

Common Name: Nile crocodile

Order: Crocodylia **Family:** Crocodylidae

Genus & Species: *Crocodylus niloticus*

Status: IUCN Least Concern; CITES Appendix I and II depending on country

Range: The Nile crocodile is found along the Nile River Valley in Egypt and Sudan and distributed throughout most of sub-Saharan Africa and Madagascar.

Habitat: Nile crocodiles occupy a variety of aquatic habitats including large freshwater lakes, rivers, freshwater swamps, coastal estuaries, and mangrove swamps. In Gorongosa, Lake Urema and its network of rivers are home to a large crocodile population.

Description: *Crocodylus niloticus* means "pebble worm of the Nile" referring to the long, bumpy appearance of a crocodile. Juvenile Nile crocodiles tend to be darker green to dark olive-brown in color, with blackish cross-banding on the body and tail. As they age, the banding fades. As adults, Nile crocodiles are a grey-olive color with a yellow belly. Their build is adapted for life in the water, having a streamlined body with a long, powerful tail, webbed hind feet and a long, narrow jaw. The eyes, ears, and nostrils are located on the top of the head so that they can submerge themselves under water, but still have sensing acuity when hunting. Crocodiles do not have lips to keep water out of their mouth, but rather a palatal valve at the back of their throat to prevent water from being swallowed. Nile crocodiles also have integumentary sense organs which appear as small pits all over their body. Organs located around the head help detect prey, while those located in other areas of the body may help detect changes in pressure or salinity.

Size: Nile crocodiles are the second largest of all crocodylians behind Saltwater crocodiles and the largest in Africa. Nile crocodiles can grow up to 20 feet and upwards of 2200 pounds (over 1 ton). On average, however, Nile crocodiles are near 11.5 feet and 1100 pounds. Males are generally about 30 percent larger than females.

Longevity: Lifespan is not well documented, but 70 years or more is likely.

Activity: Nile crocodiles can be active at any time but are frequently active in early evening. They behaviorally thermoregulate by moving into water or shade when they get too hot and bask in the sun when they are too cool.

Wild Diet: CARNIVOROUS. When young, the diet of a Nile crocodile consists of insects, small fish, amphibians, and crustaceans. As they mature, the diet includes more vertebrates, including fish, turtles, birds, and mammals. At their largest, Nile crocodiles can procure large prey such as antelope, buffalo, zebras, and wildebeest.

Zoo Diet: Fish (herring, trout, mackerel), rats, rabbits, guinea pigs, chickens, quail, chunk beef, commercial crocodile dry chow & gel.

Offspring: Females can lay up to 60 eggs, but offspring survival can be low; survival rates of only ten percent for juveniles are common among reptiles.

Incubation Period: Approximately 90 days. Sex of the offspring is determined by temperature during incubation; females are produced when temperatures are below 88 degrees Fahrenheit and males are produced between 88–93 degrees Fahrenheit.

Reproduction & Parental Care: Breeding occurs in the water during the dry season. Males attract females through elaborate displays that include bellowing and slapping their snouts on the water. Females dig a nest up to 20 inches deep a few yards from water in a sandy bank. After depositing her eggs, the female will bury her eggs in sand and guard the nest for the entire 90-day incubation period. When about to hatch, the offspring will make a chirping noise, signaling the female to begin excavating the offspring from the nest. Females will assist hatchlings out of their eggs by lightly cracking the egg in their mouth if the young are unable to fully emerge on their own. The female will then gently carry her offspring in her mouth from the bank to the water. When the offspring are still young, they will remain around their mothers in the water for protection from predators for up to two months.

Ecology & Adaptations: Often mistakenly thought to be anti-social, crocodiles must co-exist, often in large aggregations. For example, large groups of crocodiles will congregate in areas of high fish density and create a large semi-circle, blocking the fish from travelling further downstream. The larger and more dominant males will have access to the better fishing spots, but all crocodiles partake in the effort to eat. Large groups of crocodiles are often found basking together.

Nile crocodiles are ambush hunters. For small, water-dwelling prey items, such as fish, crocodiles will side-swipe their food and catch it in their mouths. For land-dwelling prey items, crocodiles will wait near the water's edge to launch out, grab prey, and pull it into the water. For larger items, crocodiles will then twist their body around while still holding the prey items securely in their jaws in a maneuver known as a death roll. The death roll allows the crocodile to rip chunks of flesh from their prey since crocodilians do not chew their food, but rather swallow it in large chunks. If regular meals are not available, Nile crocodiles can fast up to a year after a large meal. Crocodiles constantly regenerate teeth throughout their life if one is lost.

Nile crocodiles, like all other crocodilians, have osteoderms along their backs and tails. These bony plates serve as armor to protect the crocodiles and help with more rapid heat exchange since osteoderms are highly vascularized.

During the dry season, Nile crocodiles will either need to move to a more permanent area of water or estivate when temperatures are too hot. Estivation is similar to hibernation in that an animal's activity and food intake drastically slows. To accomplish this, Nile crocodiles will dig holes in the wet mud along the riverbanks. This mud will eventually dry around them, protecting them from extreme temperatures, and allowing them to remain without food or water for months. Once the rains return to the area, the crocodiles will once again emerge.

Conservation Issues

Populations were nearly hunted to extinction in the mid-20th century for leather and meat. National protections and international trade regulations have helped them rebound in many areas. Although protected, humans directly impact Nile crocodile populations through general habitat loss and uncontrolled killings or destruction of nests. Indirectly, pollutants, poor water quality, and dam building have caused mortality in different populations of Nile crocodiles throughout their range.

References

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