

The interaction of climate change, fire, and forests in the US

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A special section of the September issue of *Forest Ecology and Management*, available online now, assesses the interactions among fire, climate change, and forests for five major regions of the United States.

The editors of the section—Drs. Chelcy Miniati from the U.S. Forest Service, Monique Rocca from Colorado State University, and Robert Mitchell (now deceased) from the Joseph W. Jones Ecological Research Center—started the project by organizing teams of scientists from the Forest Service and universities to provide scientific input into the third National Climate Assessment (NCA), which is prepared at least every four years to assess the effects of [climate change](#) on sectors, resources, and regions of the United States.

"The idea for the section came from conversations I had with Bob Mitchell when I was working with the U.S. Global Change Research Program a few years ago," said Miniati, project leader with the Forest Service Southern Research Station. "We quickly realized that the ability to manage wildfires and to use fire as a tool would be affected by climate change and that this interaction needed more attention in the next round of assessments. We wanted to tailor this information for forest managers."

Articles in the special section review the interactions between climate and fire in five different regions of the U.S.—the Pacific Northwest, Southwest, Rocky Mountains, mid-Atlantic, and Southeast. Each article follows the same general structure, providing a description of the region

and its forest types; discussion of projected changes in climate and how they will likely impact fire and forests; and a synthesis of what is known about the effects of fire on forest ecosystem services such as water quantity and quality, air quality, and biodiversity.

"The growing interest in fire and climate has been fueled by numerous predictions that wildfires—especially in the West—will get larger, more intense, and increasingly hard to contain with climate change," said Rocca. "Understanding the complex relationships among climate, [fire](#), and vegetation is critical to the ability of policymakers and resource managers to respond to climate change. Our goal in these articles is not only to provide the best available science, but also to inform the conversation on how forest management choices can impact the valuable services we derive from our forests."

More information: *Forest Ecology and Management*,
www.sciencedirect.com/science/journal/03781127/327

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