



ALLIGATORS

THE SURVIVING DINOSAUR

Story & Photos by Donna Bush

Most of us think of alligators as prehistoric looking, with their thick scales and bony plates, causing them to appear to have a suit of armor. Well, they are a member of the reptile family, which also includes dinosaurs! Scientists estimate the alligator is more than 150 million years old and, unlike dinosaurs, they have survived extinction.

Not only did they survive when dinosaurs didn't, they came back from the brink of extinction again; with a little help. In the 1950's, alligators were about to join their prehistoric relatives, existing only in history books. Over-hunting and habitat loss were major contributors to their decline. In Louisiana, alligator hunting was mostly unregulated. Landowners who trapped and fished for a living viewed the alligator as competition and, therefore, the enemy. Federal and state agencies came together to protect them. They were placed on the federal endangered species list in

1967, which prohibited hunting; and, in 1972, Louisiana Department of Wildlife and Fisheries (LDFW) implemented their alligator management program to protect remaining populations and preserve precious wetlands habitat. Since the program's inception, over "1.1 million wild alligators have been harvested, more than 11 million alligator eggs have been collected and roughly 7.3 million farm-raised alligators have been sold." Hundreds of millions of dollars of revenue are brought to the state each year from consumption of meats and hides, in addition to wildlife watching at refuges, parks and on swamp tours. In 1987, the U.S. Fish and Wildlife Service (USF&WS) announced them completely recovered and removed them from the endangered species list. However, they continue to be protected under the classification as "threatened due to similarity of appearance," meaning

that the alligator looks similar to other species which are endangered – crocodiles and Chinese alligators.

Alligators range in size from 8-9 inches at birth, to approximately 13 feet. Females typically don't exceed 9 feet or weigh more than 200 pounds,

How do alligators float, submerge and roll?

A team of scientists at the University of Utah in Salt Lake City recently discovered that alligators use their breathing muscles for a second job: to shift their lungs around inside their body. This helps the animals move up and down in water by allowing them to control their buoyancy, or which parts of them float and which parts sink. To dive, they squeeze their lungs toward their tail. This tips a gator's head down and prepares it to plunge. To surface, the alligators move their lungs towards their head. And to roll? They use muscles to push their lungs sideways.



while males can weigh in excess of 500 pounds. Other than size difference, there is no easy way to tell male from female without an examination of their genitals. Several factors influence their growth rate – habitat, sex, size and age. Males grow faster than females. As alligators age, their growth rate slows. Breeding maturity is reached when they are approximately 6 feet in length.

Mating season occurs in springtime, usually April and May. If you are in alligator territory, you can often hear the large males “bellowing” to attract a female and to warn other males to keep their distance. His displays

include slapping the water with his jaw and lifting his tail high in the air, causing water vibrations on his back, as if the water is dancing. Vicious fights can occur during this time, leaving maimed or dead gators.

Once a potential mate has been found, their elaborate courtship begins. They rub and press each other’s snouts and backs. While this wooing may last hours, actual copulation is usually less than 30 seconds and takes place in the water. Alligators are not monogamous. Nor are they social. They come together to mate and then go their separate ways. The male takes no part in nest building or raising the young.

What does alligator scat (poop) look like?

Like birds, alligators do not release urine separately from feces. Feces, which come from the intestine, and urine, which is filtered from the blood stream by the kidneys, are commingled in the cloaca. The commingled urine and feces are excreted as one mass. Also, like birds, alligators deposit a portion of digested nitrogen in the form of uric acid. In the wild, alligators deposit their excrement on land, and it appears as a mass of green or brown feces with a spot of white uric acid – very much like a bird’s excrement.



Alligator Tracks

An alligator has 5 toes on their front feet and 4 toes on their hindfeet. A mature alligator’s front track measures approximately 5 inches long and 4 inches wide, with the hind track measuring up to 8 inches long and roughly 5 inches wide. Often in muddy areas, you will see where the tail drag as he/she walked. Being creatures of habit, gators will frequently enter and exit the water at the same place, known as a “haul out” or “slide.”



Where to see alligators safely

Visit one of our National Wildlife Refuges: Big Branch, Bayou Sauvage, and Bogue Chitto are home to many alligators. Audubon Louisiana Nature Center, Audubon Zoo and the Audubon Aquarium of the Americas are great places to visit and safely observe alligators in a native environment. Most any festival that you attend in Louisiana will have an exhibit with a small alligator with its mouth taped shut, allowing attendees to pet and hold the gator for a photo. Or, just take one of the many swamp tours offered around our area.

The female will select the nesting site in June or July. She builds the nest by pulling marsh vegetation, sticks and mud into a mound several feet high and wide. The nest is typically on the edge of the water – a pond, lake or bayou. She intentionally builds it high to protect her young from flooding water. Then she hollows out a cavity in the nest and lays up to 60 eggs, although typical clutch size is 35. After laying her eggs, she covers the cavity with more vegetation. The decaying vegetation creates heat to incubate the eggs. The temperature of the nest determines the sex of the hatchling. Higher temps (93.2°) produce males, while lower temps of 86° or below produce females.

The mother remains near the nest to protect her young. Nest predators can be raccoons, opossums, skunks, pigs, otters, even curious people. **Do not approach a nesting alligator.** They can and will chase you, hissing as they do so. Hatching begins after approximately 65 - 70 days. An “egg tooth” is developed on the top of the hatchling’s snout to open the shell.

Hatchlings will begin chirping before they’ve emerged from the egg. Mom will often tenderly carry the young to the water in her massive jaws. Their protective mother will stay close to them for up to two years. If you are lucky enough to see hatchlings in the wild, they will often be found lying on Mom’s back or snout. If not there, then gathered together with their siblings, safety in numbers. Predation rate is very high for hatchlings, as they are often snatched up by herons, egrets, large-mouth bass and other gators.

Hatchlings begin feeding on insects shortly after birth, then progress to crawfish, small fish and frogs. As they grow larger, so does their food source – nutria, beavers, large birds and fish, raccoons, snakes, deer, even other alligators. They are well adapted to hunting at night due to their great sense of smell and vision. However, they are opportunistic eaters and, when hungry, will eat whatever is available at the water’s edge.

The American alligator is found in the Southeast United States, ranging

Alligator Farming

In 1986, Louisiana began an alligator ranching program, which allowed licensed farmers to collect alligator eggs from nests on private lands to incubate and hatch under artificial conditions. When collected, the egg tops are marked to keep them upright in order to not dislodge the embryo. The eggs are incubated at approximately 86-91° for approximately 65 days. Farmers raise the alligators until they reach 3'- 5' in length. At this time, the same percentage that would have survived to 4 feet in the wild are reintroduced into their natural habitat. The farm-raised gators are tagged and marked to identify them as non-wild. The farm-raised gators have a much faster growth rate than wild gators due to their consistent and optimum growing conditions. The farmer may sell the gators that are not released into the wild.



from the Rio Grande in Texas to North Carolina, with Louisiana and Florida having the highest populations. They are found in bayous, marshes, swamps, rivers, and lakes with fresh or brackish water. Without salt glands, they can only tolerate salt-water briefly.

Alligators need wetlands to survive. Conversely, survival of wetlands depends somewhat on alligators. Being at the top of the food chain, they help cut down on rodents and other animals that destroy marsh vegetation. But that is not all. Many adults create “gator holes” by using their mouths and claws to uproot vegetation to clear a space. By thrusting its body and slashing with its powerful tail, it creates a depression or hole that is full of water during the wet season and holds water during the dry season. These holes provide

necessary water for fish, insects, snakes, turtles, birds and alligators. Occasionally, they will expand their gator hole to create a hidden den underneath an overhanging bank. They may even create a chamber elevated enough above water level to allow breathing. Not to be confused with their nest, this is just a place to survive the dry season and winter.

As cold-blooded animals, their body temperature is regulated by the temperature of their environment. In the summertime, they can be seen laying with their mouths open to help cool them down, much like a dog panting. In winter, they can be seen sunning themselves on a bank to keep warm. In very cold areas of their range, they move into a state of dormancy where they can no longer catch or digest

food efficiently. This is when they seek refuge in their underground hole until temperatures warm. Did you know they can stay underwater without air for more than 2 hours?

An alligator’s tail accounts for half of its body length and is used to propel them through the water. While they are able to move quickly in the water, they are slower on land. But, don’t be fooled - they can run short bursts in excess of 30 mph! Despite their large size, they can jump up to 6 feet in the air from a state of rest. Even with their short legs, observations have proven they are capable of climbing fences, stairs, etc. According to a USF&WS report, they can even climb into a truck!

The position of their nostrils, eyes and ears allow them to breath, hear and see while most of their body is



Alligator Hunting

To hunt alligators in Louisiana, you must possess an alligator harvest tag issued by LDWF. If deemed sufficient wetland habitat to sustain an alligator harvest, they may be hunted on private lands with proper documentation. If you don’t have private land available, you can apply for the LDWF Lottery Alligator Harvest Program, where more than 400 resident alligator hunters are provided the opportunity to harvest approximately 1245 alligators over 40 wildlife management areas and public lakes within the state. There are two hunting zones - East and West. East zone opens the last Wednesday of August, while the west zone opens the first Wednesday in September. Hunting is open for 60 days in each zone. Please check the LDWF website for more specific information.

Virtually every part of the alligator is used. The skins are tanned and manufactured into items such as belts, purses, shoes, luggage and watchbands. Heads and claws are sold as novelty items and the meat is a favorite in sauce piquant, etouffee, jambalaya, gumbo, sausage and many Chinese dishes. Roughly 75% of all wild alligator hides and 85% of all farmed skins used by tanners are harvested in Louisiana. The demand for skins is extremely high overseas. Meat is sold both nationally and internationally.

completely submerged in water. Like many animals, gators have two eyelids to protect each eye. But they also have a clear, third eyelid that covers the eye when submerged to aid them in seeing clearly underwater. Alligators have roughly 80 teeth in their mouth at one time. As they wear down, they are replaced with new ones, totaling 2000-3000 teeth over the life of the gator. Even though they have all these teeth, they are unable to chew their food. Instead, they bite and tear, along with a full-body twisting motion, known as a death roll, to kill their prey. Other than humans, adult alligators do not have any predators, except for other alligators.

Alligators are similar to crocodiles and caiman. We don't have crocodiles in Louisiana, but they can be found in south Florida. In fact, south Florida is the only area in the United States where both alligators and crocodiles coexist in the wild. Gators have a more U-shaped snout, while crocodiles are more pointed or V-shaped. Additionally, alligators are black, and crocodiles are usually a lighter grayish brown. When a gator's mouth is closed, you cannot see its teeth; but the fourth tooth of a crocodile's lower jaw sticks out when its mouth is closed. Unlike their relative, crocodiles are found in both fresh and salt-water.

While the United States typically does not have caiman, they do exist in Florida as an exotic species. Caiman are in the same family as alligators and crocodiles. They are smaller than both, and widely exist in Central and South America. Unlike their relatives, caiman have another predator besides humans - jaguars!

As with all wild animals, there are pros and cons to living amongst them. In Slidell, with the abundance of waterfront property, many of us are living in close proximity with alligators. The best thing we can do is find a way to coexist. This entails being tolerant of the wildlife, whose neighborhood "we" invaded; and **NOT** feeding them, which endangers them. A fed gator is a dead gator! Feeding an alligator can have far-reaching implications that the average person might not consider.

Remember:

1. **Never** throw food in canals, bayous, lakes, etc.
2. **Never** throw fish guts in the water when cleaning catch.
3. If in an alligator area, **do not** allow small pets or children close to the water's edge. It only takes a second for an alligator to snatch a child or a pet off the bank.

We are privileged to live in a wildlife habitat with wild animals. Let's cherish this and respect the opportunity we've been given!