Activity 4-1

A Song on the Bayou

Pam Blanchard

Focus/Overview

Music is an important part of life in south Louisiana. The people who came and settled this land brought a vibrant music with them. Musicians sing about the joys and sorrows of living on the coast, about what it was like to leave far off homes, about the animals they encounter in everyday life. This lesson focuses on a song about *cocodrie* (or alligators), by a children's Cajun music artist, Papillion.

Learning Objectives

The learner will…

- compare the body parts of a nutria and an alligator.
- describe how the skin, fur and feet of the nutria and alligator are related to their function and to the survival of these animals in their habitats.

Louisiana Grade Level Expectations

3: GLE 36	Compare structures (parts of the body) in a variety of animals (e.g., fish, mammals, reptiles, amphibians, birds, insects) (LS-E-A3).
4: GLE 41	Describe how parts of animals' bodies are related to their functions and survival (e.g., wings/flying, webbed feet/ swimming) (LS-E-A3).

Materials List

- Either purchase the CD ***Papillion – Cajun for Kids*** (available through Amazon.com or OverStock.com) or be able to play the music through an Internet connection.

Background Information

American Alligator.

The American alligator, *Alligator mississippiensis,* inhabits all freshwater wetlands, but are most common in marshes, swamps, ponds, drainage canals and ditches. They are found throughout the southeast United States, as far west as Louisiana and Texas and as far north as the Carolinas. Alligators are tolerant of poor water-quality and occasionally inhabit brackish marshes along the coast. A few even venture into salt water. Smaller alligators (those less than four feet long) tend to inhabit the marshy areas of lakes and rivers. Dense vegetation in these habitats provides protective cover and many of the preferred foods of young alligators.

Alligators are the top predators in their wildlife community; their only natural enemies, after they grow to about four feet, are larger gators and humans. Despite being carnivores, alligators eat just about anything. When they are young, they tend to eat small invertebrates, such as insects and snails, as well as frogs and fish. When they get bigger, they eat mostly vertebrates, including fish, turtles, snakes, water birds, and small mammals. Alligators are not very discriminating in their diet, as they have been known to eat dead animals, as well as nonfood items such as sticks, wires, stones, fishing lures and aluminum cans. They feed mostly at nightfall and during the night.

BTNEP Connection
Culture.

Grade Level
3-4

Duration
one class period

Subject Area
science, art

Setting
classroom

Extension Areas
art, language arts

Vocabulary
cocodrie

Original Source
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Idea from V. Butler's Writing Team

BTNEP BARATARIA-TERREBONNE NATIONAL ESTUARY PROGRAM
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Alligators become sexually mature once they reach about six feet in length, which can take more than 10 years. April to May is the time of year that alligators to hold their courtship and breeding season. After mating, the females move into marsh areas to nest in June and early July where they remain until the following spring. Males generally prefer open and deeper water year-round. The females construct a mounded nest of aquatic and marsh vegetation. In late June and early July they lay 35 to 50 eggs. The eggs are covered with a layer of vegetation to provide protection and warmth during the 65-day incubation period. The female alligators remain nearby to defend their nest.

In mid-August through mid-September, the young alligators are ready to hatch in mid-August through mid-September. The little hatchlings make high-pitched, grunting sounds, which tells the mother alligators to remove the vegetation covering the hatchlings. The hatchlings are about 6-8 inches long. These small hatchlings stay in the vicinity of the nest for the next two to three years. The mother alligator will stay around the next to protect the young reptiles for the first year. Over their first two years, nearly 80% of the hatchlings will become a food source for other predators, including wading birds, raccoons, bobcats, otters, snakes, large bass and even larger alligators. Alligators can live for 30, 40 or 50 years.

Today, through strict laws, alligators may be harvested during very limited, controlled hunts. They are also raised captivity for the production of meat and skins. Alligator meat is typically sold to restaurants and wholesalers for about $5 to $7 per pound. Alligator skins are used for fine shoes, belts and purses. Prices for skins vary considerably from year to year but have averaged about $25 per foot over the past 10 years.

Nutria.
The nutria, *Myocastor coypus*, is a large semi-aquatic rodent that is native to South America. The generic name is derived from two Greek words (*mys*, for mouse, and *kastor*, for beaver) that translate as mouse beaver. The specific name *coypus* is the Latinized form of *coypu*, a name in the language of the Araucanian Indians of south-central Chile and adjacent parts of Argentina for an aquatic mammal that was possibly this species. In most of the world the animal is called coypu, but in North America the animal is called nutria. In the rest of the world, nutria is the name of the fur of the animal.

Nutria are smaller than a beaver but larger than a muskrat. However, the nutria have a long, rounded, scaly, ratlike tail. The digits are used to groom and to excavate roots, rhizomes, and burrows, and are used in feeding. The hindfoot consists of four webbed, strongly clawed toes and one unwebbed toe. The hind legs are large compared with the forelegs; consequently its back appears hunched. Although appearing awkward, the nutria is capable of fast overland travel for considerable distances. The ears are small and the eyes are set high on the head. The nose and mouth are valvular (i.e., can be closed to prevent entry of water), and nutria are capable of swimming long distances underwater.

Nutria breed year round and are extremely prolific. With a gestation period of only 130 days, in one year, an adult nutria can produce two litters and be pregnant for a third. The number of young in a litter ranges from 1-13 with an average of about five young. Females can breed within a day of having a litter. Females have four pairs of mammary glands that are located on the side of the body, rather than on the belly. Presumably, this positioning of the mammary glands allow the young to nurse with their nose above the water's surface while the mother is floating. The young nutria at birth are fully furred and the eyes are open. Newborn nutria feed on vegetation within hours and will nurse for 7-8 weeks. Young reach sexual maturity at the age of 4 or 5 months. Nutria have lived to as old as 12 years in captivity, but the life span in the wild is probably considerably less.

In the coastal marshes they are often seen moving about leisurely in the daytime, but their period of greatest feeding activity is just prior to sunrise and after sunset. Nutria are strict vegetarians, consuming their food both on land and water, where they shove aquatic plants to their mouths with their forepaws. These animals consume approximately 25 percent of their weight daily. Nutria predominately feed on the base of plant stems and dig for roots and rhizomes in the winter. They often construct circular platforms of compacted, coarse emergent vegetation, which they use for feeding, birthing, resting and grooming. Nutria may also construct burrows in levees, dikes and embankments. Burrows are about 20 cm in diameter and can extend into the bank of streams, bayous and canals for about a meter.

These animals are important fur producers in their native home of South America. They were first brought to the United States for the captive fur trade. On the American market, nutria pelts have at times

been of some value, but currently there is no market for nutria pelts due to the downturn in the fur business. Because of their known competition with muskrats, which are well-established and valuable fur-producing animals in this country, it appears that muskrats may be driven out and replaced by the much less desirable nutria.

Escaped nutria from fur farms in the United States now pose a serious problem to coastal wetland habitat, agricultural farmers (particularly rice and sugarcane) and urban landowners. Nutria feed on the tender roots of wetland grasses, which in areas of infestation, means that they can completely eat out all the marsh grass in an area. Wetland scientists use the term "eat out" to indicate areas of marsh in which all the vegetation has literally been eaten out and only bare marsh mud remain. In addition, nutria burrowing is responsible for caved in canal banks in the urban environment and for damage to irrigation systems for sugarcane and rice farmers.

Advance Preparation

1. Obtain a copy of the CD ***Papillion – Cajun for Kids*** – or have the music ready to play via the computer download. (We've found an inexpensive site to get a copy from is Overstock.com.)

Procedure

1. Ask students if they have ever heard Cajun or Zydeco music. How would they describe the music? What sort of musical instruments are in the Cajun band? *(A fiddle, a guitar, a drum and an accordion)* Ask students what they think might have inspired the early Cajun and Zydeco musicians to write about in their songs.
2. Play the song *Cocodrie* from the ***Papillion – Cajun for Kids*** CD. Ask the students to pick out facts about the alligator that they learned from the song.
3. Pass out the Student Worksheet, and have them sing the song Three Little Nutria's. Pass out the two fact sheet (alligator and nutria). Have students write a song incorporating facts about the two animals.

Blackline Masters

1. **Songs of the Louisiana Wetlands**
2. **Fact Sheet: American Alligator**
3. **Fact Sheet: Nutria**

Assessment

- Have students perform their songs. Tape students and playback the tape for parents during parent's night.

Extensions

Science:

Have groups pretend they have been asked to design a zoo habitat for either an American alligator or nutria. The habitats must be comfortable for the animals, with the type of habitat features the animals like and plenty of nutritious food provided by the zoo workers. Ask students to draw their habitats on construction paper. As an option, they can build model habitats out of Popsicle sticks and other crafts materials.

Resources

CD:

Papillion – Cajun for Kids. 1998. Music Little People.

Papillion is a Louisiana musician and storyteller whose performances are a delightful gumbo of Cajun and Zydeco songs and stories created for young children (and the young at heart). Through Cajun and Zydeco stories and songs, Papillion leads children on exciting journeys to such places as the bayous and swamps to look for the dreaded cocodrie or to the Mardi Gras for a second line parade or chicken chase!

Tradebooks:

Fleming, Candace. 2004. **Gator Gumbo: A Spicy Hot Tale.** Melanie Kroupa Books.

This is a delightful Creole version of the Little Red Hen. Possum, Skunk, and Otter all pick on old Gator. Gator, sick of eating vegetables, comes up with a plan to make some good old fashioned gumbo. The ending, which will be obvious to most adults, will delight and surprise younger children. The mixed medium illustrations accompany this charming story. Reading level: Ages 4-8.

Markle, Sandra. 1998. **Outside and Inside Alligators.** Atheneum Books.

Describes the external and internal physical characteristics of alligators and how they find their food, mate, and raise their young. Reading level: Ages 4-8.

Reneaux, J.J. 2001. **Why Alligator Hates Dog: A Cajun Folktale.** August House Little Folk.

A story about how the alligator, M'su Cocodrie, is determined to get revenge on his tormentor, Dog. Reading level: Ages 4-8.

Simon, Seymour. 2001. **Crocodiles and Alligators.** HarperTrophy.

A wonderful picture book on alligators and crocodiles filled with interesting facts. Reading level: Ages 4-8.

Websites:

National Geographic Channel **Reptile Wild with Dr. Brady Barr: The World of the Crocodilians**, June 27, 2004 at http://www.nationalgeographic.com/crocmap/flash.html

National Public Radio, December 28, 2002, **Hunting Nutria in Louisiana's Bayous**, accessed June 28, 2004 at http://discover.npr.org/features/feature.jhtml?wfId=893207

In swamps and wetlands all over the South, fat, furry rodents called nutria -- a beaver-like animal native to Argentina -- are devouring small plants and sparking huge erosion problems. NPR's Melanie Peeples meets with some Louisiana trappers who earn $4 for each one they catch.

References:

U.S. Fish and Wildlife, n.d., **North American Wildlife**, accessed June 28, 2004, http://www.fws.gov/r5mnwr/lotw/wildlifena.html.

University of Florida, Institute of Food and Agricultural Sciences *AgriGator*, n.d., **The American Alligator *(Alligator mississipiensis)***, accessed June 28, 2004, http://agrigator.ifas.ufl.edu/gators/

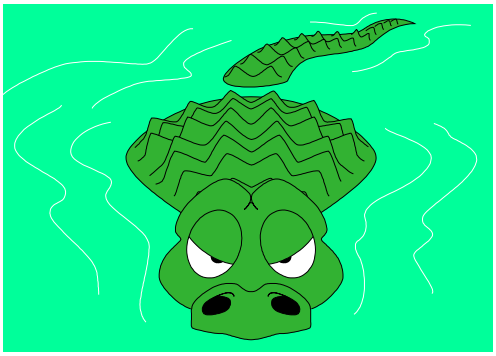
Louisiana Department of Wildlife and Fisheries, 2004, **Nutria**, accessed June 28, 2004, at http://www.nutria.com/site.php

Blackline Master #1

Name _____ Date _____

Songs of the Louisiana Wetlands

Cajun musicians often sing about what they know best: where they live, where they came from, their families, their sorrows and happy occasions. Listen to the song *Cocodrie* on Papillion's ***Cajun for Kids CD***.



What is the song *Cocodrie* about?

_____

_____

How did it make you feel?

_____

_____

_____

_____

What are some of the things you learned from the song about the animal in the song?

Here is a song about another famous Louisiana animal, the nutria. Sing the following song, *Three Little Nutrias* (adapted from Three Little Monkeys, author and copyright unknown) with your students, making up finger and arm motions for the verses!

THREE LITTLE NUTRIAS

Three little nutrias
Sittin' in the marsh
Teasing Mister Alligator,
Can't catch me, can't catch me
Along comes Mister Alligator,
Quiet as can be
And SNAPS that nutria
Right out of that marsh!

Two little nutrias
Sittin' in the marsh
Teasing Mister Alligator,
Can't catch me, can't catch me
Along comes Mister Alligator,
Quiet as can be
And SNAPS that nutria
Right out of that marsh!

One little nutria
Sittin' in the marsh
Teasing Mister Alligator,
Can't catch me, can't catch me
Along comes Mister Alligator,
Quiet as can be
And SNAPS that nutria
Right out of that marsh!

Pick a tune that you like to sing (*Row, Row, Row Your Boat*, or *Rudolph, the Red-Nosed Reindeer*, for example) and write new verses about either an alligator or nutria (or both)! Your teacher has fact sheets about both the alligator and the nutria to help you write great lyrics.

Blackline Master #2

Fact Sheet: American Alligator

Common Name:

- American alligator

Scientific Name:

- *Alligator mississippiensis*

Appearance:

- elongated, armored, lizard-like bodies with muscular flat tail
- long snout with nostrils at the end to allow breathing while most of the body is submerged
- four short legs with five toes on the front feet and four on the rear
- skin on back is armored with rows of embedded bony plates called *osteoderms* or *scutes*
- average adult size range from 8.2 feet for females to 11.2 feet for males and can reach a weight of more than half a ton!
- young alligators have bright yellow stripes and blotches; adults are dark with pale undersides
- snouts are rounded and shovel-shaped
- a flap of flesh covers their throats, an adaption that keeps water out, as their lipless jaws are not airtight.

Range:

- southeastern United States; large populations found in Florida, and coastal areas of Louisiana and Georgia

Habitat:

- large shallow lakes, marshes, ponds, swamps, rivers, creeks and canals in fresh and brackish water areas

Diet:

- insects, snails, fish, crabs, birds, turtles, snakes and mammals

Reproduction:

- sexual maturity depends on age and size
- egg incubation temperature determines sex of embryos
- alligator nests are mounds of vegetation

Behavior:

- courtship begins in early spring followed by nesting in late spring and summer
- most territorial during nesting period and may act aggressively toward intruders

Problems:

- most attacks associated with alligators occur when they have been fed by humans or when defending their nests

Solutions:

- do not feed as they may lose natural shyness toward humans
- do not swim at dusk or night, which is feeding time for alligators; swim only in designated swimming areas
- report nuisance alligators more than 4 feet in length that appear to have lost their natural fear of people or otherwise pose a threat to people or property to the Florida Game and Fresh Water Fish Commission

Legal Aspects:

- American alligators are listed by the state as a species of concern and by the federal government as threatened due to the similarity in appearance to the endangered American Crocodile
- it is illegal to feed, tease, harass, molest, capture or kill alligators

Modified from: University of Florida, Institute of Food and Agricultural Sciences *AgriGator*, n.d., **The American Alligator *(Alligator mississipiensis)***, accessed June 28, 2004, http://agrigator.ifas.ufl.edu/gators/.

Blackline Master #3

Fact Sheet:
Nutria

Common Name:
- Nutria

Scientific Name:
- *Myocastor coypus*

Appearance:
- are a rodent
- have a long, rounded, scaly, ratlike tail
- often confused with beavers
- the nutria's nose and mouth are valvular (i.e., can be closed to prevent entry of water)
- hindfeet is webbed, with large claws.
- ears are small and small black eyes are set high on the head
- females have mammary glands located on the side of their bodies so babies can nurse while mother is floating.

Range:
- southeastern United States, though out the Gulf of Mexico states

Habitat:
- large shallow lakes, marshes, ponds, swamps, rivers, creeks and canals in fresh and brackish water areas

Diet:
- strict vegetarians, favor tender roots of wetland plants.

Reproduction:
- extremely prolific, can produce two litters of up to a dozen young and be pregnant for a third litter at the end of the year.
- young reach sexual maturity at the age of 4 or 5 months.
- females can breed within a day of having a litter

Behavior:
- courtship begins in early spring followed by nesting in late spring and summer
- most territorial during nesting period and may act aggressively toward intruders

Problems:
- responsible for wetland destruction through "eat outs" – areas that have been denuded of vegetation due to intensive grazing by nutria
- populations of nutria are out-competing the more favorable (native) muskrat for habitat.

Solutions:
- the Louisiana Department of Wildlife and Fisheries is encouraging the hunting of nutria for their fur and meat.
- business efforts are directed at marketing the meat of the nutria overseas.

Modified from: Louisiana Department of Wildlife and Fisheries, 2004, **Nutria**, accessed June 28, 2004, at http://www.nutria.com/site.php.