

Snake Attack

There is always somebody that believes that a snake has either attacked them or at least chased them. Even when a child tells of a snake that was close to them, they feel that they must add that “it almost bit me”. Meaning, that because all snakes must be out to bite someone they were lucky to survive the encounter. Firstly if you want to believe that, you should at least understand what you believe. In this story we will deal with the reality of Australian venomous snakes and what they are truly capable of.

Australian venomous snakes are deaf, almost to the extreme, almost blind and completely stupid, and for the time being let's forget the “oh yes but”. Unless you are a snake handler, your relationship with an Australian venomous snake should work comfortably within the parameters of the following story.

A snake overview

In Australia we don't have any **Pit Vipers**. Possibly the most famous Pit Viper is the Rattlesnake of the Americas. If you ever get to see a Rattler up close or a picture of one, look at the space between the eye and the nostril. About half way between the eye and the nostril and just a little lower you will see a large hole (pit), possibly wider than the nostril hole. This hole houses an infrared receptor, which allows the snake to discern a warm-blooded animal; night or day.

This is called a heat-sensing pit hence the term Pit Viper of which there are a few genera and many species. The heat-sensing pit of a Pit Viper actually looks very much like an extra nostril. In Latin America the Spanish speakers had noticed these extra holes on the Rattlers and believed that the snake had an extra pair of nostrils. They dubbed the snake Cuatro Narices which means ‘four noses’ in Spanish.

The only Australian snakes with heat sensing pits are our pythons. There are however two Australian pythons without these pits. These pythons are seen as primitive when compared to our other pythons. They are the Black-headed Python (*Aspidites melanocephalus*) and the Woma (*Aspidites ramsayi*)

All other Australian pythons can see you in the dark with their lips. In the lower lips of these pythons you will observe indentations and these depressed areas serve the same purpose as the pits on a rattlesnake. This is why if you keep a python, do not just dive your hand into a cage with a python just because it is not venomous. Snakes don't bite because they might be venomous; venom has **nothing** to do with why a snake will bite.

If the snake is hungry and it picks up the glow of your hand it could mistake your hand for a nice sized rat. Even a very small python such as a Children's python could see your finger as a mouse. That is why it is always wise to hook the python out of its enclosure before handling it. A perfectly calm, harmless python can bite you if it confuses you for food; and of course pythons have teeth.

Once it is out of its cage and it sees your whole body or most of your body glow then you are obviously not food. The only other reason the python will then bite is if it is nervous but that is a bite because of fear. A bite because of fear is usually a nip, if it bites for food it will usually hang on; two completely different types of bite. Consider these two types of bites: a real **bite** and a **nip**.

Australian Venomous Snakes

In Australia with the possible exception of the Coastal taipan a venomous snake can only discern you as a living creature when you are moving. Remember that is **only** when you are moving. Because a snake is so stupid then its memory is almost negligible. So, if you have startled a snake by putting your foot right next to it but you have not received a bite then, if you don't move, the snake will forget that you were the one that frightened it. Because it is frightened, it may try to escape but still not remember that it was you that startled it to begin with. That is truly how stupid a snake really is.

If it were to bite you, because you startled it or stood on it, it would not remember that it bit you. It does not know that it is venomous; the concept of venomous or non-venomous means nothing to a snake.

With the possible exception of a Coastal taipan, a venomous snake will not recognise you as an individual nor can it sense your fear. It may feel fear for itself but your fear means nothing to a snake. So, a snake **cannot** sense your fear. The Coastal taipan has slightly better vision and memory than other Australian venomous snakes.

If a snake is coming towards you and it is travelling quite fast for a snake then it is not attacking you. Please read that again 'it is **not** attacking you'. It cannot see you. All it sees is a shape and let's be fair it has to go somewhere. Don't you always go somewhere? You see, our egos are so big, that we love to believe that it must have designs on us. The reality is that the snake is just travelling somewhere.

Even a Brown Snake, which is a classic mouse hunter, cannot see a mouse unless the mouse is moving. That is right, if a Brown snake is only half an arms length or even less from a mouse and, if the mouse is not moving, the snake cannot see the mouse. If you don't want to believe that then ask any intelligent (observant) snake handler that keeps Brown snakes.

Some people are not observant, as i've met a snake keeper of 20 years and he had not even noticed this blindness in snakes. And this person lectured to schoolchildren about snakes. If someone who teaches about snakes for 20 years is so ignorant and so unobservant, then what hope does the general public have that never have such an opportunity to observe such fundamental facts about these creatures?

So if an Australian venomous snake can only notice its food when the food is moving then what hope has it of noticing you, who are not even on the menu? The answer is, none whatsoever. That is why many people report of the snake that 'went over their foot'. It did not see a foot, it saw just as another obstacle.

Try to imagine a life where your eyes are located a few centimetres (usually less than an inch) from the ground. You can only notice something as alive when it is moving and you are totally deaf. The vibrations that you can sense (as an Australian venomous snake) whether air born or through the ground must be very strong. It is almost impossible for you to detect a human tramping through the bush.

Once i was carrying a Tiger snake around my neck, it was sitting there quite unconcerned with my movements. Some people at a gathering had asked me to bring them a snake to see. As i approached the roomful of people there was Heavy Metal type music blasting away; it was **very** loud. It was of a volume that would make your windows rattle; so it was not pleasant to my ears.

On getting closer I could feel it in my body not just in my ears. Immediately i got the feeling that this snake was not going to like it. As we entered the room the snake did not appear to like it, it was being upset by the airborne vibrations; not angry, just upset. We soon left and it immediately calmed.

I have done lectures for bushwalking groups and there is usually the old story about the snake on the track that would not move when they banged the ground and yelled. In a school on one occasion with close to forty snakes in a pit on a wooden floor and surrounded by about 60 students, i asked the students to jump and yell. Guess what reaction they got from the snakes? Absolutely none whatsoever. Amongst those snakes was the Tiger that had reacted to the Heavy Metal music and yet it did not care about the thumping on the wooden floor.

So what does this mean? It means that some vibrations under some circumstances will affect some snakes. But don't bank on it, and the chances are that you are not going to travel through the bush with a sound system belting out Heavy Metal music.

When traveling through the bush you might as well go quietly and keep your eyes open then, you might get to see some of the birds and lizards that you have been scaring away in the past. If there is a snake on the track and if it hasn't moved then just throw a handful of sand and leaves onto it; it will not attack you; but it will leave

Let's say you are a snake, so your sense of smell is very good especially if the object is up close. The smell of a human means nothing to you because, as an Australian venomous snake, you don't see humans as food. You can confuse humans for food quite easily for example. Let's say you are being kept in a cage and you are hiding under a piece of paper or some other place in the cage. Let's also say that you are hungry and your keeper puts his hand in with you and all you see is the hand. As a snake you are not too smart so you must take every opportunity for food that presents itself. That movement of a finger could easily be a nice juicy mouse. This is the most common bite received by keepers.

The problem is then, that those highly intelligent humans reporting on the incident will say that "the snake attacked and it was unprovoked". The problem is that most humans are just ignoramuses on most subjects. Humans do however make excellent parrots; because they can repeat almost anything they are told. Then the stories get better and bigger each time they are told.

True snake attack is very rare if not impossible

Now let's get back to the idea of a snake attacking you. If you look under the tummy of a snake you'll notice that it has scales that go across the snake unlike those small roundish scales on the snake's back. Those small scales on the snake's back are called 'dorsal scales' because your dorsum is your back right? Those scales that go transversally across the tummy of the snake almost the full length of the snake's body are called ventral scales, ventral meaning belly area.

These ventral scales give the snake traction as it moves forward and it is easy to observe this action when a largish venomous snake is moving slowly. On a python those ventral scales only go part way across the tummy area especially on the arboreal (tree climbing) pythons because they do not travel fast; they just slowly move around the branches of trees. So pythons don't need the broad ventral scales for fast travel.

The large venomous snakes however, with the exception of the Death Adder, which is not large anyway, usually travel quite a bit faster. The classic rat, mouse and skink eaters are the fastest travellers of the Australian venomous snakes. These fast travellers include the Taipans of the genus *Oxyuranus* the rat eaters, the Browns of the genus *Pseudonaja* the mouse eaters and the true Whip snakes of the genus *Demansia*, which are the fast warm climate skink eaters.

Then there are the opportunists the Red-bellied black snakes of the genus *Pseudechis*, which travel reasonably fast. The speed that each species can travel depends on their size. Larger snakes can travel faster than smaller snakes and during hot weather they can travel at their fastest.

There is another group of very large venomous snakes that belong to what has been called the black snake complex. These include the Mulga (King brown), the Collett's snake, the Blue-bellied black (Spotted-black) and the Spotted mulga (Butler's snake) all these belong to the genus *Cannia* formally *Pseudechis*.

With the exception of the fast traveling Red-bellied black these other 4 snakes can grow to be quite large but they are true dawdlers. These snakes have been put into the group called the black snake complex because they were originally thought to be related to the Red-bellied black snake.

The 5 types of snakes in this complex are all opportunists in their feeding habits and their venoms are all quite similar. That means, you can use the same Mulga antivenom to cover a bite from any of them, including for a bite from the Red-bellied black. However, for all of these snakes with the exception of a Mulga or a Collett's or Butler's snake that has reached 2 metres, you would normally use Tiger snake antivenom as it will cover a bite from these snakes more than adequately; and the dose is much smaller.

The other largish deadly snakes are the Tigers - genus *Notechis* the Copperheads - genus *Australaps* and the Rough-scaled snakes (Clarence River snake) - genus *Tropidechis*. These snakes all come under the group of very slow travellers meaning that even on a hot day; a brisk human walk will usually outpace any of them.

The strange thing about the speed of a snake is that they will only travel at their top speed when they are either chasing their prey or trying to escape that which has startled them and that could include you. They will **never** travel at top speed to chase a person, that is impossible and for that there is a very good reason.

To travel at top speed the full length of the snake must be on the ground so as all of those ventral scales are in contact with a surface. That gives the snake its best advantage for speed. So, if it is chasing an escaping mouse or if it must escape a moving threat, like you for example, it will travel at top speed.

If you have startled it and it feels that it cannot escape then it may try to scare you. This means that it will go into defence mode meaning that it could raise its head or flatten its neck. It does this to look as scary as possible. However, once it has raised its head, up to one third of its body is off the ground, which include those ventral scales that it needs for speed. The snake does not really want to catch you as you are much too big to eat and you look too scary. It is telling you in snake language, that it is frightened and it would like you to leave it alone.

It will not leap at you the only way it could leap is away. There are stories of Browns doing tremendous leaps but those telling the story forget to mention which way the snake was going in its leap. And, as far as a strike is concerned, most snakes would never attempt to strike more than about half the length of their body.

Biting is only a last resort. If you accidentally stand on a snake or if you happen onto a snake and you are within half the length of the snake it could bite you out of fear. I have heard of people doing incredibly stupid things out of fear and we are supposed to be intelligent. Paradoxically for our intelligence we are the most ignorant, arrogant and most dangerous creatures on the planet. So why not blame the snakes?

Browns will just go away because, with the exception of the Speckled browns, they are fast snakes and once you're within a metre or so and you wave or throw a handful of sand and leaves at them, they're off.

Tigers snakes, Rough-scaled (Clarence River snakes), Copperheads and the Broad-headed snakes of which there are three species are the truly slow travellers of our larger deadly snakes.

If one of these snakes truly chases you, it will only do so in its defensive mode, which means that its head must be raised. This means that it will give chase at about the speed of an average human waddle. If, on such an occasion you were to step back a meter or so and keep still, you will notice that it will forget that you were the one that frightened it. It may still feel fear so it could make a run for it.

Which direction it goes is anybody's guess because you are no longer the enemy because you are not moving. It could head straight for you, but remember that if its head is on the ground it does not see you as a threat; it will go straight past you. It will **not** give you a nip as it goes past just to teach you a lesson; only humans do such things; we are civilised. If you move again you can put it back into defensive mode and then it finds it hard to travel at top speed. Once again in defensive mode it can only go at the speed of a human waddle. Just walk away and leave the snake alone it cannot truly chase you anywhere.

A large Mulga snake is a bit different and so is a large Coastal taipan. A large Mulga can stand up to you but this snake is not at all fast though it can chase you a bit further than most other snakes. If a Mulga is over 2 metres in length, it could bite out from nearly a metre away.

A large Mulga could chase you for up to 3 or 4 metre; though quite slowly. A brisk walk will put you to within 2 or 3 metres of the snake from whence you can safely observe it. If it comes towards you some more just keep stepping back it will soon tire and then forget. Mulgas are a very stupid type of snake.

However, don't let a Mulga bite you as its venom is very painful and if not treated, a bite can cause renal failure. Renal failure however takes some time to kick in and the antivenom does work. A bite from one of these snakes is awful i've had a Mulga bite and would not recommend it.

My warning about a Coastal taipan is don't mess with this snake at all, unless you are quite experienced with Taipans. If you suddenly happen upon a Taipan and it gets a fright it can bite you and it will do so quickly. If it hasn't bitten you, then keep still and don't frighten it any more, it will forgive you. It will leave the scene and if it does not leave, it is quite safe for you to observe it for as long as you like and then walk away. It will not chase you unless you pick a fight with it.

If you pick a fight with a Coastal taipan you could be asking for trouble. Remember that a Taipan does not look for trouble but it is equipped to deal with trouble. If a dog picks a fight with a Taipan it will probably lose the fight. There are only two reasons that a dog will receive a Taipan bite. Either the dog suddenly or accidentally landed on the snake, or else it was annoying the snake. Taipans never go around biting dogs for the fun of it nor do they go around biting any other creature for that matter.

A Taipan is a rat eater and if you know anything about rats you will know that if you pick up a wild rat it can bite you to the bone. A Taipan is not designed to wrap coils around the rat to subdue it, as does a Brown snake, so it must use its venom. It cannot bite and hold onto the rat and wait for the venom to knock out the rat, because within a few seconds the Taipan would be badly injured by the rat. So what the Taipan does is bite the rat, let go and then wait.

The Taipan is built to follow the rat and it is quite an intelligent snake with reasonable vision, so it can keep track of its rat until it succumbs to the venom. If need be, it can deliver a second or third bite if there was not enough venom with the first bite. The bite of a Taipan however, works quite quickly with rats because that is what it is designed for.

Quite often i've seen a rat travel no more than about a meter once bitten by a Taipan; it just starts to stagger then falls over never to stand again. On one occasion i saw a Taipan bite a rat in the neck and that rat pretty much dropped dead; that i've seen happen only once.

The odd ones out of the deadly Australian terrestrial snakes are the Death adders. These snakes are of a short chubby build and they can only travel very slowly. Although these snakes have the appearance of an adder they are not true adders they are an elapid; there are no true adders in Australia.

They are an ambush or trigger snake so the speed of a Death adder's bite is so fast that you can barely detect it, but they could not travel even a quarter the speed of a human walking pace. And, contrary to what folklore might tell you about Death adders, they will not leave the ground to bite you. They are a camouflage snake, so they just sit still until you stand on one or get too close for its comfort. Don't ever pick up a Death adder unless you are prepared to receive a bite.

With the exception of the Spitting cobras, which do not occur in Australia, snakes' venoms are not really for defence, they are to subdue their prey and most venoms also aid in the digestion of their food. If camouflage or speed do not save a snake from a troublesome human then it can bite, but biting people is not the reason that snakes are on this planet.

Always remember that no venomous snake anywhere in the world knows that it is venomous. It might be interesting to note that most snakes in the world are non-venomous and, the majority of snakes that are venomous are no more venomous than about a bee sting.

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