With the weather warming and the mating season beginning, snakes will be more active, so be on the lookout. These green-coloured species are particularly well camouflaged.

By Robin and Bryan Maritz

**BIOLOGY**

**GREEN ALERT**

 Barely discernible among the vegetation, using their green colouration to blend in, are seven of South Africa’s snake species. When you spot a green snake in the tree canopy or a leafy bush, the species may appear similar at first glance; identifying them from a fleeting glimpse or a low-resolution photograph is often impossible. Instead, note where the snake occurred. While some of these diurnal, green-coloured snakes are almost entirely arboreal, a few of the species find life on the ground to be more suitable.

**Life in the canopy**

The most arboreal and graceful of the green snakes is the eastern green mamba *Dendroaspis angusticeps*. Although green mambas occur widely across the continent, in South Africa they are limited to coastal lowland forests in KwaZulu-Natal. Found predominately in the tree canopy, which they blend into perfectly, they venture onto ground in search of a ground-dwelling bird or mammal on rare occasions. Unlike snakes which use constriction to immobilise prey, the highly venomous green mamba injects a complex mixture of proteins that interfere with the functioning of nerves and muscles, including the heart.

**TIP** Scan the sunny parts of vegetation during mid-morning for your best chance to glimpse a green-coloured snake.

Never handle a snake that you cannot identify.

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*Eastern green mamba Dendroaspis angusticeps*
As indicated by their rather large eyes, boomslang have acute vision and are very alert snakes.

Life at the interface

Boo"mslang, meaning ‘tree snake’ in Afrikaans, are known for their climbing abilities and are frequently encountered in trees and shrubs, sometimes even in thatched roofs. We spend a lot of time looking into camel thorn and blackthorn trees for boomslang as part of our research in the Kalahari, and can confirm that their green colouration is highly effective camouflage.

Only a subset of male boomslang are completely green. Males in the Western and Eastern Cape are black, green and yellow. Females throughout the range are typically brown in colour. Adding to the complexity, juveniles (<80 cm) have a completely different appearance, with a dark-coloured back, light underside and large green eyes.

While boomslang do spend time basking and hunting in trees and shrubs, they spend a reasonable amount of time on the ground either resting among vegetation, moving between areas or hunting prey. As indicated by their large eyes, boomslang have acute vision and are very alert. They are highly venomous, using a cocktail of venom proteins to cause internal haemorrhaging in their prey. Their diet consists of chameleons, bird chicks and bird eggs. Listening for birds sounding their alarm calls is a great way to find a hunting boomslang.

True green

Although regularly misidentified as a boomslang or a green mamba, snakes belonging to the genus Philothamnus, the true green snakes, are the most commonly encountered green-coloured snakes in South Africa. These species are much skinnier than boomslang and green mambas. All four green species in South Africa have a thick black ring encircling their iris, which boomslang and green mambas lack. They can be challenging to differentiate due to variability in colour patterns and similarity in body shape. Herpetologists often rely on counting the number of scales on the head, and noting their placement, to differentiate between species.

Green snakes are agile climbers and several of the species are skilled swimmers. It is not uncommon to see them on the ground. The most arboreal species is the spotted bush snake, readily found in woodland habitat. They are commonly encountered basking or hunting in gardens and may well be seen trying to swallow a foam nest frog. Of the true green snakes, the southeastern green snake, sometimes referred to as the green water snake, is the least arboreal and may be seen swimming or even eating a fish, although their diet consists mostly of grass frogs and river frogs. The remaining two green snakes are similar to each other and researchers concluded only recently that they are distinct species. Notably, the eastern Natal green snake prefers a well-forested habitat in the lowveld, while the western Natal green snake is found more commonly in moist savanna and at forest edges.
Several of the true green snakes can be quite aggressive and often bite if handled. Unlike green mambas and boomslang, true green snakes are not considered dangerous to humans because they lack potent venoms. Although they are considered non-venomous, their saliva is thought to contain a toxin that paralyses their prey, which makes swallowing easier.

**Who's who?**

A closer look at SA’s green-coloured snakes reveals a remarkable collection of ecologically diverse species. Here’s how they differ in respect of behaviour, habitat preference, distribution, venom and feeding choice.

### Who’s who?

A closer look at SA’s green-coloured snakes reveals a remarkable collection of ecologically diverse species. Here’s how they differ in respect of behaviour, habitat preference, distribution, venom and feeding choice.

<table>
<thead>
<tr>
<th>SCIENTIFIC NAME</th>
<th>TYPICAL SIZE</th>
<th>FREQUENTLY FOUND</th>
<th>ARBOREALITY</th>
<th>REPRODUCTION</th>
<th>COMMON PREY</th>
<th>ID CLUES</th>
<th>DISTRIBUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Natal green snake</td>
<td>Harmless</td>
<td>Philothamnus occidentalis</td>
<td>80-90 cm</td>
<td>In shrubs and trees in wooded grassland and savanna</td>
<td>4-6 eggs</td>
<td>Frogs, geckos, skinks</td>
<td>Blue hues on head and tail</td>
</tr>
<tr>
<td>Eastern Natal green snake</td>
<td>Harmless</td>
<td>Philothamnus natalensis</td>
<td>80-90 cm</td>
<td>In shrubs and trees in lowland forest</td>
<td>4-6 eggs</td>
<td>Frogs, geckos, skinks</td>
<td>Head flatter than P. hoplogaster</td>
</tr>
<tr>
<td>Southeastern green snake</td>
<td>Harmless</td>
<td>Philothamnus hoplogaster</td>
<td>50-60 cm</td>
<td>Near water in lowland forest, wooded grassland, savanna and fynbos</td>
<td>5-6 eggs</td>
<td>Frogs (grass, river, reed)</td>
<td>Smallest and thickest of the Philothamnus</td>
</tr>
<tr>
<td>Spotted bush snake</td>
<td>Harmless</td>
<td>Philothamnus semivariegatus</td>
<td>70-90 cm</td>
<td>In shrubs and trees in lowland forest and savanna</td>
<td>6-12 eggs</td>
<td>Foam nest frogs, geckos, skinks</td>
<td>Heavy black spotting on front half fading into a bronze-coloured tail</td>
</tr>
<tr>
<td>Many-spotted snake</td>
<td>Mildly venomous</td>
<td>Amplorhinus multimaculatus</td>
<td>40-50 cm</td>
<td>Marshy vegetation in fynbos and grassland</td>
<td>4-5 live young</td>
<td>Frogs and small mammals</td>
<td>Stocky for its length, indistinct head</td>
</tr>
<tr>
<td>Eastern green mamba</td>
<td>Highly venomous</td>
<td>Dendroaspis angusticeps</td>
<td>160-180 cm</td>
<td>In tree canopy in coastal lowland forest</td>
<td>8-10 eggs</td>
<td>Birds (all ages), rodents</td>
<td>Big-bodied, slender coffin-shaped head</td>
</tr>
<tr>
<td>Boomslang</td>
<td>Highly venomous</td>
<td>Dispholidus typus</td>
<td>110-140 cm</td>
<td>In shrubs and trees in all but most arid habitats</td>
<td>10-14 eggs</td>
<td>Bird (chicks and eggs), chameleons</td>
<td>Big-bodied, very large eye, short head</td>
</tr>
</tbody>
</table>

**Life on the ground**

Many-spotted snakes *Amplorhinus multimaculatus* are brown with a series of spots that runs along their back. However, rare bright green and olive morphs have been found in Mpumalanga, KwaZulu-Natal and the Eastern Cape. Look out for them among reeds near water as well as on fynbos or grassland slopes. Of the green-coloured snakes, this species is the least arboreal and the most elusive. Little is known about their venom composition but it may cause irritation in humans. Although few feeding observations exist, they are thought to prey on ground-dwelling rodents and frogs.