

EXPLORING INDIA'S WESTERN GHATS HE SECRE GARDENS PART TWO

The second half of our trip to one of the world's most rewarding "hotspots" for biodiversity - an uncrowded, beautiful, relaxing destination for wildlife and nature photography

The endemic Malabar Pit viper Trimeresurus malabaricus in a highly cryptic brown phase.

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Enchanted forests alive with the sounds of countless birds

Golden-fronted Leafbird Chloropsis aurifrons in Dandeli, a hotspot for birds.





A quiet brook during the dry season in the hills above Goa. This is the perfect habitat for frogs, pit vipers and - with a lot of luck - King cobras.

#n the first part of our trip to tend to protect or at least tolerate other the Western Ghats report (see ANIMA living beings, especially outside of big MUNDI - Adventures in Wildlife cities. India and Sri Lanka - with their Photography Issue 13) we have long-lived Hindu and Buddhist cultural extensively described the environment ties to all forms of life in general - are of this enormous area, the itinerary we particularly to be commended in this have taken across a small section of it respect. Large mammals are perforce and the means to follow in our more difficult to see close to human footsteps for those so inclined. But what settlements in rural areas - bears, about the the actual reason which took leopards, tigers and elephants can be us to the Ghats in the first place - ie the extremely dangerous and often wildlife photography options? First of become a source of problems to those all, for those who are not familiar with living in their vicinity - but several several Asian destinations (including species (think of Hanuman monkeys India and Sri Lanka) it is important to and macaques) can co-exist with stress the fact that a great number of humans and actually make a pest of beautiful species - mostly reptiles, themselves. This frequent proximity of amphibians, birds and insects - can be wildlife - and the fact that protected readily observed and often areas and human settlements are photographed in most rural areas and intimately and inextricably linked in close to human settlements. The most of India, and especially so in the scourge of "recreational hunting" as Western Ghats - is a great bonus for we sadly have to endure it in Europe wildlife photographers, as one often and the USA is mostly unknown (and does not even need to venture beyond actually often forbidden) in most of a lodge's flower garden to find India, and local cultures and traditions spectacular subjects. Another aspect of continued on page 1

Indian Lorikeet or Vernal Hanging Parrot Loriculus vernalis.

TEXT BY ANDREA FERRARI PHOTOS BY ANDREA & ANTONELLA FERRAR

The endemic Malabar Pit viper Trimeresurus malabaricus can be encountered in several color phases - here it can be seen in a rather uncommon purple, grey green and yellow livery.



Spectacular species still surviving in today's India the Western Ghats wilderness is that most of the exploring is done on foot. Vehicles are exclusively utilized to reach a Wildlife Sanctuary's gate or to move from a protected area to the next, but to wander in search of interesting camera subjects one has to walk. Luckily most of the Ghat's forests we have visited have been very open and seasonally dry, much more so than actual rainforests - but one has to keep in mind that the matter changes completely during the photographically

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A large Mugger or Marsh Crocodile Crocodylus palustris rests on a sandbank in the Cali (or Kali) river near Dandeli. fruitful monsoon season, when forest rivulets become raging streams, rocky trails become muddy and slippery and incredibly powerful downpours raise the humidity to stupendous levels in a matter of minutes. Most of the trails we have walked in our exploration of the Western Ghats have however proven at least during the dry season - to be very easy, well-maintained and easily manageable by any reasonably fit person, and the local guides are not only highly responsible but also wellversed in scientific lore, which is a huge and unusual bonus. Given the nature of the environment - forested hills crisscrossed with rocky streams and rivulets, sun-baked, pebbly laterite plateaus, sluggish rivers and coastal marshland - a great variety of wildlife is to be expected, even when not easily photographed. Insect, spider and other arthropod life is exceptionally plentiful, both by day and by night - an easy stroll along a forested trail or road by night will provide great opportunities for large scorpions and spiders, and the gardens of the Forest Department *continued on page 20*

Indian Trinket snake Coelognathus helena by a rock pool in the Yeoor hills, a short distance from Mumbai.



The forests of the Western Ghats at dawn (left) offer beautiful, atmospheric vistas. Top right, one of their wariest denizens, the Malabar Trogon Harpactes fasciatus; bottom right, a Brown Fish Owl Ketupa zeylonensis.

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19

An impressive Dhaman or Indian Ratsnake Ptyas mucosus in the Yeoor hills of Sanjay Gandhi National Park.

The Green Vine snake Ahaetulla nasuta is a harmless and extremely common species of the Western Ghats forest environment. bungalows in Cotigao harbour a stunning variety of butterflies, caterpillars and praying mantids. Frogs - outside of the monsoon season - tend to stay close to wet, low-lying areas, and several interesting species can be easily found near clear forest streams. Snakes - normally exceptionally difficult to encounter elsewhere, even in the tropics - are surprisingly abundant and remarkably easy to find here, even during the day - barely a day passed without us encountering one or two Green Vine snakes Ahaetulla nasuta lying camouflaged among the low vegetation by the forest trails. Other species - such as cobras or pit vipers may require more patience and a bit of luck, or the experience of a local guide. The region of Agumbe - which we plan to explore in the near future - is supposed to be very good for King Cobras Ophiophagus hannah continued on page 24 >

Left, a wild Grey Langur Semnopithecus dussumieri when not habituated to humans this species can be difficult to approach. Right, a surprise encounter on a forest trail with a Indian Jackal Canis aureus indicus, another common but very wary species.



A deadly danger superbly camouflaged among the rocks

> A large Russell's Viper Daboia russelii, one of the very few truly dangerous species of the Western Ghats.





Far left, an Oriental Garden Lizard also known as Eastern Garden Lizard or Changeable Lizard - Calotes versicolor in the gardens of the Forest Department Bungalows in Cotigao; left, a rare find the highly arboreal Ornate Flying snake Chrysopelea ornata.

encounters, as many stunning photos taken there can readily attest. Birds are exceptionally numerous too, with several spectacular species such as hornbills, sunbirds, trogons and parakeets: the Bondla road and the surroundings of the Old Magazine House in Dandeli stand out among many other similar sites regarding birdwatching and bird photography. Leisurely walks along the shores of lotusfilled Carambolim lake and a boat trip among the mangroves of the Salim Ali Bird Sanctuary can also prove extremely satisfactory with good observations of ducks, egrets, herons, kingfishers, ospreys, darters and beeeaters. Large mammals, as usual, can be much more difficult subjects. This is not the ideal place to look for Indian elephants, bears, tigers or leopards some species are locally plentiful, but the thickly forested habitat and the occasional man-wildlife conflict make good sightings and photography outside of National Parks rather difficult. We had a huge leopard male by the side of the road one night, but it was gone in a split second - even before we could apply the brakes. Drives in Dandeli brought better luck with good sightings of Gaur Bos gaurus and Chital deer Axis axis - with some luck one has good chances to see also continued on page 28 🔰



A male Common Mormon butterfly Papilio polytes in the gardens of the Forest Department bungalows in Cotigao.

Endemic, highly variable and always beautiful

> A portrait of a stunning Malabar Pit viper Trimeresurus malabaricus in a rare tuquoise color phase.





Top left, Giant forest scorpion Heterometrus sp. in its burrow; top right, Forest crab, family Gecarcinucidae; bottom right, Indian Violet Tarantula Chilobrachys fimbriatus; bottom left, Indian Whip scorpion or Vinegaroon Typopeltis sp.



A sleeping Roux's Forest Calotes or Roux's Forest Lizard Calotes rouxii, an endemic species of the Western Ghats.

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Close-up portrait of a Russell's viper Daboia russelii, a very large, dangerous and highly venomous snake which is very common and quick to bite.

Black panthers (ie melanistic leopards) here. Langur and macaques will often approach the wildlife camps and lodges - the latter looking for tidbits and smaller mammals such as the impressive Malabar Giant squirrel or the Common mongoose are commonly seen. Staying at the Kali Adventure Camp in Dandeli - as we did - also offers the possibility of brief but satisfying coracle (a round, leather-andbamboo canoe) joyrides, with great opportunities for hornbills and large Marsh crocodiles (if one doesn't mind the atrocious amount of rubbish floating everywhere on the Cali/Kali river).

A THREATENED ECOSYSTEM

Sadly, the Western Ghats suffer from many environmental threats - logging, industrial development, damming and political meddling. Quoting from Wikipedia: "Historically the Western Ghats were well-covered in dense forests that provided wild foods and natural habitats for native tribal people. Its inaccessibility made it difficult for people from the plains to cultivate the land and build settlements. After the arrival of the British in the area, large swathes of territory were cleared for agricultural plantations and timber. The forest in the Western Ghats has been continued on page 31 🔰





Top left, Tamil Lacewing Cethosia nietneri; top right, Moth Eumelea sp. cf ludovicata. Bottom right, Common Jezebel Delias eucharis; bottom left, Plain Tiger Danaus chrysippus.





A very lucky and uncommon encounter the Brown Vine snake Ahaetulla pulverulenta is a rare, endemic and exceptionally cryptic species of the Western Ghats.

Dainty, delicate and deadly - an Indian Flower Mantis Creobroter gemmatus. This individual is missing its left front raptorial claw.

severely fragmented due to human activities, especially clear felling for tea, coffee, and teak plantations during 1860 to 1950. Species that are rare, endemic and habitat specialists are more adversely affected and tend to be lost faster than other species. Complex and species-rich habitats like the tropical rainforest are much more adversely affected than other habitats. The area is ecologically sensitive to development and was declared an ecological hotspot in 1988 through the efforts of ecologist Norman Myers. Though this area covers barely five percent of India's land, 27% of all species of higher plants in India (4,000 of 15,000 species) are found here. Almost 1,800 of these are endemic to the region. The range is home to at least 84 amphibian species, 16 bird species, seven mammals, and 1,600 flowering plants which are not found elsewhere in the world. The Government of India established many continued on page 35 🔰

A cryptic tryptic! Left, Hump-nosed pit viper Hypnale hypnale; center, Malabar Pit viper Trimeresurus malabaricus; right, Indian Rock python Python molurus.



The harmless but quickto-bite Rough-scaled Sand boa Gongylophis conicus is a mimic of the highly venomous Russell's Viper Daboia russelii which shares its habitat.





Left, Bonnet macaque Macaca radiata; right, Grey Langur Semnopithecus dussumieri. Both species are common in the Western Ghats but can be difficult to approach when not habituated to human presence.



A glittering jewel of the Western Ghats - male Purple-rumped Sunbird Leptocoma zeylonica (formerly Nectarinia zeylonica).

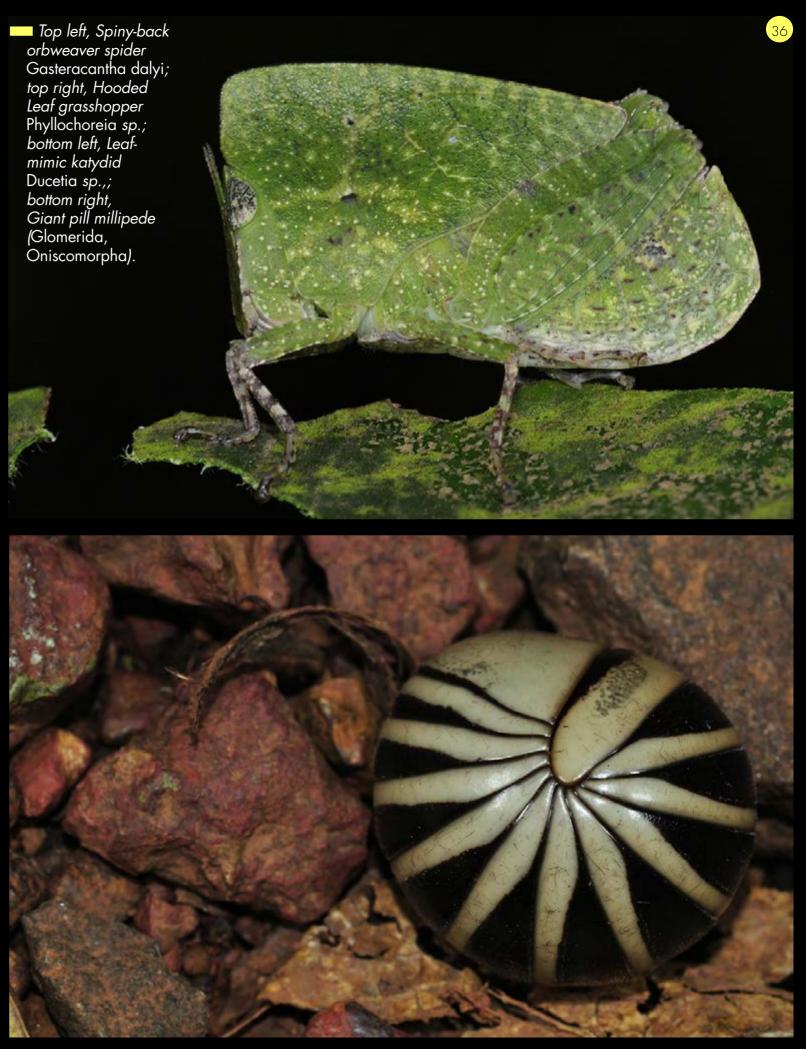
protected areas including 2 Biosphere Reserves, 13 National Parks to restrict human access, several Wildlife Sanctuaries to protect specific endangered species and many Reserve Forests, which are all managed by the forest departments of their respective State to preserve some of the ecoregions still undeveloped. Many National Parks were initially Wildlife Sanctuaries. The Nilgiri Biosphere Reserve - comprising 5500 sakm of the evergreen forests of Nagarahole, deciduous forests of Bandipur National Park and Nugu in Karnataka and adjoining regions of Wayanad, Mudumalai National Park and Mukurthi National Park in the states of Kerala and Tamil Nadu - forms the largest contiguous protected area in the Western Ghats. The Western Ghats is home to numerous serene hill stations like Munnar, Ponmudi and Waynad. The Silent Valley National Park in Kerala is among the last tracts of virgin tropical evergreen forest in India. Regarding the Western Ghats, in November 2009, the then Minister of Environment and Forests, Jairam Ramesh said: "The Western Ghats has to be made an ecologically sensitive

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— Oriental Garden Lizard also known as Eastern Garden Lizard or Changeable Lizard -Calotes versicolor, a very common species.

Fierce-looking but totally harmless, the peaceful dragon of Indian gardens



Left, a rare and still undescribed planthopper, possibly Polydictya sp., (Fulgoridae); center, Wandering Violin Mantis Gongylus gongylodes; right, Pyrops delesserti, a fulgorid lantern bug.



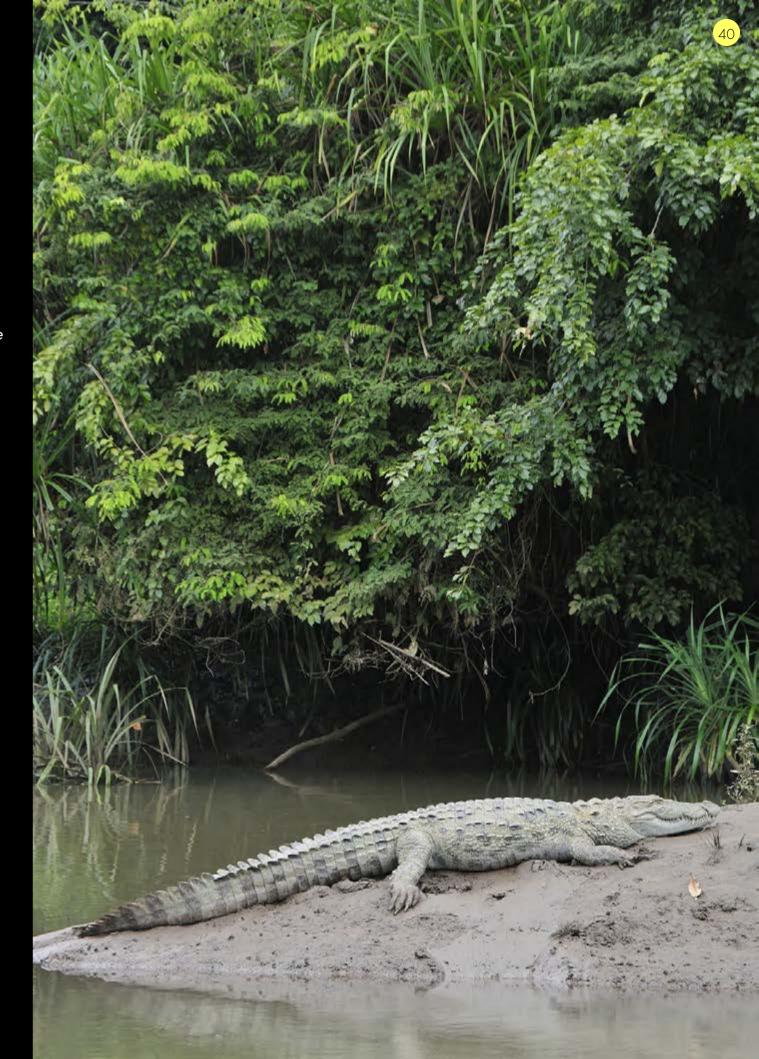


zone. It is as important as the ecological system of the Himalayas for protection of the environment and climate of the Country. The Central Government will not give sanction for mining and hydroelectric projects proposed by the State Governments of Maharashtra, Karnataka and Goa that will destroy the Western Ghats ecosystem". In a letter dated 20 June 2009, Mr. Ramesh added: "The proposed 200-MW Gundia hydel project of Karnataka Power Corporation in Hassan district would drown almost 1,900 acres (7.7 km2) of thick forest in the already endangered Western Ghats along with all its fauna. This is something that both Karnataka and our Country can illafford. Power generation should not happen at the cost of ecological security". The Expert Appraisal Committee appointed by Union Government also said that the project should not be taken up. In August, 2011, the Western Ghats Ecology Expert Panel (WGEEP) designated the entire Western Ghats as an Ecologically Sensitive Area (ESA) and, assigned three levels of Ecological Sensitivity to its different regions. We can only hope, then, that India's new environmental awareness will contribute to the preservation of this truly unique environment.



The foothills and coastline of the Western Ghats are rich in wetlands and watercourses. Left, Purple Heron Ardea purpurea; right, Mugger or Indian crocodile Crocodylus palustris basking on a sandbank in the Cali river.

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Left, an iconic (and very dangerous) Indian species - the Spectacled Cobra Naja naja; right, an equally elegant but harmless species often found in the Western Ghats, the Green Vine snake Ahaetulla nasuta. Both are relatively common in undisturbed areas.



Pure white egrets dotting the coastline like tropical snowflakes 42

A Little Egret Egretta garzetta takes off from the brackish marshlands of the Salim Ali Bird Sanctuary.

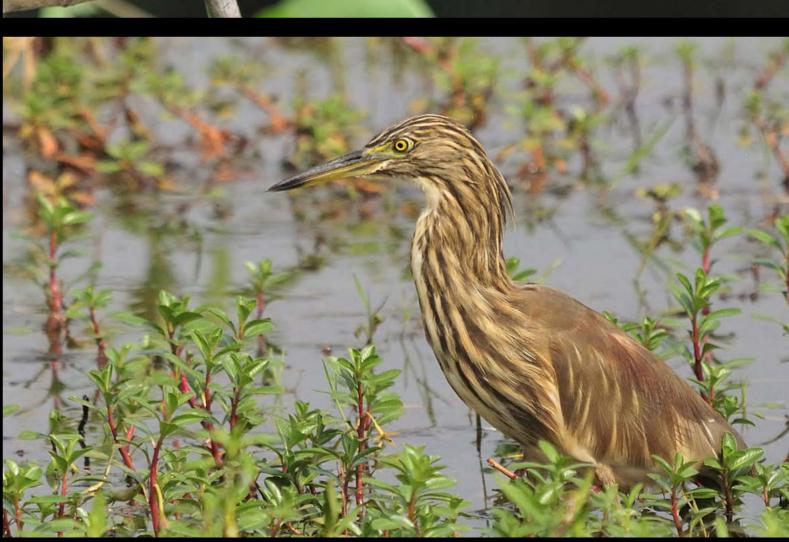


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Top left, Oriental Darter or Indian Darter Anhinga melanogaster with fish prey; top right, White-throated Kingfisher Halcyon smyrnensis; bottom right, Pond heron or Paddybird Ardeola grayii; bottom left, Osprey Pandion haliaetus.



A large Mugger or Indian crocodile Crocodylus palustris basking on the shores of the Cali river, in Dandeli. Muggers can be approached relatively close here.



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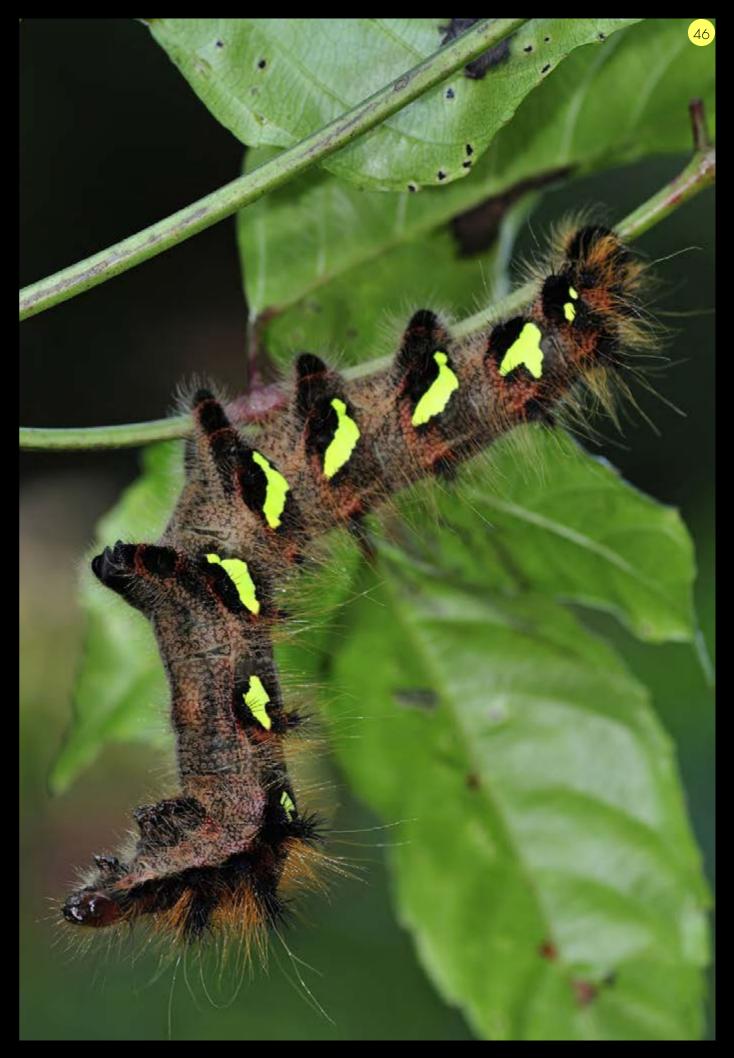
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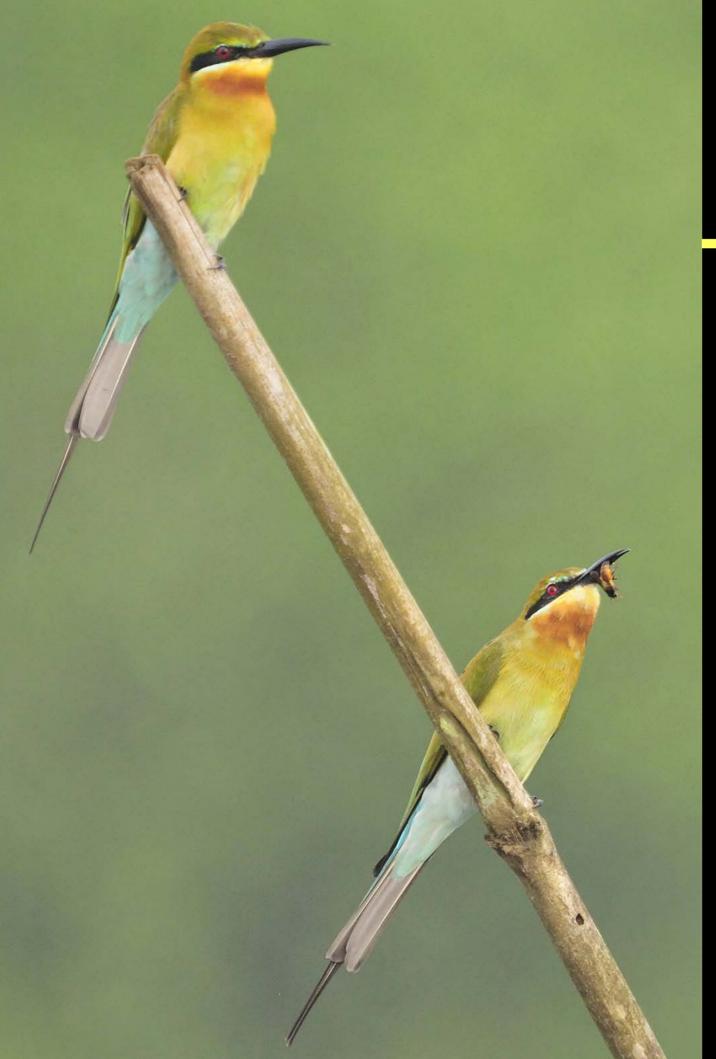
The Western Ghats are home to some truly beautiful insect life - this is a Clearwinged Forest Glory Vestalis gracilis, a damselfly. Silving and a

Left, caterpillar of Indian Moon Moth or Indian Luna Moth Actias selene; right, Caterpillar of Golden Emperor Moth Loepa katinka.

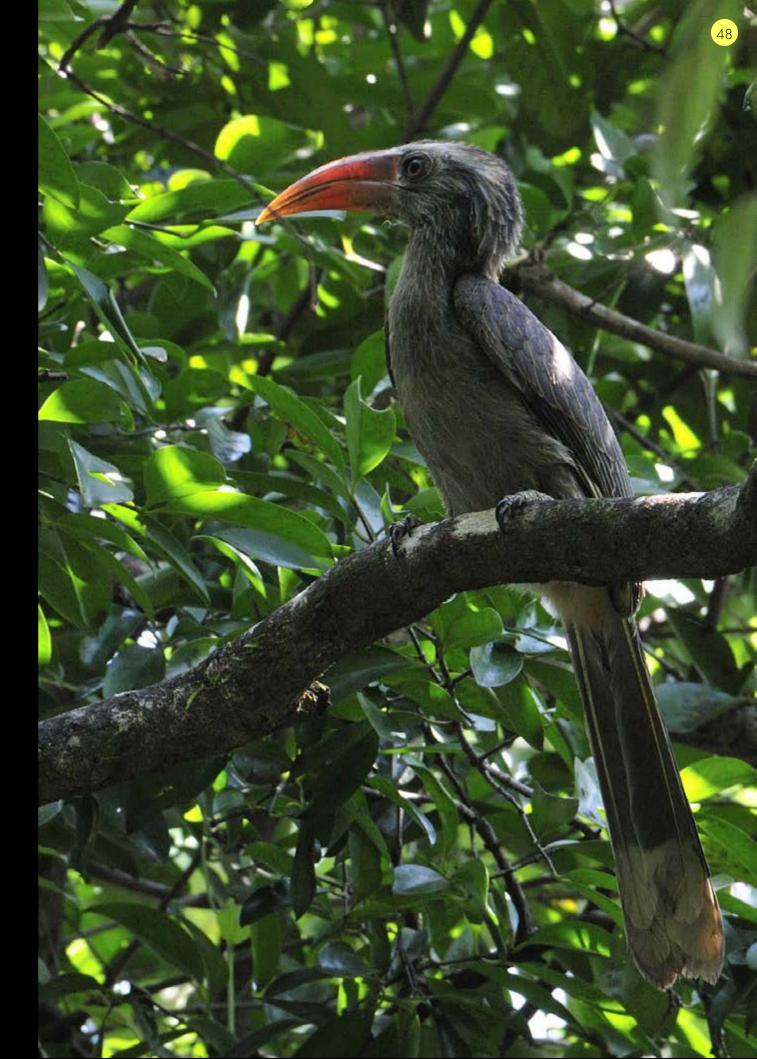


Danger to the unwary lurks among the dead leaves on the forest floor

> A well-fed Hump-nosed Pit viper Hypnale hypnale lies by a trail, perfectly camouflaged among the dead leaves littering the forest floor.



Bird life in the Western Ghats is both spectacular and plentiful. Left, a pair of Blue-tailed Bee-eater Merops philippinus in the mangroves of the Salim Ali Bird Sanctuary; right, the endemic and forestdwelling Malabar Grey Hornbill Ocyceros griseus.





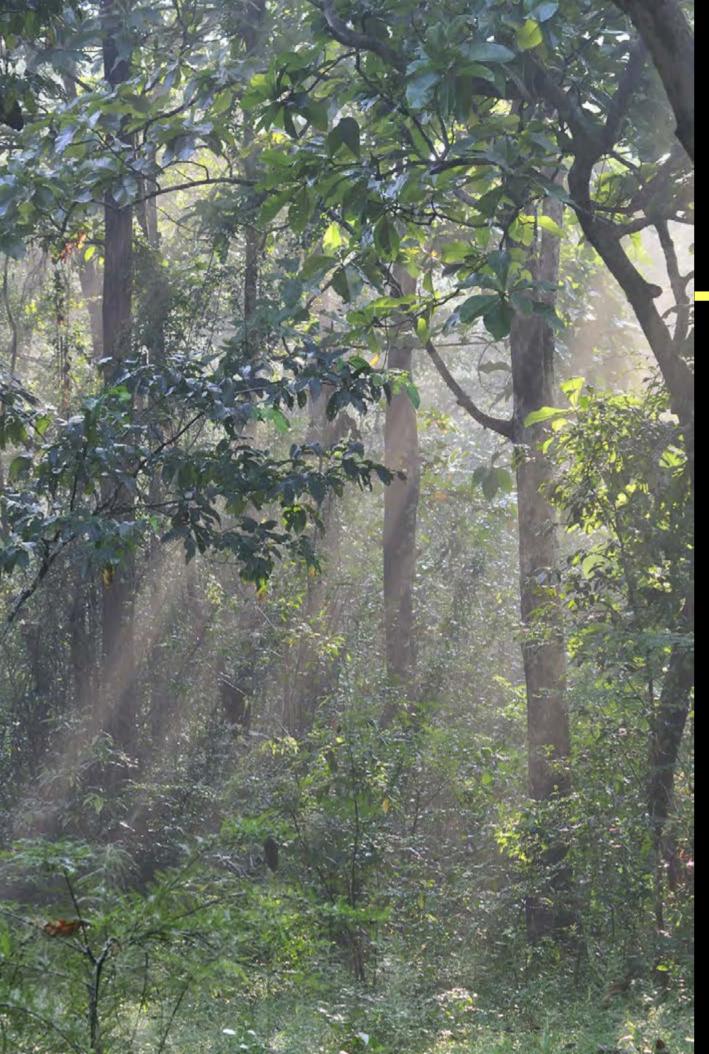
Left, Indian Rock Python Python molurus; center, Indian fat-tailed gecko Eublepharis fuscus; right, Green Vine snake Ahaetulla nasuta in threat display.





50

Lesser Whistling Duck Dendrocygna javanica in the lotus-dotted waters of Carambolim lake.



Left, the enchanted light of a forest landscape in the Cotigao Wildlife Sanctuary at dawn. Right, the unmistakable threat display of the Indian or Spectacled Cobra Naja naja - a truly impressive sight, particularly so when faced in the wilderness.

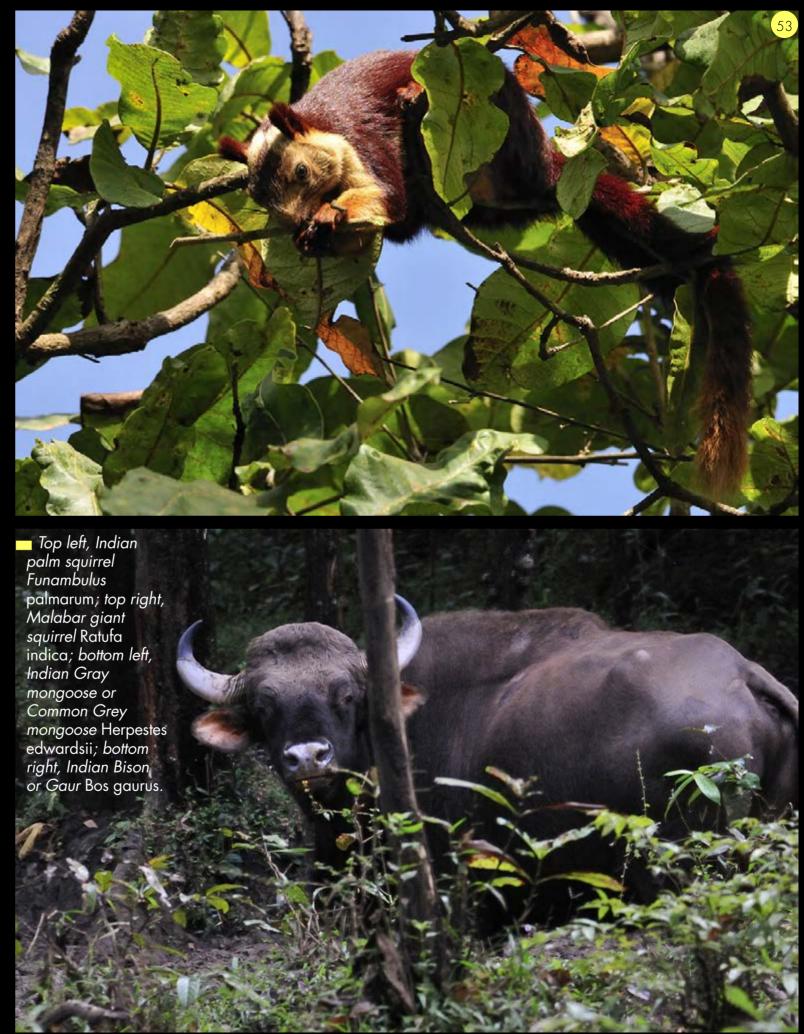


Another very striking (and extremely effective!) threat display - these rather impressive fangs belong to a large Indian Violet Tarantula Chilobrachys fimbriatus.



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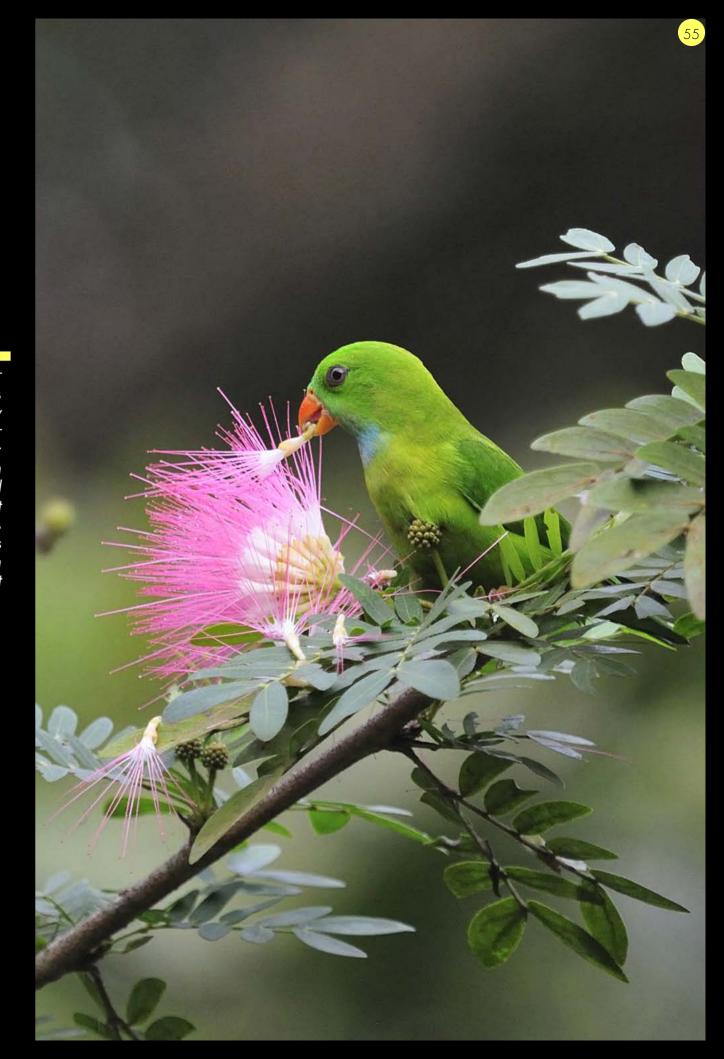


An extreme close-up portrait of a Malabar Pit viper Trimeresurus malabaricus. The heat-sensing loreal pit sited between the nostril and the eye is clearly visible.





Left, a Green Bee-eater Merops orientalis sitting in the rain by the Cali river in Dandeli; right, an Indian Lorikeet or Vernal Hanging Parrot Loriculus vernalis feeding on flowers in the garden of Nature's Nest Resort in Goa.



A juvenile Russell's Viper Daboia russelii lies in ambush among the pebbles of a dry riverbed in the Yeoor hills, perfectly confident in the efficacy of its cryptic livery. This species is a major cause of snakebite in rural India, often with fatal or very serious results.

Beautiful but deadly, the viper lies in patient wait

