

Respect their nature-crocodiles are shy and want to be left alone, so observe them from a safe distance.



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Everglades Restoration and The Future for Crocodiles

If we continue to protect and restore habitat for crocodiles in South Florida, crocodiles will prosper. However, if we are unable to change people's misconceptions about crocodiles, crocodile recovery will become an increasingly difficult task.

The answer lies in education and habitat restoration. We need to educate concerned citizens that the American crocodile is a shy animal that rarely attacks unless provoked. Everglades restoration can be linked with crocodile ecology; the health of the Everglades corresponds with the health of crocodile populations. By using crocodiles as indicators of the success of restoring natural freshwater flows to estuaries, we can accomplish goals of increasing crocodile populations and Everglades restoration.

Education promoting the tolerance and understanding of crocodile behavior and habitat has assisted in the survival of crocodiles throughout the world. We should not allow ungrounded fears and lack of awareness to interfere with the recovery of the American crocodile. It is possible to co-exist peacefully with crocodiles if people are ready to embrace the responsibility to protect an endangered species.

Living with Crocodiles

Safe and responsible behavior: Swim in daylight hours only in areas designated as safe, and never alone. Dispose of fish scraps in garbage bins, and keep your pet away from crocodile-inhabited areas.

DO NOT FEED CROCODILES-Feeding crocodiles creates animals that no longer fear humans. Crocodiles will approach other humans for food in the future. Crocodiles cannot tell where the handout ends and the hand begins. Feeding a crocodile is a violation of state law. Help spread information by educating others of the dangers of feeding crocodiles and of the proper behavior when around crocodiles.

Dangerous and irresponsible behavior: Taunting, touching, teasing, or attempting to move a crocodile could potentially create a harmful situation, as could swimming in areas with crocodiles.

If you encounter a crocodile, do not approach it. It is against the law to attempt to move or otherwise come into physical contact with a crocodile.

American Crocodile *Crocodylus acutus*



An Endangered Species Recovery in Progress

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The American Crocodile

A Story of Recovery

The American crocodile is a primarily coastal crocodylian occurring in parts of Mexico, Central and South America, the Caribbean, and at the northern end of its range in South Florida. The crocodile was first sighted by early settlers in the late 1800's in Biscayne Bay. Historically, crocodiles were observed in coastal areas between the present day locales of Key West in the south, Lake Worth in the north on the Atlantic coast and Naples, and Sanibel Island on the Gulf Coast. Human population growth and development has diminished the distribution of the American crocodile.



Home for a Crocodile

The American crocodile inhabits brackish and saltwater habitats and is typically found in ponds, coves, and creeks in mangrove swamps. These areas are characterized by deeper water, low wave action, and intermediate salinities. The creation of man-made habitat, especially nesting sites near natural areas, have contributed to the long-term recovery of crocodiles.



Nesting Behavior and Hatchlings

Nest building occurs in well-drained soil adjacent to water. This prevents flooding and allows for direct access to water. Females begin nest building in March, and return repeatedly to complete the nests. Then, females lay all eggs during a single night, usually in late April or early May. The number of eggs per nest averages 40. The female covers all her eggs to protect them from desiccation and predators such as raccoons. Females return in late July or August to open the nests, and may carry hatchlings to the water. They may even assist the hatchlings by gently cracking the shells with their jaws.



Survival in the Everglades

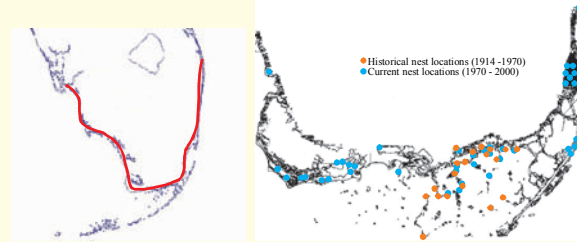
Crocodiles feed on small fish, invertebrates, reptiles, birds, and mammals. Feeding and growth rates vary with temperature, food availability, and salinity. Reduced freshwater flow to Everglades estuaries has negatively affected growth rates of crocodiles.

Occasionally, death results from direct or indirect interaction with man, such as car collision. Crocodiles also sometimes die from wounds inflicted by other crocodiles or from cannibalism. Survival rates are the lowest for hatchlings, which are faced with many threats from predators (raccoons, birds, crabs), and dehydration. Suitable nesting sites, nursery areas, and good year-round habitats are critical to the survival of both hatchlings and adult crocodiles.

Present Distribution

Crocodiles are found continuously between southern Biscayne Bay and Cape Sable in Everglades National Park, as well as in several locations in southwest Florida between Shark River and Sanibel Island, and also in Broward County.

Historical Distribution



Current nest locations are concentrated between northeast Florida Bay and southern Biscayne Bay. Since the 1930's, there has been a gradual disappearance of nesting on islands in Florida Bay, and an absence of adults on central Key Largo and the east coast of Florida, north of Biscayne Bay. Nest areas lost to human development have, to some extent, been compensated for by the inadvertent creation of nest sites elsewhere.

Endangered Status

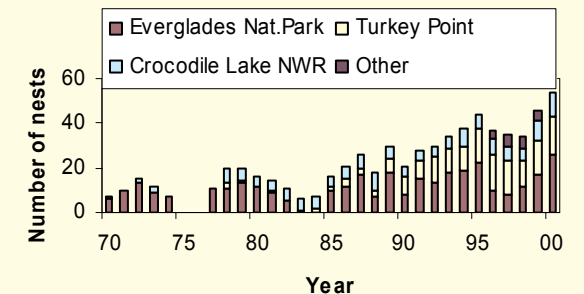
The American crocodile has always been rare in Florida. Human population growth and development of coastal areas have depressed crocodile population numbers to even lower levels. Humans have built homes in what was once crocodile habitat, mainly affecting the nesting range of crocodiles. By the early 1970's nesting had been restricted to northeastern Florida Bay and north Key Largo. In 1975, Florida's crocodile population was listed by the U.S. Fish and Wildlife Service as endangered, and in the late 1970's, intensive studies mainly conducted by the National Park Service, Florida Game and Fresh Water Commission (now Florida Fish and Wildlife Conservation Commission), and Florida Power and Light Company resulted in a more optimistic

outlook for crocodiles in Florida. During this time, the National Park Service established a crocodile sanctuary in north-eastern Florida Bay, Crocodile Lake National Wildlife Refuge was created, and Florida Power and Light Company began a long-term management and monitoring program.



Current Status

Success stories are becoming more common. Florida is a good example. In particular, the crocodile has made a comeback in southern Biscayne Bay where suitable habitat remains and where habitat modifications have made other areas more favorable for crocodiles. Although the American crocodile remains legally endangered throughout its range, as a result of research and management programs we know of more crocodiles (and nests) in more places today than 20 years ago.



* Some data not available.

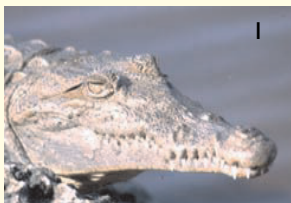
For example, construction of the cooling canal system at the Florida Power and Light Company's Turkey Point Power Plant has created nesting habitat where none had existed.

However, the recent increase of the American crocodile may not be a permanent success. Environmental changes that affect the ecological health of the Everglades could be detrimental to crocodile populations. Furthermore, crocodiles have been found increasingly in public parks, golf courses, and marinas where conflicts between humans and crocodiles could ensue. The result has been the removal and relocation of crocodiles. The major challenge for the present and future recovery of crocodiles lies in public education and ecosystem management.

A Comparison of Two Crocodylians

American Crocodile

- Grayish-green in color
- Tapered snout
- Exposed fourth tooth on both sides of lower jaw, when mouth is closed
- Rare and shy-conflicts rarely occur



American Alligator

- Darker in color
- Broader snout
- No exposed tooth
- Bold and more common

