



College of Forestry

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Forest degradation is about more than just cutting old growth say a global group of scientists

Recent developments have thrust forest degradation into the global conservation spotlight. This is following on major policies like the European Union's recent ban on imports from degraded forests, and the COP28 resolution to halt degradation. Yet amidst these policy advances, the question remains: what is "forest degradation"?

The European Union preliminarily defined forest degradation as conversion from primary forest into tree plantations. In an article published today in [Nature Ecology and Evolution](#) an international team of forest scientists argue that much more will be required to reduce forest degradation.

"Even forests that aren't old growth can have tremendous benefits for biodiversity and carbon storage" says Matt Betts, a professor in the Dept. of Forest Ecosystems and Society at Oregon State University. "In major wood producing parts of the world, clearcut harvesting that leaves little time for regeneration between cuts can have severe negative effects on forest ecosystems" he said.

According to the article, measuring forest degradation needs long-term data across whole regions to detect if biodiversity and carbon have been harmed. But satellites have been collecting data from space that can be used for this purpose since the 1980s the authors point out. For instance, Zhiqiang Yang, a scientist with the US Forest Service, and co-author on the paper uses satellite data and Google Earth Engine to measure long-term carbon and [biodiversity changes](#).

"This study is ground-breaking in assigning a science-based process for tracking the degradation of forest integrity for all the world's forests that at least in some regions like North America exceed deforestation losses," said Dominick A. DellaSala, Chief Scientist, Wild Heritage, who was not involved in the study but supports a moratorium on primary forest logging internationally and mature forest logging in the US.

Forests house 80% of the world's biodiversity and nearly half of the world's 4 billion hectares of forests are managed for timber production. The paper notes that addressing forest degradation in the European Union policy and COP28 agreement has the potential to be a substantial step toward ameliorating the dual climate and biodiversity crises. "But we need to get the measurement part right" Betts said.

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Clearcut harvest in New Brunswick, Canada (photo credit: Matthew Betts)

-30-