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## **Post-Fire Logging Q & A** **Dominick A. DellaSala, Ph.D.** **Forest Ecologist and Director WWF**



K.Schaffer



1. The study in *Science* authored by Dan Donato and other scientists at OSU and the Forest Service indicates logging after fires can damage seedlings and increase combustible fuels. Because this study was done 2-3 years after the fire, couldn't the damage to seedlings be avoided if logging commenced sooner?

The Donato study demonstrated that logging reduced seedling establishment by 71% compared to unlogged areas and increased (in the short and mid term) hazardous fuels through logging slash left behind by loggers. To only discuss seedling regeneration and their survival after logging is missing the forest for the trees. **Damage from post-fire logging goes well beyond impacts to naturally regenerating seedlings.** Logging – and associated equipment immediately after a fire or two years after a fire – compacts soils, causes excessive erosion, harms water quality and fish habitat, increases invasive species and the removal of large dead and dying trees can expose soils to increased sunlight, killing critical nitrogen fixing fungi. Further, if seedlings were coming back on their own (as is most often the case after a fire) there is no need to log forests to pay for reseedling. Disposal of slash through burn piles also impacts soils and below-ground fungi that are vital to restoring forest functions after fires. **These impacts are not avoided by speeding up logging.**

2. What role did the Donato study play in the debate on post-fire logging – is it true there’s a need for more science?



C. Frissell

The Donato study is another important piece of a growing body of scientific research on post-fire logging and disturbance ecology. The Donato study reaffirms that logging after fires hinders, not helps forests regenerate. It is abundantly clear that from over two decades of disturbance ecology research from the Mt. St. Helens 1980 eruption and the 1988 Yellowstone fires to the recent fires in southern California and Oregon - **nature is far more resilient than we can imagine and logging after natural disturbance compounds environmental damages by setting back recovery for decades, if not longer.** A recent review of post-fire logging studies (see link below) that was based on over 30 scientific studies and additional government reports indicated that post-fire logging is most often damaging, sometimes severely, to regenerating forests. **Not a single peer-reviewed paper has shown ecological benefits from post-fire logging.** While the authors of the Donato study state that they “kicked the door open on post-fire logging,” the door already was open when viewed from the sum total of research reports and scientific studies that preceded their work.

3. If trees are dead, why not log them anyway?



D. Clark



E. Bull



K. Schaffer



R. Sklar

**Dead and dying trees are the vital components of a new forest and are the “food” for regenerating ecosystems.** Disturbances like fire often generate a primary source of large dead and downed trees that forests will depend on for decades to centuries. The dying trees still contain seeds that can renew a forest after fire and the large dead and downed trees perform unique ecosystem functions, including preventing erosion by anchoring soils, providing shade and “nurse logs” for seedling establishment, and wildlife and fish habitat for numerous birds, small mammals, bats, and fish, many of which help keep insects in check after a disturbance event. **Logging removes these vital “legacy” trees that “lifeboat” a forest through its rejuvenating stages.** In congressional testimony to the House Subcommittee on Resources (November 10, 2005), prominent forest ecologist and University of Washington Professor Jerry Franklin said *“logging large dead trees likely has greater negative impacts on forest ecosystems than even logging green trees.”*

For more information on post-fire logging download the report:

<http://www.worldwildlife.org/wildplaces/kla/pubs/postfireloggingreviewfinal.pdf>