

Snake Myths & Fallacies

1. Introduction

- a. "Stories" about snakes around the world can be important to explain some of the attitudes of people in that region or country
- b. Some myths or fallacies are based on fact, but in the telling from one generation to another over the centuries, the origin of the story is lost
- c. Or it can be the result of inaccurate observations in the field or a personal interpretation flavoured by individual beliefs
- d. As Laurence Klauber said "*A myth to one person becomes a fact of natural history when told to another.*"
- e. Some myths or fallacies can be considered quaint, as a harmless leftover from millennia past. But others can be dangerous, if for example a person acts on outdated snake bite first aid, such as using a tourniquet

2. Animal immunity

- a. **The Myth:** An animal can supposedly obtain immunity from snake bite by eating certain plants. (This belief may be allied to number 23)
- b. **The Truth:** There is no scientific merit to this myth

3. Death adder

- a. **The Myth:** A colonial belief whereby the venom was so potent that it would kill you before "you have walked the length of your shadow"
- b. Others believe the tip of a death adder's tail is a sting
- c. **The Truth:** Before the advent of antivenom about 50% of victims bitten by death adders did not survive. With better first aid and hospital management very few people die from the bite of a death adder now
- d. A death adder's tail is used as a lure to draw a potential food animal closer, but it is not connected to the snake's venom apparatus

4. Drinking habits

- a. **The Myth:** In ancient & medieval Europe, snakes were thought to prefer wine, often becoming drunk. If there was no alcohol, they were believed to drink milk from cows, goats or sheep, or even lactating humans
- b. Some people think that snakes can be enticed from hiding with a saucer of milk, and that they could be killed by lacing the milk with poison
- c. **The Truth:** In experiments snakes will drink water over wine anytime, and they show no preference for milk, although some species have been attracted by the smell of sour milk
- d. They cannot be killed by lacing a bowl of milk (or other liquid) with poison

5. Faster than a horse

- a. **The Myth:** A belief about the speed of snakes is that they can move faster than a galloping horse
- b. **The Truth:** No snake can move as fast as a horse in the open, but a snake moving through thick vegetation or ground cover could move faster than a large animal

(including a human) which has to blunder through or over the vegetation. The Black Mamba is normally considered the fastest snake in the world at about 10 – 15 kph

6. Feel of snakes

- a. **The Myth:** It is still commonly thought today by people who have never touched a snake that their skin is cold and/or slimy
- b. **The Truth:** A snake's body attains a similar temperature as its immediate surroundings. If the environment is cold the snake's skin will feel cold and will normally be inactive. However, if a snake is in a warm location, it will feel warmer
- c. The skin of land snakes is normally dry and smooth, and the only time it could be regarded as slightly oily may be immediately after shedding its skin

7. "Flying" snakes

- a. **The Myth:** A colonial belief when a snake is able to shoot out from cover at speed, even "flying" over the back of a galloping horse
- b. **The Truth:** Based on some facts, as there are tropical species which can glide (but not actually fly) from tree to tree, or tree to ground. None can "fly" from the ground up into a tree (or another object)

8. Giant snakes

- a. **The Myth:** In 1933, a photo was taken of a snake reputedly 30m long weighing 2000kg in South America, and another photo in 1948 was supposed to be of a 35m snake
- b. Stories from China say that pythons grow large enough to eat elephants, ejecting their bones after 3 years
- c. **The Truth:** The longest snake in the world appears to be a toss-up between the Reticulated Python of Asia and the South American Anaconda, although the latter snake is undoubtedly much heavier

9. Growth

- a. **The Myth:** A thought that you can tell the age of a snake by counting the scales
- b. Another is that snakes only shed their skin once each year
- c. **The Truth:** The growth of snakes, as with other animals, is dependent on the amount of food eaten. A young snake will grow much faster than an adult, and will therefore outgrow and shed its skin more often, certainly more than once per year

10. Herpetologists

- a. **The Myth:** A quaint belief that shaking hands with a herpetologist will give you warts
- b. **The Truth:** Not true even if the herpetologist has been handling frogs!

11. Hoop snake

- a. **The Myth:** Not so much an Australian belief as one from overseas, in which a snake takes its tail in its mouth and rolls along at great speed
- b. **The Truth:** Probably the result of a person's vivid imagination. Anatomically it is impossible. See also "flying" snake (number 7)

12. Horse-hair rope (& variants)

- a. **The Myth:** When lain on the ground it has been believed such a rope will prevent snakes from crossing over it, due to the rough texture or strong smell
- b. A modern variation is a line of diesel spread around to keep snakes at bay

- c. **The Truth:** It is difficult to know how this fallacy arose, as most snakes are accustomed to move on their bellies over rough surfaces
- d. Diesel may have an offensive smell to snakes but if they had to, they would be able to move over it

13. Hypnotic powers

- a. **The Myth:** The theory is that a snake's victim is paralysed with fear, or pleasurably mesmerized by the powerful gaze of the snake
- b. **The Truth:** Snakes have no eyelids so appear to "stare" at a victim or attacker
- c. Some prey animals may be in shock or paralysed but this would be in response to being bitten by a venomous snake which has "snap-bitten" the animal and withdrawn awaiting its death

14. Interbreeding

- a. **The Myth:** That large pythons (e.g. Carpet or Scrub) can interbreed with large venomous snakes (e.g. Coastal Taipan, Tiger or Eastern Brown) to produce a hybrid snake which has the power and strength of a python with the powerful venom of an elapid snake. This myth tends to be believed in Queensland more than elsewhere
- b. **The Truth:** can be dispensed with easily. Pythons are in one family of snakes while our dangerously venomous snakes are in a separate family. It is genetically impossible for any species from either family to interbreed. If you believe it, you have also seen a "dat" or "cog" hybrid

15. "Joint" snakes

- a. **The Myth:** These "snakes" are believed to have the ability when caught or attacked to dismember themselves, and when danger has passed, for the bits to join up again
- b. **The Truth:** This one may be based on fact, but with a different reptile. Legless lizards can drop their tail or part of it in response to an attacker, but none can re-join a lost tail. They can however (like skinks and geckoes) regrow the tail

16. Length of shed skin = size of the snake which shed it

- a. **The Myth:** That if a skin is found, it will accurately indicate the size of a snake in the area
- b. **The Truth:** when a skin is shed, it is soft and readily stretches as the snake crawls out of it. One suggestion is that it can be 25% longer than the actual snake

17. Lizards v snakes

- a. **The Myth:** Well-known and believed in Australia is that Bluetongue Skinks and/or Shingleback Lizards will scare snakes away if they are found on your property
- b. **The Truth:** There is no truth at all that either lizard will repel snakes. They can and do co-exist in some areas where there is sufficient shelter and food for each species

18. Mongoose v snakes

- a. **The Myth:** A well-known story with the mongoose having immunity to cobra venom allowing it to always win an encounter
- b. **The Truth:** The mongoose (and some other mammals) relies upon thick fur and agility to dodge a cobra's strike or injection of venom. It will die from an effective bite of a cobra, as will other animals

19. Most venomous snake

- a. **The Myth:** This is a common question which has no simple answer, particularly if relating to the most venomous snake in the world, or indeed what is the most dangerous snake
- b. It is often stated that the Australian Inland Taipan has the most potent venom
- c. **The Truth:** There are numerous variables associated with this issue, whether relating to most venomous or most dangerous. The answer is covered in more detail under the separate section FAQs

20. Mother snake swallows young to protect them

- a. **The Myth:** This belief originated in antiquity, having been recorded by the Egyptians about 2500 B.C
- b. It was thought mother snake swallowed her babies to protect them from attackers (presumably humans as well as natural predators)
- c. **The Truth:** It may be based on two elements of fact: firstly, some snakes which are habitual cannibals, may have been seen to eat another snake, and secondly, the same person may have killed a snake and found one or more small snakes inside (the dead snake being a female, with the small snakes awaiting birth, as many snakes have live young)

21. "Obliging" snakes

- a. **The Myth:** Europeans believed snakes would not assault a naked person, or women and children. Virgins and young children under seven years were especially safe
- b. It was somewhat disconcerting for explorers when they came upon American or Australian snakes which did not behave as expected
- c. **The Truth:** This is one of the fanciful stories, the origins of which may be buried in time
- d. Snakes are known to have different temperaments with some more placid than others which are very nervous, e.g. Red-bellied Black Snakes compared with Eastern Brown Snakes

22. Overpowering odour

- a. **The Myth:** Surplus venom exudes through the pores of the skin of venomous snakes
- b. Snakes generally have a strong smell to overpower any animal which goes near them is a variation
- c. **The Truth:** Venom is expressed from venom glands (behind the eyes in the cheek region) through the fangs and not through the skin
- d. Some species do exude an odour from cloacal glands at the base of the tail, such as black snakes and blind snakes but this is used for defence rather than acquisition of food

23. Plant repellents

- a. **The Myth:** Another fallacy from many years ago in which certain plants or odours will repel snakes, e.g. ash trees, lilies, tobacco, onions, wormwood, wild rye, nightshade
- b. A colonial remedy was supposedly based on this idea when Underwood made an antidote for snake bite from a plant in Tasmania
- c. **The Truth:** The odours of certain plants may have a disruptive effect on some snakes, but none are known to actually repel them, as might happen with some insect pests

- d. As with many early “cures” for snake bite, Underwood’s decoction cannot be medically verified and is considered useless

24. “Poisonous” goannas

- a. **The Myth:** It has been believed for a long time that goannas have a “poisonous” bite
- b. **The Truth:** Recent studies have given some credence to this belief but medical opinion is divided on whether these lizard oral secretions should be considered venomous/poisonous
- c. However, a bite from a goanna should not be lightly dismissed as many are carrion feeders, they have long recurved teeth, and a bite on a hand can be severe

25. Recurring sores

- a. **The Myth:** A snake (or even some lizard) bites will result in a recurring sore every year thereafter, especially if any teeth have been left in the wound
- b. **The Truth:** Some bites if not treated properly, may become infected and take longer than normal to heal, but none will re-occur in a year’s time

26. Snakebite

- a. **The Myth:** Not as commonly believed now as previously is that if you are bitten by a venomous snake, there is nothing you can do about it
- b. About some species (e.g. taipans) it may still be thought a bite from one of them is invariably a death sentence
- c. **The Truth:** Very few people in Australia die from snakebite (between 2 – 4 each year) and there is no reason to presume that someone bitten by a venomous snake will die. There are many variables involved: relating to the victim (age, weight, health, sensitivity to venom etc.); snake (species, size, venom toxicity, number of bites, if venom was injected, amount of venom etc.) and management of the victim (effective first aid, time to hospital, antivenom, ongoing care)

27. Snakebite antidotes/remedies

- a. **The Myth:** Alcohol has been a favourite treatment for snake bite since colonial times
- b. **The Truth:** Very many remedies have been tried for centuries, but none work, including alcohol. When a victim survives a bite, it may be because the snake did not inject a lethal amount of venom due to protective clothing absorbing most of the venom, or even that the snake just did not expend venom.
- c. It has been found that snakes can control their output of venom

28. Snakebite first aid

- a. **The Myth:** Tourniquets are still believed by some to be effective first aid for snake bite (or cutting, sucking, applying chemicals or heat or cold, electric shock)
- b. **The Truth:** Modern first aid in Australia involves applying a firm elasticised bandage over the entire bitten limb, immobilising the limb and keeping the victim as still as possible until they can be transported passively to appropriate medical care

29. Snake repellents

- a. **The Myth:** Certain chemicals have been advocated, even today, which supposedly repel snakes from a defined area
- b. The modern variation is an electronic device which sends a pulse through the soil frightening any snakes in the vicinity

- c. **The Truth:** Experiments in Australia with chemical deterrents have at best been inconclusive, and in some cases, they had no effect on various snakes at all
- d. People are now so used to computers in our lives that there can be an unwavering belief in something electronic to solve a problem. Preliminary work with electronic deterrents has not been encouraging

30. Snake seeking revenge

- a. **The Myth:** Some people believe that a snake will avenge its murdered mate
- b. **The Truth:** For an animal which is normally solitary, coming together with another snake only for mating, this myth is hard to believe and of course is totally fanciful

31. Snake venom

- a. **The Myth:** Venom cannot be readily removed from clothing
- b. **The Truth:** As with many substances which will stain clothing, so too will venom, but it's not because its components are necessarily extra strong or have special properties

32. Snakes charmed by music

- a. **The Myth:** A common idea in the Indian subcontinent, whereby snake charmers can pacify a cobra by playing music on a flute
- b. **The Truth:** When a snake charmer has a cobra's attention by moving the flute, the snake tends to follow the movement in the close vicinity
- c. It is the same with Australian snakes

33. Snakes cover prey with saliva/slime

- a. **The Myth:** This fallacy is one of a number which is possibly based on fact, but has become twisted over time
- b. It was thought a snake covers the food animal with saliva to make it easier to swallow
- c. **The Truth:** Only true when a food animal has been swallowed. If the snake is then disturbed or its body temperature drops too low, it may regurgitate its food. This can happen even after it has been partly digested

34. Snakes die at sunset

- a. **The Myth:** If a snake is mortally wounded, a common thought was that it would not die until sunset
- b. **The Truth:** This myth may have its basis in that when cold a snake's metabolism slows down and it may linger for many hours before it finally succumbs
- c. As temperature has such an effect on a snake it may appear to be dead but actually in a state of torpor

35. Snakes don't have bones

- a. **The Myth:** Some uneducated people think that a snake is an animated tube, and perhaps due to its shape is not a vertebrate creature
- b. **The Truth:** Like other reptiles, snakes of course do have a skull, vertebrae and ribs although none have a pectoral girdle and only primitive snakes have the remnants of a pelvis and rudimentary hind legs

36. Snakes hearing

- a. **The Myth:** To frighten a snake, it is often believed you can shout or noisily stamp your feet
- b. **The Truth:** This belief is more complex than many as there is some truth to it

- c. Stamping your feet may be effective due to vibrations passed through the substrate and detected by a snake on the ground
- d. Snakes cannot readily hear airborne sounds unless they are of a very low frequency or transmitted through a solid substrate
- e. However, snakes are also sensitive to movement and anyone shouting at a snake to frighten it will inevitably move at least their hands which a snake may see and respond to

37. Snakes in pairs

- a. **The Myth:** A common belief even today is that snakes travel in pairs and if you see one, another won't be far away
- b. Similar to number 27 above when it is believed that snakes are similar to many mammals and birds, preferring the company of others
- c. **The Truth:** Apart from when they will obviously be together for mating, most snakes are solitary and lead individual lives

38. Snake's breath

- a. **The Myth:** The breath of a (venomous) snake is foul smelling or even "poisonous"
- b. **The Truth:** There is no discernible smell to what comes out of a snake's mouth, and certainly any odour that might be emitted is not in any way toxic

39. Snake's tongue

- a. **The Myth:** Some uneducated people have thought a snake's tongue is a sting
- b. Another idea from 100 years ago was that a snake's tongue was used to feel objects and more bizarrely, somehow was an organ of intelligence
- c. **The Truth:** Probably based upon literal interpretation of the Biblical passage "the viper's tongue shall slay him" when Job expressed the deadly bite of a viper
- d. A snake's tongue is a sensory organ and not connected to its venom apparatus

40. Venomous snakes biting themselves

- a. **The Myth:** A thought that a venomous snake will bite itself and die to avoid being caught
- b. **The Truth:** Although venomous snakes have been known to bite themselves, it is not as a result of been attacked by a predator; rather it has happened in a feeding frenzy. The snake soon realises its mistake and releases its bite

41. Whip snakes

- a. **The Myth:** An American belief more so than in Australia, in which such a snake can crack its tail like a whip to frighten an offending human away
- b. **The Truth:** Some snakes (in Australia too) are so light and agile (e.g. brown snakes) that they can throw their body off the ground when agitated, but they cannot "crack" their tail
- c. Some species will vibrate the tail, presumably to detract the attention of an attacker from the snake's head

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