

**ATCHAFALAYA BASIN PROGRAM:  
EDUCATIONAL MATERIALS  
LESSON FOUR:  
“LOUISIANA CRAWFISH: A FESTIVAL OF  
FACTS AND FUN”**

GRADE LEVEL & SUBJECT AREA:

8<sup>th</sup> grade social studies

TIME NEEDED:

3 days [You will need to introduce this lesson several weeks before they actually do it, in order to allow students to think about things they may be able to bring in for the festival. You might also want to consider spreading the three days over a period of weeks, to give students more time to prepare for the festival.]

LESSON INCLUDES:

1. Essay for students
2. Essay quiz
3. Critical thinking exercise
4. Internet resources
5. Student experiment
6. Three-day lesson plan, drawn from student essay

ASSESSMENT:

1. Quiz on essay
2. Posters
3. Presentations
4. Found poem

GRADE-LEVEL EXPECTATIONS COVERED IN THREE DAYS:

14. Analyze, evaluate, and predict consequences of environmental modifications on Louisiana landforms, natural resources, and plant or animal life (G-1D-M1)
15. Analyze the benefits and challenges of the Louisiana physical environments on its inhabitants (G-1D-M1)

48. Characterize and analyze the use of productive resources in an economic system (E-1A-M6)
52. Explain how supply and demand affect prices (E-1B-M1)
53. Explain and analyze factors affecting production and allocation of goods/services in Louisiana and the United States (E-1B-M2)
57. Explain reasons for trade between nations and the impact of international trade (E-1B-M6)
61. Describe the influence/impact of inflation or unemployment on different groups of people (E-1C-M2)
81. Explain cultural elements that have shaped Louisiana's heritage (H-1D-M6)

# **THE ATCHAFALAYA BASIN: LESSON FOUR: Student Essay**

## **LOUISIANA CRAWFISH: A FESTIVAL OF FACTS AND FUN**

### **I. A Multitude of Mudbugs**

If you live in South Louisiana, you've possibly spent an afternoon eating pounds and pounds of yummy boiled crawfish with your family. At these feasts, someone has likely cooked up 40 or 50 pounds of crawfish in a gigantic outside boiling pot, seasoned the gallons of water with lots of crab boil, red pepper, salt, lemon, garlic—and whatever else your family likes to throw in. Maybe you even added corn-on-the-cob and small potatoes, as many people do, to add variety to the pot. And, of course, there are many different ways to eat a crawfish!

Generally, it takes about twenty crawfish to make up a pound. So if your family boils 50 pounds of crawfish, by the end of the feast, about 1000 crawfish tails will have been devoured and 2000 claws cracked!

If you eat crawfish from South Louisiana, you're probably consuming either "red swamp crawfish" or "white river crawfish." These are only two kinds of crawfish—out of the nearly 500 varieties around the world. How do you tell the difference between Louisiana's two varieties? You have to examine them before they're boiled—with the natural color of the shell. A "red swamp crawfish" has the color red somewhere on its body—often on the claws or at the bases of the walking legs. A "white river crawfish" does not have any red coloring anywhere on its body.

For more than 100 years, the Atchafalaya Basin has provided billions of tasty crawfish for people to enjoy. In fact, Louisiana's crawfish history dates back to the 1700s. By the late 1800s, crawfish had already become a way for fishermen to make money.

The Atchafalaya Basin is said to produce five times the natural resources, including crawfish, than any other river basin in America. In fact, according to

one employee at the Department of Wildlife and Fisheries, the Basin has more than 150 different species of fish, including the popular large-mouth bass, crappie, and various bream species. These 150 species also include “crustaceans,” or shellfish. Crawfish are crustaceans. They are not real bugs! We only call them “mudbugs” because they like to bury themselves in mud!

When people catch fish for fun, it is called “recreational fishing.” Some fish are caught so that a person can make money by selling them. This is called “commercial fishing.” Of the hundreds of different kinds of fish and shellfish, about a dozen species are harvested by commercial fishermen. Of these species harvested commercially, crawfish are the most popular. By the end of the twentieth century, commercial crawfishermen of the Basin were harvesting over 50,000 tons each year. Today, crawfish are harvested on private farms as well as in the Atchafalaya Basin. Many rice farmers use their fields to raise crawfish during the off season. But most of the crawfish that we buy come from the Atchafalaya Basin.

To celebrate crawfish harvests, people in Breaux Bridge, Louisiana, a town in the heart of the Atchafalaya Basin, hold their annual crawfish festival in the spring. Breaux Bridge calls itself the “Crawfish Capital of the World”! At the height of the crawfish season, people from all around the world come together to have a festival of fun with mudbugs.

But what is the “crawfish season” exactly?

## **2. Shifting Seasons**

When we think of the “crawfish season,” we usually think of the spring flood season because this is when crawfish are most plentiful. In fact, many South Louisiana families hold crawfish boils as part of their Easter festivities.

But, to be really precise, we should realize that there is not one single season for catching crawfish. Instead, crawfish seasons depend on whether the mudbugs are farm-raised in ponds or caught wild in the Basin. In general, the “pond season” in South Louisiana runs from late October to late June. Usually, pond crawfish become available in most seafood restaurants in early December. The peak of the pond season is in March and April, when many crawfish become large enough to harvest.

In Central and North Louisiana, some catfish ponds and rice fields are converted to crawfish ponds during off seasons. These ponds produce crawfish 6-8 weeks later than South Louisiana ponds. Overall, production outside of South Louisiana isn't all that great at this time. However, if it increases, we will probably have pond crawfish all year round. This would mean that you could have crawfish etouffee anytime you wanted it!

In the Basin, the availability of crawfish depends on having high water. If the water is too low, the crawfish won't be able to grow, nor will the fishermen be able to drive their boats into the water to get to them. With high water early in the season, Basin crawfish can become available in December. In general, however, Basin crawfish do not become really plentiful until April, during the spring floods. Crawfish will remain available until the water goes down in the summer—usually by late June.

Some other factors can also affect crawfish harvests. If Basin crawfish are really plentiful, the prices drop. If there is a surplus, some farmers will drain their ponds and plant rice; they believe that their crawfish harvest won't bring in enough money to make it worth their time. Also, there are only about 15 processing plants left in South Louisiana. When the plants have more crawfish than they can deal with, the fishermen can't sell all they catch, and, if they're smart, they won't catch anymore than they can sell, eat, or give away to friends.

### **3. Catching Crawfish for Consumption**

Crawfishermen in the Basin harvest the mudbugs in a number of ways. If they are trapping in shallow conditions, they put out wire mesh traps in orderly rows. There may be 20 or so traps per acre. Some of these traps are shaped like pyramids; others are shaped like pillows. If the water conditions have bad oxygen problems, the fishermen have to leave part of the wire frame sticking above the waterline, so that the crawfish can breathe in the air rather than drowning in the traps underwater. In deeper waters, fishermen use closed pillow traps that are laid facing downstream. Because the water is deeper, more oxygen is circulated, allowing the crawfish to breathe underwater.

Long ago, crawfishing led to the development of a special kind of Louisiana boat: the "crawfish skiff," which has a pointed front. This allows the fishermen to force their boats through thick underbrush to get to the best places.

Sherbin Collette, the mayor of Henderson, Louisiana, has fished the Basin for much of his life. "It's the livelihood of the Basin," he says, "like the blood in our veins." Before times got hard because of poor water quality, Mr. Collette and his wife would fish together, make their own crawfish traps, and sell crawfish from the building on the edge of their Henderson property. Mr. Collette talks about how he used to regularly get up at 4:30 a.m. to take his boat out and lay his hand-made traps in the Basin.

Today, the poor water quality has hurt the fish population—and, by necessity, the livelihood of fishermen. Mr. Collette says that he would love to be able to make a living today, the way he did in the past. "But the way things are in the Basin nowadays, you just about can't depend on any kind of fishing. It was the quality of water that hurt us," said Mr. Collette. "It hurt us real bad. And when you talk about the quality of water, you're talking about the quality of crawfish." However, he has faith in the work of the Atchafalaya Basin Program and its efforts to improve water quality.

Mr. Collette catches crawfish, catfish, and shrimp. But, as he says, "For all three things that I do for a living, imports are coming in." The wild-caught fish and shellfish, which can vary a lot in quality and size, must compete with carefully regulated, "farm" raised goods from China or from Viet Nam. "Lots of people say the texture, and the flavor, and the nutrition [of the imports] are not as good, but the price and the volume is right there in the market," said one shopper near Breaux Bridge.

One reason Louisiana crawfish are more expensive than imported ones is that the cost of equipment and materials has risen more than five or six times over the last few years, according to Mr. Collette. Crawfish are more expensive than they used to be, but they're not *five times more expensive*. Yet, they would have to be, and more, for fishermen to cover their costs and make a profit. "You can see how hard it is to make a living!" says Mr. Collette.

Imagine how awful it would be to no longer have crawfish? Does it make you want to buy only Louisiana crawfish, to support the local fishermen?

## **4. Cool Chitin**

The harvest of Louisiana crawfish is important not only to fishermen and to people who love to eat them. They're also important because of that hard, bony covering that we peel, pull, and pinch. This hard shell is called "chitin" (Kite-en), and it is also marketed commercially to manufacturing facilities. There, chitin is ground up and processed and eventually becomes part of some surprising products: contact lenses, paper, filaments, nutritional supplements, medicine, batteries, and even wound dressings!

Chitin is so useful because it has one really unique quality: once it has been processed, it doesn't dissolve and it doesn't react with many chemicals. Because chitin is insoluble and low in reactivity, other chemicals can be combined with it so that chitin acts as a "carrier" for the material that does dissolve. For example, when used in time-released medicine, chitin's insolubility helps to regulate how quickly or slowly the medicine dissolves.

So Louisiana crawfish are not only tasty; they're also very handy!

## **5. Looking Forward to the Future**

Many experts believe that the crawfish industry is rebounding, and will continue to grow if two things are done: 1) focusing on outside markets and 2) investing more in research and technology.

According to Dr. Jay Huner, director of the Crawfish Research Station in Cade, affiliated with the University of Louisiana at Lafayette, the state's crawfish may be able to compete with lobsters, marketed in every major supermarket in the nation. For every pound of lobster, a shopper could purchase three pounds of boiled crawfish.

If more research were conducted, perhaps an economical crawfish peeling machine could be invented, allowing the plants to process more efficiently. Universities could also develop special degree programs for crawfish research.

With increased marketing and research, the crawfish industry could continue to grow so that you will be able to have those wonderful crawfish boils in the future—with your own grandchildren!

## WHAT DID YOU LEARN?

Circle the letter of the correct answer.

1. To distinguish between red swamp crawfish and white river crawfish, it is necessary to do the following:
  - a. check for red coloring after the crawfish are boiled
  - b. check for red coloring before the crawfish are boiled
  - c. look closely at the claws and belly
  - d. check for white coloring before the crawfish are boiled
  
2. The Atchafalaya Basin has more than \_\_\_\_\_ different species of fish:
  - a. 350
  - b. 250
  - c. 140
  - d. 150
  
3. Crawfish become really plentiful in which season:
  - a. high water season
  - b. low water season
  - c. mid-level water season
  
4. Commercial fishermen in the Basin are facing difficult times because:
  - a. cheaper imports are available
  - b. water quality is poor
  - c. pond-raised crawfish are carefully regulated
  - d. all of the above
  - e. none of the above
  
5. Chitin is useful in products because:
  - a. it dissolves very quickly
  - b. it is high in reactivity
  - c. it doesn't dissolve
  - d. it doesn't combine with other materials



## WHAT DO YOU THINK?

Do you think Louisiana citizens should eat only Louisiana crawfish, even though they are more expensive than Chinese imports?

## LET'S GO SURFING

Visit the following websites to learn more about the Atchafalaya River and Basin.

Atchafalaya Basin Program

<http://www.dnr.state.la.us/sec/atchafalaya/>

Louisiana Department of Natural Resources

<http://www.dnr.state.la.us/>

Maps of Atchafalaya Basin

<http://www.atchafalayatrace.org/Maps/Base%20map%20final.pdf>

Breaux Bridge Crawfish Festival

<http://www.bbcrawfest.com/>

Beginner's Page for Crawfish

<http://aquanic.org/beginer/crawfish/crawfish.htm>

Louisiana Crawfish Company

<http://www.lacrawfish.com/>

Article: Scientist More Interested in Research than Crawfish Boils

<http://www.lsuagcenter.com/Communications/news/May2004/Headlines/CrawfishResearch-05-03-04.asp>

Article: Mudbug Massacre: When the Going gets Tough, the Tough ol' Cajun Crawfish Industry Just Keeps on Going

<http://www.timesofacadiana.com/html/085B1319-7EAE-4C84-B34D-2C031ACE7331.shtml>

Article: ITC Renews Tariffs on Chinese Crawfish

[http://deltafarmpress.com/mag/farming\\_itc\\_renews\\_tariffs/](http://deltafarmpress.com/mag/farming_itc_renews_tariffs/)

## **JUST FOR FUN**

Get together with several of your friends and have a cook-off, using crawfish. You can either have a crawfish boil, make crawfish etouffee, crawfish bisque, fried crawfish, crawfish fettuccini...or whatever else you can think of. You will first need to decide what food you want to cook, and then each person should pick a favorite family recipe, if possible. Otherwise, you can research recipes in cookbooks at the library or on recipe websites.

**FOR THE TEACHER:  
THREE-DAY LESSON PLAN  
8<sup>TH</sup> GRADE SOCIAL STUDIES**

OVERVIEW OF THREE-DAY LESSON: This lesson is organized around a “Mini Crawfish Festival” which the students can organize and participate in. This lesson offers the briefest option for a classroom festival. But, if you are inclined, it could certainly be stretched to a longer unit, involving more activities and classrooms. You can decide how limited or expansive you’d like the scope to be.

On Day 1, students will work in groups to prepare informational displays about crawfish in Louisiana and the Atchafalaya Basin.

On Day 2, students will design festival activities, such as art contests, recipe contests, games, and cultural activities.

On Day 3, students will hold their “mini-festival.”

**DAY 1: FESTIVAL DISPLAYS**  
**(45 minutes)**

GRADE-LEVEL EXPECTATIONS:

14. Analyze, evaluate, and predict consequences of environmental modifications on Louisiana landforms, natural resources, and plant or animal life (G-1D-M1)
15. Analyze the benefits and challenges of the Louisiana physical environments on its inhabitants (G-1D-M1)
48. Characterize and analyze the use of productive resources in an economic system (E-1A-M6)
52. Explain how supply and demand affect prices (E-1B-M1)
53. Explain and analyze factors affecting production and allocation of goods/services in Louisiana and the United States (E-1B-M2)
57. Explain reasons for trade between nations and the impact of international trade (E-1B-M6)
61. Describe the influence/impact of inflation or unemployment on different groups of people (E-1C-M2)

TEACHER PREPARATION:

1. Gather supplies for poster-making activities: poster board, pictures, illustrations, markers, tape, glue
2. Duplicate student essay: "Louisiana Crawfish: A Festival of Facts and Fun"
3. Decide how you will handle the five student groups: will you assign students or will you allow them to form their own groups? If assigning, do this in advance.

MATERIALS/EQUIPMENT:

1. Poster board
2. Pictures
3. Colored markers
4. Tape and glue
5. Photocopies of student essay: "Louisiana Crawfish: A Festival of Facts and Fun"

INTRODUCTION TO STUDENTS (10 minutes):

Ask students what their favorite festival is in Louisiana. Encourage them to describe the festival in detail: location, time of year, food, favorite activities, etc.

Then tell students that they are going to have their own “Mini Crawfish Festival” in their classroom. To accomplish this, you will need to form FIVE GROUPS and assign each student to a group. They will stay with the same group for the next three days—through the entire lesson.

MAIN LESSON (25 minutes):

1. Distribute the student essay, “Louisiana Crawfish: A Festival of Facts and Fun” to each student. The essay is divided into five sections. Assign one section to each group and tell them that each group will make a poster which represents the facts of the section they are assigned:

Group #1: “A Multitude of Mudbugs”

Group #2: “Shifting Seasons”

Group #3: “Catching Crawfish for Consumption”

Group #4: “Cool Chitin”

Group #5: “Looking Forward to the Future”

2. Allow 5 minutes for students to read their section of the essay. Provide materials for poster making, and allow students to work on their group posters for the remainder of the class.

3. Each group should create posters which represent the most important facts of their assigned section.

4. Below are links to photographs on various websites, but you should also ask students to bring in their own, if they can:

Red Swamp Crawfish:

[http://animaldiversity.ummz.umich.edu/site/resources/Grzimek\\_inverts/Decapoda/Procambarus\\_clarkii.jpg/view.html](http://animaldiversity.ummz.umich.edu/site/resources/Grzimek_inverts/Decapoda/Procambarus_clarkii.jpg/view.html)

White River & Red Swamp Crawfish:

<http://aquanic.org/images/photos/ill-in/crawfis2.jpg>

Crawfish ponds

<http://www.lacrawfish.com/photogallery.html>

Crawfish traps

<http://www.aquaticceco.com/index.cfm/fuseaction/listings.categories/ssid/107>

Greg Guirard’s Photographs [be sure to require students to give credit]

<http://www.accesscom.net/gguirard/>

CONCLUSION:

Remind students that a festival will educate and entertain. Tell them that on the following day, they will be working on activities that will allow them to learn about crawfish while having a good time. [Note: do not display the posters at the end of this class; students will have a quiz on Day 2, and you will want to wait until after the quiz to display the informational posters.]

HOMEWORK:

Have students read entire student essay (not just their assigned sections) and expect to take the student quiz at the beginning of class tomorrow.

## **DAY 2: FESTIVAL ACTIVITIES**

**(45 minutes)**

### GRADE LEVEL EXPECTATIONS:

14. Analyze, evaluate, and predict consequences of environmental modifications on Louisiana landforms, natural resources, and plant or animal life (G-1D-M1)
15. Analyze the benefits and challenges of the Louisiana physical environments on its inhabitants (G-1D-M1)
48. Characterize and analyze the use of productive resources in an economic system (E-1A-M6)
52. Explain how supply and demand affect prices (E-1B-M1)
53. Explain and analyze factors affecting production and allocation of goods/services in Louisiana and the United States (E-1B-M2)
57. Explain reasons for trade between nations and the impact of international trade (E-1B-M6)
61. Describe the influence/impact of inflation or unemployment on different groups of people (E-1C-M2)
81. Explain cultural elements that have shaped Louisiana's heritage (H-1D-M6)

### TEACHER PREPARATION:

1. Duplicate quiz
2. Select tape or CD or Cajun music for group #1 to use
3. Make decisions about the other groups: what kind of contest; will you use real food; what kind of game and demonstration. If you are doing this lesson in three days, you will need to make advance decisions so that the festival can go smoothly

### MATERIALS/EQUIPMENT:

1. Tape or CD of Cajun music
2. Tape or CD player
2. Poster supplies
3. If decided, boiled crawfish for peeling or eating contest and peeling demonstration
4. If decided, live crawfish for crawfish race

### INTRODUCTION TO STUDENTS (10 minutes):

1. Begin by reminding students about the previous day's content and that they were assigned to read the entire essay. Begin class by administering the quiz.

2. After the quiz, review some of the facts of the essay to verify that the posters done on the previous day are correct.
3. Allow students, at this time, to display their posters in the classroom.

MAIN LESSON (25 minutes):

Remind students that there are always activities at festivals. Ask them to tell you some activities they have participated in. Then ask students to get together with members of their groups from the previous day. Tell them that each group will plan an activity for the festival to be held on Day 3.

GROUP #1: MUSIC

Of course, Cajun music is most associated with crawfish culture. Provide students with a tape or CD of Cajun music, and ask the group members to research some information on the Internet about the music. They should prepare a five-minute presentation on the music, to be given on the day of the festival.

GROUP #2: CONTEST

Festivals typically involve some kind of contest. Depending on what resources the students and you have available, this group can design a contest around crawfish. If you are able to get live crawfish, then a crawfish race is always fun. Other options are a crawfish peeling contest; boiled-crawfish eating contest; crawfish drawing contest. Students in this group should decide on what kind of contest they will hold, formulate the rules of the game, and organize the contest so that it can be done in five minutes on the day of the festival.

GROUP #3: FOOD

The simplest option for this group will be to present information about food: they can prepare a presentation on recipes; they can explain how to make their favorite crawfish dishes; they can research some historical aspects of food involving crawfish. On the day of the festival, they will give a five-minute presentation on food associated with crawfish.

If you have the resources and possibilities for actual food, the group could organize a "taste test." The group could provide two dishes: one with Louisiana crawfish; the other should be the same dish, but with imported crawfish. Select students to conduct a blind taste test to see which they prefer.



Another option is to hold a “cook-off.” Each member of the group can cook the same dish, *before coming to class*, and then bring the dish in for a “best recipe” contest. They will need to work together to decide what dish to bring in. This group will definitely need to work weeks ahead, clearing the process with their parents. They will need to gather recipes and ingredients before the cook-off. And they will need to ensure that they can prepare the dish before the day of the festival. If they do hold a cook-off, on the day of the festival, they will need to provide the following: paper plates, plastic utensils, and judging forms. They will need to appoint five judges from the class to taste the dishes and vote for the “best” dish.

#### GROUP #4: GAME

This group should design a game around crawfish, preferably around information. This game should be designed so that it can be completed in five minutes. One option is to select a small number of students from the class to play “Crawfish Jeopardy.” They can divide the students into two groups. Of course, they will need to organize the game so that they offer the answers and the contestants come up with the correction question. The group will need to design 5-10 answers/questions. On the day of the festival, they will select 4-6 students from the class, place them in two teams, and play the game. Each correct answer will be given a point. The group with the most points wins.

#### GROUP #5: DEMONSTRATION

This group will need to provide some kind of demonstration. One option is to demonstrate “how to peel a crawfish.” The group will need to decide on the best method of peeling and demonstrate it to the class. Then they can ask the class about alternative ways to peel a crawfish.

If obtaining boiled crawfish for this demonstration is impossible, the group can give a presentation on the different kinds of traps used in crawfishing. They can use information from the student essay, as well as information they can research on their own.

#### CONCLUSION:

Once the groups have prepared their activities and displays, it is time for the festival!

#### HOMEWORK:

Students should ensure that they are ready for the festival.

**DAY 3: The Festival**  
**(45 minutes)**

GRADE LEVEL EXPECTATIONS:

14. Analyze, evaluate, and predict consequences of environmental modifications on Louisiana landforms, natural resources, and plant or animal life (G-1D-M1)
15. Analyze the benefits and challenges of the Louisiana physical environments on its inhabitants (G-1D-M1)
48. Characterize and analyze the use of productive resources in an economic system (E-1A-M6)
52. Explain how supply and demand affect prices (E-1B-M1)
53. Explain and analyze factors affecting production and allocation of goods/services in Louisiana and the United States (E-1B-M2)
57. Explain reasons for trade between nations and the impact of international trade (E-1B-M6)
61. Describe the influence/impact of inflation or unemployment on different groups of people (E-1C-M2)
81. Explain cultural elements that have shaped Louisiana's heritage (H-1D-M6)

TEACHER PREPARATION:

1. Posters should be displayed around the room for students to see
2. Tape or CD player should be set up with tape
3. Each group should have its materials and guidelines for their presentations

MATERIALS/EQUIPMENT:

1. Posters
2. Tape or CD
3. Tape or CD player
4. Plastic utensils, napkins, plates, if holding real-food demonstration
5. Push-pins, tape, glue for displaying student items
6. If decided, boiled crawfish for peeling or eating contest and peeling demonstration
7. If decided, live crawfish for crawfish race

INTRODUCTION TO STUDENTS (10 minutes):

Give students ten minutes to organize their presentation/demonstration/game/contest.

MAIN LESSON (25 minutes):

Once the students are ready, each group should present its material in five minutes. Be sure to watch the clock so that each group can complete its task.

Group #1: give a presentation on the music that will be playing

Group #2: hold the contest

Group #3: give the presentation on food or hold taste test or cook-off with judges

Group #4: play the selected game with selected students

Group #5: give demonstration on selected topic

Allow each group to go through its presentation before having discussion, to ensure that all five groups can have enough time to finish.

CONCLUSION:

At the end of the five presentations, hold discussion. Remind students that festivals are ways to have fun and to learn. Ask them what their favorite activity today was. Ask them to tell you what they learned about crawfish. Encourage them to attend a local festival in the future.

HOMEWORK:

For an assessment of this unit, have students write a “found poem” about crawfish and festivals:

1. Choose ten main key words or phrases about crawfish and festivals.
2. Arrange these words or phrases in a pleasing and meaningful way to make a poem.
3. Write or type the poem to be turned in.
4. Read the poem to the class.

**ADDITIONAL RESOURCES:**

Atchafalaya Basin Program

<http://www.dnr.state.la.us/sec/atchafalaya/>

C.C. Lockwood and Rhea Gary's "Marsh Mission"

[www.marshmission.com](http://www.marshmission.com).

Louisiana Department of Natural Resources

<http://www.dnr.state.la.us/>

Louisiana Department of Culture, Recreation, and Tourism

<http://www.crt.state.la.us/>

Louisiana Voices: Division of Arts folklife-in-education curriculum

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

Maps of Atchafalaya Basin

<http://www.atchafalayaatrace.org/Maps/Base%20map%20final.pdf>

Video: *Atchafalaya: America's Largest River Basin Swamp*. Dir. C.C. Lockwood and Mary Stouffer. Prod. C.C. Lockwood. Cactus Clyde Productions. 1981.

Breaux Bridge Crawfish Festival

<http://www.bbcrawfest.com/>

Beginner's Page for Crawfish

<http://aquanic.org/beginer/crawfish/crawfish.htm>

Louisiana Crawfish Company

<http://www.lacrawfish.com/>

Article: Scientist More Interested in Research than Crawfish Boils

<http://www.lsuagcenter.com/Communications/news/May2004/Headlines/CrawfishResearch-05-03-04.asp>

Article: Mudbug Massacre: When the Going gets Tough, the Tough ol' Cajun Crawfish Industry Just Keeps on Going

<http://www.timesofacadiana.com/html/085B1319-7EAE-4C84-B34D-2C031ACE7331.shtml>

Article: ITC Renews Tariffs on Chinese Crawfish

[http://deltafarmpress.com/mag/farming\\_itc\\_renews\\_tariffs/](http://deltafarmpress.com/mag/farming_itc_renews_tariffs/)