

few genome sequences of chimpanzee SIV are available for comparison. "I think it's too close a call," he says.

Although Hahn warns that the appearance of yet another viral strain is a "public health concern," researchers say that it is an open question whether N group viruses will spread beyond Cameroon. For example, when the team tested 700 blood samples from HIV-1-infected patients living in Cameroon to get an idea of YBF30's prevalence, only three samples were positive for the strain. And group O viruses, which were first identified in Cameroon in the early 1990s and have remained almost entirely restricted to that country, accounted for only 9% of the 700 infections.

Wain-Hobson believes that it might be largely a matter of "serendipity" which viral strains predominate in an epidemic, although he cautioned that any strain could become a danger under the right social and behavioral circumstances. "The M group probably exploded because it got into urban areas and got there sooner. If you introduce N group viruses into New York, you will get an epidemic." As a result, the paper's authors urge that HIV tests be modified to pick up the new strain. According to Simon: "A continuous search for new variants is necessary to assure the safety of blood donation. ... These viruses are on standby, waiting for favorable conditions." —MICHAEL BALTER

ECOLOGY

Study Finds 10% of Tree Species Under Threat

Hundreds of tree species worldwide are in imminent danger of being wiped out, according to a new report published last week by the World Conservation Monitoring Centre (WCMC), an independent nonprofit organization based in Cambridge, U.K. The report* points to 976 species that are critically endangered and facing extinction unless urgent action is taken, and it says thousands of other species are under threat. Indeed, the report's grim bottom line is that habitat destruction around the globe now threatens the survival of about 10% of the world's 100,000 species of trees.

"Trees are the fundamental components of many ecosystems and human economies, and this report highlights the plight of many species," says the WCMC's chief executive, Mark Collins. The 3-year study—funded by the Netherlands government with support from leading botanical and forest institutes internationally—follows a major study by Bird Life International in 1994 of the plight

of birds around the globe that found 11% of species to be endangered. "The similarity in tree and bird species numbers under threat counters claims that ecologists are being alarmist and shows that habitat destruction is having a critical impact on wildlife," says population biologist John Lawton at Imperial College London. "Fossil evidence suggests that over most periods in the past, species extinctions occurred at the rate of one or two per year, so the present findings are extremely worrying."

Researchers found that more than three-quarters of the thousands of threatened tree species are not subject to any conservation measures. Only 12% of all tree species are recorded in protected areas, and only 8% of species are known to be in cultivation. "Unless conservation action is taken immediately, some species face certain extinction and many others will be joining the list of threatened trees," says WCMC's Sara Oldfield, who compiled the report.

The list includes many globally well-known species such as African and big-leafed mahogany, ebony, and frankincense. The South American tree Pau brasil (*Caesalpinia echinata*)—a source of wine-red dye traded since the 16th century, which gave Brazil its name—is also threatened. Some of the most critical species have been reduced to a single specimen whose future is highly uncertain (see table).

Although 80% of tree species are in the tropics, some species are under threat in virtually every country. Malaysia has the highest number of critically endangered species at 197. Indonesia, recently ravaged by forest fires, has 121, India has 48, and Brazil, the

most heavily forested country on the planet, has 38. In the United States, Hawaii has many threatened species. The report highlights critical gaps in its coverage because of difficulties in determining the species within certain families of trees and in surveying some regions of the world such as Papua New Guinea. But the design of the database will allow continual updating as work will continue to tackle these problems, the report says.

Conservationist Steve Howard of the World Wide Fund (WWF) for nature says that, with 77 species already known to have become extinct in the recent past, this report has confirmed fears of a widespread problem. The report itself suggests that the sustainable management of forests is a top priority, and the WWF is backing a scheme by the Forestry Stewardship Council to independently certify well-managed forests. The WWF, which is also campaigning for each country to declare 10% of its forest cover protected by 2000, says that without care for trees there is little hope for many other organisms. Studies have found that up to 300 species of insect may depend on one tree species. So far, 22 countries have signed on to the WWF forest protection plan, including Canada, Brazil, and China.

The report was made public in Geneva last week, as the Intergovernmental Forum on Forests—an official organization—met there to discuss how to tackle the continuing crisis facing the world's forests. The forum is following up commitments made by countries to prevent species losses in the Convention on Biological Diversity drawn up in Rio de Janeiro in 1992.

—NIGEL WILLIAMS



Threatened. Big-leafed mahogany.

SOME SPECIES IN CRITICAL CONDITION

Country	Tree	Remaining	Threats/Cause of Decline
Mauritius	<i>Diospyros angulata</i>	1 tree known	Habitat loss and invasive species preventing regeneration
China	<i>Carpinus putoensis</i>	1 tree remains	Habitat loss
Tanzania	<i>Holmskioldia gigas</i>	1 tree remains	Habitat loss
U.S.A. (Hawaii)	<i>Hibiscus clayi</i>	4 trees remain	Habitat degradation due to invasive plants, feral pigs, and potential recreational activities
Ecuador (Galápagos Islands)	<i>Scalesia atractyloides</i>	3 trees known	Grazing by introduced goats
India	<i>Ilex khasiana</i>	3 or 4 trees	Habitat loss

* *The World List of Threatened Trees*, World Conservation Press, Cambridge, U.K. ISBN: 1 899628 10 X.