

ESA 2003 ANNUAL MEETING

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PARENT SESSION
Oral Session # 38: Forest Ecology II: Soils, Carbon, and Nutrient Cycling.
Presiding: Clinton, Barry¹, ¹
Wednesday, August 6. 8:00 AM to 11:30 AM, SITCC Meeting Room 100.

Biomass of down woody materials in eastern U. S. forests.

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ABSTRACT- Available and accessible data on components of down woody materials (DWMs) are needed for managing global carbon storage of forests. The U. S. Department of Agriculture Forest Inventory Analysis (FIA) program currently measures variables related to DWMs on a subsample of plots in several states. We tested the feasibility of linking these data to the entire FIA database. We compiled and computed biomass on coarse woody material, fine woody material, litter, duff, and shrub/herb cover; and we developed regression models to predict DWM components for extension to almost 100,000 FIA plots. Average biomass values for the eastern U.S. are 6.2, 4.7, 9.0, 8.8, and 2.2 Mg/ha for coarse woody material, fine woody material, litter, duff, and shrub/herb cover, respectively. The total of all DWM components (30.9 Mg/ha) is about 20% of the total forest biomass, which also includes live (99.4 Mg/ha) and dead (11.3 Mg/ha) standing trees.

Key words: coarse woody debris, down deadwood