Trees: Sc ...nts could be lost

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Gnarled, old trees also produce a bounty of seeds to replenish the forests and are a vital source of food.

"These big, old trees are really important elements of many forests and many landscapes," said Franklin, who was a key player in the 1990s-era battle to protect the remnants of the Pacific Northwest's famed old-growth forests.

"An old tree tends to be very idiosyncratic, just like we are as human beings."

Although the causes for the decline are diverse, all involve the common denominator of human intervention.

Logging elsewhere

In Scandinavia, logging companies are simply targeting the biggest, oldest trees, the researchers found.

On the savannas of Northern Australia, non-native grasses planted to improve cattle and sheep grazing burn seven times hotter than native grass, decimating trees that weathered centuries of normal fire.

If the rate of loss doesn't abate, all of the trees in the Australian region — both old and young — will be gone in 50 years, Lindenmayer said.

In Brazil, where rain forests have been reduced to fragments, old trees are much more vulnerable to being toppled by wind and parasitized by strangler vines that proliferate after logging.

Many forest ecosystems are so altered by invasive species, human management and shifting climate that young trees no longer are able to grow into behemoths, the scientists said.

Infestations of a plant called lantana smother seedlings in some parts of India, Lindenmayer said.

In the mountain-ash forests of Southern Australia, where he's worked for nearly three decades, cycles of fire followed by salvage logging prevent forests from maturing.

Shifting mindset

Forestry experts have long been aware of the decline of big trees, said Oregon State University professor Mark Harmon, who was not involved in the analysis.

But the *Science* paper is one of the first attempts to pull together evidence from different parts of the world and make the argument that big trees deserve special consideration.

"Maybe it will change the mindset," Harmon said.

Lindenmayer became interested in big trees while tracking the fate of Australia's equivalent of the northern spotted owl: the Leadbeater's opossum, a 4-inch, big-eyed marsupial that can only nest in ash trees at least 200 years old.

Unless the country takes steps to protect the ancient ash trees, the world's tallest flowering plants, the opossum is headed for extinction, he said.

In the Pacific Northwest, legal wrangling over the old-growth-dependent owl led the federal government to restrict logging on millions of acres of federal forest in Washington and Oregon.

During the debate, Franklin proposed a more eco-friendly alternative to clearcutting that leaves some trees standing.

But there's still n... nationwide policy that sin... gles out big, old trees fo... protection or works t... ensure that young trees ar... able to replace their elder... he said.

"We're dramaticall... reducing the number of bi... trees," Franklin said.

"As part of our activ... management, we need to b... planning to restore histori... levels of those big, old trees...

Near extinction

The scientists compare... the decline of ancient tree... with the decimation o... tigers, whales and othe... large mammals.

After decades of protec... tion, many slow-growin... species like the blue whal... still are hovering on th... brink of extinction, Linden... mayer pointed out.

"The stakes are ver... high," he said.

"Big trees can be los... very quickly, but it can tak... centuries for them to b... replaced."

Loss of big trees now global issue

Peninsula Daily World 12/12/12

As old forests disappear, many species do, too

By Sandi Doughton
The Seattle Times

It's not news to Northwesterners that most of the giant firs and cedars that once dominated the region's forests are long gone, felled by decades of logging.

But a review of ecosystems around the world finds that big trees are vanishing almost everywhere — and aren't being replaced.

"What we're seeing is a global phenomenon," said ecologist David Lindenmayer of Australian National University, lead author of a paper published in last Friday's edition of the journal *Science*.

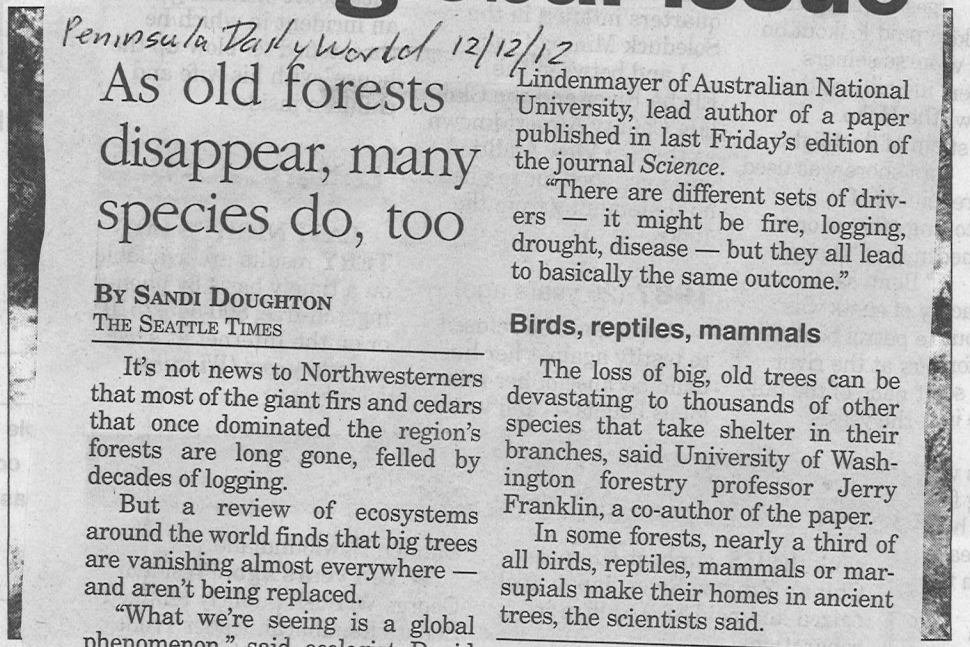
"There are different sets of drivers — it might be fire, logging, drought, disease — but they all lead to basically the same outcome."

Birds, reptiles, mammals

The loss of big, old trees can be devastating to thousands of other species that take shelter in their branches, said University of Washington forestry professor Jerry Franklin, a co-author of the paper.

In some forests, nearly a third of all birds, reptiles, mammals or marsupials make their homes in ancient trees, the scientists said.

TURN TO TREES/A7



EWS

The trees in the Hoh Rain Forest are ...