

Amphibians and Reptiles of Komodo National Park

Amfibi dan Reptil Taman Nasional Komodo



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AARANYA
WILDLIFE
ODYSSEYS

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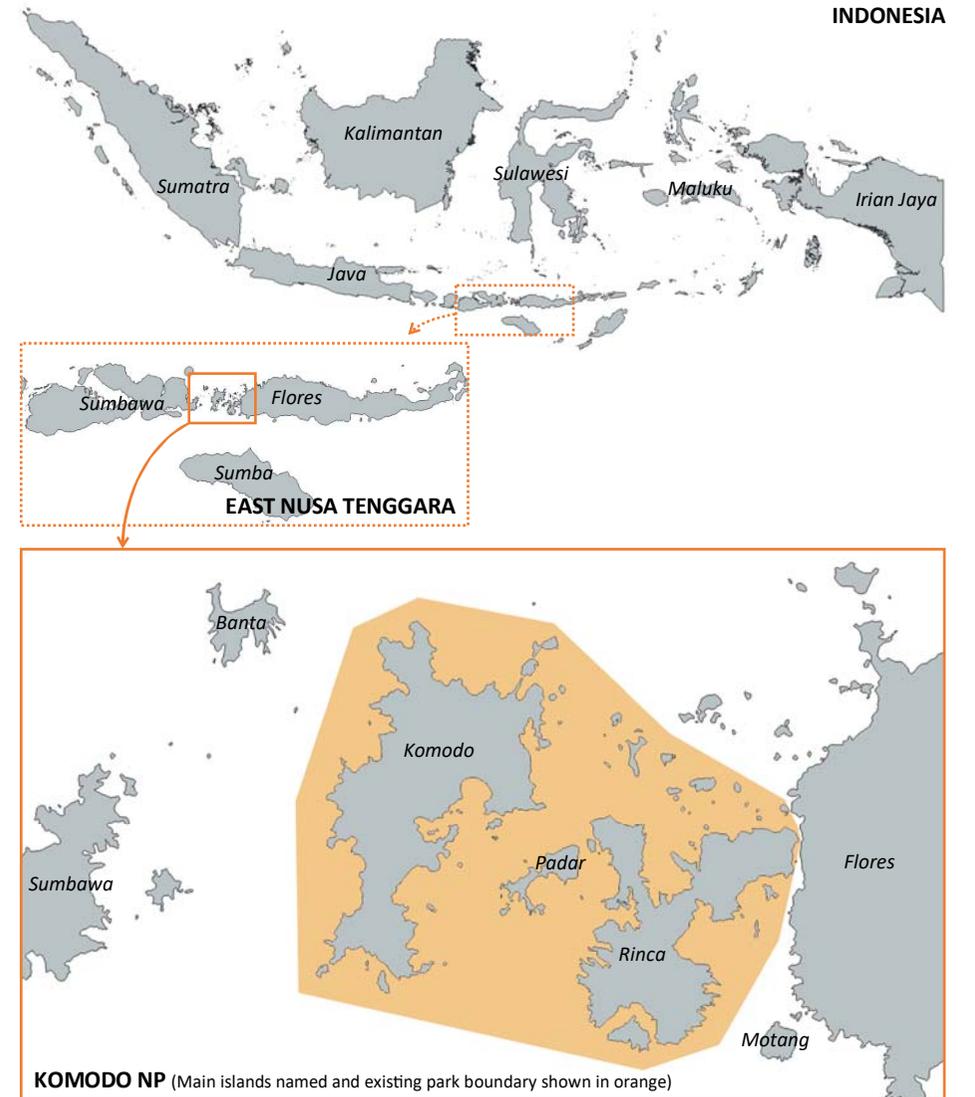
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The arid environment of the park transforms significantly after the monsoon rains between December to March (Images: Elang Resa)

Komodo National Park

Declared in 1980, the Komodo National Park is located within the Lesser Sunda Islands in the border region between the provinces of East Nusa Tenggara and West Nusa Tenggara of Indonesia. The park is 1,817 km² in size of which 603 km² is land, and the rest marine habitats. This includes three larger islands (Komodo, Padar and Rinca) and 26 smaller islands. Over 3,500 people inhabit the islands within the park. Due to its unique value, mainly as the home range of the iconic Komodo Dragon, the park was declared a World Heritage Site and a Man and Biosphere Reserve by UNESCO in 1986. The park is also within the 'Coral Triangle', a region with some of the richest marine biodiversity on Earth.



Habitats at the park

The park is located entirely within the tropics. The climate is characterized by constant high temperatures and dry weather. Multiple marine and terrestrial habitats within the park provide living spaces for amphibians and reptiles. Examples of the main habitat types are shown here.



Coral reefs



Seagrass beds

Ru Somaweera



Mangroves



Monsoon forests



Savannah



Riverine forests



Quasi-cloud forests



Human habitats

How to use this booklet

This booklet is a general introduction and non-technical guide to all species of amphibians and reptiles recorded from the islands of Komodo National Park as of October 2018. We have removed records of Indo-Pacific Gecko (*Hemidactylus garnotii*) and Reticulated Python (*Malayopython reticulatus*) from the list of reptiles known to inhabit the islands after consultation with museums and experts. Some of the species listed in this booklet are undergoing taxonomical review. However, this booklet does not discuss the taxonomic status of the species recorded, but simply follows the most recent valid nomenclature.

Common name in Indonesian. A given species can have multiple common names depending on the part of Indonesia.

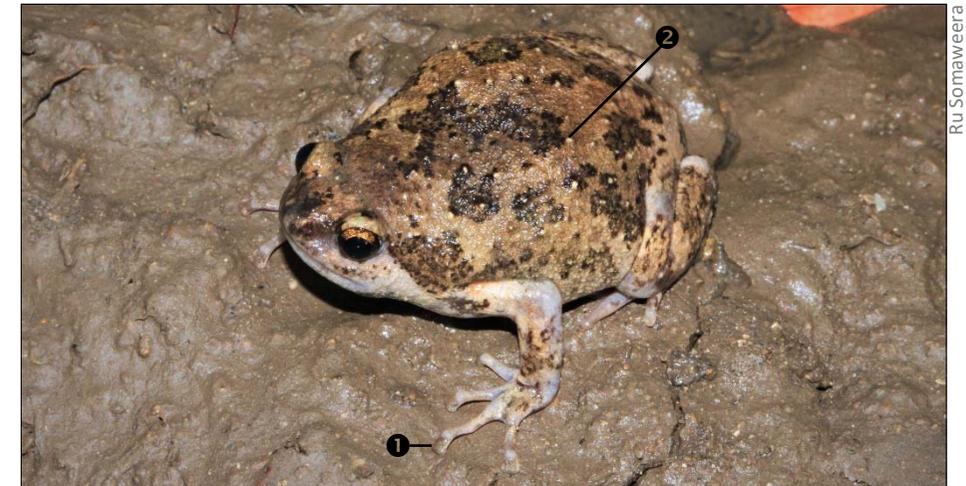
Common name in English. A given species can have multiple common names.

Scientific name. Each species has a unique, two-worded name written in Latin and italicized. A given species only has one presently-valid scientific name.

Javanese Bullfrog *Kaloula baleata*
Kintel Lekat, Belentuk

Photographer
Average total length of adults

(Body length ~ 5 cm)



Ru Somaweera

Chubby body with blunt head. Toes webbed and with spoon-shaped, blunt fingertips
1. Top of body brownish with darker and lighter mottling, and sometimes white-tipped tubercles **2**. Some with lighter band behind eye. Call a repeated 'bong'

Diagnostic features
Key, brief and non-technical features that may help to identify the species. Numbers refer to features shown in the image.

Main habitat occupied

T Terrestrial (on land)	A Arboreal (on vegetation)
W Aquatic (in water)	F Fossorial (burrow into soil)

Active time

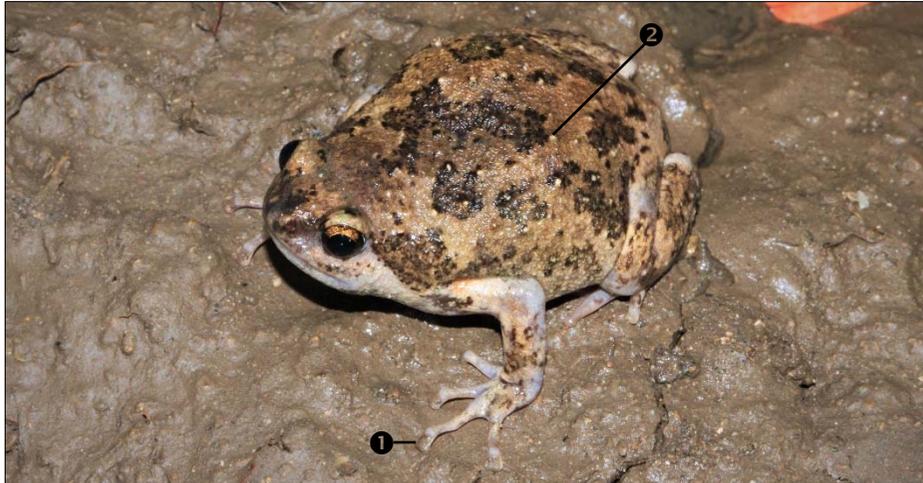
- Diurnal (day time)
- Nocturnal (night time)
- Both day and night

Amphibians

Javanese Bullfrog *Kaloula baleata*

Kintel Lekat, Belentuk

Body length ~ 5 cm



Ru Somaweera

Chubby body with blunt head. Toes webbed and with spoon-shaped, blunt fingertips¹. Top of body brownish with darker and lighter mottling, and sometimes white-tipped tubercles². Some with lighter band behind eye. Call a repeated "bong" sound. 

Banded Bullfrog *Kaloula pulchra*

Belentung Kembang

Body length ~ 7 cm



Ru Somaweera

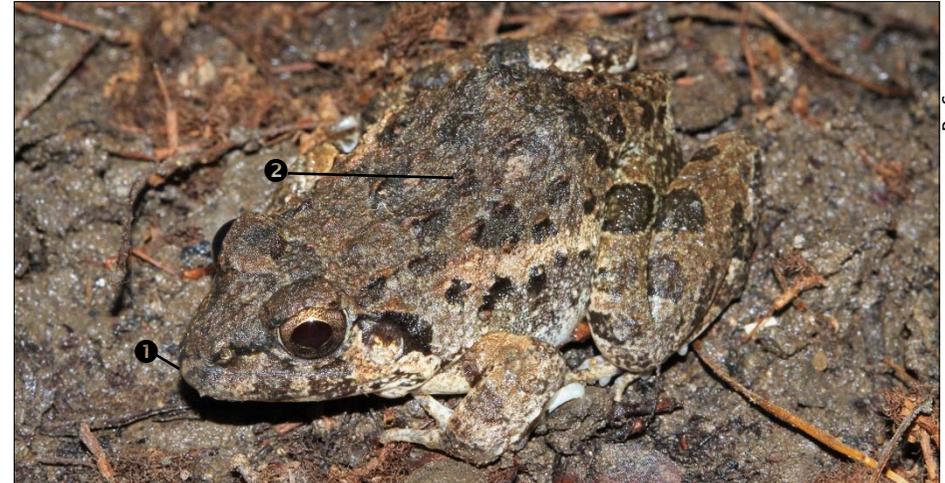
Body shape similar to Javanese Bullfrog. Body brown on top and pale on bottom. Distinctive, broad bands on the sides range from copper-brown to salmon pink in colour, and often edged with black¹. Call a loud, cattle-like bellow. (Most likely introduced accidentally) 

Amphibians

Crab-eating Frog *Fejervarya cancrivora*

Katak Sawah, Katak Hijau, Katak Hutan Bakau

Body length ~ 9 cm



Ru Somaweera

Narrow head with pointed snout¹. Body with skin folds and small tubercles along the body². Toes webbed. Body brownish, greenish or greyish with dark markings, especially on legs. Some with yellow line along top of body. Call like a fast, deep throat gargle. 

Komodo Cross Frog *Oreophryne jeffersoniana*

Kodok Jam Pasir Komodo

Body length ~ 1.5 cm



Lindley McKay

Plump body with small head. Toes not webbed and ending in small circular discs¹. Body brownish with warts². Some are spotted or with a thin light-coloured line along the top of body. Belly heavily mottled with dark patterns³. 

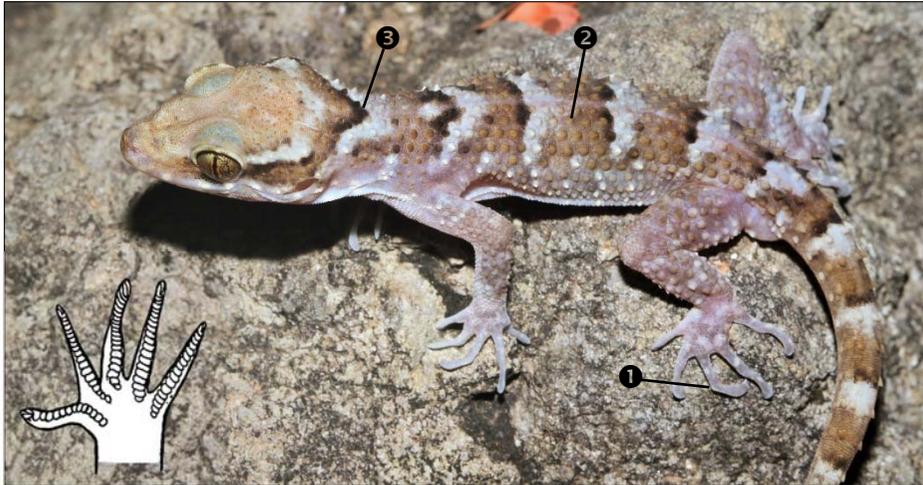
Geckoes

D'armandville's Bent-toed Gecko *Cyrtodactylus darmandvillei*

Cecak Batu D'Armandville

Body length ~ 18 cm

Ru Somaweera



Large head with elongated snout. Fingers and toes slender and bent at an angle ❶. Body with large, keeled tubercles ❷. Wavy cross bands across the body and tail. Dark band behind eyes joins on the top side of neck to form a 'V' shape ❸.



Laevigatus Bent-toed Gecko *Cyrtodactylus laevigatus*

Cecak Batu Laevigatus

Body length ~ 20 cm

Lindley McKay



Fingers and toes slender ❶ and bent at an angle. Body with granular scales and few tubercles that are sometimes keeled. Body tan with dark, irregular spots forming bands across the body ❷. Head with small brown spots. Dark bar on the sides of face.



Geckoes

Four-clawed Gecko *Gehyra mutilata*

Cecak Gula

Body length ~ 12 cm

Ru Somaweera | left : Melissa Bruton



Body with smooth scales, skin folds and distinct webbing between thigh and calf on leg ❷. ❶. Tail flat and carrot-shaped. Fingers and toes widened, without a claw on inner toe/finger ❸. Body with or without two longitudinal rows of pale spots ❹.

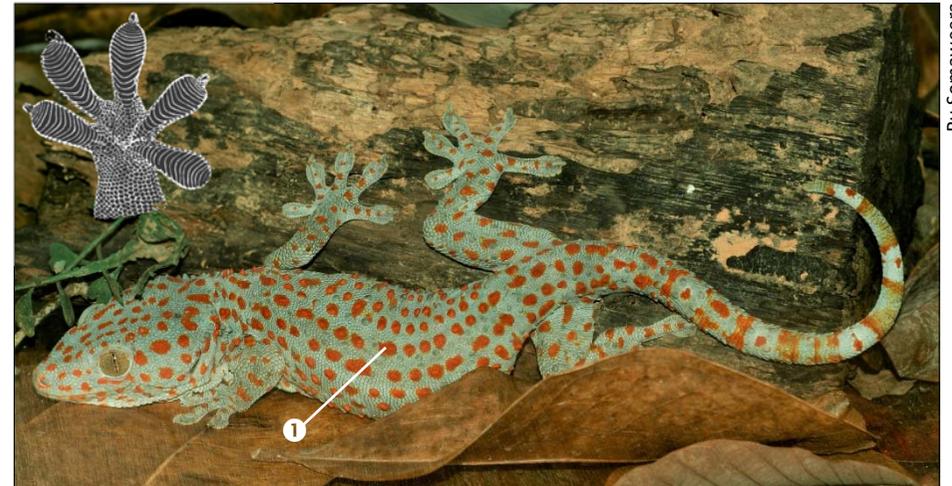


Tokay Gecko *Gekko gekko*

Tokek

Body length ~ 25 cm

Ru Somaweera



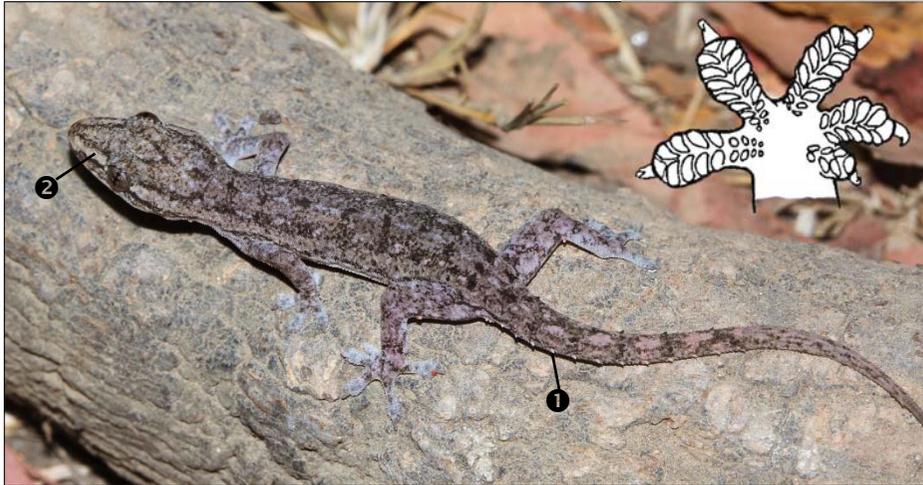
Large head. Granular scales on body and tail, usually arranged as rows. Body of adults slaty-grey or bluish, with striking orange patterning on top and side of body ❶. Juveniles have cream spots, sometimes merging into pale bands. Distinct and loud *tok-keh* call.



Geckoes

Common House Gecko *Hemidactylus frenatus* Cecak Rumah, Cecak Kayu

Body length ~ 12 cm



Ru Somaweera

Body mostly smooth and without skin folds on sides. Tail segmented, with rows of enlarged tubercles and small spines on sides ❶. Body unpatterned or with indistinct, wavy dark lines along body. Light band with dark margins on side of face ❷. 

Flat-tailed Gecko *Hemidactylus platyurus* Cecak Berekor Pipih, Cecak Rumah

Body length ~ 12 cm



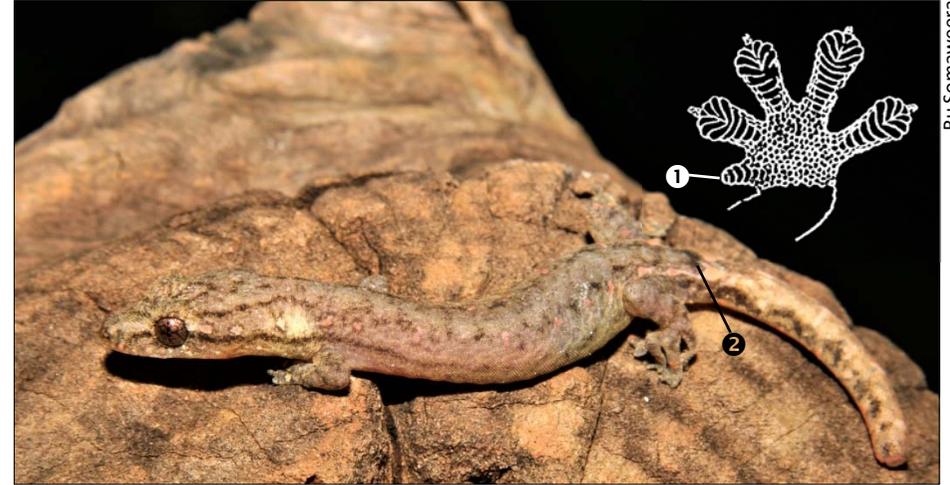
Ru Somaweera

Body smooth. Tail strongly flattened and with fringe of soft and spiny skin along lower edge ❶. Distinct webbing between thigh and calf ❷. Body varies from light greyish to dark brown, sometimes with elongated darker spots. Dark band on side of face. 

Geckoes

Common Dwarf Gecko *Hemiphyllodactylus typus* Tokek Cebol

Body length ~ 8 cm

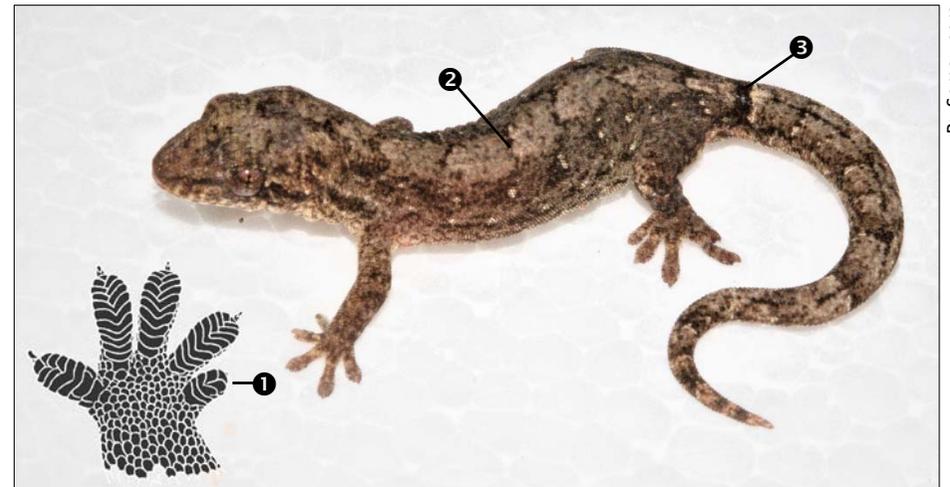


Ru Somaweera

Body slender and elongated. First toe very small and clawless ❶. Body tan or yellowish-brown, some with darker chevrons or dark marks arranged in lines along the body. Dark-edged mark at base of tail ❷. Juveniles with orange tail. 

Mourning Gecko *Lepidodactylus lugubris* Tokek Duka

Body length ~ 9 cm



Ru Somaweera

Body with granular scales and without tubercles. Tail cylindrical, without sharp edges on sides. First toe small and without claw ❶. Body cinnamon-brown with dark, narrow lines across body and tail ❷. Dark-edged mark at base of tail ❸. 

Skinks

Burden's Snake-eyed Skink *Cryptoblepharus burdeni*

Kadal Mata Ular Burden

Body length ~ 10 cm



Mark O'Shea

Body small and flattened. Snout pointed. Eye round with lower eyelid fixed (the lizard cannot blink) ❶. Body metallic dark brown to nearly black, with scattered, irregular lighter, tiny spots ❷. Belly uniform greyish. Usually found on rocks along the beach.



Nusa Tenggara Timur Snake-eyed Skink *Cryptoblepharus renschi*

Kadal Berekor Biru

Body length ~ 9 cm



Ru Somaweera

Body small and flattened. Snout pointed. Eye round with lower eyelid fixed (the lizard cannot blink) ❶. Body blackish with pale stripes along body. Middle stripe extends from snout to base of tail ❷. Tail olive or blue-grey and sometimes spotted.

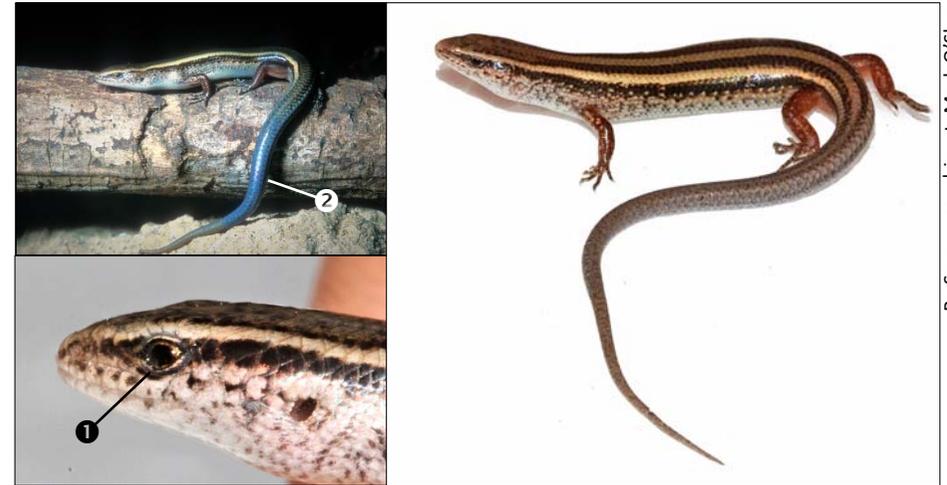


Skinks

Dunn's Emo Skink *Emoia similis*

Kadal Pantai Dunn

Body length ~ 11 cm



Ru Somaweera | inset: Mark O'Shea

Body small and slightly flattened. Snout pointed. Lower eyelid moveable (the lizard can blink) ❶. Body colour and pattern very similar to Nusa Tenggara Timur Snake-eyed Skink but the tail is almost uniform bluish-grey in some individuals ❷. Also climbs trees.



Flores Bar-lipped Skink *Eremiascincus emigrans*

Kadal Flores

Body length ~ 14 cm



Mark O'Shea

Short limbs. Lip scales white with dark margins ❶. Body yellowish-brown with small, dark spots aligned to form stripes along the body, especially on front part of body and on tail ❷. Lower side of body with small spots and speckles.



Skinks

Common Sun Skink *Eutropis multifasciata*

Kadal Kebun, Kadal Tanah, Kadal Matahari

Body length ~ 25 cm



Ru Somaweera

Body bronze or brownish with some having darker stripes along back. Sides darker with yellowish stripes, or series of white streaks or spots. Males in breeding season with brighter red, orange or yellow on side of body¹. Body scales with keels.



Lesser Sunda Dark-throated Skink *Sphenomorphus melanopogon*

Kadal Sunda Leher Hitam

Body length ~ 12 cm



Ru Somaweera

Limbs long. Front of ear with several lobules. Body light brown with no or indistinct pale stripe along middle of the back. Body colour pattern very variable, especially between young and adults. Some adults with dark throats¹. Legs with dark brown speckles.

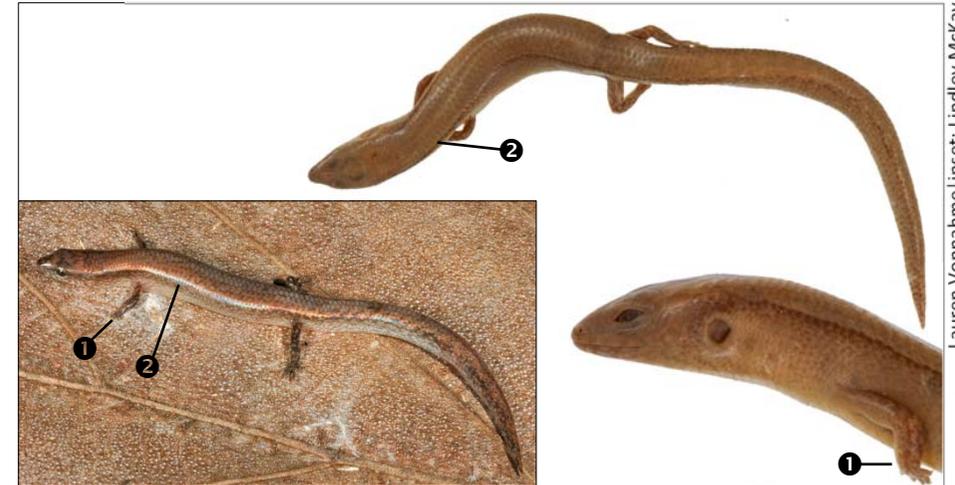


Skinks

Schlegel's Forest Skink *Sphenomorphus schlegeli*

Kadal Hutan Schlegel

Body length ~ 6 cm



Lauren Vonnahme | inset: Lindley McKay

Limbs short¹. Body brownish-bronze. Two narrow whitish stripes bordered by a row of dark spots on either side of upper body from behind the eye to base of tail². Sides of body dark brown. Chin and tail unpatterned or spotted with brown.



Flores Banded Skink *Sphenomorphus striolatus*

Kadal Belang Flores

Body length ~ 12 cm



Ru Somaweera

Limbs long. Front of ear without lobules. Body light metallic brown, usually with a broad pale (brassy yellow to greenish) stripe along middle of the back. Sides of body with dark and light dashes. Legs speckled. Dark line on side of face and tail. Also climbs trees.



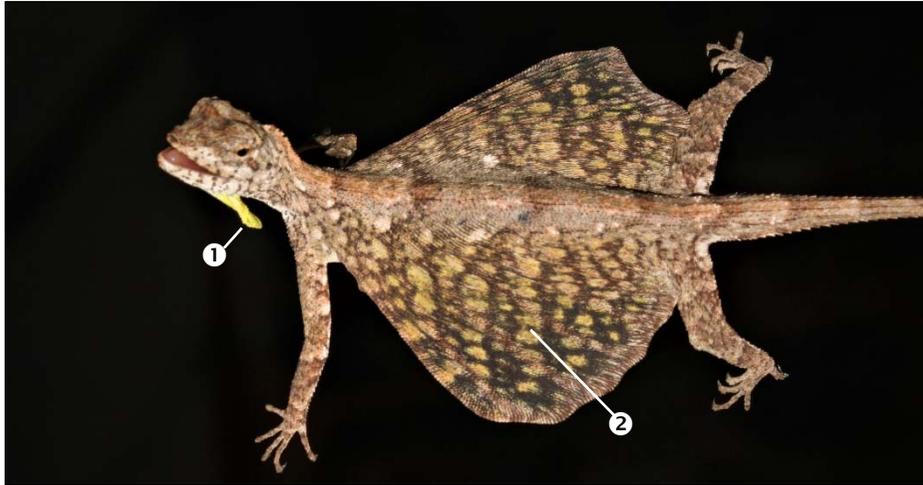
Other lizards

Boschma's Gliding Lizard *Draco boschmai*

Haphap, Cekiber

Body length ~ 20 cm

Ru Somaweera



Body slender. Triangular, yellowish dewlap on throat ❶. Gliding membrane ('patagium') on sides of the body. Patagium with brown and yellowish markings on top ❷, bottom is white with few black flecks or streaks near the outer edge. Head greenish in some.  

New Guinea Blind Lizard *Dibamus novaeguineae*

Kadal Buta Nugini

Body length ~ 20 cm

Graeme Gillespie



Body cylindrical. Eyes covered by transparent scale ❶. No ear openings ❶. No obvious limbs, but males have flap-like, tiny back limbs ❷. Body brown or purplish. Some with lighter patches ❸. Lower lip with a single, large and long scale. Can open mouth widely.  

Other lizards

Komodo Dragon *Varanus komodoensis*

Ora

Body length ~ 250 cm

Ru Somaweera



Largest living species of lizard. Adults uniformly brown or greyish-brown. Juveniles dark brownish with orange skin visible between scales. Hatchlings blackish with yellow spots and ocelli on body, legs, head and tail. Hatchlings are largely arboreal.  

Asian Water Monitor *Varanus salvator*

Biawak

Body length ~ 180 cm

Ru Somaweera



Adults drab greyish or blackish, with yellow, orange or white spots, or ocelli, in rows across the back ❶. Juveniles have black bars on lips and yellow bands on tail. Semiaquatic and usually found close to water. Rare on islands in Komodo NP. Known from Rinca.  

Sea turtles

Green Turtle *Chelonia mydas*

Penyu Hijau

Shell length ~ 150 cm



Ru.Somaweera

Shell more or less oval with non-overlapping scales in adults. Head with 1 pair of elongated 'prefrontal' scales on snout top ❶. Front flippers with 1 claw each. Shell colour variable with radiated bands, numerous dark blotches, or unpatterned.



Hawksbill Turtle *Eretmochelys imbricata*

Penyu Sisik

Shell length ~ 100 cm



Ru.Somaweera

Shell more or less elliptical with overlapping scales in adults. Head with 2 pairs of elongated 'prefrontal' scales on snout ❶ and a pointed bird-like beak ❷. Front flippers with 2 claws each. Shell colour highly variable with spots or wavy stripes.



Crocodiles

Saltwater Crocodile *Crocodylus porosus*

Buaya

Body length ~ 400 cm



Ru.Somaweera



Ru.Somaweera

The largest living reptile. Head large with relatively narrow but heavy jaws. Body scales more oval in shape than in other Asian crocodiles. Body generally dark greyish, with lighter tans and some individuals have darker bands on sides and faint bands on body. Juveniles more yellowish or tan with more prominent dark spots and stripes on body and tail.



WARNING: This species does carry out unprovoked (and sometimes fatal) attacks on humans, so is considered extremely dangerous. Keep out of water when you are close to mangrove habitats in the park.

Sea snakes and sea kraits

Several species of true sea snakes and sea kraits are found within the warm waters of Komodo National Park. Both groups have flattened, paddle-like tails used for swimming, and differ from each other as following:

Feature	True sea snakes (Top pic)	Sea kraits (Bottom pic)
Body shape	More laterally flattened	More circular
Belly scales	Very small and reduced in most	More broad like that of land snakes
Reproduction	Give birth to live young in the ocean	Lay eggs on land
Movement on land	Cannot move well on land. Do not come ashore unless washed on to beaches	Can move well on land. Spend day time hiding under logs and rocks on beaches

POTENTIALLY LETHAL



Ru Somaweera

POTENTIALLY LETHAL



Ru Somaweera

Aquatic snakes

Little File Snake *Acrochordus granulatus*

Ular Air Tawar, Ular Karung

Body length ~ 75 cm



Ru Somaweera

Head small with tiny eyes. Nostrils on top of snout ❶. Tail short and laterally flattened. Body scales are wart-like granules with keels ❷. Belly scales minute. Skin appears loose. Either uniform grey or with alternating grey and whitish bands ❸.



Dog-faced Water Snake *Cerberus schneiderii*

Ular Tambak

Body length ~ 70 cm



Ru Somaweera

MILDLY VENOMOUS

Head distinct with bulbous eyes ❶. Tail not flattened. Top of body olive or greyish with irregular dark markings. Dark line along sides of head and neck ❷. Belly blackish with large light spots on either side making a checkered pattern ❸. Lives in mangroves.



Land and tree snakes

Lesser Sundas Cat Snake *Boiga hoeseli*

Ular Kucing Sunda

Body length ~ 150 cm



Slender, long body and very long, prehensile tail. Large head with dark markings on top. Large eyes with vertical pupils ❶. Body and tail light brown, with numerous, dark brown, wavy cross bands often edged with black ❷. Narrow blackish line behind eyes.  

Sunda Rat Snake *Coelognathus subradiatus*

Ular Tikus Sunda

Body length ~ 150 cm



Brown or olive body. Some with 2-4 black stripes running along the top of body ❶, or saddle-like dark cross bars along front half of the body, or a mix of both. Others with no patterning. Dark line behind eyes in some. Juveniles with lighter band across neck.  

Land and tree snakes

Lesser Sundas Bronzeback *Dendrelaphis inornatus*

Ular Tali

Body length ~ 100 cm



Body and tail long and slender. Top of body brownish-green to olive-green, bottom lighter in colour, separated by yellowish line along the sides of body ❶. Black stripe through eyes ❷. Blue skin visible between body scales when disturbed ❸.  

Common Wolf Snake *Lycodon capucinus*

Ular Cecak, Ular Genteng, Ular Rumah

Body length ~ 45 cm



Head pear-shaped and flat. Body dark greyish or dark brownish with lighter reticulated patterns or indistinct crossbars along body. Light colour band across neck ❶. Lips whitish with brown spots ❷. Belly uniform white or cream.  

Land and tree snakes

Mock Viper *Psammodynastes pulverulentus*

Ular Percha, Ular Beludak Palsu

Body length ~ 50 cm



Ru Somaweera

Head flat and triangular ❶. Snout-tip slightly curved up. Body colour varies from yellowish to reddish, to dark brown or black. Irregular, faint marks, usually in the form of dark-edged, light brown ovals, small spots ❷ or bars on body. Belly with brown spots.



Timor Python *Malayopython timoriensis*

Sanca Timor

Body length ~ 200 cm



Ru Somaweera

Large body. Distinct large head with heat-sensitive pits along the lip scales. Body light brown or olive brown with varying levels of darker mottling. Lips and belly yellowish or cream ❶. Yellowish stripe along the bottom of the front body in some ❷.



Land and tree snakes

Southern Indonesian Spitting Cobra *Naja sputatrix*

Ular Sendok, Ular Kobra Penyembur

Body length ~ 110 cm



Ru Somaweera

POTENTIALLY LETHAL

Distinct hood displayed when disturbed ❶. Body colour can be blackish, greyish, brownish, yellowish or orange. Throat patterning faint and not well defined. Hood unpatterned or contains a spectacle-shaped or horseshoe mark.



Siamese Russell's Viper *Daboia siamensis*

Bandotan Puspa, Misa

Body length ~ 70 cm



Ru Somaweera

POTENTIALLY LETHAL

Stout body with a large, triangular head with a 'V' mark on top ❶. Body scales rough. A series of large brown blotches with white and black margins forming a chain-like pattern along the top of body ❷. A line of smaller spots along the body on either side.



Land and tree snakes

Lesser Sundas White-lipped Pitviper *Trimeresurus insularis*

Ular Mati Ekor, Ular Majapahit, Ular Bungka Laut

Body length ~ 70 cm



Ru Somaweera



Ru Somaweera

Head large, triangular, and with a heat-sensitive loreal pit between nostril and eye on either side of snout ❶. Tail short and prehensile, often reddish in colour on top ❷. Body mostly green in colour (various shades, some with darker cross bands), but individuals can be bluish (mostly in Komodo) or yellowish (mostly in Flores). Lips and throat light green, yellowish or whitish ❸. *
*
A

Burrowing snakes

Island Pipe Snake *Cylindrophis opisthorhodus*

Ular Kepala Dua

Body length ~ 25 cm



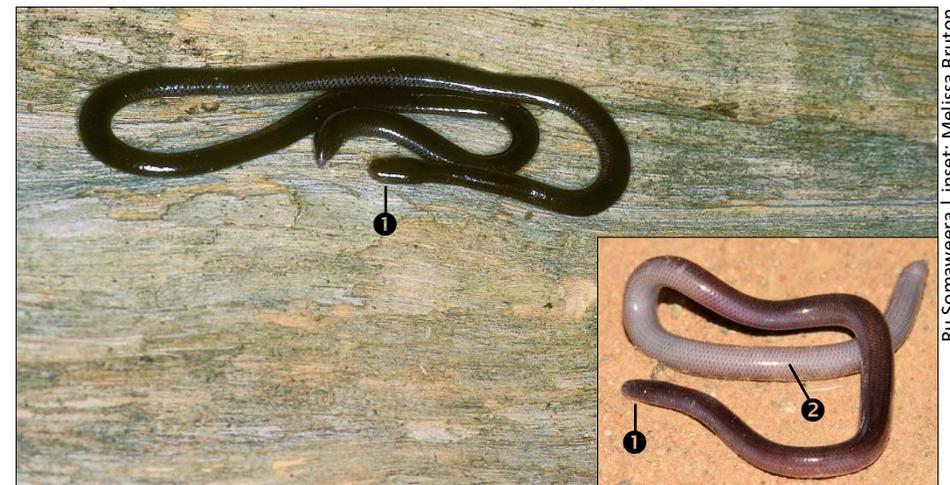
Feri Razali

Head blunt and indistinct from neck ❶. Body iridescent light brown, with very narrow dark brown stripe along back and dark dots arranged in lines on the sides ❷. When disturbed, flattens its body and raise the tail to display the reddish underside ❸. *
*
F

Flowerpot Snake/ Brahminy Blind Snake *Indotyphlops braminus*

Ular Kawat, Ular Buta Brahminy

Body length ~ 12 cm



Ru Somaweera | inset: Melissa Bruton

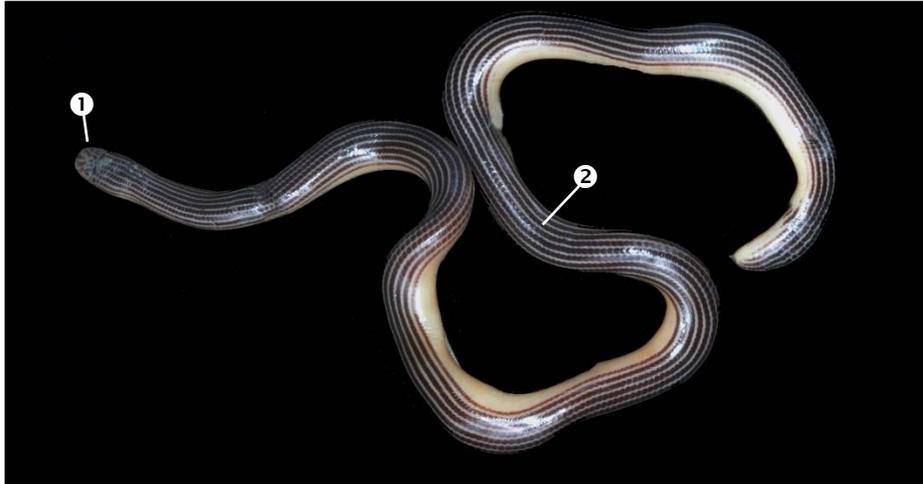
Worm-like, cylindrical body with no distinct head ❶. 20 scale rows around mid body. Head scales with minute tubercles. Scale with nostril is completely divided in half. Body uniform black, dark brown or purplish-brown. Underside paler ❷. Tail tip pointed. *
*
F

Burrowing snakes

Lesser Sundas Blind Snake *Sundatyphlops polygrammicus*

Ular Buta Sunda Kecil

Body length ~ 30 cm



Ru Somaweera

Worm-like, cylindrical body with no distinct head ❶. 22 scale rows around mid body. Scale with nostril is usually incompletely divided. Body dark olive with long alternating dark and light lines along body ❷. Few dark spots on belly. Lips whitish. Tail tip pointed. 

Schmutz's Blind Snake *Indotyphlops schmutzi*

Ular Buta Schmutz

Body length ~ 12 cm



Lindley McKay

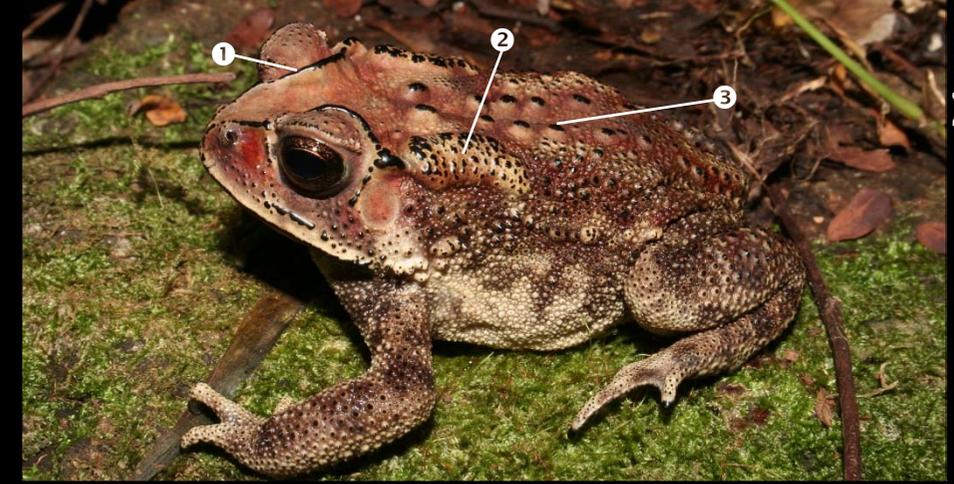
Extremely slender, worm-like, cylindrical body with no distinct head ❶. 18-20 scale rows around mid body. Scale with nostril is completely divided. Body pinkish-brown ❷, slightly lighter underneath. Snout and underside of tail and tail tip whitish. Tail tip pointed. 

Possible harmful invasives

Asian Spined Toad *Duttaphrynus melanostictus*

Kodok Buduk, Kodok Puru, Bangkong Kolong

Body length ~ 8 cm



Ru Somaweera



Ru Somaweera

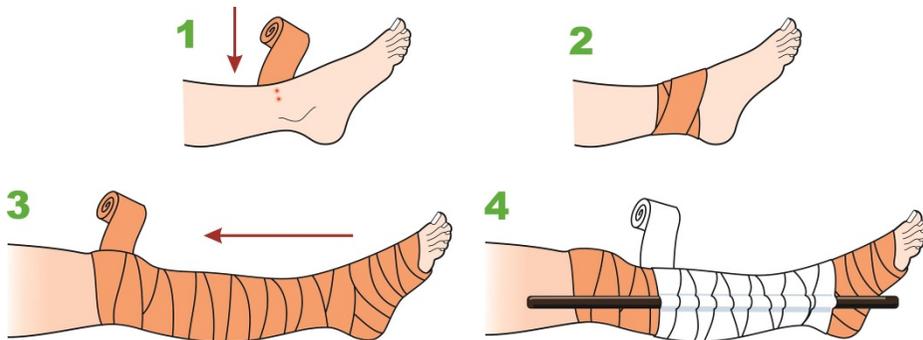
Stocky body with males much smaller than females. Head with elevated bony ridges on snout and above eyelids ❶. Large granular 'parotoid glands' behind the eyes ❷. Top of body with numerous large and small warts, usually tipped with dark brown spines ❸.  Body colour brownish and mottled.

WARNING: Recently, the toxic Asian Spined Toad has invaded several Indonesian islands close to the Komodo National Park. Toads create toxic substances in their skin, and studies show that Komodo Dragons may suffer death if they feed on these toxic amphibians. If you see any toads within the park, please immediately report it to the park rangers.

Treatment for snake bites

DOs for a venomous snake bite

- Keep the affected person calm, and assure them that bites can be effectively treated. Venom spreads faster if the heart beats faster and a victim is moved.
- Remove rings, bracelets, watches and so on, because if swelling takes place it will be painful to remove these.
- Apply a broad elastic pressure bandage, first wrapping over the bite wound, then the below the limb, then working back up over the bite to cover the whole limb (for example from fingertips to armpits, even if the bite is on the palm, or from the toe-tips to the groin even if the bite is on the knee). The pressure should be kept moderate, as if wrapping a sprained ankle, and should not cut off the blood flow. Attach a rigid object such as a stick or folded book as a splint, and further bandage it to the wrapped limb to immobilize it (see illustration below).
- If the bite is on the trunk, neck, face or head, apply and maintain firm pressure on the bite site (for example by keeping the bite site pressed by the hand). It is difficult to apply the pressure-immobilization method to these parts effectively.
- Keep the affected area below the heart level to reduce the flow of venom towards the heart, then onto other parts of the body.
- If possible, monitor the person's important signs – temperature, pulse, rate of breathing and so on. If there are signs of shock, lay the person flat, raise and cover the person with a blanket.
- Give only paracetamol type painkillers (not aspirins), if there is pain or fever.
- Transport the person to the nearest hospital as soon as possible, keeping them on a stretcher or chair.



30

DON'Ts in a venomous snake bite

- DO NOT wait to see if the bite causes any problems – treat it straight away.
- DO NOT allow the person to panic and run around – doing so increases the heart rate and in turn increases the spread of the venom. Always carry the patient.
- DO NOT attempt to cut out or suck out the venom from the bite wound.
- DO NOT give aspirin (paracetamol is fine if there is pain or a fever), fruit juices (or anything with high levels of potassium like coconut water) or alcohol. Some of these increase the absorption of venom and may also harm the heart and increase kidney damage.
- DO NOT put tourniquets or ties above the bite wound. These will cut the blood supply for the whole limb, causing severe tissue damage.
- DO NOT apply cold compresses or ice to a snake bite, and DO NOT apply local remedies. Most of these would cause more harm than good.
- DO NOT waste time (or your life) searching for or trying to kill the snake. Modern medicine has other ways to identify the snake responsible for the bite at the hospital. Patients are treated according to their symptoms, not the species of snake that bit them.

DOs and DON'Ts if Spitting Cobra venom gets in the eyes

- DO wash the eyes with plenty of water immediately by either dipping the face in a large bucket of water, or holding it under a running tap. Keep the eyes open when washing and blink. Continue for 15 minutes plus.
- DO NOT put any traditional remedies (such as tamarind leaf juice) on the eye. However, other benign fluids such as milk can be used.
- DO NOT rub or blot the eye to try to remove the venom.

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