Geophysical Research Abstracts,
Vol. 10, EGU2008-A-01590, 2008
SRef-ID: 1607-7962/gra/EGU2008-A-01590
EGU General Assembly 2008

Impact of fire on wood decomposition in forest soils of western North America.

Deborah Page-Dumroese1 and Martin F. Jurgensen2

1 U.S Forest Service, Rocky Mountain Research Station, Moscow, Idaho 83843, U.S.A (ddumroese@fs.fed.us), 2 School of Forest Resources and Environmental Science, Michigan Technological University, Houghton, Michigan 49931, U.S.A.

Due to past fire exclusion practices and recent drought conditions in western North America, the number of large, high intensity fires has increased in the last decade. Consequently, there has been much interest on the effects such fires have on soil organic matter pools and the decomposition of new and residual OM after the fires. While most decomposition studies after fire have concentrated on surface leaf litter, much less is known on mineral soil. As part of a comprehensive study on the impact of wild and prescribed fire on soil physical, chemical and biological properties in western North American forests, we used “standard” wood stakes as an “index” of fire effect on organic matter decomposition across a range forest types and mineral soil conditions. Preliminary results indicate that wood decomposition in mineral soil is much faster in burned forests than in comparable unburned forests.