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Insect outbreaks not responsible for severe fires in western forests

Photo: D. Kulakowski – upper elevation forests in the Rockies showing effects of fire (background) and mountain pine beetle (foreground)

A new report issued by the Ashland-Oregon based Geos Institute, synthesizes studies from diverse forest ecosystems across the western United States experiencing wildfires and insect outbreaks. The report "*Do mountain pine beetle outbreaks increase the risk of high-severity fires in western forests*?" challenges views about severe fires being triggered by insect outbreaks.

The report pulls together dozens of field studies from scientists that have been investigating insect outbreaks and severe forest fires for decades. Based on recent studies from the Rockies, Pacific Northwest, and Pacific Southwest, scientists have repeatedly concluded that there is no relationship between severe forest fires and insect outbreaks nor do severe fires trigger insect outbreaks.

This large body of research is especially relevant given Congress is considering legislation (S.2902) that would weaken environmental laws in favor of widespread logging in attempts to deal with insects and wildfires. California Governor Jerry Brown also issued a state of emergency to log millions of trees killed by recent drought and insects. Massive logging will actually increase, rather than decrease, fire risks from logging slash and produce global warming emissions that rival burning coal by burning dead trees as a fuel source.

The Geos Institute report is a compilation of leading research from mixed conifer forests, lodgepole pine, spruce-fir, ponderosa pine, and Douglas-fir forests across the West. It adds to a growing body of research delinking insect outbreaks from forest fires as commonly misunderstand by decision makers.

Dr. Dominick A. DellaSala, Chief Scientist, Geos Institute and author of the report concludes, "Instead of logging forests that have benefitted from nature's renewal after a forest fire or insect outbreak, policy makers should focus on helping homeowners reduce flammable vegetation and lower fire risks in flammable tree plantations damaged by decades of unsustainable logging."

Dr. Dominik Kulakowski, a leading researcher and Associate Professor of Geography and Biology at Clark University in Massachusetts, was not involved in the new report but has studied mountain pine beetle outbreaks for decades concluding, "Our research, as well as that of other researchers and universities, consistently indicates that outbreaks of bark beetles do not increase the risk of high-severity fires in lodgepole pine forests in the Rocky Mountains."

Kulakowski added, "Over the past decades, there has been a dramatic increase in wildfires and bark beetle outbreaks, which has led to understandable concern. But when these events are carefully examined, it becomes clear that wildfires are increasing due to climatic conditions, not because of concurrent outbreaks. In fact, the risk of wildfire can actually decrease after beetle killed trees lose their needles, as this effectively reduces the amount of flammable material. As counterintuitive as it may seem, during extreme drought, green forests may be more flammable than forests affected by outbreaks."

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