



## The American Alligator

*Alligator mississippiensis*

Kingdom: Anamalia

Phylum: Chordata

Class: Reptilia

Order: Crocodylia

Family: Alligatoridae

Genus: *Alligator*

Species: *mississippiensis*



## History, Status, Conservation Challenges

### History

- Alligators were once hunted to near extinction during the 1800s for their hides and meat. In the 1970s and 1980s, stricter regulations were put in place to protect alligator populations.
  - o The Endangered Species Act of 1973: listed the American alligator as endangered, prohibiting hunting so that the species could rebound.
  - o The Lacey Act of 1981: put protections on the buying and selling of alligator parts.

### Current Status

- Populations have rebounded to the point that the American alligator is no longer listed as endangered. Instead, they are classified as “Federally Threatened by similarity of appearance to the American crocodile”, allowing for a combination of protections for alligators and sustainable use based on state management goals.

### Conservation Challenges

- Alligators are dependent on marshes and freshwater for survival. These same places are also popular among people living and vacationing in South Carolina, which often result in increased interactions between people and alligators.
- Alligators are very long lived and reproduce slowly. Because of this, it can take decades for populations to rebound from overexploitation.



The alligator's tail will drag when it walks, often creating a trail as seen above.

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- Because growth, maturity, and reproduction are temperature dependent, alligators at the northern part of their range in the US mature at a slower rate than those found further south.

### Importance of Alligators

- Alligators act as a keystone species in the environments where they live, physically altering the environment and impacting other species that live there.
  - o Habitat engineers: Alligators create trails, holes, and nests that provide habitat for birds, reptiles, and other species. During dry periods, alligator holes are often the only water source for wildlife in an area.
  - o Commensal relationship with wading birds: Breeding birds will choose to nest over areas where alligators live. The alligators keep other predators away from the nests and they feed on the chicks that fall out the nests.

**DID YOU KNOW?**



Their crocodilian ancestors lived alongside dinosaurs and are related to birds. Alligators still look very similar to their ancestors, having evolved very little in the past 80 million years.



Alligators will dig holes in the ground using their snouts and feet. These holes retain water in dry seasons & may be the only water source in an area.



## Alligator Life Stages



### Clutch

- 20-60 eggs
- Hard-shelled, white eggs about 3 in. long
- Laid in June/July



### Hatchlings

- Hatch in August/September
- Size: on average, about 9 in. long
- Low survival → easy prey for other animals
- Females protect their hatchlings from perceived predators (including people and/or pets)



### Juveniles

- Have several yellow & white bands along the body
- Size: Typically range from about 1 to 6 ft. long
- Diet: Primarily insects, amphibians, small fish, invertebrates



### Adults

- Black with creamy white bellies
- Reach sexual maturity around 6 ft. (12-14 yrs. old)
- Females can reach up to 9 ft. (average about 8 ft.)
- Males can grow to 13+ ft.
- Diet: fish, snakes, wading birds, turtles, small mammals, smaller alligators



## Distribution & Habitat

**DID YOU KNOW?**

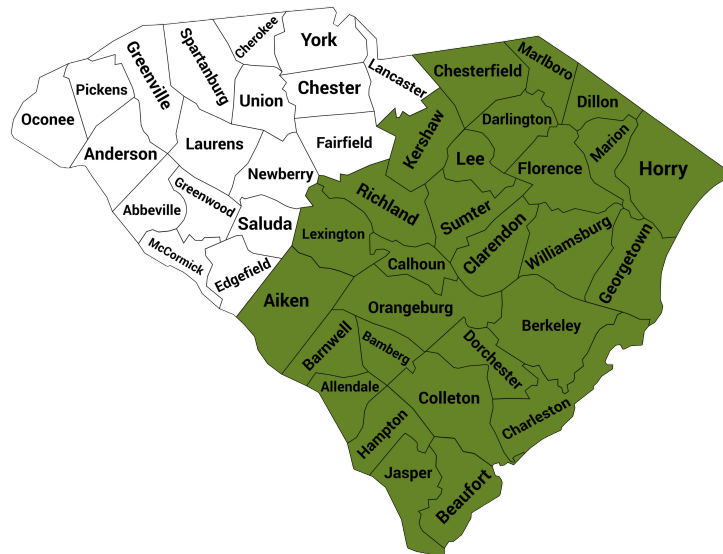


A group of alligators is called a congregation.

Alligators are common in many areas of the southeast and can be found from Texas to North Carolina. In South Carolina, below the fall line, alligators make extensive use of habitat offered by the coastal marshlands. They can be found in any freshwater environment, including rivers, lakes, streams, retention ponds, swampy areas, and occasionally venturing into brackish and salt water.



Home range of the American alligator in the United States.



Home range of the American alligator in South Carolina.

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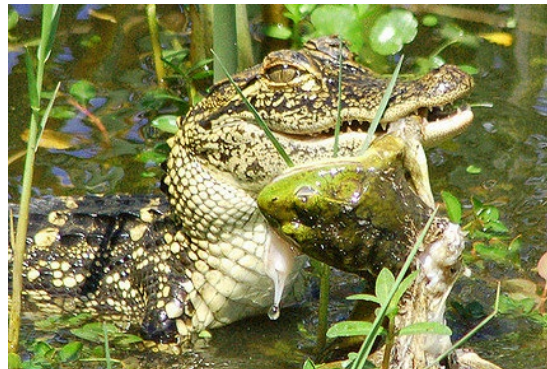


<https://www.dnr.sc.gov/wildlife/herps/alligator.html>

## Prey & Food

Alligators are ambush predators and attack from the water where they can use their camouflage to hide from prey. They are also opportunistic feeders and can't necessarily distinguish their normal prey from small house pets, or a splash in the water from a fish. Alligators are most active from dusk to dawn and feed on a variety of animals dependent on size.

| <b>Hatchlings &amp; Juveniles</b>  | <b>Adults</b>   |
|--|---|
| Invertebrates (insects, crawfish)<br>Small fish<br>Small amphibians (frogs, lizards) | Larger fish<br>Turtles<br>Wading birds<br>Snakes<br>Small mammals<br>Smaller alligators |



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## Behavior/Activity

# ALLIGATOR ACTIVITY



## SPRING

### **Breeding (Apr/May)**

adult males looking for females; bellowing

### **Adults**

moving, feeding and basking frequently

### **Juveniles**

moving into retention ponds

## SUMMER

### **Nesting (Jun/Jul)**

adult females building nests and laying eggs

### **Adults**

moving, feeding and basking frequently

### **Juveniles**

traveling among retention ponds

## FALL

### **Hatchlings**

hatch in August, chirp for females

### **Adults & Juveniles**

feeding, putting on fat for the winter

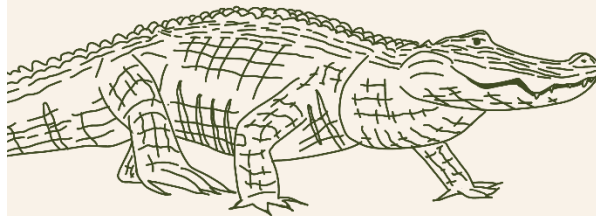
### **Adult Females**

guarding nests

## WINTER

### **Brumation**

all ages “hibernating;” occasionally basking and feeding



## Typical Behaviors:

**Basking:** Laying in the sun to warm their bodies. They will sometimes do this with their mouths open.

**Bellowing:** Loud guttural/rumbling calls made by males to attract females during mating season.

**Brumation:** A form of hibernation for alligators during the winter months.

**Freezing:** Alligators may freeze in place when afraid (a typical response when surrounded by people on land). In these situations, it's best to give them space to move on.

**Hissing:** Used as a warning when someone gets too close, or they feel threatened. In some cases, if you spook an alligator that's out of water, it may quickly spin around and hiss, the same way you would turn and face a threat. If you find yourself in this situation on, give the alligator a wide berth and slowly back away.



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<https://www.dnr.sc.gov/wildlife/herps/alligator.html>

# Alligator Management in South Carolina

## Nuisance Alligator Program:

- In 1989, the SCNDR initiated a nuisance alligator program which allows for humane euthanasia of individual alligators that may be a threat to humans or pets. Most often these are alligators that have become habituated to people (from feeding) and approach people and/or pets, show symptoms of illness or injury, or are found in places they shouldn't be (i.e., roadway, garage). Approximately 300-350 alligators are removed annually through this program.

## Why not relocate?

- SCDNR does not allow for relocation of alligators. Alligators have a strong homing instinct. Adult alligators will attempt to return home even after they've been moved many miles, crossing anything in their way to get back, including backyards and highways.
- If it's a nuisance in one location, it will be in another location.

**DID YOU KNOW?**



Alligators can live up to 40-60 years in the wild!

In SC, female alligators can get up to 9ft. long, and males up to 13ft.

## Public Hunt:

- In 2008, SCDNR established an alligator hunting season. The season is regulated as a draw hunt with a preference point system and requires an application and permitting process. If selected, a hunter is provided a tag to be used in a designated region. The state is divided into four regions, with 250 tags allocated to each region.

## Private Lands Program:

- Established as a means to manage alligator populations on private property with a significant amount of alligator habitat. This program allows landowners to manage alligators in an ongoing, sustained-yield basis while acknowledging them as an aesthetically, ecologically, and economically valuable resource.



## Sources

Bennett, S. H., & Buhlmann, K. A. (2015). American Alligator. *SC State Wildlife Action Plan, Supplemental Volume: Species of Conservation Concern*.

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