

# Fireproofing homes dramatically reduces forest fire size, according to new study

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The size and intensity of forest fires is directly linked to the density and flammability of houses in the wildland-urban interface, according to a new study involving CU-Boulder researchers. Credit: U.S. Forest Service

A new study involving the University of Colorado at Boulder that modeled the spread of forest fires in Colorado and other western states indicates the size and intensity of fires is directly linked with the density and flammability of houses built in the so-called “wildland-urban interface.”

The study, which will be published in the Sept. 4 print edition of the

*Proceedings of the National Academy of Sciences*, concluded that fireproofing houses in forests can dramatically reduce the size and spread of wildfires. Since houses are much more flammable per square yard than forests, homes that erupt in flames can propel forest fires to a critical intensity threshold much more quickly, said Patrick Bourgeron, a fellow at CU-Boulder's Institute of Arctic and Alpine Research and co-author of the study.

The study, which also involved UCLA Professor Michael Ghil and graduate student Vassilis Spyrtatos of the French university Ecole Normale Supérieure, used computers to model the spread of fires in forest ecosystems in Colorado, Montana Utah, New Mexico, Washington and Wisconsin. The PNAS study is the first to systematically look at both houses and trees in forest fire scenarios, said Bourgeron.

“The message here is that fireproofing homes not only preserves structures, but limits the size of forest fires,” said Bourgeron. “So fireproofing one’s home not only protects the people that live in it, it also protects their neighbors and ultimately the forests.”

Bourgeron said the U.S. government spends millions of dollars annually on forest thinning and the removal of excess fuel on the forest floor in an attempt to limit the size and intensity of forest fires. “But if the growing number of homes built in this wildland-urban interface aren’t fireproofed, it is essentially a waste of money,” he said.

Source: University of Colorado at Boulder

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