



# Australian Animals: Reptiles

## AUSTRALIAN ANIMALS

Australia is the world's largest island, but also its smallest continent. It is about the same size as the continental United States, but contains less than 10 percent as many people as the U.S. Roughly 15 percent of Australia's population lives in the "Out-back," or center of the continent, while most people live along the coasts. Australia is comprised of six states and two territories: the states of New South Wales, Queensland, Western Australia, South Australia, Victoria and Tasmania, plus the Northern Territory and the Australian Capital Territory.

Australia is considered a land of extremes due to dramatic temperature changes and periods of flood, drought and fire. The continent's Northern Territory experiences a six-month wet season where heavy rains cause river gorges to flood with fresh water. The wet season is followed by a cloudless dry season where lightning strikes can ignite wildfires across the wilderness. Despite these extreme conditions, many plants and animals have adapted to life in Australia.

Some, like the central bearded dragon and the spangled perch, are hardy enough to withstand the 100 degree-plus temperatures of the dry season. Others remain inactive or refrain from breeding until the rains of the wet season arrive. For example, the brightly colored budgerigar waits until the wet season to lay eggs because that is when food will be most abundant for its chicks.

Seeds from plants in this area are dormant until rain triggers their growth.

The National Aquarium's *Animal Planet Australia: Wild Extremes* exhibit recreates the habitat in which these plants and animals have adapted to survive and showcases a variety of animals that are well-suited for Australia's extreme conditions. As a result of millions of years of isolation on this island continent, reptiles are just one group of animals that have not only survived, but have thrived.

## LIZARDS

Australia is home to more than 500 species of lizards that are grouped into five families: skinks, geckos, dragon lizards, monitor lizards and legless lizards.

The most abundant type of lizard in Australia is the skink. Skinks have cone-shaped heads and elongated, cylindrical bodies covered in smooth scales. Some of the most distinctive skinks are blue-tongued skinks. As their name implies, these lizards have bright blue tongues which are unfurled to intimidate potential predators. One blue-tongued skink, the shingle-back, has an additional defensive strategy. Its tail closely resembles its head, so animals may think twice before deciding which end to attack.

Another lizard found in Australia is the gecko. These small lizards are typically



## FAST FACTS

- Bearded dragons bob their heads up and down as a way of communicating with one another.
- The saltwater crocodile is one of the world's largest reptiles, reaching a total length of up to 17 feet.
- The temperature of the nest during incubation determines the gender of both fresh and saltwater crocodiles.

## KEY TERMS

### Nocturnal

An animal that is most active at night.

### Estuary

Where fresh water from rivers meets the salt water of the ocean.

### Keystone predator

The dominant predator in an ecosystem and has a huge influence on structure of community.

nocturnal, eat insects and are skilled climbers, thanks to the adhesive properties of their toes. It was once thought that geckos used suction cups to mount trees and rocks, but research revealed otherwise. Hair-like projections, called setae, cover the toes and create an attractive force between the gecko and the surface it is climbing, allowing it to scale with seemingly little effort.

The group of reptiles called the dragon lizards includes some unusual-looking animals. Members can have crests, flaps or frills on their bodies. One such example is the frilled lizard, which possesses a pleated flap of skin around its head. If threatened, this lizard can unfold its frill to appear larger and can hiss to intimidate potential predators. The frill can also be unfurled to absorb sunlight, thus increasing the lizard's body temperature. Another dragon lizard is the bearded dragon, so named for the spiny scales located near its mouth. This reptile can puff a pouch in its throat to display its "beard" as a means of communication or aggression.

Monitor lizards, or goannas, vary greatly in size. Their elongated bodies can measure between half a foot and almost 10 feet in length, depending on the species. The mangrove monitor, for instance, reaches lengths of approximately 3 feet on average, including its whip-like tail. All monitors have long tails which can lash out when the animal feels threatened. They also have long, sharp claws, forked tongues and strong jaws which make them effective predators.

One of the most unique groups of lizards is the legless lizards. Also called snake lizards, they bear a strong resemblance to their reptilian relatives. However, while snakes lack appendages these lizards still have remnants of hind legs that lay against their bodies. Another distinction is the presence of ear openings, which snakes do not have.

## CROCODILES

There are two species of crocodiles found in Australia: the freshwater crocodile and the saltwater crocodile. Both can be found in the warm tropics of northern Australia, but as their names imply, their habitats differ slightly.

Freshwater crocodiles, also called Johnston's crocodiles or "freshies," inhabit inland pockets of fresh water and rivers. They have long, thin snouts, straight jaw lines and teeth that are equal in size throughout their mouths. Males of this species can grow up to 10 feet in length, while females reach lengths of approximately 6.5 feet. Freshwater crocodiles eat insects, fish, small reptiles and amphibians, water birds and small mammals. They do not attack humans unless provoked. Freshwater crocodiles breed during the dry season so that their eggs will hatch as the wet season is beginning. This behavior ensures that there is sufficient food available for hatchlings.

Saltwater crocodiles, also called estuarine crocodiles or "salties," occupy a slightly different niche in Northern Australia. Though they are reasonably tolerant of fresh water, they primarily inhabit salty water in estuaries, lagoons, swamps and coastal beaches. Their snouts are broader than those of freshwater crocodiles, their jaw lines are uneven and their teeth vary in size. Saltwater crocodiles are also much bigger than their freshwater counterparts. Males typically reach lengths of 17 feet and are extremely territorial, while females grow up to 10 feet in length. Like freshies, they eat crustaceans, snakes and wading birds, but are capable of eating even larger prey due to their larger size. Saltwater crocodiles

will occasionally eat cattle, horses, wallabies, pigs and even humans. They breed during the wet season, with females guarding their eggs until they hatch. Upon hatching, the babies make squeaking noises to summon their mother who will pick them up and carry them in her mouth.

Whether they live in fresh water or salt water, these crocodiles have one important trait in common: they are extremely well-adapted for an aquatic lifestyle. Both species have webbed feet and use their long, flattened tail to propel them through water. Their eyes and nostrils are located on the top of their head so they can stay submerged for long periods of time. This anatomical feature allows them to blend in with their surroundings and ambush prey. Once they grab their prey with their numerous sharp teeth, these crocodiles will roll to one side, drowning the animal, and then eat it in large chunks. If necessary, both species can run on land, lifting their bodies up off the ground while doing so. Another important similarity is that both species are protected by Australian law. Freshwater and saltwater crocodiles are both keystone predators, making them necessary for maintaining the structure of Northern Australia's ecosystem. As such, it is illegal for humans to harm or kill these animals.

At the National Aquarium, Baltimore, MD venue's *Animal Planet Australia: Wild Extremes* exhibit, you can see Australian freshwater crocodiles, frilled lizards and water monitors along with many other species of native Australian reptiles.



**NATIONAL AQUARIUM**

501 East Pratt Street, Baltimore, MD 21202 • [aqua.org](http://aqua.org)

*Through transforming experiences, the National Aquarium inspires people to enjoy, respect and protect the aquatic world.*