

Eastern US forests resume decline

April 7 2010

After increasing during much of the 20th century, forest cover in the eastern United States in recent decades has resumed its previous decline, according to an exhaustive new analysis published in the April 2010 issue of *BioScience*. The work is described in an article by Mark A. Drummond and Thomas R. Loveland of the US Geological Survey (USGS).

During the 19th century and earlier, forests were cleared for agriculture on a large scale, but from around 1920 onward, the eastern United States experienced a net increase in [forest](#) cover as fields were abandoned and trees regrew.

Experts have been uncertain whether this trend has continued. Drummond and Loveland examined changes in the eastern part of the country from 1973 to 2000 as part of the USGS's Land Cover Trends project, using remotely sensed imagery as well as statistical data, field notes, and ground photographs.

Over this time they found a 4.1 percent decline in total forest area, a "substantial and sustained net loss" equivalent to more than 3.7 million hectares. The researchers describe considerable regional variation, with net loss being particularly marked in the southeastern plains.

The net loss occurred even though reforestation of abandoned fields and pastures continues, in some regions more than others. Most net forest loss occurs as result of mechanical disturbance of forests for timber production, which keeps some land free of forest, and as a result of

urban expansion, which is generally a permanent change. Mountaintop removal for mining in the Appalachian highlands has also had a "substantial impact" on eastern land cover, contributing more than 420,000 hectares of net forest decline.

The authors comment that their findings suggest forest transitions may not plateau and stabilize after reaching a point of maximum recovery, which "has important implications for sustainability, future [carbon sequestration](#), and biodiversity."

Provided by American Institute of Biological Sciences

Citation: Eastern US forests resume decline (2010, April 7) retrieved 25 April 2024 from <https://phys.org/news/2010-04-eastern-forests-resume-decline.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--