

RHAPSODY REVISITED

The Western Ghats in black and white

Text and Photographs by Ian Lockwood

For a region attuned to the sounds of forest streams, deafening cicadas and the meandering tunes of Malabar Whistling Thrushes, much less the sounds of mining excavators and hyperactive tourists, there has been a lot of noise surrounding the Western Ghats lately. India's myriad newspapers, magazines, online fora and television channels are shining a rare spotlight on an area that is usually in the domain of publicity-shy ecologists, trekkers and conservationists. This magazine and the author explored the region as a heterogeneous, yet composite landscape in need of protection 12 years ago (see Sanctuary Asia, Vol. XXI No. 2, April 2001). Today, many of the same issues remain unresolved and time has magnified the pressure on the region's water resources and biodiversity. The way we get information has changed, but the very serious condition of these majestic mountains remains the same.

The author has chosen to use the medium of black-and-white photography to project the issues surrounding landscape, ecology and human impact in the Western Ghats.



In the 12 years since the publishing and exhibiting of 'Rhapsody in Black and White' there has been tangible conservation progress, but unfortunately the Western Ghats remain challenged by issues highlighted in the pictures and article. In 2000, the Western Ghats was labelled as a "biodiversity hotspot." Some of the key areas here are now recognised as a World Heritage Site and awareness about the area has increased. Water and biodiversity remain the two key reasons that all Indians have a stake in protecting the region. The threats are all too familiar: uncontrolled mining, loss of habitat to plantation agriculture, the expansion of hill stations and "development activities," the damming of rivers for electricity and irrigation, the introduction of non-native

species into sensitive areas, poaching and uncontrolled tourism.

The importance of the Western Ghats

The Western Ghats are monsoon mountains. Their rugged heights and cold, lofty peaks turn the humid air currents of the southwest monsoon to rain, and determine where the water falls during the summer months. Where natural vegetation is intact, the hills provide perennial sources of water to the lower, more densely populated areas. Millions of farmers, industries and urban dwellers in the peninsula get their water sourced in the upper heights of the Western Ghats. All of peninsular India's major rivers, the Godavari, Krishna and Cauvery, have their origins in the cool height of the Western Ghats. Large metros

such as Mumbai and Bangalore are indebted to forested catchments that receive and store water for their teeming populations. Local residents, who retain some of the ancient wisdom passed down by their ancestors, know the importance of these sources in the mountains, which is why they are often points of spiritual veneration.

FACING PAGE Kalsubai, at 1,646 m., is the highest mountain in the Sahyadri, south of the industrial city of Nashik. The prominent pinnacle in the foreground is the Ratangad Khunta, a volcanic plug that is a significant landmark. The area around Ratangad and Kalsubai makes up the northernmost part of the Sahyadri (Western Ghats) and has patches of excellent evergreen forest mixed between towering peaks and cliffs.

ABOVE A large *Vaccinium leschenaultii* tree is engulfed by the afternoon mist in a remote *shola* in the Palani Hills, part of the Western Ghats.



Biodiversity and the threat of extinction here are of special interest to ecologists. Many of these forests have species (for example, *Cyathea* sp. tree ferns) with ancient, Gondwanaland connections. Other plants and animals (such as *Rhododendron* trees and the *Garrulax* group of birds) that are stranded in the higher reaches of the Western Ghats by changes in the climate show clear connections with the Himalaya. Species endemism (species with a restricted geographic range) is high in the Western Ghats. According to Conservation International (CI), there are 1,700 endemic vascular plants (out of a total of 5,000 found in the region). Key endemic species are found amongst the *Impatiens* and *Dipterocarpus* genera. There are several key crops that originated in the ghats, such as pepper, cinnamon and bananas. Scientists from Delhi University and other institutions have been making a host of startling amphibian discoveries in the last two decades and the area is now regarded as one of the key amphibian hotspots in the world. *Nasikabatrachus*, a burrowing frog discovered by Dr. S. D. Biju, for instance,

is related to frogs that lived in Gondwanaland before it separated! Readers will be more familiar with the charismatic endemic mammal species of the Western Ghats, such as the lion-tailed macaque, Nilgiri tahr, Nilgiri marten as well as birds such as the White-bellied Shortwing, Black and Orange Flycatcher, Malabar Hornbill and others. The ghats also host important populations of non-endemic flagship species that are threatened or endangered, such as the tiger, elephant and king cobra.

A unique geographic entity

A controversial issue that has been highlighted in the last year has been the precise delineation of the Western Ghats. For a long time, the idea of the Western Ghats has been a convenient geographic name tag to identify the long belt of mountains that separate the wet western coast of peninsular India from the drier interiors. Yet, there are a wide variety of heterogeneous geological formations that make up the 1,600 km.-long stretch of mountains. They also run through six different states, each with different elected governments

and varying priorities that have affected the use and abuse of the hill areas.

The Western Ghats stretch start at Kanyakumari and rise to 2,695 m. in the southern ghats at Anai Mudi, the highest mountain in peninsular India south of the Himalaya. The only significant break in the veritable wall of mountains is found at the Palghat Gap. The southern portion is made up of several 'horsts', or uplifted mountains. These pre-Cambrian ranges, including the Ashambu Hills, Cardamom Hills, High Range, Anaimalai, Palani and Nilgiri Hills, host the greatest concentrations of diversity. At the Nilgiri hills, where three states are joined and the ghats meet the Mysore plateau, an arm of the ghats stretches eastwards. These ranges (the Biligirirangans, for instance) share biological and geological origins with the ghats and conservationists have lumped them into the Western Ghats boundary. In the mid-section that lies along Karnataka's and Goa's coastal belt, the Western Ghats host vast evergreen, deciduous and mixed forests with edges that have been used for plantation agriculture and mining. Finally, north of the Goa-Maharashtra

border, the Sahyadris make up the rugged, volcanic, northern-most ranges of the Western Ghats. This area, with the Deccan Traps has recently been highlighted in connection to theories regarding the extinction of dinosaurs. Forests are fragmented here but significant stretches are highly biodiverse, and are home to the apex predator, the tiger. The northern border of the Western Ghats is generally agreed to be the Tapi river in Gujarat. Several ecologists have also highlighted the importance of not just protecting the ghats but the coastal plains and rain shadows that fall next to them. Obviously, they are part of a greater range of biomes in the peninsula.

Labels, reports and controversies

In 1989, Norman Myers first proposed the idea of a 'biodiversity hotspot' and the designation was later adopted by CI for areas with significant numbers of endemic plants (and other species) where significant amounts of the habitat had been lost (in the Western Ghats it is estimated that only 23 per cent of the original habitat is in-

tact). Thus, unbeknownst to many, being a "hotspot" is not a label to wear with pride, but a red flag to raise over critical areas that have experienced significant habitat alteration and need urgent protection. In recent reevaluations, some experts have labelled the Western Ghats and Sri Lanka as one of eight of the "hottest hotspots" (out of a total of 34 hotspots identified by CI). Part of the justification for this is based on the fact that the boundary of the Western Ghats includes a large and growing human population.

ABOVE Looking west towards the Agamalai Hills and the Berijam Ridge escarpment of the Palani Hills, you see some of the most stunning montane landscapes of the southern Western Ghats. Though they are celebrated for their rich biodiversity, which includes lesser known forms such as this pill millipede (facing page, top), and though they provide water to the arid plains, these are yet to be formally protected.

FACING PAGE, BOTTOM Ayyappa devotees travel through the deep forests, west of the Pamba river, along paths that wind from the town of Erumely, through exquisite evergreen rainforests in the western corner of the Periyar Tiger Reserve. The impact of religious tourism is often considered a taboo topic, given the sociological repercussions in India.



The Western Ghats Ecology Expert Panel, a group made up of eminent scientists, was formed in 2010 when Jairam Ramesh was the Minister for Environment and Forests. The report, initially completed in August 2011, and its subsequent suppression by the government drew fresh attention to the region as a whole. Several state governments were hostile to the report since it was perceived to oppose “economic development.” The committee’s chairman, Professor Madhav Gadgil, is widely respected and is a well-published expert on the region. Other members also brought a wealth of experience and expertise to the report. Ramachandra Guha’s editorial in the *Hindustan Times* succinctly highlighted key aspects. “The Gadgil Report urges a judicious balance of development and conservation, whereby local communities as well as scientific experts are consulted on mining, tourism, and energy generation projects. The report is in the spirit of the democracy and social equality professed by the Constitution. However, its recommendations do not sit easily with those who would auction our natural resources to the highest bidder or the bidder with the most helpful political connections.”

In the summer of 2012, close on the heels of this brewing controversy, UNESCO announced that it had granted World Heritage status to the Western Ghats with a focus on 39 specific sites. This followed a six-year campaign by the Ministry of Environment and the Wildlife Institute of India to get recognition for the Western Ghats as a site of exceptional natural heritage. Sri Lanka has campaigned in a similar fashion and its Central Highlands were recognised in 2010 as a UNESCO World Heritage Site. The fact that there was opposi-

TOP Evergreen forests, such as this one with *Holigarna grahamii*, in Mulshi, Maharashtra, absorb much of the Southwest monsoon rainfall and play a key role in recharging aquifers. They are also home to some of the most spectacular biodiversity in the Sahyadri.

BOTTOM A boatman ferries birdwatchers and other tourists across an arm of Periyar lake near the tourist boat landing jetty.

FACING PAGE (MAP) The Western Ghats, India and the Central Highlands, Sri Lanka.

tion to the heritage tag from state actors and some plantation owners in Kerala and Karnataka added a level of intrigue to what would otherwise be perceived as a positive development. Conservationists are concerned that the heritage status will be a hollow designation, something used for show, but one that covers up serious degradation and ecological challenges under a golden UNESCO fig leaf.

The media blitz that the Western Ghats is encountering will surely die down and fade from the public imagination, as do many issues that are in the public eye today. Meanwhile, there is work to be done in the Western Ghats. The Gadgil Report provides

a balanced blueprint for sustainably managing and protecting the Western Ghats and clearly it would be foolish to ignore it and all the work that went into its publication. Raising levels of awareness at all levels in the affected regions of the Western Ghats would aid conservation. There is an unfortunate – and often brutally acidic – division in ranks between conservationists and social activists working in the Western Ghats. One result of this is that when ecosystem conservation is accorded low priority, developers, miners and others ruled by money have easily exploited habitats up and down the ranges from Kanyakumari to Tapi.

The urgent imperative of securing water sources and their future availability by protecting natural ecosystems in the Western Ghats is an essential argument against those calling for mining and harvesting of other natural resources. Key actors in the state forest departments, universities and institutes as well as in organisations such as ATREE, the Nature Conservation Foundation and others are doing important work. Their findings, highlighted in The Gadgil Report and other publications, detail the importance of protecting this irreplaceable region. Will the public and government listen?

Ian Lockwood is an educator, photographer and writer with a deep interest in South Asian hill ranges and forests, where he grew up. He has written about and photographed the Western Ghats extensively in the past 20 years. Further examples of his work can be found at www.highrangephotography.com

...and what of Sri Lanka?

Sri Lanka’s hill ranges share interesting similarities with the Western Ghats (see *Sanctuary*, Vol. XXX, No. 3, June 2010 and Vol. XXVII, No. 4, August 2007), related to a shared geology, similar climatic factors and a shared wealth of species diversity. In fact, Conservation International includes Sri Lanka and the Western Ghats as one biodiversity hotspot. The Sri Lankan government lobbied for UNESCO World Heritage status for its Central Highlands and received approval in 2010. Sinharaja, the resplendent lowland rainforest in the south-west of the island, has enjoyed a UNESCO Man and The Biosphere heritage tag since 1988. There have been few controversies and generally, the labelling is seen as a positive move by conservationists and citizens, as well as government officials interested in promoting ecotourism in the hill ranges. Nevertheless, the same pressure on natural habitats is felt in Sri Lanka as in the Western Ghats. The end of the civil war in 2009 has opened up new areas to development schemes and the island nation faces its own challenges.

