

THE OUTDOORS PAGE

SALTWATER



The 17-foot saltwater crocodile named Baru at the Toledo Zoo.
THE BLADE/LORI KING

CROCS

Largest reptiles on Earth



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A saltwater crocodile on the bank of the Adelaide river in Australia.

By MATT MARKEY and JEFF BASTING

If Baru, the Toledo Zoo's toothy new celebrity crocodilian, were to trace his lineage, the trip would take him back a few million years, and then maybe a couple hundred million more.

There is strong evidence that crocodiles were here on Earth well before the dinosaurs, and crocs survived the mass extinction some 65 million years ago that wiped out the dinosaurs.

"They are a link to the past for the world," said Andy Odum, curator of herpetology at the zoo. "They managed to survive that great disaster when most other species did not."

The saltwater crocodile is the largest living reptile, and a very efficient predator at the top of the food chain. "Crocs are nature's perfect little submarines," Mr. Odum said. "They have those second eyelids that act like underwater goggles, and they are extremely powerful when they attack their prey."

Although they carry the "saltwater" tag and can live for long periods in saltwater, most of these crocs spend the majority of their time in freshwater systems. Some will live 100 percent of their lives in freshwater.

"Calling them an estuarine croc is probably more descriptive," Mr. Odum said.

One class of male crocs displays high "site fidelity" and is dominant enough to rule an area. With his size and strength, Baru would fall into that group. The smaller subservient males travel long distances just to avoid the big boys.

"They are highly socialized animals, but that doesn't mean they are friendly," Mr. Odum said. "The adult males are extremely territorial, and will battle to the point of killing each other."

The females spend most of their time in the territory of a dominant male, but will venture considerable distances, as much as 30 miles, to find a suitable nesting area.

"They want more than just a nest," Mr. Odum said. "They want a place to raise their young, something very much like a rookery."

Less than 1 percent of the crocodile hatchlings will reach adult maturity, which is about 16 years for males and 10 years for females. Young crocodiles are heavily preyed on by turtles, territorial male crocs, and Australian monitor lizards, while croc eggs are preyed on by birds.

Mature saltwater crocs are opportunistic feeders, with a good memory. One group of crocs in Southeast Asia will swim a long distance at the same time each year to reach islands where they de-shell and eat sea turtles that have gathered there. Saltwater crocs also patiently bide their time in the arid north of Australia, and when the billabongs dry up, the crocs gorge themselves on the fish trapped in these isolated ponds.

Their metabolism allows these crocs to eat infrequently and still thrive.

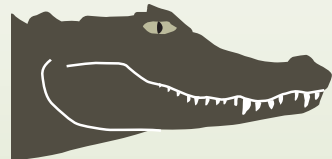
"It has been very enlightening having Baru here," Mr. Odum said. "We have learned a lot about crocodilian behavior in the little time that he has been at the zoo. These are truly fascinating creatures."

SALTWATER CROCODILES

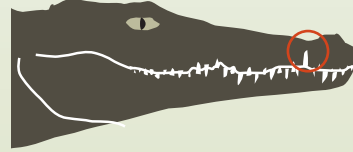
- Saltwater crocodile, *Crocodylus porosus*
- The largest crocodilian and reptile on Earth, descending from reptiles 65-225 million years ago.
- Life span is about 80-100 years.
- Males average 13-15 feet long and 700 pounds, but crocs up to 23 feet long and 2,200 pounds have been documented.
- Only the populations in Australia and Papua New Guinea are currently stable.
- Although known as "saltwater" crocs, they commonly live in brackish waters along the coast, and thrive in freshwater swamps and rivers a long distance from the ocean.
- They are excellent swimmers and have been known to travel hundreds of miles in the open sea.
- An opportunistic feeder, the saltwater croc will eat water buffalo, monkeys, wild boar, livestock, birds, and even sharks.
- Their reputation as a man-eater is exaggerated — more people are killed by hippos than by crocodiles. In Australia; on average saltwater crocs kill two people per year.
- The temperature of the egg will determine the sex of the newborn crocodile.
- Crocodiles regulate their body temperature by basking in the sun or cooling off in the water. They often lie on the shore with their mouths open to cool themselves.
- Crocs have 64-68 teeth that grow continuously and are forced out after about two years and replaced with new, sharp ones.

CROCODILE OR ALLIGATOR?

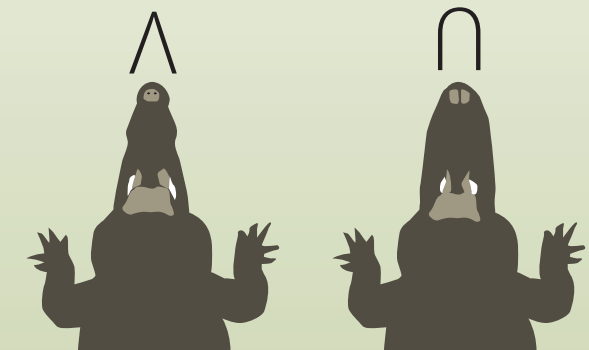
Alligator



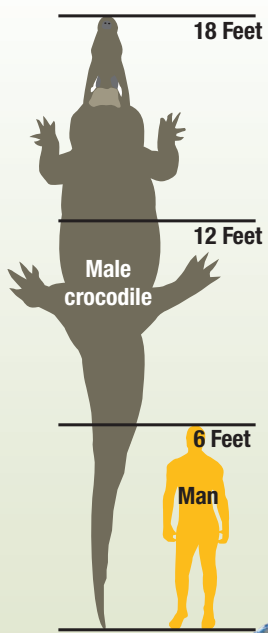
Crocodile



One major difference between alligators and crocodiles is that the top jaw of an alligator is wider than the lower jaw, with slots for the lower teeth to fit into, while the crocodiles' jaws are the same size, with teeth interlocking when closed. Crocodiles have a telltale large fourth tooth displayed on the lower jaw.



Another difference between the two is the shape of the snout. From above, it is a V-shape on a crocodile and a U-shape on an alligator. The crocodile's shape is designed for snatching prey while the alligator's allows more leverage for crushing.



The saltwater croc population worldwide is estimated at 200,000 to 300,000. They range over a wide area of the globe, from the brackish and freshwater regions of eastern India, Southeast Asia, and northern Australia, to the Solomon Islands, Papua New Guinea, Indonesia, and the Philippines. Australia has an estimated 150,000 saltwater crocs.



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Crocodiles rely on surprise rather than speed to capture prey. The eyes, nose, and ears are on the top of the head, allowing the body to be submerged so the croc can leap out and grab its prey and drag it under water. The tongue is attached to the roof of the mouth so the croc cannot chew. It must tear off chunks of prey and swallow them by tipping its head and allowing gravity to pass food to the stomach. The crocs' digestive enzymes are so strong that they can digest bone, hair, and even steel nails.

