

Biology of the saltwater crocodile



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Background:

The Australian continent is surrounded by the sea, and its unique geological history and environment make it one of the few countries with the richest biological species in the world. It is the second country with reptile species on the planet. Then our research is aimed at the Australian saltwater crocodile, which is the largest existing reptile known on earth. The adult male saltwater crocodile in Australia can be as long as 4-7 meters, up to 8 meters long and weighing 400-1600 kilograms. Then adult female saltwater crocodile seldom grows to more than three meters, the same is that they are ferocious, strong and strong, is a good swimmer, its distribution is wide, mainly distributed in Southeast Asia, South Asia, the Philippines, Papua New Guinea, Malay The Islands, and Australia, are the most concentrated in northern Australia. Australian saltwater crocodile is one of the fastest growing animals. It grows especially fast in childhood, and can grow 50cm in one year. When it reaches 2-3m, its growth rate will slow down. When small crocodiles can reach 4 meters in length, they are basically top predators and the best in their class. They have a stronger sense of territory and will wander around, trying to challenge the same type of crocodile, or to drive smaller bodies. The crocodiles take their territory for themselves. If not defeated, these crocodiles will continue to grow in their own territory and become giant crocodiles. In Australia, saltwater crocodile can eat almost any animal, including fish, crustaceans, kangaroos, sheep, cattle, turtles, buffalo and so on. Humans may also be attacked by crocodiles.

Saltwater crocodile is a top hunter, they are very patient and can move for hours. At the same time, he is also very intelligent and has the ability to

learn. He will observe the drinking place of the prey several times and wait patiently for the next visit of the prey. When the prey enters the attacking distance, the saltwater crocodile will suddenly attack, bite the prey and drag them to the water to drown. If you encounter a large prey such as a buffalo, the crocodile will use a strong squat to bite the prey and drag it into the water and continue to roll, inhibiting the counterfeiting ability of the prey. This is the famous 'death roll'. Talking about the predation of Australian saltwater crocodiles involves the adaptation of crocodiles, including Aquatic Adaptations, Integument Intel, Gladiator Goggles, which greatly increases the chances of successful predation.

Observations:

Australian saltwater crocodiles are very heterogeneous. They feed on small invertebrates when they are young, and of course include some fish and frogs. When they are young, saltwater crocodiles will prey on some birds or small ones. Reptile or mammal. When the saltwater crocodile is fully adult, it will capture large animals such as sharks, orangutans, wolves and other large creatures. Even the saltwater crocodile in Australia will actively attack and prey on humans, and it has been successful. example. Australian saltwater crocodile is very patient waiting for the prey, even for a few hours. Their vision and hearing are extremely sharp, and they can find prey on the shore just a few tens of meters away. In addition, there are sensory organs around the ankle, which can sense the weak change of water pressure, which allows the Australian saltwater crocodile to find prey in the muddy water, or to perceive the prey after diving into the water. Once the prey is locked, they will sneak into the water. When the prey enters the attack

distance, they suddenly attack, bite the prey, drag them into the water, waiting for the prey to die. After the prey dies, the crocodile will jump out of the water and smash the head, causing the prey to be broken into pieces and become the meat that is suitable for it to swallow. From the above, we can see that at least three adaptations, the first can stay in salt water for a sufficient time, the second is when the body is closed when completely underwater, and the third is that the eyes provide extra protection.

Compared with other crocodiles that can only survive in freshwater areas, saltwater crocodiles have great advantages. They can easily stay in salt water for at least one hour. The salt water crocodile transports a part of the blood vessels of the blood vessels to close the blood vessels, so that the blood can only be transported. Go to important parts, such as the brain, tail and head, so they can reduce the heart rate to 2-3 times per minute. This means that they will wait patiently underwater until they see the prey close to the water. At the same time, the eyes of the saltwater crocodile are at the top of the head, and the nostrils are at the top of the nose, allowing them to fully immerse themselves in the water, leaving only the nostrils and eyes above the water to find prey. In addition, the saltwater crocodile will seal most of the body's orifices when needed. The crocodile's muscle flaps help them close their ears and nostrils to prevent water from entering. When the mouth is opened under water, the flap acts to prevent water from entering the animal's lungs or stomach. It is because of this flap that the crocodile can easily capture prey in the water or underwater. In addition, the saltwater crocodile eyes have a "third eyelid" that can provide protection during diving. When they dive into the water, they will inevitably encounter submerged sticks or other potential dangers. At this time, the eyelids will

cover the eyes of the crocodile. It is like a thin protective film, but it also has the disadvantage that the saltwater crocodile will not see the prey or dangerous objects, but it can be positioned by the light and darkness of the light or the illumination of the light.

The investigators argued that the crocodile is a strong lizard-shaped reptile. The kiss is narrow and long, the front squat is low, and the back of the kiss is etched. There is a bone in front of the eye that tends to the end of the kiss, but not connected to each other. The outer nostrils are single and open at the end of the kiss; there is no septum in the nasal passages, and there is no slanting edge pleats on the rear end side of the stalk. The eyes are large and the ovals are rounded out. The iris is green, with upper and lower eyelids and transparent nictitating membranes, as well as nictitating glands and lacrimal glands. The ear hole is behind the eye, narrow and narrow. When the mandibular dentition bites, it is interlaced with the maxillary dentition on the same vertical plane. This reflects the crocodile's good head and torso as armor to reduce damage. At the same time, the nasal sac is located near the tip of the nose, and the nostril that can be closed in the outer nostril is often higher than the tip of the nose; it is convenient for capturing prey under water.

Reference list. :

- Jaratlerdsiri, W., Deakin, J., Godinez, R. M., Shan, X., Peterson, D. G., Marthey, S., ... & Chong, A. Y. (2014). Comparative genome analyses

reveal distinct structure in the saltwater crocodile MHC. *PloS one* , 9
(12), e114631.