

SCIENCE

No Ecosystem on Earth Is Safe From Climate Change

If carbon emissions continue to grow, anyone who works with the land could face ‘unprecedented challenges.’

ROBINSON MEYER AUG 30, 2018



A firefighter watches a controlled burn in Sequoia National Forest in August 2015. (MAX WHITTAKER / REUTERS)

If climate change continues unabated, nearly every ecosystem on the planet would alter dramatically, to the point of becoming an entirely new biome, according to a new paper written by 42 scientists from around the world.

They warn that the changes of the next 200 years could equal—and may likely exceed—those seen over the 10,000 years that ended the last Ice Age. If humanity does not stop emitting greenhouse-gas emissions, the character of the land could metamorphose: Oak forest could become grassland. Evergreen woods could turn deciduous. And, of course, beaches would sink into the sea.

“Anywhere on the globe, the more you change climate, the more likely you are to see major ecological change,” says Stephen Jackson, an author of the report and the director of a climate-adaptation center at the U.S. Geological Survey.