

# Some city trees may discourage 'shady' behavior

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Smaller trees can block views from homes, making it more difficult to observe criminals. Shown here is a neighborhood in Portland, Ore., where a study was conducted that explored the effects of trees and other factors on crime occurrence in the city. Credit: Geoffrey Donovan, U.S. Forest Service, PNW Research Station

Along with energy conservation and storm-water reduction, scientists may soon be adding crime-fighting to the list of benefits that urban trees provide. Researchers with the U.S. Forest Service's Pacific Northwest (PNW) and Southern Research Stations have published a new study that suggests that certain types of city trees may help lower property and violent crime rates. Their study—which is posted online in advance of its appearance in a forthcoming printed issue of the journal *Environment and Behavior*—is the first to examine the effects of trees and other

factors on crime occurrence in Portland, Ore.

"We wanted to find out whether trees, which provide a range of other benefits, could improve quality of life in Portland by reducing crime, and it was exciting to see that they did," said Geoffrey Donovan, research forester with the PNW Research Station who led the study.

"Although a burglar alarm may deter criminals, it won't provide shade on a hot summer day, and it certainly isn't as nice to look at as a tree."

Donovan and his colleague Jeffrey Prestemon, with the Southern Research Station, obtained crime data from the Portland Police Bureau from 2005 to 2007 and grouped the incidents into seven categories. They examined only crimes for which a physical address was given and paired this information with additional data obtained from aerial photographs, onsite visits, and the Multnomah County Tax Assessor's Office. Their sample of 2,813 single-family homes experienced 394 property and 37 violent crimes.

The researchers then conducted statistical analyses to explore the relationships among crime and more than two dozen variables they compiled, including the number and size of trees on a lot and the size of trees on surrounding areas. Of the tree variables analyzed, canopy size of both street and yard trees and the number of trees growing on a lot had the most effect on crime occurrence—large trees were associated with a reduction in crime, while numerous small trees were associated with an increase.



Large trees can make a neighborhood seem well-cared for. Shown here is a neighborhood in Portland, Ore., where a study was conducted that explored the effects of trees and other factors on crime occurrence in the city. Credit: Geoffrey Donovan, U.S. Forest Service, PNW Research Station

"We believe that large street trees can reduce crime by signaling to a potential criminal that a neighborhood is better cared for and, therefore, a criminal is more likely to be caught," Donovan said. "Large yard trees also were associated with lower crime rates, most likely because they are less view-obstructing than smaller trees."

In contrast, their analysis suggested that small yard trees might actually increase crime by blocking views and providing cover for criminals—an effect that homeowners can mitigate by keeping trees pruned and carefully choosing the location of new [trees](#).

Donovan and Prestemon plan to continue this line of research and may conduct similar studies in other cities.

**More information:** To view the study's abstract online, visit [eab.sagepub.com/content/early/ ... 16510383238.abstract](http://eab.sagepub.com/content/early/.../16510383238.abstract)

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