# Dendroaspis jamesoni



### Scientific Classification

Kingdom: Anamalia Phylum: Cordata Class: Reptilia Order: Squamata Suborder: Serpentes Family Elapidae Genus Dendroaspis **Species** D.Jamesoni

### Binomial name

### Dendroaspis jamesoni (Traill, 1843)<sup>(1)</sup>



### **Synonyms**

- Elaps jamesoni Traill, 1843
- Dendraspis jamesoni
  Günther, 1858
- Dendroaspis jamesoni
  Schmidt, 1923
- Cyclorinae

**Jameson's mamba** (*Dendroaspis jamesoni*) is a <u>species</u> of quick, highly <u>arboreal</u> and highly <u>venomous snake</u> of the <u>family Elapidae</u>. The species is <u>endemic</u> to <u>Africa</u>.

## Taxonomy and etymology[edit]

Jameson's mamba was first described in 1843 by Thomas Traill, a Scottish physician, doctor, zoologist and scholar of medical jurisprudence. In 1936, in addition to the nominotypical subspecies D. jamesoni jamesoni, Arthur Loveridge described a new subspecies D. jamesoni kaimosae; the latter is commonly referred to as the eastern Jameson's mamba or the black-tailed Jameson's mamba.

The generic name, Dendroaspis, derives from Ancient Greek dendro (δένδρο), meaning "tree",<sup>[4]</sup> and aspis (ασπίς), which is understood to mean "shield",<sup>[5]</sup> but also denotes "cobra" or simply "snake", in particular "snake with hood (shield)". Via Latin aspis, it is the source of the English word "asp". In ancient texts, aspis or asp often referred to the Egyptian cobra (Naja haje), in reference to its shield-like hood.<sup>[6]</sup> Thus, Dendroaspis literally means "tree asp", reflecting the arboreal nature of most of the species within the genus. The genus was first described by the

German <u>ornithologist</u> and <u>herpetologist Hermann Schlegel</u> in 1848. Slowinski et al. (1997) pointed out that the relationships of the African genus *Dendroaspis* are problematical. However, evidence suggests that *Dendroaspis*, <u>Ophiophagus</u>, <u>Bungarus</u>, and <u>Hemibungarus</u> form a solid non-<u>coral snake</u> Afro-Asiatic clade.

The origins of the <u>specific name</u>, *jamesoni*, are not fully understood, but it is possible that Traill named the species in honour of <u>Robert Jameson</u> (1774–1854), who was a contemporary of Traill's and was the <u>Regius Professor</u> of Natural History at <u>Edinburgh University</u> where Traill studied. <sup>[10]</sup> Also, Traill was a member of the <u>Wernerian Natural History Society</u>, which was founded by Jameson. <sup>[11]</sup> The subspecies *D. jamesoni kaimosae* takes its <u>subspecific name</u> from the <u>type locality</u>, the Kaimosi Forest in western Kenya. <sup>[2]</sup>

## Description



Jameson's mamba is a large, slender <u>elapid</u> snake with smooth scales and a long tapering tail which typically accounts for 20 to 25% of its total length. [12] The average total length (including tail) of an adult snake is approximately 1.5 meters (4.9 ft) to 2.2 meters (7.2 ft). It may grow as large as 2.64 meters (8 ft 8 in). [12] Adults tend to be dull green across the back, blending to pale green towards the underbelly with scales generally edged

with black.[13] The ventral side, neck and throat are typically cream or yellowish in colour.[12] Jameson's mamba has a narrow and elongated head containing a small eye and round pupil.[12] Like the <u>western green mamba</u>, the neck may be flattened. The subspecies *D. jamesoni kaimosae*, which is typically found in the eastern part of the species' range, features a black tail, while central and western examples typically have a pale green or yellow tail.[12] No significant sexual dimorphism has been observed between male and female snakes.[14]

### Scalation

The head, body and tail scalation of the Jameson's mamba: [12][15]

Dorsal scale rows at midbody: 15-17 ● Upper labial touching eye: 4th

Ventrals: 202–222
 Subcaudals: 94–106
 Anal plate: Divided
 Preoculars: 3
 Postoculars: 3
 Subocular: 1

• Upper labials: 8

# Geographic range and habitat

Jameson's mamba occurs mostly in <u>Central Africa</u> and <u>West Africa</u>, and in some parts of <u>East Africa</u>.[2] In Central Africa it can be found from <u>Angola</u> northwards to the <u>Democratic Republic of Congo</u>, <u>Republic of Congo</u>, <u>Central African Republic</u>, and as far north as the <u>Imatong Mountains</u> of <u>South Sudan</u>.[12] In West Africa it ranges from <u>Ghana</u> eastwards to <u>Togo</u>, <u>Nigeria</u>, <u>Cameroon</u>, <u>Equatorial Guinea</u> and <u>Gabon</u>.[2] In East Africa it can be found in <u>Uganda</u>, <u>Kenya</u>, <u>Rwanda</u>, <u>Burundi</u> and <u>Tanzania</u>.[12] The subspecies *D. jamesoni kaimosae* is <u>endemic</u> to East Africa and chiefly found in western Kenya, where its <u>type locality</u> is located, as well as in Uganda, Rwanda and adjacent Democratic Republic of Congo.[2] It is a relatively common and widespread snake, particularly across its western range.[14]

Found in primary and secondary <u>rainforests</u>, <u>woodland</u>, forest-<u>savanna</u> and deforested areas at elevations up to 2,200 metres (7,200 ft) high,[12] Jameson's mamba is an adaptable species, found in areas where there has been extensive deforestation and human development. It is often found around buildings, town parks, farmlands and plantations.[12] Jameson's mamba is a highly <u>arboreal</u> snake, more so than its close relatives the <u>eastern</u> <u>green mamba</u> western green mamba, and significantly more so than the <u>black mamba</u>.[14]

## Behaviour and ecology

Jameson's mamba is a highly agile and almost exclusively arboreal snake. Like other <u>mambas</u> it is capable of flattening its neck in mimicry of a <u>cobra</u> when it feels threatened, and its body shape and length give an ability to strike at significant range. It is not typically aggressive in nature and will almost always attempt to escape. [12][14]

### Diet and predators

Jameson's mamba will chase prey, similar to other mamba species. When prey is caught, Jameson's mamba will strike until the prey dies. [13] Since this species is arboreal, <u>birds</u> make up a large portion of its diet. Small mammals such as mice, rats, and bats and small lizards are also preyed upon. [16]

The main predators of this species are various <u>birds of prey</u>, including the <u>martial eagle</u>, <u>bateleur</u>, and the <u>Congo serpent eagle</u>. Other predators may include the <u>honey badger</u>, other snakes, and species of mongoose may also occasionally prey on the Jameson's mamba. [17]

### Venom

Like other mambas, the venom of the Jameson's mamba is a highly <u>neurotoxic</u> venom. Its other components include <u>cardiotoxins,[18]</u> and fasciculins.[<u>13]</u> Its venom may also have <u>hemotoxic</u> and <u>myotoxic</u> components to it.[<u>19]</u> The average venom yield per bite for this species is 80 mg, but some specimens may yield as much as 120 mg in a single bite. The <u>SC LD50</u> for this species according to Brown (1973) is 1.0 mg/kg, while the <u>IV LD50</u> is 0.8 mg/kg.[<u>20]</u> Untreated envenomation may cause death within 30 to 120 minutes.[<u>21]</u>However, the average death time for untreated bite victims is usually two to three hours post-envenomation, but it may take up to four to six hours or longer.[<u>16]</u> The mortality rate of untreated bites is not exactly known, but it's said to be very high.[<u>13]</u>