lifted and dumped into the schooner. The catch is estimated to be 100 baskets (7,000 pounds). The crew hoists the sail, as the boat moves slowly away for the distant platforms, the first rays of the rising sun catch the peak and turn the color to crimson (84-85).

In 1911, three years before the Louisiana Conservation Commission issued its first biennial report, Frank Schoonover spent an evening, night, and morning at Manila Village, one of at least seven shrimp drying platforms in Barataria Bay. He shows us a racially diverse fishery on white shrimp which supported catch rates of 7,000 pounds/set.

Schoonover, F. 1911. In the haunts of Jean Lafitte. Harper's Monthly Magazine.

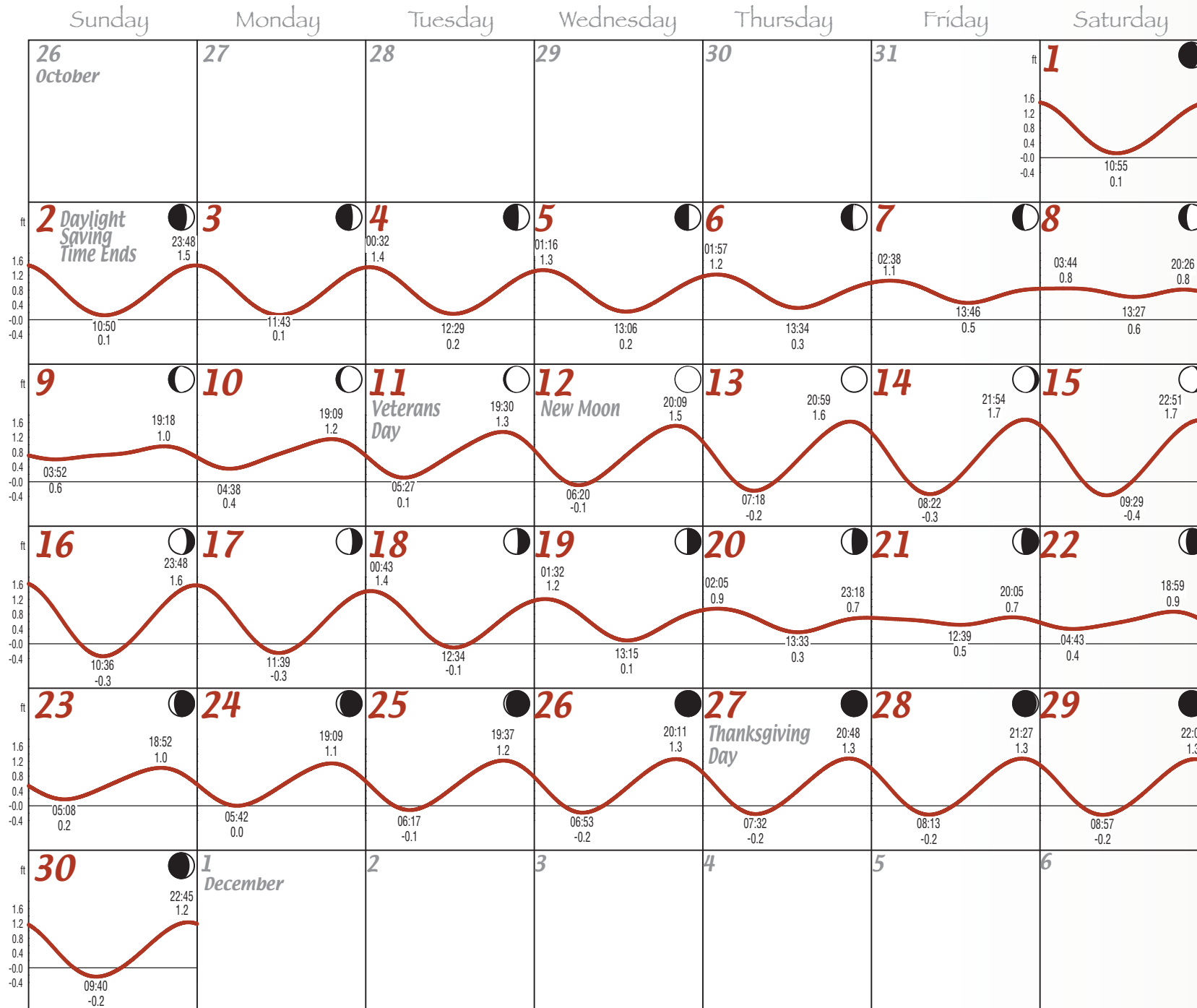


Shrimping near Oyster Bayou, ca. 1915.

*Col. Joseph H. Tate Photograph Album (Images 57-60, 63-4), Mss. #4963, LLMVC.
Courtesy LLMVC.*

November 2008

Monthly High & Low
 High: November 14, 21:54 1.7 ft
 Low: November 15, 09:29 -0.4 ft



*"Bull Dog" with 36 barrels shrimp
 shrimp lugger
 Boiling shrimp
 24 barrels in this haul
 Hauling seine
 shrimpers*

November's illustrations and quotes are from the Tate Album. They document a shrimp drying concern which appears to have been near **Oyster Bayou** in southwest BTNE. The abundant catch of large white shrimp – 2,510 pounds in the vessel "Bull Dog" and 1,680 pounds in a single haul – and the methods of harvest clearly parallel and independently confirm the observations published by Schoonover.

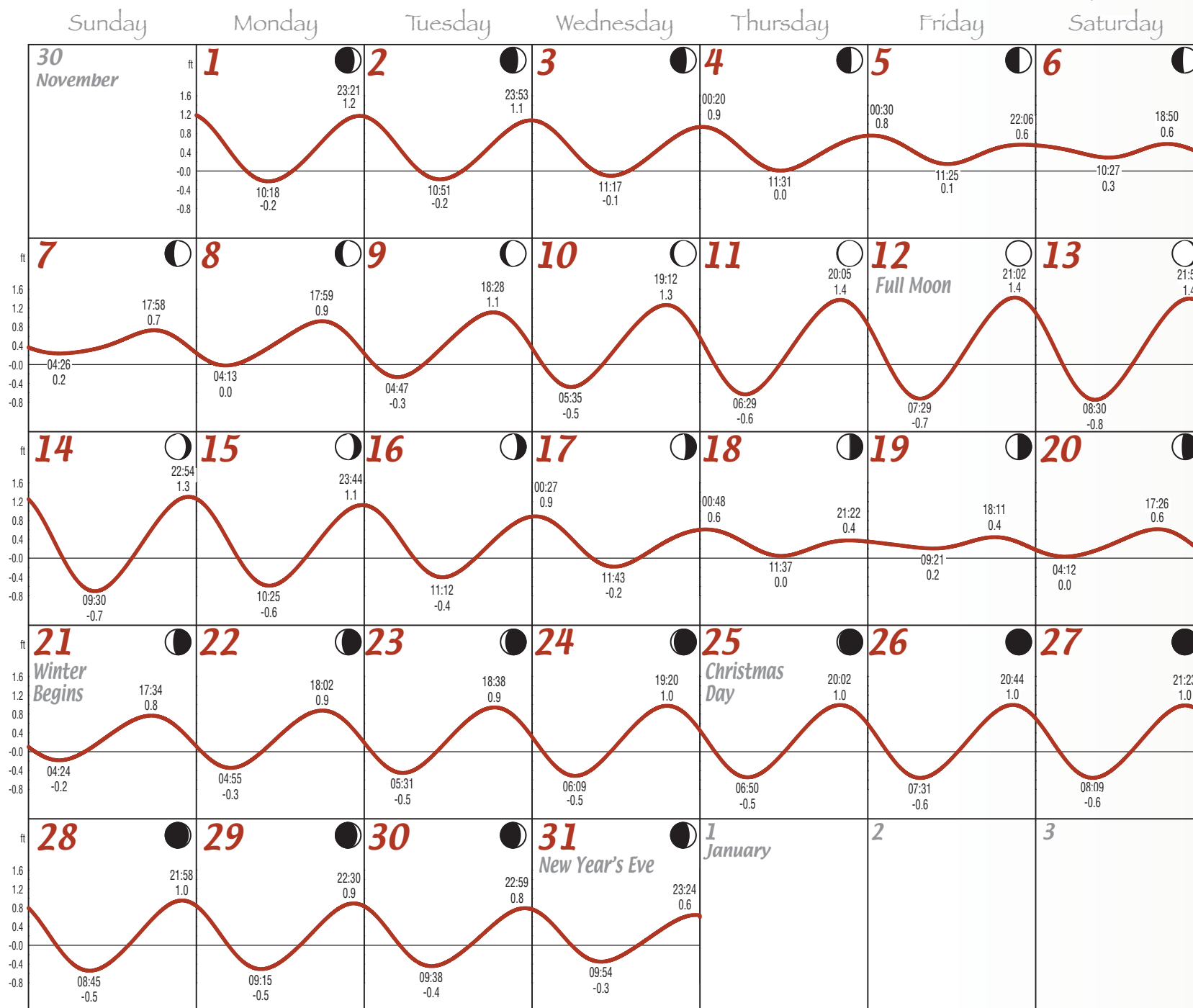


Gatherers of driftwood, Grand Isle.

(Kemble illustration in Smalley 1888, 334). Courtesy LSUL.

December 2008

Monthly High & Low
High: December 12, 21:02 1.4 ft
Low: December 13, 08:30 -0.8 ft



*Going in the direction of the sound of the surf,
we came suddenly out from among the
live-oaks upon a broad sandy beach,
strewn with broken limbs and trunks of
trees brought down to the Gulf of Mexico by
the Mississippi, fuel for all the people
who live on the islands.*
(Smalley 1888, 332).

Iberville was escaping a storm and heading onto a "rocky coast" when he first entered the Mississippi. As he sailed into the River he found that these "rocks" were huge drift trees covered with dried mud (McWilliams 1981), the same drift trees which the Spanish had described as flowing out of their River Palazada (Mississippi) and building the BTNE coast.

A young **Edward W. Kemble** accompanied **Eugene V. Smalley** on a voyage through BTNE. We leave you with this Christmas gift from Kemble and Smalley: a young girl gathering driftwood along a once vast Grand Isle beach and an account of the bounty and fierce serenity of our coast as it was in the 1880s.

Smalley, E. V. 1888. An ancient haunt of pirates. St. Nicholas.



The discovery of the abundant lands of Louisiana has led to the development of a culture, people and way of life like no other in the world. The vibrant history of the region is filled with amazing stories like the ones retold in the pages of this calendar, and Louisiana and Louisianans alike will continue to make history.

As evident in the previous pages, Louisiana's coastline has changed rapidly since its discovery, but due to human modification these changes have occurred more rapidly over the last 60 years. But, Louisianans are still strong, determined, and resourceful. Like those who trekked the marshes centuries ago, the people of Louisiana are still deeply connected to our wetlands. However, today's people also understand that Louisiana's wetlands must be rebuilt in order for them to maintain the only way of life they know, as well as to provide the economic and natural resources the rest of the nation relies on every day.

The Barataria-Terrebonne National Estuary Program (BTNEP) also understands that rebuilding wetlands is vital to the future of Louisiana, and knows it is possible to do just that. Established in 1991, the mission of the BTNEP is the preservation and restoration of the Barataria-Terrebonne estuarine system, the 4.2 million acre region between the Atchafalaya and Mississippi Rivers. 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.

BTNEP is driven by the common desire to save a system and community infrastructure that is disappearing before our eyes. We wish to see a system capable of sustaining and protecting our homes, the places we work and play, and our way of life. We want these things for our children and grandchildren. We know wetland restoration can happen and that it will provide protection for Louisianans.

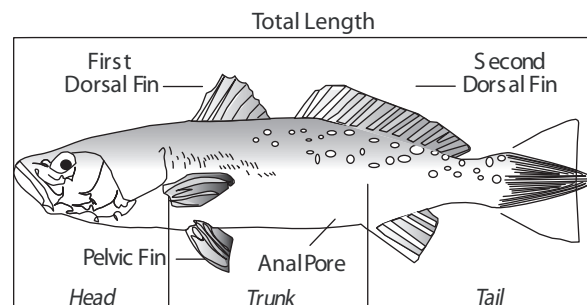
Our restoration plan, approved by the state of Louisiana and the federal government, is multifaceted and goes well beyond the mere creation of landmasses. It recognizes that a successful restoration plan must be on a watershed level, have full community support, and be considerate of all elements of the ecosystem. A plan capable of implementation should address barrier islands, forested wetlands, shoreline habitats, natural chenier ridges, upland habitats, shellfish reefs, water quality, and fresh, brackish and saline marshes to ensure that all receive some level of restoration. However, we do recognize that changes are inevitable and must occur as restoration efforts progress. It is the magnitude of the changes resulting from coastal restoration efforts that must be applied with some caution and consideration for our current way of life.

In order to maintain the way of life of people in Louisiana and to still provide the economic and natural resources the rest of the nation relies on every day, a holistic approach to coastal restoration must be taken, like BTNEP took in the development of its restoration plan. Within this plan, small to medium water diversions are recommended, along with pipeline sediment delivery. The later technique is proven to work and should be at the top of the restoration "tool box" as one of the very few available tools that can be used to create wetlands from open water areas. It is a process that moves sediments harvested from existing deposits in river beds and offshore areas through an infrastructure of pipelines to rebuild and nourish wetlands and natural ridges. Only adding freshwater will protect the marshes we have now, but this is not enough to allow for a sustainable, human ecosystem. Our current condition calls for an urgent response to rebuilding our coastal landscape and that goes beyond merely sustaining what we have left.

Although Louisiana is losing wetlands faster than any other place on earth, there is still hope for the people, the culture, and the rich economic and natural resources. As history has proven, Louisiana provides a generous backdrop to a unique way of life. As you look at a different map of what Louisiana used to look like every month, please remember that hope is not lost. We still believe that restoration is possible. The planning has been completed and now wetlands must be rebuilt in our estuary – our home.

With warm regards,

The Barataria-Terrebonne National Estuary Program



Fork Length (FL): Tip of snout to fork of tail
Total Length (TL): Tip of snout to tip of tail

FRESHWATER species

	SIZE limit	Daily limit
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 (Gaspeigou)	25 less than 12" (TL)	No limit over 12"

SALTWATER species

	SIZE limit	Daily limit
Speckled Trout	12" minimum (TL)*	25*
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. 28" min. (FL)	1
Cobia (Ling or Lemon)	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. (FL)	4

* Within BTNE

Grand Isle Migratory Bird Celebration

<http://grandisle.btnep.org/>

Eagle Expo

<http://eagles.btnep.org/>

<http://lafete.btnep.org/>

La Fete d Ecologie

Bayou Lafourche Paddle Trip

<http://paddling.btnep.org/>

Barataria-Terrebonne National Estuary Program

<http://btnep.org/>



*I think it would be very advantageous
to leave the country free room to the annual over-
flowing of the river, especially for the soil.
The alluvium, which remains upon the land after
the waters leave, renews and fattens it
(Charlevoix 1744, 3:445).*

Our map, de l'Isle's grand view of the northern half of the globe, depicts France's world view in 1714 – a world with endless possibilities in unconquered, unknown (to Europe), and recently conquered lands. Father Charlevoix's 1720 – 22 research in New France and Canada was an integral part of the French effort to understand, control, and map the world.

Our quote reveals that Father Charlevoix recognized the critical link between the fertility of the land and the annual overflow of the Mississippi and recommended that the French learn to live with the annual overflow of the Mississippi because it "fed and fattened" the land.

Though the English used Charlevoix's (1744) account in their conquest of French North America, the French king ignored Charlevoix's advice and implemented a policy requiring levees and removal of the cypress (Condrey 1997). Unfortunately we inherited and perpetuated this ecologically disastrous policy.

Looking at de l'Isle's map of North America and the vast drainage basin of the Mississippi River, one could wish that the French court had listened to Father Charlevoix. The question remains, however, "Will we?"

1997. Condrey, R. E. The priest and the king: Sound advice for wise use and the consequences of royal greed. CoastWise 8:6-12.

***Hemisphere Septentrional pour voir plus distinctement
les Terres Arctiques [Northern Hemisphere].***

*(Guillaume de l'Isle 1714 in Atlas de Delisle et de Buache nd).
Courtesy Special Collections.*