

Kurinjicrown

The Palni Hills are once again witnessing the mass flowering of neelakurinji.

TEXT & PHOTOGRAPHS BY IAN LOCKWOOD

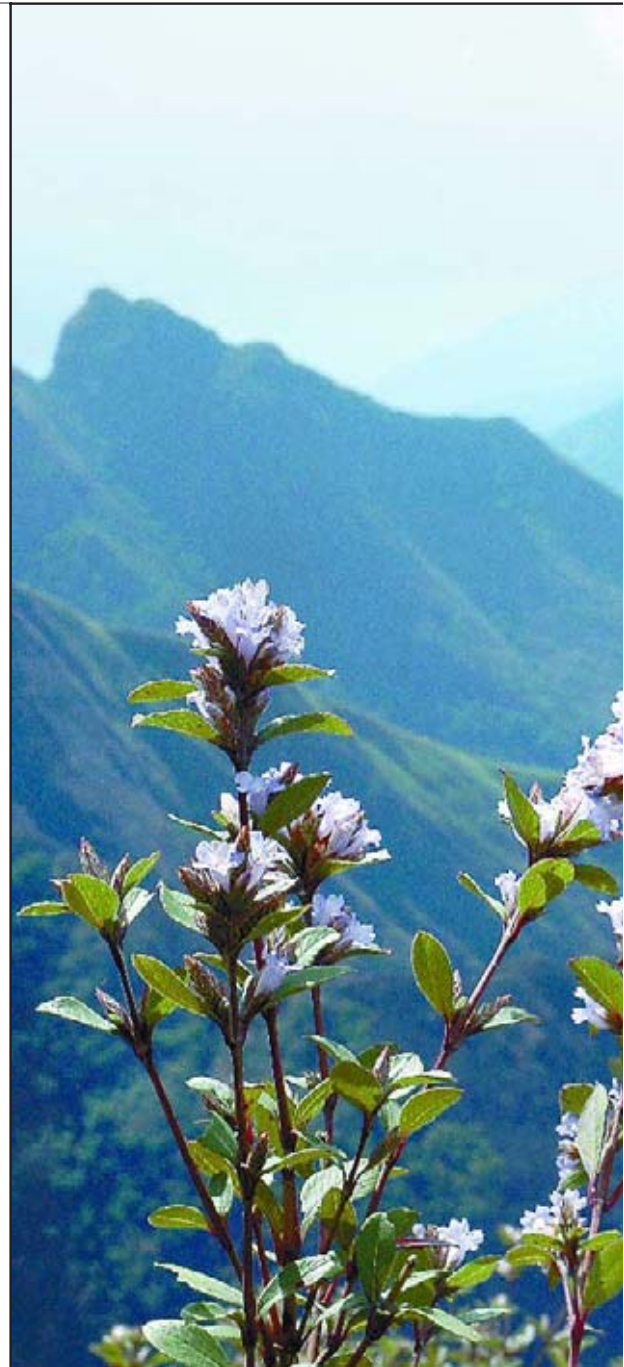
This has come as a good indicator of remnant grasslands and should help ecologists gauge the extent and health of the montane forests, which have exclusive birdlife.

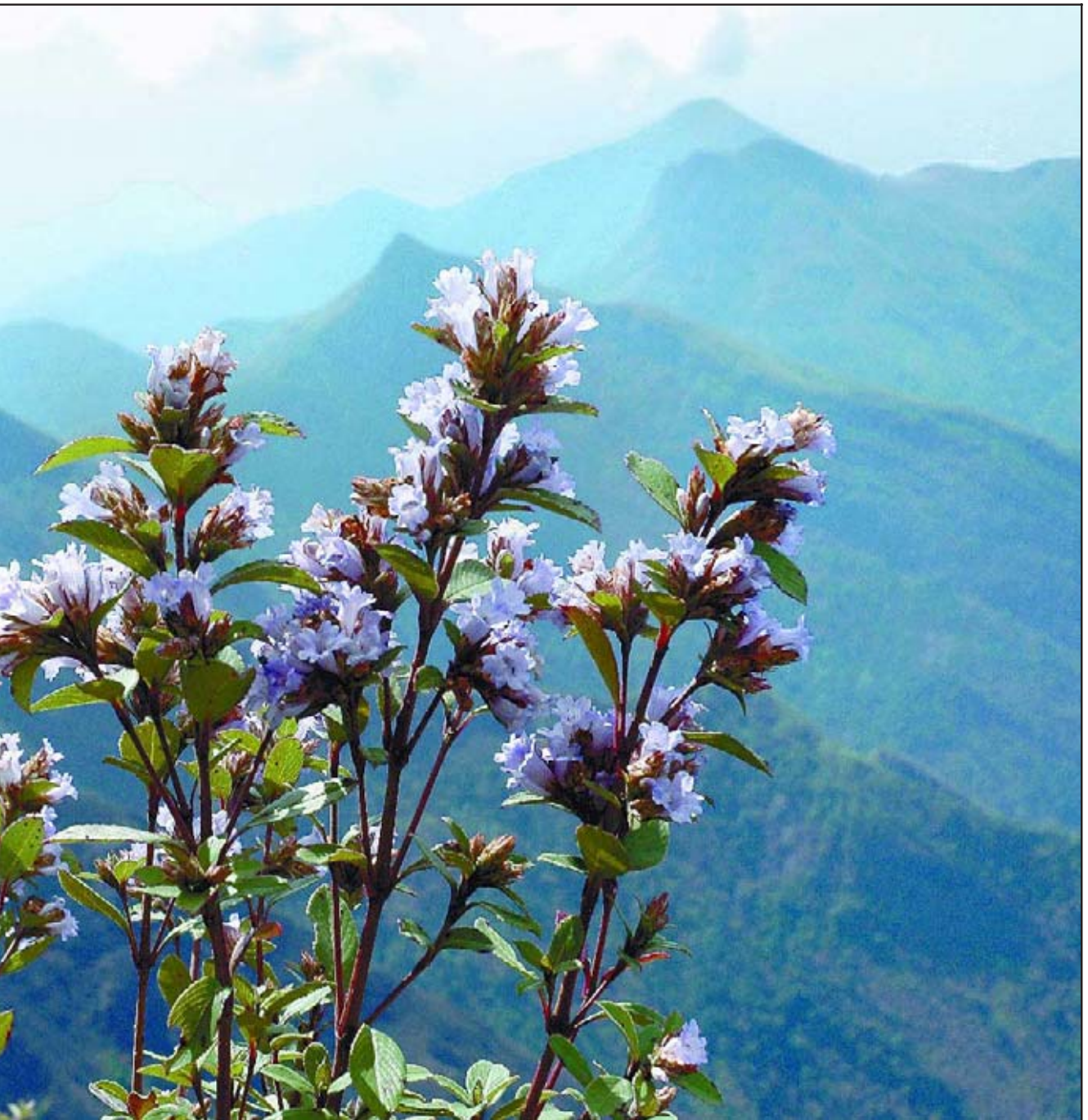
THIS is a significant year in the southern Western Ghats: the spectacular blooming of the kurinji plant (*Strobilanthes kunthiana*) is reaching a climax in the natural grasslands of these lofty mountain ranges. The *neelakurinji* or *kurinji* is a unique shrub species that blooms in the high altitudes (between 1,600 metres and 2,695 m) of the Western Ghats every 12 years. The mass flowering and subsequent death of the *kurinji* is the subject of hill folklore and was documented by the botanist Robert Wight in the mid-19th century.

The last flowering of *kurinji* was in 1994 and the peak of its 2006 flowering is currently under way.

The *kurinji* plant is associated with the *shola* (grassland) ecosystem and is a unique botanical feature of the southern Western Ghats. During the years that it blooms, whole hillsides of native grasslands are covered in the mauve colours of the flower. Some historians associate the name of the Nilgiris (literally 'blue hills') with the blooming of the *kurinji* flower.

At least 46 species of the genus *Strobilanthes* are found in India and there is often confusion about which plant is flowering. Most of these species show unusual flowering behaviour varying from annual to 16-year cycles. Honey-hunters know that an excellent honey, which is much sought after by connois-





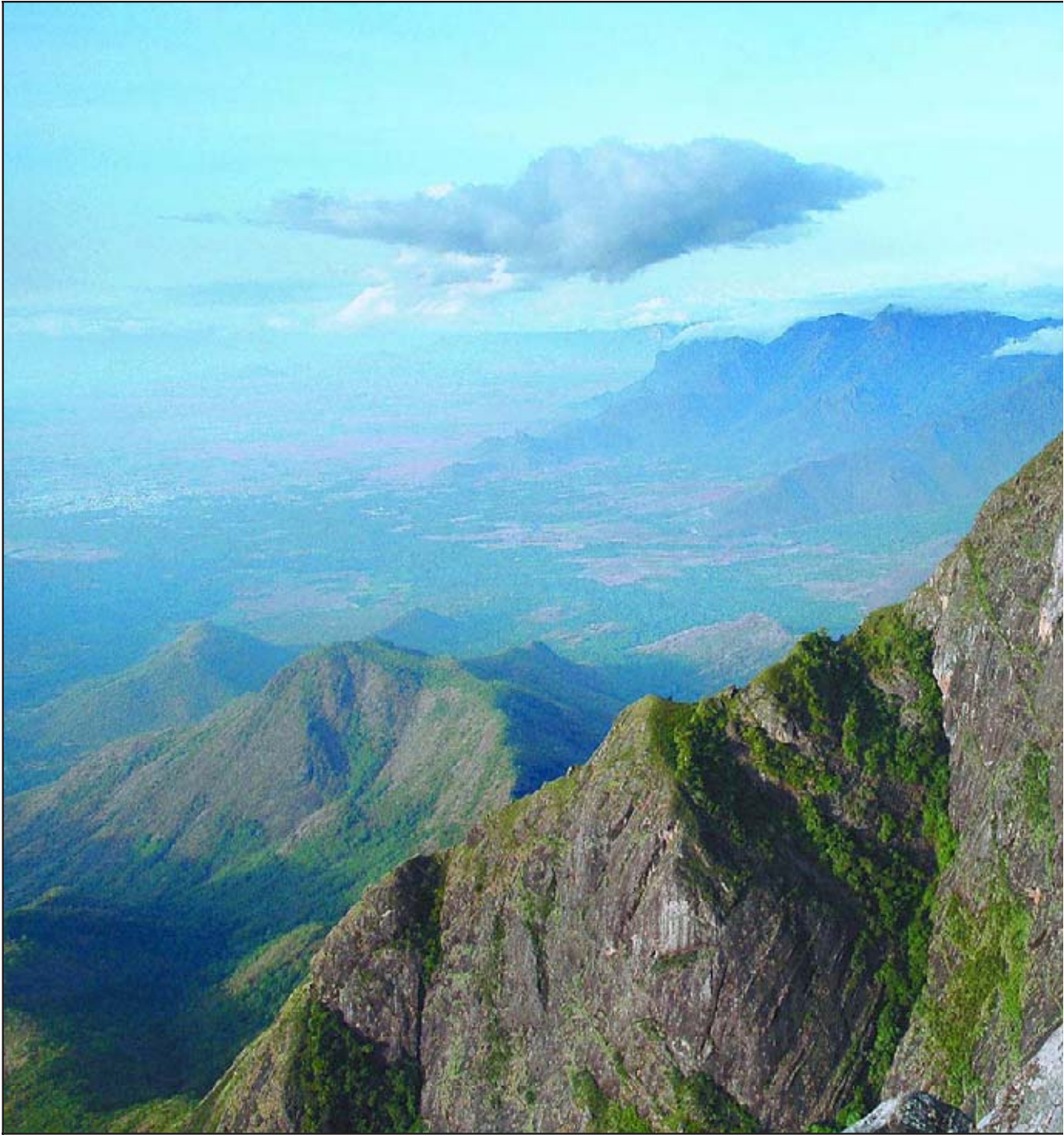
NEELAKURINJI IN FULL bloom. In the background is the Anaimalai hills.

seurs, is produced in the years in which kurinji flowers.

Kurinji has bloomed this year in the Anaimalai, in the Palni Hills and in the High Range block of mountains (near Munnar), which lie south of the Palghat Gap. The *kurinji* of the Nilgiris reportedly flowered last year. The extent of this year's blooming is a good indicator of remnant grasslands and should help ecologists gauge the extent

and health of montane grasslands in the Western Ghats.

The Palni Hills, located in Dindigul district in Tamil Nadu, is well known for *kurinji* flowering. The Palnis are associated with the popular hill-station of Kodaikanal. This modest-sized town (population 30,000) sits on the edge of a 2,000-m high plateau overlooking the semi-arid plains around Madurai. Kodaikanal



THE MARION SHOLA, on the southern escarpment of the Palni Hills, has spectacular cliffs.



SOME OF THE RARE AND ENDEMIC BIRDS OF THE GRASSLANDS



THE NILGIRI PIPPET (*Anthus cervinus*).



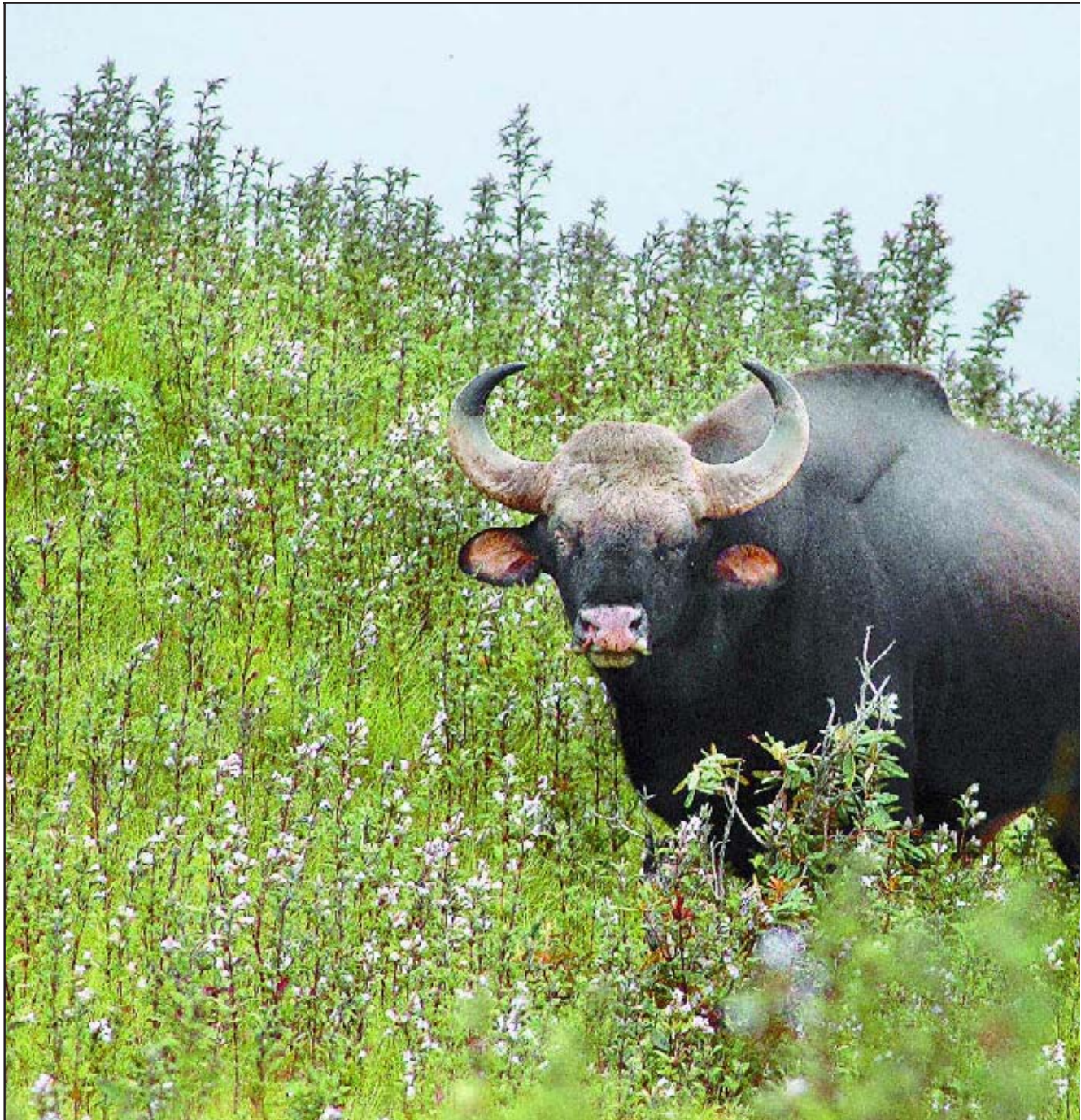
THE WHITE-BELLIED shortwing (*Brachypteryx major*).



THE GRAY-BREASTED laughing thrush (*Garrulax jerdoni farbanki*).



THE BLACK AND orange flycatcher (*Ficedula nigrorufa*).



was established in 1845 as an escape from the summer heat and diseases and is now a bustling hill station that gets tourist traffic all through the year.

The original ecology of the upper Palnis has been altered dramatically by the widespread introduction of non-native tree plantations and increases in human settlements. Despite this there are excellent *sholas* and a few significant patches of native grasslands surviving. A longstanding pro-

posal to protect some of these irreplaceable habitats are waiting for government approval (*Frontline*, August 15, 2003). In the meantime, the Vatakanal Conservation Trust, a non-governmental organisation, is making innovative efforts to restore the *shola* system, along with the State Forest Department. It began its work with a project to protect the Pambar *shola*, adjacent to Kodaikanal. The organisation has successfully reared *kurinji* sa-

plings and other native grasslands species and is assisting an innovative restoration effort in the Nilgiri Hills.

The pictures accompanying this report were taken during June and July as the *kurinji* flowering reached its climax. It was gratifying to find numerous excellent bloomings in different areas of the Palni Hills. The earliest blooms were found at the mid-elevation areas while the plants higher up started to flower at the end of July. One



A LARGE GAUR bull (*Bos gaurus*) in its natural habitat of grasslands, among the gregarious blooms of the kurinji shrub.

interesting aspect was the superb flowering below Coaker's Walk within the municipal limits of Kodaikanal. This flowering can be seen in an area that was ravaged by fire several months ago. Adjacent to this is an area of unburnt hillside, which has experienced extensive invasion of lantana and other non-native weeds. Curious-

ly, the unburnt area has practically no *kurinji* shrub. It illustrates how misunderstood the positive role of fire in future restoration efforts is.

Visitors to Kodaikanal in August and September can best experience the *kurinji* blooming at Coaker's Walk or the Palni Ghat road. For the more adventurous, the distinctive Perumal



AN INDIAN RED admiral butterfly (*Vanessa indica*) feeding on the nectar of a kurinji plant in the Kukaal area.

peak will have a purple crown of *kurinji*. There is also excellent flowering on the cliffs near Berijam Lake. Further to the west, Munnar is bracing for an invasion of tourists coming to see *kurinji* in its high-altitude grasslands.

SHOLAS AND THEIR BIRDS

The *sholas* are found above 1,700 m. The altitude varies depending on latitude, topography and climatic conditions. Since most of the higher ranges are found south of the Nilgiri Hills, the *shola* ecosystem is a feature of the southern Western Ghats (as opposed to the northern Ghats or the Sahyadris).

Although the grasslands occupy a larger proportion of the upper plateaus (roughly 80 per cent) *sholas* have better diversity in flora and fauna. *Sholas* are tropical montane forests that are found in the valleys and folds of mountains. The word 'shola' is derived from the Tamil word *solai*, meaning an evergreen forest, and the word has often been used to name lower forests areas (such as the Karian *shola* near



THE INTERIOR OF a shola can be dark but full of a mind-boggling array of life forms. The Kukaal shola, which falls within the Indira Gandhi National Park, is one of the finest sholas remaining in the Palni Hills.

Top Slip in the Anaimalais). It is now more correctly associated with the native forests of the lofty plateaus of the southern Western Ghats. Like other montane forests in tropical areas, *sholas* usually experience high rainfall during the monsoons. Cloud forests are able to derive moisture from wet mist when it is not actually raining and this may apply to some of the *sholas*. Their location in the valleys provides better protection from monsoon winds and offers better soil conditions with higher moisture and nutrient content.

Wind is an important factor and the canopy height of *sholas* is rarely above 15 m. Woody shrubs of the middle storey, such as *Lasianthus* and *Psychotria* species, are an important part of *sholas*. A variety of *Strobilanthes* shrubs are found in the under storey of *sholas* (only a few species in the genus, such as *kunthiana*, are found in grasslands). Branches and trunks of undisturbed *shola* trees are gnarled and they drip with copious amounts of mosses, lichens and epiphytic orchids.

The crowns of *shola* trees often have a distinctive umbrella shape giving them the appearance of overgrown broccoli plants. The period of new foliage in spring heralds intense hues of red, pink through to bronze and bright green in the *shola* canopy.

Most of the endemic birdlife of the upper Western Ghats plateaus are found in the *shola* interiors rather than the grasslands. The black-and-orange flycatcher (*Ficedula nigrorufa*), the white-bellied shortwing (*Brachypteryx major*), the Nilgiri flycatcher (*Eumyias albicaudata*), the Nilgiri wood pigeon (*Columba elphinstonii*), the Gray-breasted laughing thrush (*Garrulax jerdoni fairbanki*) and the Nilgiri or rufous-breasted laughing thrush (*Garrulax cachinnans*) are all *shola* species. The Malabar whistling thrush (*Myophonus horsfieldii*) has a wide altitudinal range. The endemic Nilgiri pipit (*Anthus cervinus*) is exclusively a montane grasslands bird. □

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