

NARROW-BANDED SNAKE

(*Vermicella nascolata*)

White, each scale with reddish spot. Numerous narrow dark brown bands, interspaces a little wider than bands. Head and neck black above broken by pale snout and pale band on nape. Belly white. Midbody scales in 17 rows; ventrals 140-172; anal divided; subcaudals 20-30, all divided. Length to 40cm.
A small burrowing snake that may be encountered on the surface at night. Feeds on lizards. Oviparous: 2-5 eggs in a clutch. Venomous but totally harmless.

HAIR-GIRDLED SNAKE

(*Vermicella semifasciata*)

Pale brown with evenly spaced dark brown bands. Bands and interspaces about the same width. Head with broad dark brown band between and extending back from the eyes. Belly white. Midbody scales in 17 rows; ventrals 147-188; anal divided; subcaudals 14-26, all divided. Length to 35cm.
A small burrowing snake that may be encountered on the surface at night. Feeds on reptile eggs. Oviparous: 2-5 eggs in a clutch. Venomous but totally harmless.

BLIND or WORM SNAKES

(GENUS *Ramphotyphlops*)

All blind snakes are superficially similar resembling thin or fat earthworms. Rarely exceeding 50cm in length they spend much of their life beneath ground feeding on insect larvae. All are oviparous: 2 eggs in a clutch. When counting the midbody scales in blind snakes the ventral or belly scales are included in the count. All are nonvenomous. When handled they emit a foul odour from well developed anal glands. Three species are found in the Perth area.

- 20 scale rows at midbody _____ 2
- 22 scale rows at midbody _____ *australis*
- Body stout; less than 350 ventrals _____ *punguis*
- Body slender; more than 500 ventrals _____ *waititi*

PYTHONS.

Pythons include Australia's largest snakes. All are nonvenomous and generally feed on warm-blooded prey. Oviparous: 3-30 eggs in a clutch. During incubation the female remains with the eggs coiled tightly around them to assist in maintaining a constant temperature. Two pythons are found in the Perth area, these are—

- STIMSON'S PYTHON (*Liasis-stimsonii*)** — Until a recent revision by L.A. Smith (1985) this snake was known as the Children's Python which is now restricted to the north of Australia, the Kimberley in W.A. It is grey to brown with dark brown or reddish blotches. Length to 90cm. Head with large plate-like scales.
- CARPET PYTHON (*Morelia spilota*)** — A large python inhabiting undisturbed habitats near Perth. Common on Garden Island and in catchment areas. Length to 2.4 metres. Head with small fragmented scales. Brown, yellow or green with pale black-edged transverse bars, and longitudinal markings along sides. Belly yellow boldly marked with black.

FIRST AID

Earlier first-aid treatment for snake-bite was based on the belief that the venom entered the system directly through the blood vessels. Hence the tourniquet was used to restrict the venous flow from the envenomated limb. The most recent treatment was developed after it was discovered that the venom is carried in the lymphatic system: a series of canals and spaces between the body tissue. This revolutionized treatment, and this not only delays the spread of venom but to some degree negates the effects of it.

Children bitten by even small venomous snakes should have first-aid administered and taken to the nearest medical facility for observation.

Do not wash the site as medical staff can determine the type of venom from a swab taken from the bite site.

The majority of bites are on the limbs, therefore:—

- Apply a broad, firm pressure bandage over the site and as much of the limb as possible. This is bound as firm as would be required for a sprained ankle. Do not

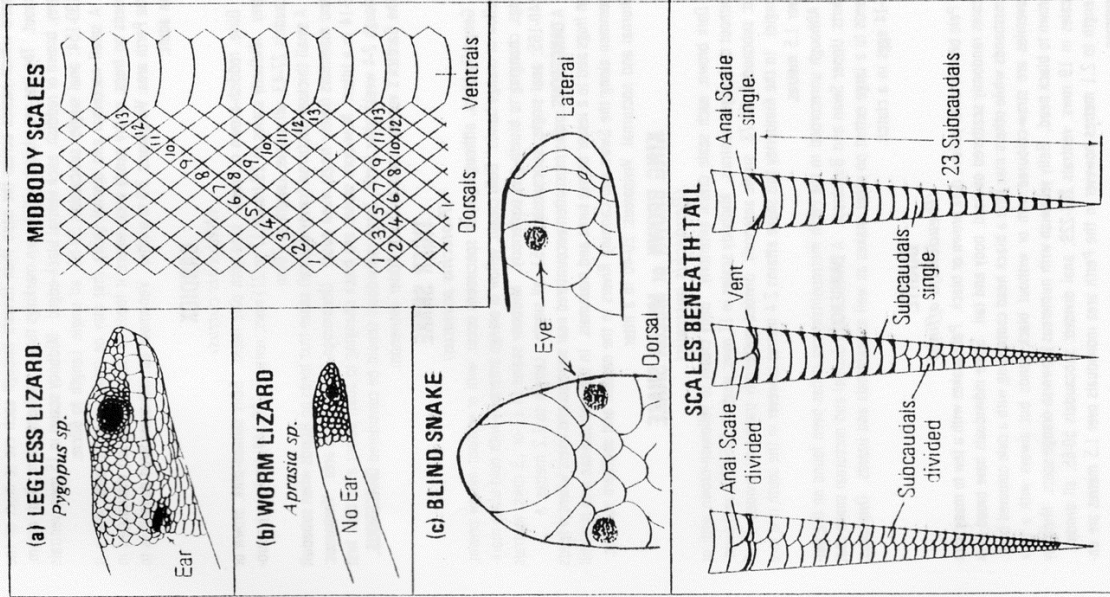
- remove this until proper medical facilities are reached. If the bite is on the trunk of the body apply local pressure only. Do not apply pressure to the head!
- immobilize the effected limb with a splint. If the bite is on the hand or forearm bind to the elbow and support arm in a sling.
- Keep the patient calm and convey to medical facility quickly but safely.

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Identification Key to the SNAKES OF THE PERTH AREA

BRIAN BUSH

Snakes are an integral part of the Australian bush. They are considered by many to be an unnecessary evil. However this is a misconception. Although some snakes are capable of causing death to man through the effects of their venom, modern first-aid, outlined later in this leaflet, has reduced the likelihood of this happening. Snakes as predators play an important role in the control of other animals, without which the effects on the natural balance could be catastrophic. Through education people may one day realise the snake is not all bad and accept it as part of our wildlife heritage.

This leaflet allows identification to species and includes brief notes on the 20 known land snakes found in this area. Several species of sea-snakes have been recorded south to about Bunbury while the Yellow-bellied Sea Snake (*Pelamias platurus*) has been found along the coast near Esperance. Sea snakes are well adapted for a life in the sea with laterally compressed tails and valvular nostrils. Many species are dangerous however they are inoffensive and placid with few people being bitten by them.

IDENTIFICATION

As some snakes display considerable intraspecific variation in colour and pattern, these alone can be unreliable guides to identification. Included in the Key are a number of constant interspecific differences that the reader may be unfamiliar with. These are (1) the midbody scale rows, counted around the body excluding the broad ventral plates, except in worm snakes where the belly scales are included in the count; (2) the number of scales along the bottom side of the tail; and (3) whether these scales are in a single or double row. These 3 character states are important aids to determining species and are simple to check using the included drawings as a guide. The purpose of the Key is to allow identification of a snake that has been killed near the house, children's play area, removed dead from the road, or already pickled in a jar from some time previous.

Before moving onto the Key, is the reptile to be identified a snake? It is wormlike but has well developed eyes then it is a worm lizard, belonging to the genus *Aprasia*. These small burrowing lizards superficially resemble worm snakes (*Ramphotyphlops*). If it has an external ear-opening, represented by a hole on each side of the head behind the eye, then it is one of several legless lizards (*Delma*, *Lialis* or *Pygopus*) common around Perth. Some of these may attain 60cm in length, however all lizards are harmless.

FANGS & VENOM

The fangs of Australia's front-fanged venomous land snakes (elapids) are often mistakenly said to be grooved. Close examination under a microscope will show these fangs to be effectively hollow. This hollow has evolved from an open groove in some primitive ancestor: the fangs have come together and fused closing the venom canal. When an elapid snake bites the venom enters the wound under positive pressure caused by the voluntary contraction of the muscles around the venom glands.

In the north of W.A. there are 4 species of rear-fanged snakes. The fangs in these are enlarged teeth with an open groove situated towards the back of the upper jaw. Upon biting venom flows onto the back teeth of the upper jaw and "spills" into the wound. None of the rear-fanged snakes found in Australia are considered harmful to man.

Snake-venom is a specialized saliva which both immobilizes prey and causes a rapid breakdown of the food into more easily absorbed compounds.

Many snakes that are technically venomous are not necessarily dangerous. Fangs and venom glands of a snake generally increase in size relative to the growth of the snake, i.e.: a new-born Tiger Snake is far less dangerous than an adult. Also small snakes with correspondingly small heads are generally less dangerous than small snakes with big heads, i.e.: a 50cm Reticulated Whip Snake is far less dangerous because of its small head than a similar sized Death Adder which would have a much larger head.

HOW TO USE THE KEY

Commencing at the beginning, proceed step by step. Each step is numbered and presented in 2 parts. The snake being examined will agree with one part or the other. On the righthand side adjacent to that part which suits the snake is the name of the snake or a number. If it is the latter move onto the step with the corresponding number skipping those in between until you eventually have the name of the snake on the righthand side.

1. Body wormlike: tail without taper: eyes indistinct (each represented by dark spot beneath head scales) _____ **WORM SNAKE** _____ 2
Tail tapering: eyes distinct _____
2. Body very stout: tail noticeably distinct from body and includes grublike distal appendage _____ **DEATH ADDER** _____ 3
Body slender to moderately stout: tail with gradual taper (hardly distinct from body)... 3
3. Mid body scales in 23 or less rows _____ **DEATH ADDER** _____ 4
Midbody scales in 40 or more rows _____ **PYTHON** (2 species) _____ 5
4. Midbody scales in 15 rows _____ 5
Midbody scales in 17 or more rows _____ 10
5. Scales beneath tail divided (in 2 rows) _____ 6
Scales beneath tail undivided (in 1 row) _____ 9
6. Tail long, 35 or more scales beneath tail _____ **RETICULATED WHIP SNAKE** _____ 7
Tail short, 30 or less scales beneath tail _____
7. Body and tail banded _____ **JAN'S BANDED SNAKE** _____ 8
Body and tail not banded (2 black bars on head only) _____
8. Dark vertebral stripe present _____ **BLACK-STRIPED SNAKE** _____ 8
Dark vertebral stripe absent _____ **BLACK-MAPED SNAKE** _____
9. Head shiny black; no transverse bar on neck _____ **HOODED SNAKE** (2 species) _____ 9
Head greyish; black bar across neck _____
10. Scales beneath tail all divided or all undivided _____ **CROWNED SNAKE** _____ 11
Scales beneath tail undivided anteriorly and divided posteriorly _____ **COMMON MULGA SNAKE** _____ 12
11. Scales beneath tail undivided _____ 12
Scales beneath tail divided _____ 13
12. Belly cream, yellow or orange anteriorly, dark grey posteriorly _____ **TIGER SNAKE** _____ 13
Belly olive to pink for full length _____
13. Eye small (diameter no more than distance between eye and mouth) _____ **BARDICK** _____ 14
Eye large (diameter more than distance between eye and mouth) _____ 15
14. Body whitish with numerous red spots between narrow black bands; interspaces much wider than bands _____ **NARROW-BANDED SNAKE** _____ 15
Body brown between dark brown bands; interspaces and bands equal in width _____ **HALF GIRDLED SNAKE** _____
15. Midbody scales in 17 rows _____ **WARDAR** _____ 15
Midbody scales in 19 rows _____ **DUGITE** _____ 15

DEATH ADDER

(*Acanthopis antarcticus*)

Grey, pale brown or reddish with indistinct bands. Lips boldly marked white. Belly whitish with brown flecks. Tail with grub-like distal appendage terminating in a spine. Midbody scales in 21 or 23 rows; anal single; ventrals 110-125; subcaudals 36-50; single anteriorly, paired posteriorly. Length to 70cm.

Near Perth known from the Darling Range between Mt Helena and Jarrahdale. Preys on lizards, mammals and birds which it will actively hunt or lure to within striking range with its modified tail. **DANGEROUS**, nocturnal and viviparous: 3-25 in a litter.

RETICULATED WHIP SNAKE

(*Demaria reticularia*)

Green, each scale narrow to widely edged with black. Tail brown. Head greyish with black bar across nose and black comma-shaped mark from each eye. Nose and eye markings margined with yellow. Belly yellowish-grey or greenish-white. Midbody scales in 15 rows; ventrals 170-205; anal divided; subcaudals 62-92, all divided.

70cm.

A slender fast moving diurnal snake that feeds almost exclusively on small lizards captured on the run. Oviparous: 3-9 eggs in a clutch. Venomous but not considered dangerous to an adult.

CROWNED SNAKE

(*Notechis coronatus*)

Green, olive-green to reddish-brown with bluish-grey head above a continuous black band which passes across the nape then forward through each eye to meet on the snout. The lips are whitish with brown markings that extend onto chin. Belly cream, grey, brown or reddish, each ventral black-edged. Midbody scales in 15 rows; ventrals 130-154; anal single; subcaudals 39-53, all single. Length to 60cm.

A small nocturnal and diurnal snake that may be found in damp areas where it feeds on frogs, or dry sandy areas where it feeds on lizards. Sparsely distributed in the Perth area. Viviparous: 3-9 in a litter. Venomous but not considered dangerous to an adult.

BARDICK

(*Notechis curtus*)

Olive, reddish-brown or black. Lips with pale flecks. Belly salmon-pink, brown or grey. Midbody scales in 19 (rarely 17 or 21) rows; ventrals 120-144; anal single; subcaudals 27-43, all single. Length to 70cm.

A small thickset nocturnal (rarely diurnal) snake that feeds on lizards when subadult and mammals (rarely frogs) when adult. Uncommon in the Perth area. Viviparous: 3-14 in a litter. New-born snakes are black changing to adult colour after their first slough 2-4 weeks after birth. Large individuals should be considered **DANGEROUS**. The Bardick's venom reacts to Death Adder antivenom.

TIGER SNAKE

(*Notechis scutatus*)

Generally black, although greyish specimens occur, with or without narrow cream, yellow or orange bands. Belly cream, yellow or orange anteriorly with bold black markings, changing to bluish-grey posteriorly. Midbody scales in 17 or 19 rows; ventrals 140-165; anal single; subcaudals 36-51, all single. Length to 1.2 metres.

A **DANGEROUS** snake most often encountered near swamps and rivers where it feeds on frogs and to a lesser degree birds and mammals. In the metropolitan area it is still common along the Swan and Canning Rivers in the eastern and southern suburbs. Diurnal and nocturnal. Viviparous: 20-40 in a litter.

KING BROWN or MULGA SNAKE

(*Peucedalis australis*)

Dark brown, each scale cream anteriorly. Belly cream to yellowish-brown with or without dark-edged ventrals. Midbody scales in 17 rows; ventrals 185-220; anal divided; subcaudals 50-78; single anteriorly, divided posteriorly (rarely all divided or all single). In the Kimberley this snake attains 2.4 metres however in the south it is rare over 1.5 metres.

Although unrecorded in the Perth metropolitan area it has been found on the outskirts: Upper Swan and Bullsbrook. A **DANGEROUS** diurnal and nocturnal snake that feeds to a large extent on other snakes as well as mammals and lizards. Oviparous: 7-14 eggs in a clutch.

DUGITE

(*Pseudonaja affinis*)

Pale brown, olive, yellow, dark brown or black. Pale snakes with a few to many dark scales randomly scattered on head, body and tail. Some individuals have broad dark crossbands while others may have a black head contrasting with a pale coloured body. Juveniles are straw-coloured with or without black bands but always with a dark brown to black head. Belly yellowish with numerous brownish-orange spots. Midbody scales in 19 rows; ventrals 203-229; anal divided; subcaudals 50-65; all divided. Length to 2.1 metres however in the Perth area individuals over 1.5 metres are uncommon.

A **DANGEROUS** snake common in the metropolitan area. Feeds on other snakes, lizards and mammals. Oviparous: 10-25 eggs in a clutch. During February each year

large numbers of recently hatched Dugites are found in the suburbs. These pose little threat because of their small size. Diurnal and nocturnal.

WARDAR

(*Pseudonaja nuchalis*)

Yellowish-brown to reddish-brown or black. Pale animals may have a few dark scales on neck arranged in a V-shape, a collar or random. Black-headed and banded morphs are common. Belly cream, yellow, orange or grey with contrasting spots. Juvenile Wardars are very similar to juvenile Dugites, being yellow to reddish-brown with most of the upper part of the head black. Midbody scales in 17 rows; ventrals 190-230; anal divided; subcaudals 50-65 all divided. Length to 1.5 metres.

A **DANGEROUS** snake closely allied to the Dugite. Feeds on other snakes, lizards, mammals and frogs. Oviparous: 10-25 eggs in a clutch. Diurnal and nocturnal.

GOULD'S SNAKE

(*Rhinoplocephalus gouldii*)

Pale brown to reddish-brown with black head often broken by pale mark in front of each eye. Dorsal scales are edged with black causing a fine reticulum over the body. Belly pearly white. Midbody scales in 15 rows; ventrals 153-177; anal single; subcaudals 25-38, all single. Length to 50cm.

A small nocturnal snake that feeds on lizards. Viviparous: 2-5 in a litter. Common in the Perth area where a pocket of bush is littered with old building materials. Although venomous, too small to be considered dangerous.

BLACK-BACKED SNAKE

(*Rhinoplocephalus nigriceps*)

Dark reddish-brown with a broad black vertebral stripe continuous with all black head. Some individuals lack the reddish pigment displaying only the black head and vertebral stripe on a whitish ground colour. Belly pearly-white. Midbody scales in 15 rows; ventrals 148-171; anal single; subcaudals 19-33, all single. Length to 60cm. Closely allied to the Gould's Snake. Feeds on lizards and smaller snakes. Nocturnal. Viviparous: 2-5 in a litter. Often associated with blackbox stumps and macrozamia palms. Sparsely distributed in the Perth area. Venomous but not dangerous to an adult.

JAN'S BANDED SNAKE

(*Vermicella bertholoti*)

Orange with broad black bands completely encircling the body. The bands and interspaces equal in width. Head pale brown with dark brown flecks. Belly yellow. Midbody scales in 15 rows; ventrals 112-130; anal divided; subcaudals 15-25, all divided. Length to 30cm.

A very attractive small snake usually found in leaf-litter or loose soil. Feeds on lizards which are restrained with body coils. Nocturnal and diurnal. Oviparous: 1-8 eggs in a clutch. Venomous but totally harmless.

BLACK-MAPED SNAKE

(*Vermicella bimaculata*)

Yellow with broad vertebral region of orange-edged scales. Head with black band between and extending back from the eyes. A second black band across nape. Belly yellow. Midbody scales in 15 rows; ventrals 175-230; anal divided; subcaudals 20-30, all divided. Length to 45cm.

A small slender lizard-eating snake found inhabiting loose soil or in decaying logs. Nocturnal. Oviparous: 2-6 eggs in a clutch. Venomous but totally harmless.

BLACK-STRIPED SNAKE

(*Vermicella calanotos*)

Yellow, each scale broadly edged with orange. A black vertebral stripe along full length of body. Tip of snout black, a broad black band across head and another across nape. Belly yellow. Midbody scales in 15 rows; ventrals 125-143; anal divided; subcaudals 23-35; all divided. Length to 30 cm.

A small attractive lizard-eating snake found beneath rocks, in loose soil or in decaying logs. Nocturnal. Oviparous: 2-5 eggs in a clutch. Venomous but totally harmless.