



American Alligator

North Carolina Wildlife Profiles



American Alligator

Alligator mississippiensis

Two dark eyes and a leathery back skim the water at the edge of a murky swamp. Like a large lizard, the alligator searches the water's edge in search of food. Many different kinds of alligators existed in the prehistoric past, but only two remain today. The Chinese alligator, which inhabits the lower Yangtze River valley in China, and the American Alligator. These two reptiles share the order Crocodylia with their cousins the crocodiles. Crocodiles inhabit many tropical and temperate areas of the earth, but only one is found in the US. The American crocodile is often confused with the American alligator where their ranges overlap in extreme south Florida. An alligator has a broader snout and only its upper teeth show when the mouth is closed. The crocodile snout is much narrower, and both the upper and lower teeth show when the mouth is closed.

Description

Alligators resemble lizards, but grow much larger and have proportionally thicker bodies and tails. Like many reptiles, alligators reach a larger size in Florida and other southern latitudes, sometimes reaching 15 feet. In NC, males can reach 13 feet and weigh up to 500 pounds or more. Females generally grow to less than 9 feet and weigh up to 200 pounds.

Adults range in color from black or dark gray to dark olive. Juveniles are born with bright yellow bands that encircle their bodies. These bands gradually fade over time.

Alligators have a broad snout that is useful for digging, a short neck and legs, and a thick tail that is used to propel them through water. Contrary to popular belief, the tail is not used to attack prey. Two turret-like eyes stick above the skull so the alligator can see above the water as it swims.

Its leathery skin is toughest on its back, where small bones called osteoderms create a rough, ridged shield. Unlike the turtle, though, these hard, flat bones are not connected to each other, so the alligator retains greater flexibility.

History and Status

Today, the American alligator is a common sight in the lakes, swamps and rivers along the Gulf of Mexico, the entire state of Florida, and the coastal regions of the southeastern US northward to NC. They became scarce in the early 20th century due to loss of habitat as well as unregulated hunting for hides and meat. In 1967, the American alligator was one of the first species the US Fish and Wildlife Service listed as Endangered. This protection allowed alligator populations to recover in some areas, enabling its status to be changed to Threatened in much of its current range.

Habitat and Habits

In the southeast, the American alligator inhabits freshwater swamps, marshes, ponds, lakes and the backwaters of large rivers. They have also been observed in brackish water and even on beaches.

Adult alligators are usually solitary, but often congregate together, especially in the breeding season. Both males and females vocalize. The male calls with a loud,

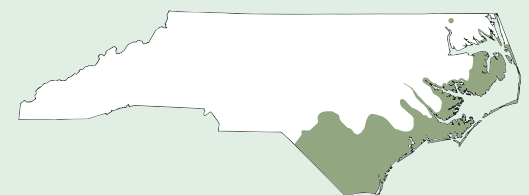
Two dark eyes and leathery skin



Range and Distribution

The American alligator ranges from coastal North Carolina to southern Florida west to central Texas. In North Carolina, they inhabit freshwater areas mostly east of Robeson County northward to Gates County. The largest populations live in the coastal counties of Brunswick, New Hanover, Craven, Onslow and Pender. Alligators are also seen in other areas of eastern North Carolina, and have even been found on coastal beaches.

Natural Distribution Map



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throaty bellow and may hiss and inflate to impress a mate. Females bellow and grunt, too, but less loudly. Young alligators call with a high-pitched chirp.

Mating takes place in May through June. After mating, the female alligator begins to build a mound-like nest of leaves, sticks, mud and other debris. The nest, built near water, measures 2-3 feet tall and up to 6 feet in diameter. During the decomposition of the leaves and other debris, heat is generated. This acts as a natural incubator. The average clutch size is 30-45 eggs. After laying the eggs, the female covers them with mud and other debris and actively guards the nest. The sex of young alligators is not determined at conception, rather is determined by the average temperature of the nest. Temperatures below 88 degrees usually produce females, while those 88 degrees or above produce males. After 60-65 days, the young hatch and are about 9 inches long. They begin calling immediately after hatching, and the mother then begins to remove the mud and other debris to assist her young.

While some reptiles, such as skinks, actively guard their eggs, female alligators are the only reptiles in NC to protect their young after hatching. They defend the young from predators such as raccoons, large wading birds, and their biggest predators, larger alligators.

Hatchlings are voracious predators, feeding on aquatic insects, fish and other small animals. Alligator growth rates are very slow in North Carolina. It likely takes 16+ years to reach 6+ feet. After reaching around six feet, regardless of age, they are sexually mature and ready to reproduce.

As the temperature drops in the winter, alligators become inactive. They burrow in mud, hide in a den on the bank, or rest underwater. On warm winter days, however, they will bask on banks to absorb heat. Alligators, like all other reptiles, need to breath oxygen through their lungs. Researchers have seen alligators survive on ice-covered bodies of water by breaking through the ice with their snouts to enable breathing, while the lower parts of their body are in the water where the temperature is above freezing.

People Interactions

Today, the alligator's Threatened status makes it illegal to possess or kill them. Even though the populations of American alligators in the southeastern US are doing extremely well, they are still listed as Threatened due to the similarity of appearance to the American crocodile, which is extremely rare. The skin of an alligator is highly valued for making shoes, handbags and other accessories, but the vast majority of alligators that are used for these purposes are raised on commercial farms. Though protected, alligators are illegally poached in some areas.

In North Carolina, alligators rarely attack humans, and the attacks that do occur are usually caused by people who deliberately provoke or harass them. That being said, however, alligators can be dangerous. Females actively defend their nest and young, and care should be taken when in or around areas where alligators are found.

Head Shape



Alligator



Crocodile

Wild Facts

Classification

Class: Reptilia

Order: Crocodylia

Average Size for Adults

Females generally grow to less than 9 feet while males can grow to 12-13 feet and weigh 500 pounds or more.

Food

Young alligators eat insects, frogs, small fish and crustaceans. Adults eat fish, snakes, frogs, turtles, birds and mammals such as muskrats. They feed primarily at dawn and dusk.

Breeding

Takes place in May and June. One brood per year. Females may not breed each year. Average clutch size is 30-45 eggs.

Young

Hatchlings are protected by the mother for up to two years.

Life Expectancy

American alligator can live 40+ years in the wild and 65+ years in captivity

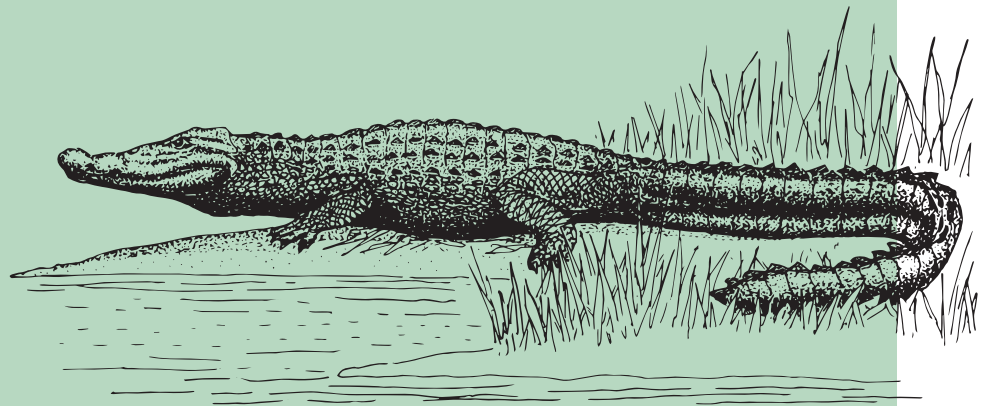
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NCWRC Interaction

Although the population is high, especially in the extreme southeastern states, alligators are listed as Threatened by the US Fish and Wildlife Service due to the “Similarity of Appearance” with the American crocodile. In NC, the alligator is listed as Threatened due to its limited range. This status affords the alligator increased protection. The possession of live alligators is prohibited without permits. Although the alligator is hunted by permit in some southeastern states, NC does not allow them to be hunted.

With increased alligator and human populations, especially in southeastern counties, nuisance alligator complaints have increased as well. The NCWRC has been involved with population surveys for alligators and will use survey data along with other data and information to properly manage the species.



Q&A—Resources for Teachers

1. What two members of the order Crocodylia are found in the US?

The American alligator and the American crocodile.

2. What caused the population of alligators to decline in the early 20th century?

They became scarce due to loss of habitat as well as unregulated hunting for hides and meat.

3. What determines the sex of alligators?

The temperature of the nest during incubation.

4. What do female alligators do for their young after hatching?

They protect them for up to two years.

5. Where in North Carolina are the largest populations of alligators found?

In Brunswick, Craven, New Hanover, Onslow and Pender counties.

References

- Ackerman, Diane. “The Eyelids of Morning,” in *The Moon by Whatle Light* (New York: Vintage Books, 1992).
Alderton, David. *Crocodiles and Alligators of the World*. (New York: Facts on File, 1991).
Neill, W.T. *The Last of the Ruling Reptiles: Alligators, Crocodiles and Their Kin*. (New York: Columbia University Press, 1971).
Beane, Jeff et al. *Amphibians & Reptiles of the Carolinas and Virginia*. (Chapel Hill: UNC Press, 2010)
Palmer, William, and Alvin Braswell. *Reptiles of North Carolina*. (Chapel Hill: UNC Press, 1995)

Credits

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