

Graduate Research Opportunity – Fire Ecology

A graduate research assistantship (MS or Ph.D) is available for the following research project. If you are interested, please contact: Dr. Geoff Wang, Department of Forestry and Natural Resources, 261 Lehotsky Hall, Clemson University, Clemson, SC 29634-0317 (Phone: 864-656-4864; Email: gwang@clemson.edu). For information about Clemson University, visit www.clemson.edu

Project Title: Modify FOFEM for Use in the Coastal Plain region of the Southeastern US

Funding Agency: Joint Fire Science Program

Cooperators: Elizabeth D. Reihardt, Thomas A. Waldrop, Kenneth W. Outcalt, Dale G. Brockway, James D. Haywood, Joan L. Walker, J. Kevin Hiers

Description: Millions of acres of pine dominated forests are burned each year in the Coastal Plain region of the Southeastern US. To better plan for fire effects, predictive models such as FOFEM (First Order Fire Effects Model) are needed. Currently, FOFEM has been used by thousands of fire and land managers across the United States. It synthesizes the results of many empirical fire effects studies into one computer program that can be easily and quickly used by novice and expert resource managers. However, most empirical models within FOFEM have been developed exclusively based on data from western conifer forests. It is commonly acknowledged that empirical models lack generality and cannot be applied beyond the specific conditions on which they are based. The objective of the proposed study is to modify FOFEM for use in the Coastal Plain region of the Southeastern US. Specifically, we will compile a comprehensive data set from published and unpublished prescribed fire studies and use the compiled data to recalibrate the existing models or to develop new models for use in FOFEM. These recalibrated or newly developed models will then be incorporated into the existing computer programs to create a new version of FOFEM for use in the Coastal Plain region. The large number of completed and ongoing prescribed fire research projects in the Coastal Plain region provides a wealth of data for model recalibration and redevelopment. The modified version of FOFEM will give fire and land managers a useful and much needed tool for better planning and implementing future prescribed burning activities.