



John Cancalosi/Still Pictures

Mexican dry forests (1)

A third of Mexico's endemic species can be found in this, the biggest stretch of tropical dry forest north of the equator. Plant life includes succulents, shrubs, thorn scrub and deciduous trees – and among them live rare red-kneed tarantulas, gila monsters, swallowtail butterflies, pumas and jaguars. Less than 2 per cent of the original dry forest remains in Central America, and it is only fragmentarily protected from cattle ranching and development.



M. Schneider/UNEP/Topham

Southwest Amazonian forests (3)

These isolated tropical forests, flooded savannas and swathes of bamboo forest provide vital refuge for the world's greatest diversity of birds, freshwater fish and butterflies, as well as for jaguars and several primates. Ninety-four per cent of this part of the Amazon rainforest – an area a bit smaller than Mexico – is intact, but still vulnerable to logging and to prospecting for fossil fuel exploitation, among other threats.

Cloud forests

THEIR EVOCATIVE NAME describes them well: as moist air rises from the world's warm tropical and subtropical lowlands into the colder mountains, condensation engulfs the evergreen montane forests. Resplendent with orchids, ferns and mosses, they provide habitats for such species as the endangered spectacled bear and mountain gorilla. About 80 per cent of their diverse wildlife has not yet been catalogued, and species are still being discovered, including wild relatives of potatoes and tomatoes. Millions of people depend on their ability to provide a clean, reliable source of water; by gleaning it from the



H. Them/UNEP/Topham

Amazon flooded forests (2)

Every year, rainfall makes the River Amazon overflow its banks, submerging an area about the size of Venezuela under 9 metres of water. The water fertilizes the surrounding plains and regenerates lakes. Aquatic creatures, from fish and reptiles to river dolphins and manatees, swim among the trees to breed and feed. It is a unique and stable ecosystem – but threatened by overfishing, sewage pollution and dam building.



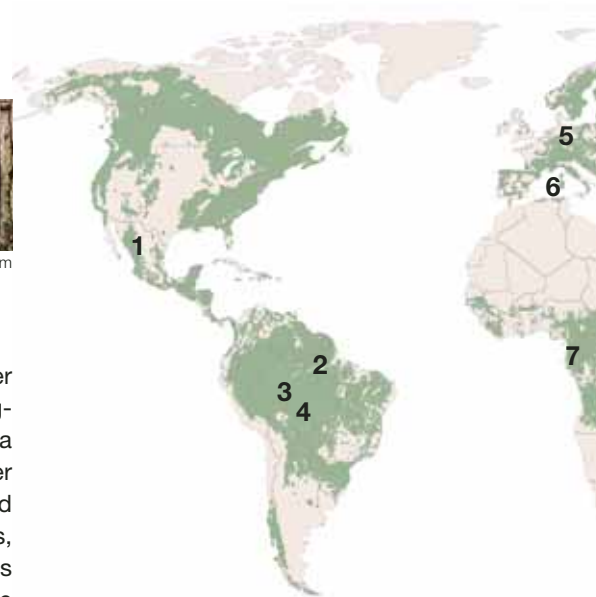
Gunter Ziesler/Still Pictures

Chiquitano tropical dry forest (4)

South of the Amazon rainforest, the thorny scrub habitat of the biologically rich but little-known Chiquitano is under major threat. The grazing of animals and growing of soya, along with energy projects, threaten trees that are adapted to fire, flood and dry winters. It's the world's biggest healthy dry forest, but only 20 per cent of its original area remains. Its species – many not yet catalogued – include giant armadillos.



B.L. Christiansen/UNEP/Topham



Endangered

Half the world's forests have already disappeared, and they are still shrinking on every continent at the rate of 130,000 square kilometres per year – that's equal to about 35



J.M. Ahrtal/UNEP

Baltic mixed forests (5)

Coastal rivers create wetlands within these temperate forests – making a perfect habitat for many birds, including raptors. Trees include beech, oak, European hornbeam, Scots pine and linden. European mink and two species of frog are among their endangered animals. They still cover great swathes of Germany, Denmark, Poland and Sweden, but have long been exploited and need ongoing protection from tourism, agriculture and hunting.

Boreal forests

THE EXTENT OF the world's boreal forests – 12 million square kilometres – rivals the tropical rainforests and is just as important to the global ecosystem, even if it hasn't so far attracted the same public concern. Forming a ring around the far Northern Hemisphere just below the Arctic circle, their cold winters and short, but warm, summers produce forests dominated by evergreen conifers. Their year-round dark green foliage helps them to start





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forests

football fields per minute. Much has been lost, but there is still much to be saved. Here is a snapshot of just a few of the world's most important forests and forest types.



Jean-Léo Dugast/Still Pictures

Western Madagascar dry forests (8)

These forests support hundreds of endemic species, including the extremely endangered angonoka tortoise and six of the world's eight baobab species. Many of their trees have adapted to the dry season by shedding leaves to conserve moisture, while baobab trunks can store up to 120,000 litres of water. Most of the forests have already been cleared for firewood, agriculture and pasture, which continue to endanger what remains.



John Cancalosi/Still Pictures

Mediterranean forests (6)

The many types of forest – from pine to wild olive and carob to various oaks – of the Mediterranean basin contain Europe's richest biodiversity and greatest concentrations of species found nowhere else, among them the highly endangered Iberian lynx and the Spanish ibex. Around 85 per cent of the original forest has fallen to centuries of exploitation; conservationists are now trying to protect 'hot spots' of high biological value.



A.V. Singh/UNEP/Topham

Eastern Deccan Plateau (9)

Many of India's tigers live in these monsoon-swept forests, where they are joined by such other large mammals as guars, the world's largest wild cattle. Dominated by sal, a hardwood tree valued for its timber, fragrant resin and fat-yielding fruits, only a quarter of the original forests remain, and only 4 per cent are protected. Fragmentation as a result of quarrying, mining and hydroelectric power threaten forests and tigers alike.



Martin Harvey/Still Pictures

Congo basin moist forests (7)

Dense jungle, mosquitoes and flooded forests keep most people out of one of Africa's last expanses of wilderness. But the Congo basin's impenetrability means that researchers haven't been able to catalogue its biodiversity. Known inhabitants include lowland gorillas, Congo sunbirds, bonobos and forest elephants. As most of the region can only be reached by boat, logging is not yet a problem, but poaching threatens its endangered species.



UNEP/Topham

Borneo lowland rainforests (10)

These abound with as much life as the Amazon, but are even more vulnerable. Half of them are already destroyed: the rest could be lost within 10 years to logging, palm oil and rubber cultivation, fires, and dams – threatening the region's 10,000 plant, 13 primate and 380 bird species, not to mention those still to be identified. The most gravely endangered include the Borneo orangutan, the Asian elephant, and the Sumatran rhino.

Mangrove forests

oxygen directly from the air. Their dense vegetation protects marine life, prevents shore erosion, and shields the land from wind and waves, including tsunamis. Their shallow wetlands, rich in nutrients, provide essential nurseries for fish and shellfish, which in turn are food for birds. Manatees, crab-eating monkeys and amphibious fish also rely on them. But 20 per cent of the world's mangroves have disappeared since 1980, partly because they used to be seen as wastelands. They are vulnerable to oil spills and coastal development, with shrimp farming accounting for 38 per cent of their loss.

VITAL BUFFERS between land and sea, mangrove forests cover 150,000 square kilometres of tropical and subtropical coastal zones around the world. Their evergreen trees and shrubs are specially adapted to the swampy, oxygen-poor soil and salt water of the intertidal zone – with salt-resistant roots, leaves that excrete salt, and aerial roots that absorb



UNEP/Topham



S. Kiyohiro/UNEP/Topham

photosynthesizing as soon as the sun emerges, while their conical shape helps them shed snow, keeping branches from breaking. The forest floor is rich in lichens and moss, while their many rivers, bogs and shallow lakes are important bird habitats. The boreal wilderness is still relatively intact, providing important habitat for large mammals such as caribou, bears and wolves. But it is under pressure from acid rain, air pollution and such energy developments as oil exploration and hydroelectric dams.