

Venomous SNAKES of Hong Kong

A practical ID and fact sheet.



CAVEAT:- We cannot be responsible for readers' inaccuracy of identifying snakes based on this guide. There are many variables that go into identifying a snake properly, and even experts can make mistakes. Do not use this guide to help you decide whether it is safe to touch or pick up a snake. Leave snakes alone, and stay outside of striking or spitting distance (3-5meters).

For a comprehensive guide of all Hong Kong snakes go to https://www.flickr.com/groups/ark_hongkong_reptiles/ and scroll down and click the links for more images.

Hong Kong has a recorded 52 species of snake. Six land species can inflict life endangering bites (the Banded Krait, the Many Banded Krait, Chinese Cobra, King Cobra, and Coral Snake). These "elapid" snake bites cause nerve related, necrosis and tissue damage. The Red-necked Keelback is a rear fanged colubrid. The two other venomous snakes - both pit vipers, the Bamboo and Mountain Pit Viper - have bites that can cause extreme pain and swelling (and still pose a fatality threat to children and dogs). Six other snakes have enlarged venom fangs at the back of the jaw (opistholyphous), but are not known to produce much reaction in humans. The Common Rat Snake and the Burmese Python are not venomous, but do get very large, and their teeth can cause nasty cuts and gashes.

The other lethal snakes not listed here, as they are so uncommon, are The Tonkin and Pointed Scale Pit Vipers, and any of the sea snakes.

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Do sign up for future twice monthly wildlife information and photos. Simply e-mail robertianferguson@yahoo.com to be added (no-spam), and bookmark the blog at www.robswildlife.info

For Earth Day. 22 April 2015



There is still a way to go for wildlife education and promotion in Hong Kong, although there is a growing movement to protect the beauty of our natural environment and the animals that we live with. We encourage everyone to be part of this ecological movement and celebrate Hong Kong's abundant natural world. To help with this we are now working on a school and adult learning experience programme, including tours. There is also a seasonal wildlife blog, and in progress is a series of common species booklet guides (Eye-Spy HK wildlife), including photographic tips, postcards, calendar and a book. I will be sending out twice monthly topical wildlife PDFs starting in May/June, so please send me your contact details if you would like to be added to the (no-spam) list. Bookmark and check the blog for updates.

Hong Kong was once home to exotic mammals, including: tigers, leopards, pangolin, and other large and wonderful creatures, and it provides the base for our hikes and our eternal hunt to find the best of Hong Kong's wildlife. Our family and friends have continually explored the subtropical forest, paths and plains, finding numerous insects, reptiles, amphibians, as well as porcupines, masked palm civets, wild boar, ferret badgers, leopard cats and mouse deer. We've seen blue-tailed skinks basking in the sun, tiger beetles scuttling on the path in front of us, watched cobras hunt, hundreds of

butterflies take flight, huge pythons curled in water catchments, civet cats crawl along branches, and porcupines rustle in the night. And of course all those wonderful birds...

Please see www.robswildlife.info for more images, and blogs.



We chose venomous snakes for this first blog as they are out and about now in spring/summer, along with other poikilothermic, ectothermic tetrapods, or cold blooded creatures that love the sun. This is not an exhaustive science based field guide (there are no source references). We are keen and enthusiastic naturalists, focused on Hong Kong wildlife with my camera and walks.

Robert and Sophie Ferguson



SNAKE ID

There is NO easy way to tell venomous from non-venomous snakes, unless you actually know the snakes...and even then ID is not always clear in the heat of the moment. (Can you really tell that the third supralabial scale is NOT touching the eye and nasal scale? be honest). So basic principles apply...leave them alone, and they WILL leave you alone. You will not be attacked by a snake - why would it? it cannot eat you! In Hong Kong all snakebites on humans are defensive.

If you really want to learn more about snakes, then please sign up for a night-time herp tour.

For a full list of all snakes in Hong Kong, with English, Chinese and latin names, please go to: https://www.flickr.com/groups/ark_hongkong_reptiles/ and scroll down; and click the name to find more images. Please add your own images.

Follow the questions **in red** to snakes to help with an ID.



1. Is it (bright) green?

Often confused and mistaken for each other, it's either the a) **Venomous Pit Viper**, or the harmless b) **Greater Green**.

a) the **Bamboo Pit Viper** – *Trimeresurus albolabris*.

Venomous: Extremely painful bite. Responsible for 95% of all bites in Hong Kong (about 30-50 a year), but no recorded fatalities. Very common. Primarily nocturnal. One of the few snakes that will not move away immediately.

Key differentiating features:

Triangular-shaped head with many small scales; thin obvious neck; orange-yellow or red eyes, with slit (not round) pupil; reddish-brown streaked tail. There is also a deep nasal pit.



The Pit Vipers end up biting people because they like to ambush their prey, so they do not normally move when they hear you, and rely on their camouflage to remain undisturbed; plus they can "see" and can strike at night using their heat sensing pit organs

The Pit Vipers are nocturnal, so if you see a green snake during the day it is more than likely the harmless and inoffensive

i.ii **Greater Green Snake.** *Cyclophiops major*.

Non-Venomous. Key differentiating features: Elongated head with large scales and no neck: Grey, golden or light brownish eyes, with large black pupil; very likely to move rapidly away from any encounter.



2. Does it have a red neck?

Then it is the Red-Necked Keelback. *Rhabdophis subminiatus helleri*

Olive green with a red patch just behind the head, with yellow and black flecks throughout the body. red marking can be quite faded in older adults.

Venomous and poisonous: Not aggressive, most human bites involve a nip with the front teeth but bites inflicted with the rear fangs – though rare - can be lethal. Often seen hunting frogs during the day.

Comments: Juveniles are particularly attractive. Adults can secrete a toxic white substance from a groove in its neck making it unique as a venomous and poisonous snake.



3. Does it have black and white or black and yellow bands/stripes?

Many snakes in HK appear to have bands, but the only strongly banded venomous ones are the deadly Kraits and the Coral Snake.

Many Banded Krait *Bungarus multicinctus multicinctus*

Venomous: Extremely toxic. The venom can lead to respiratory paralysis and heart failure. Bites readily if picked up, and has a flexible neck that can twist and bite.

Comments: there is also a **Banded Krait** *Bungarus fasciatus* which are rare due to loss of habitat. These large alternating black and yellow banded snakes, whilst not aggressive, can also be fatal.



The Coral Snake *Calliophis macclellandi*

If it has thin black stripes on a reddish brown body, with a white band behind the eyes on the head. Highly venomous, but rare, and not aggressive.

The many banded Krait with 30+ bands can sometimes be confused with the harmless **Wolf Snake**, below, which has many fewer rings.



4. Does it have a hood?

Then it is a cobra. Either the common Chinese Cobra, or the rare King Cobra.

Chinese Cobra *Naja atra*

Appearance: A heavy bodied snake, 90-130cm, mainly black, but sometimes/rarely grey or gold in colour. A short, wide hood, usually with white eye spots, or "spectacles". Active day and night. **Venomous:** Highly dangerous; bites may cause tissue necrosis and death.

Comments: Will usually try to escape, but if confronted will raise its forebody, spread its hood, hiss, and strike readily. Some snakes have been known to spit venom.

A Juvenile on the right, small, but just as deadly.

Here you can see the "glasses" patterning of the hood; and a Chinese cobra hunting, without the hood raised. Note the large scales on top of its head.



The rare **King Cobra**, *Ophiophagus hannah*, is banded (juveniles strongly so, with yellow bands on black), and unlike the Chinese cobra it is without eye-shaped markings on the hood. *Photo credit: Jean-Jacques Ferguson*



Mainly out during the day. Extremely dangerous and fatalities have been recorded in Hong Kong. Can be black, grey, brown or even golden! with or without bands or spots.

Cobras are often confused with the Common Rat Snake *Ptyas mucosus* and the Indo-chinese Rat Snake *Ptyas korros*. Neither of these snakes have hoods, which is really the only easy way to tell. The undersides of these snakes is slightly different, but you don't see those much. The supralabial scales (ie the scales just along and under the eyes) have a black edge on the Common Rat snake, and that "band" behind the eye often helps with an ID. The Cobra also has large occipital scales - which means large scales on top of its head.



To the left the distinctive bars below the eye of the rat snake. Below, an Indochinese Ratsnake, often found in water, with a juvenile showing bands, and an adult with its elongated body.



5. Is it mottled/spotted?

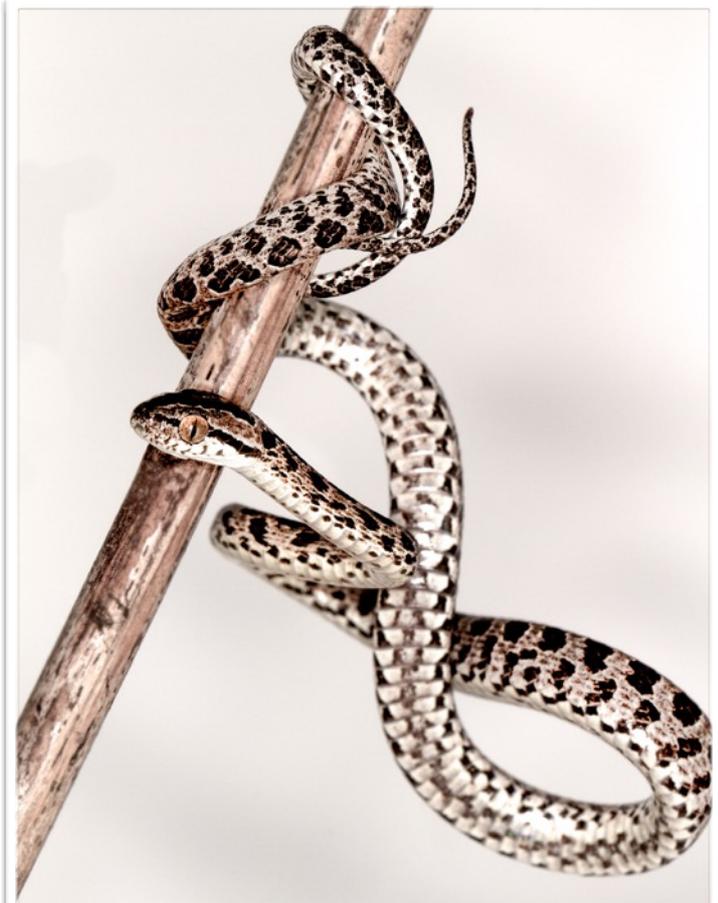
With rows of alternating dark spots.

Then it is the **Large Spotted Cat Snake** *Boiga multomaculata*

Very long and slender, with a distinct triangular head.

Aboreal and often found in trees and bushes.

Mildly venomous, and not dangerous, but bites readily.



6. Is it in the water?

Not the only snakes you will see in the water, all snakes are good swimmers, but these snakes rarely leave it, although sometimes coming onto land on rainy nights to hunt for frogs.

The Plumbeous water snake

Enhydris plumbea below is very small and only mildly venomous.



The Chinese water snake

Enhydris chinensis (which looks very similar to this Mountain Water Snake below; except it has a more distinct pale orange stripe present on lower flanks, and a and a zigzag mark on head to neck). Only mildly venomous.



7. What other Venomous snake could it be?

The mock viper -

Psammodynastes pulverulentus. Mildly venomous with rear fangs, with no documented record of local snakebite. Often out during the day. I have found these in many different colours, dark brown, grey, red/orange, almost white on occasion. They look aggressive, but also have a defence of playing dead very realistically, with tongue out and body contorted. Made us jump when we picked one up, so be careful.



8. What other venomous snakes are not covered here:

Sea Snakes - highly venomous, but very rare.

Mangrove Water Snake. Rare and only mildly venomous.

The Tonkin, the Point Scaled, and the Mountain Pit Vipers. Highly venomous, rare, and no recorded bites.

9. There are many, many other NON-VENOMOUS SNAKES.

For a comprehensive list with English, Chinese and latin names, please go to: https://www.flickr.com/groups/ark_hongkong_reptiles/ and scroll down; and click the name to find more images. Please add your own images.

Also, make sure it is not a clever Swallowtail snake-mimic caterpillar, which also shoots out a bright red forked "tongue" when alarmed.



10. Other dangerous snakes:

Burmese Python - *Python bivittatus*(China), Mainly nocturnal.



Diet: Warm blooded mammals up the size of a large dog.

Not Venomous: A potential danger is present due to its size.

Recorded attacks appear to be limited to animals.



WHAT TO DO IF YOU ARE BITTEN

1. **Move away from the snake and call emergency Services and get to a hospital.** Seek medical care without delay. Even a bite from a non-venomous snake may require a tetanus shot or booster.
2. **Take note of the snake's appearance.** This is important, as treatment varies. Don't try and catch or kill the snake, but take a picture if you can, or try and remember its shape and colour.
3. **Be as still as possible.** If you're waiting for help to arrive, lie down on your back and take deep, steady breaths.
4. **Clean the wound with water.** Be gentle.
5. **Remove clothing, jewellery, or constricting items.**
6. **To wrap or not to wrap?** Never apply a tourniquet. **If you don't know your snakes, it is better to immediately apply a pressure bandage**/piece of cloth around the bite as well as above and below the bite, as recommended by the British Army. Elastic wraps that you use for ankle sprains work well. Wrap it snugly, but you should still be able to put a finger under the bandage. However, if the species is not fatal (Bamboo Viper for example, or any species with hemotoxic venom), the pressure bandage will result in much worse tissue damage. But, as my friend says, "I'd personally rather be alive with a bad limb than dead!"
7. **No food or drink** – especially not alcohol.
8. **No stimulants or pain medication.**
9. **Receive antivenom.** Experienced doctors use with great caution as it carries its own risks.
Caution... in remote areas hospitals may not have anti-venom, and some physicians lack experience. For a realistic account of snakebite in rural china, then read this: www.fieldherpforum.com/forum/viewtopic.php?f=2&t=13176
10. **Wait it out.** If you are far from help, then simply get as comfortable as possible and wait for the venom to leave your system. Almost half of all bites are "dry bites", which means no venom was injected and in most cases, snakes don't inject enough venom for the bite to be fatal.
11. **What to do if a large python grabs you/your dog?** If a large python is wrapped around your dog, then a professional would try and unpeel it from its tail, keeping it taught; a dog owner in Hong Kong rescued his dog this way, dragging the python along, it uncoiled – this was after he had tried beating it. You can also pinch or "snap" the end of its sensitive tail hard. Remember, the python is a protected species, so if you hurt or kill it, you could face a fine, or worse.



Don't try to suck the venom out.
Don't cut the skin around the wound.
Don't apply a tourniquet.
Don't apply ice

More information

If you have a snake near your house then it is a good idea to have it removed...for both of you....options include calling the police on 999 for emergencies, (who contact a paid snake collector) who then takes it for release to Kadoorie Farm. Sometimes this results in the snake being killed. However, a BIG "well done" to the government and Kadoorie Farm for putting in place a police coordinated rescue service.

Or call one of the following friendly guys for no charge:-

WILLIAM: If anyone reading does need one removing from their place, I'm happy to do it. Please feel free to call me 94708442.

Another snake contact is Dave Willot - a dedicated snake saver, who would rather be phoned and come around to pick up the snake than have one of you kill it. You can phone on his freely available number which is (already published in books and therefore in the public domain) 23282526.

Thank you to:

Will Sargent and Dan Rosenberg; for being the bravest, and greatest, "snakers" I could ever hope to meet. Friends that got me into herping, and that have both taught me so much.

Kevin Caldwell for invaluable help in editing text and important information, Abdel, Steve, Tommy, Kevin M; All part of the greatest herping group on earth.

Anne Devan Song, who I met tracking vipers, and is making a great career in educating us about wildlife.

Kadoorie Farm, and all its staff, for inspiration all the good work they do.

Other resources:

Will & Steve have set up a Facebook page  Hong Kong Snakes where you can post images and ask questions.

University of Hong Kong: reptile database: <http://www.biosch.hku.hk/ecology/hkreptiles/lizard/>

THE book to get: Karsen, S. J., Michael, W. N. Lau, A. Bogadek. 1998. Hong Kong Amphibians and Reptiles.

PHOTOGRAPHY:- None of these images have been photoshopped. An image processing software is used called Lightroom to organise and convert the files from RAW, and to crop and do basic editing. The images here have been reduced in quality for better/quicker viewing on-screen. Please contact me for original copies, prints, posters and postcards.

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www.robswildlife.info

www.flickr.com/groups/ark_hongkong_reptiles/



Are YOU ready to herp?

For George King and his friends out running with the Hash in Hong Kong it was something never to be forgotten, as he tripped, fell, and landed right on top of a cobra. Fellow runners screamed in alarm, but he was lucky that day, as amid the all the shrieking the snake slithered away and he lived to tell the tale....his Hash name is now 'King Cobra'.

There are many similar scary anecdotes, and it's true, snakes kill more people worldwide than any animal other than mosquitoes (725,000), or man himself (475,000), with an estimated 40,000 deaths a year, and many more suffer permanent tissue damage. There are more than 40 species of venomous snake across Asia but almost all fatalities in Asia are down to cobras, kraits and vipers, and a very high percentage of those bites and fatalities occur in South and Southeast Asia; India alone reports 80,000 venomous bites and 11,000 fatalities a year. With statistics like these and reports like "16-foot python crushed my dog to death in terrifying ordeal in Hong Kong park", we have to wonder if we are safe.

Let me reassure you, less than 0.01% of all Hospital Emergency Admissions are from snake bites, and you are more likely to get hit by lightning than die from a snakebite, with very few severe bites at all. Deaths in Hong Kong are now virtually unknown, and limited to those handling snakes, and the last recorded fatality was in 1988 from an imported "pet". In Singapore studies showed only 10 cases a year per hospital, very few severe bites, and no fatalities for decades. In China and South Asia the overwhelming number of snakebites are tragically on poor farmers out in rice fields or plantations with little (foot, leg, hand, arm) protection and poor access to medical care. In Asia snakebites on humans are defensive, and just as you would not walk around in a field during a lightning storm, there are some basic things you can do to help your odds.

1. **Do your research, know where snakes are most likely to be found, and be prepared!** If you run, hike or dog walk in the jungles of Asia, snakes are part of the natural environment. Would you let your children or dogs run across the African plains - or the city streets - unattended or unleashed? If you hear of snake attacks in a certain area, then avoid it, or take sensible precautions. Keep your dog(s) on a leash and your children close.



2. **Snakes bite when they feel threatened or startled, so give them warning.** Since they cannot see well, they rely on vibrations, so create noise with heavy footsteps, tap ahead of you with a walking stick, or beat the grass, especially before entering an area where you can't see your feet.

3. **Wear appropriate clothing** - Legs and feet are very common bite sites, wearing boots and long pants goes a very long way to help protect you.

4. **Never provoke, touch, or try and catch a snake.** That is when many serious snake bites occur - or when trying to take pictures, getting too close with a camera phone! Some snakes play dead, and even a dead or decapitated snake can bite and release venom, for 90 minutes or more after it dies. If you see a snake, leave it alone! Simply move away slowly. If you are in danger, or it's in your home, call the local emergency services.

Do not randomly kill snakes - it is immoral as well as illegal.

5. **Always carry a phone**, to call for help if you are bitten.
6. If you hike often, **carry a first aid kit, with pressure bandages.** Snake bite kits are essentially useless.
7. **There is no simple rule to determine whether a snake is venomous.**
8. **Being drunk does not guarantee immunity!** In the United States more than 40% of people bitten are attempting to capture wild snakes or handling their dangerous pets, and 40% of that number had a blood alcohol level of 0.1% or more.
9. An estimated 95 percent of recorded venomous snakebites in Hong Kong were from the bamboo viper, which fortunately is not deadly. But in Thailand The Malayan Pit Viper, and in South Asia the Russell's viper are the snakes most likely to bite you, and their bites can be fatal. Watch where you put your feet and hands, and **remember, boots and long trousers go a long way in preventing serious wounds.**
10. **What to do if you get bitten? Go to hospital/see relevant page.**

