

King cobra (*Ophiophagus hannah*)

Family Elapidae, Order Squamata

Described by Thodore Edward Cantor (Danish doctor) in 1836, gave it the name *Hamadryas hannah*. The king cobra is the world's longest venomous snake, with a recorded maximum total length of 5.85 m. "The king cobra has a fearsome reputation: it is said to 'wantonly attack' and 'even pursue man'. When annoyed, it spreads a narrow hood and growls loudly, but its legendary aggressiveness seems exaggerated. Tweedie (1983: 117) felt that 'this notion is based on the general tendency to dramatise all attributes of snakes with little regard for the truth about them. A moment's reflection shows that this must be so, for the species is not uncommon, even in populated areas, and consciously or unconsciously, people must encounter king cobras quite frequently. If the snake were really habitually aggressive records of its bite would be frequent; as it is they are extremely rare.'"

This snake is often featured in zoos and private herpetological collections. It is important in some cultures, where they are worshipped by individuals in various parts of Asia. For example, in Hindu mythology, they are considered descendents of Nagas. In Ban Khok Sa-nga, Thailand (King Cobra Village), snake performances are still held, and some even own King Cobras. In some areas, this species, along with other snakes, are hunted, farmed and traded for food, leather and medicinal purposes (believed to offer health benefits such as fatigue relief and boosting virility).

The snake is also medically important due to their venomous nature. They are classified as a venomous snake of secondary medical importance. There is only one species-specific king cobra antivenom available worldwide currently, which is produced in Thailand. This makes use of venom from the snake of Thai origin.

Description: "A distinctive snake. The adult is brown or olive above with scales dark-edged especially on tail and posterior body with traces of whitish crossbars. The throat is orange-yellow with irregular blackish markings, and the belly greyish-brown. The young, at least up to about 60 cm TL (total length), is dark-brown or black above with many white or yellow crossbars that are narrow and chevron-shaped with forward-pointing apices. The head is black above with four white cross-bars. The head and body are white below, with the ventrals and subcaudals bordered with black. The dorsal scales are in 15 rows. There are seven upper labial scales, with the third and fourth upper labials in contact with the eye, and the third upper labial touching the posterior nasal. A pair of large and diagnostic occipital shields are found behind the parietals, with the occipital shields in contact with each other at the mid-line. The underside has 215–264 ventral scales, with the anal shield entire. There are 80–125 subcaudal scales, with the anterior subcaudals single and posterior subcaudals paired. In the field, the king cobra is easily confused with the keeled rat snake (*Ptyas carinata*), but its larger head, smaller eyes, its pair of large occipital shields, and, when harassed, its habit of rearing up the anterior one-third of the body with neck flattened dorso-ventrally, are unmistakable."

Large individuals are typically between 3 to 4.5 m long. They also have large venom glands and very potent neurotoxin. One bite can cause death within 30 minutes, largely due to respiratory

arrest and cardiac failure. Even elephants have been known to die soon after being bitten by one.

Distribution: Found throughout South and Southeast Asia. There have been records from Pakistan, Bhutan, Nepal, India, Bangladesh, Myanmar, southern China, Vietnam, Cambodia, Laos, Thailand, Peninsular Malaysia, Singapore, Borneo, Sumatra, Java, Bali, Sulawesi, and the Philippines. They are found in forests and scrubland.

The species has been recorded in Singapore since 1847, with around 39 records. In Singapore, the king cobra can be found at the Central Catchment Nature Reserve, Upper Thomson Road, MacRitchie, Singapore Zoo (end of Mandai Lake Road), Kranji, Sungei Buloh Wetland Reserve, Western Catchment Area, Sentosa, and Pulau Tekong.

Diet: King cobras are terrestrial and diurnal. They feed on other animals, mostly other snakes (mainly pythons and those in the genus *Pythas*) and monitor lizards. They may even feed on snakes from their own species. The fact that they feed on other snakes gave rise to their generic name *Ophiophagus*, which means 'snake eating'. They play important roles for top-down trophic structuring.

Breeding/reproduction: Female constructs a nest by gathering a large mound of dead vegetation and soil with her body and tail. She lays a clutch of eggs, ranging between 20 to 43 eggs, coiling herself within the nest above or near the eggs throughout the incubation period, which lasts for 63 days. This may be for thermal regulation or for guarding of the eggs. The male may remain close by.

Threats/Conservation: The king cobra is listed as Vulnerable (VU) on the IUCN Red List. In Singapore, it is considered to be Vulnerable (VU) in the Singapore Red Data Book 3.

Threats they face include habitat loss and degradation, climate change. Loss of habitat can result in an increase in human-snake interactions. Human-wildlife conflict involving king cobras may contribute to their demise, due to persecution by people. They also face the threat of illegal trafficking, where their skin can be used to make products such as belts and wallets. Other parts of the snake can be collected for food. Additionally, there have been cases of roadkill.

There are strict policies on illegal collection and killing of king cobras. Habitat protection could also help with their conservation.

Specimen on display:

This king cobra was found beaten to death in 2002 by Alvin Seah, as evidenced by the dent in its head. This specimen was collected from the Singapore Island Country Club and was donated to the Raffles Museum of Biodiversity Research. The individual is a male, measuring a total length of 4.2 m. Both pairs of hemipenes, which are normally present within the body of the male, have been fully everted by T. M. Leong.