

# Masters of the waters

Under the waters lurks a dangerous secret... A spectacular creature, known as the Nile Crocodile.



Like all reptiles the coldblooded crocodile uses the environment to regulate its body temperature, often by lying in the sun with its mouth open. In the local winter conditions of July and August, they will desperately try and keep their body temperature above 18°C - too cold and they can't digest food, starved of heat their growth suffers. These huge reptiles are aquatic and are found in rivers, lakes and waterholes. They prefer and favour waters with a temperature from 22 to 30°C and avoid very deep rivers or those in which the water flows too rapidly. Crocodiles are partial to rivers where the waters are less clear, since it is easier to surprise their prey.



They have a highly advanced design, their scaly skin is more than armour it is also watertight, preventing them from dehydrating when basking in the sun. Clawed feet help them climb steep riverbanks as well as assist when digging. Special salt glands on their tongue allow them to live in both fresh and salt waters, but they are predominantly found in freshwater. However, it is in the water that their remarkable design shows its full advantages. When all else is out of sight, their acute ears and eyes remain above the water line, together with their sensitive nose. They propel themselves forward using their powerful tail, steering using their webbed hindfeet. When they travel underwater, they can still see clearly through their transparent third eyelid.

At night when the air cools, they have learnt to sink to the bottom of the waterhole, where the water is as much as 5°C warmer than on the surface. It is here where they lie motionless, slowing their heartrate down to an astonishing 3 to 4 bpm. This is a trick that helps them stay underwater for an hour or more. The colder the water the more the crocodile can slow its heartrate and thus stay underwater for longer.



Crocodiles eat almost anything that moves, baby crocodiles eat insects, spiders, frogs and small fish. Medium crocodiles eat fish, birds and small mammals. Adult crocodiles eat larger prey such as antelopes, but also snails, mussels, frogs, turtles, water birds and fish. Like all predators, crocodiles are opportunists and will catch any animal within reach, irrespective of it being a reptile, a predator or almost any other animal. A crocodile is patient and an excellent ambush predator. The location of their eyes enables it to keep its whole body submerged. Activity on the riverbank attracts its attention through vibrations or splashing sounds, where upon it approaches slowly and unnoticed under the water surface, to where it has detected the prey. When within striking distance, it shoots from the water at 40km/h, and grabs the prey by the snout or front foot. It tries jerking the victim off balance by promptly whipping around and pulling it into deeper water, rolling around and drowning the prey - this is known as the death roll. The way a crocodile can twist its body relative to its head, and its remarkable strength allows it to overwhelm prey bigger than itself.



Crocodiles are social animals and by day they usually bask communally. The size of such a group is determined by availability of food and the extent of the body of water and can consist of 2 to 100 individuals. Females will nest together and share maternal duties, and crocodiles may even cooperate in feeding and hunting. The female will dig more than one hole in a sandy bank until she is content to lay her eggs. A female will lay 20-95 eggs (45 on average), in a hole, 40-50cm deep. It is important that the sand covering the nest remains moist, so the females will often urinate on it, keeping it moist. The female will stay close to the nest, protecting the eggs against predators. When they are ready to hatch, the baby crocodiles will make a shrill chirping sound (which can be heard as far as 20m away), the female hurries to the nest when she hears them calling. The female will unearth the nest and assist the baby crocodiles to escape from their shell. Once they have hatched, the female will carry them to the water in her mouth, roughly 20 at a time, as without her they will not reach the water. Only 2% of the brood will reach adulthood. They do not have a lot of predators however, leopards, lions, hippos and humans are their biggest threats. But even with these predators, they can live up to 70-100 years.



These dangerous but amazing secrets that lurk under the water are not often seen when out on safari, however it is a breath-taking experience for those who are lucky enough to view these incredible creatures in action.

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