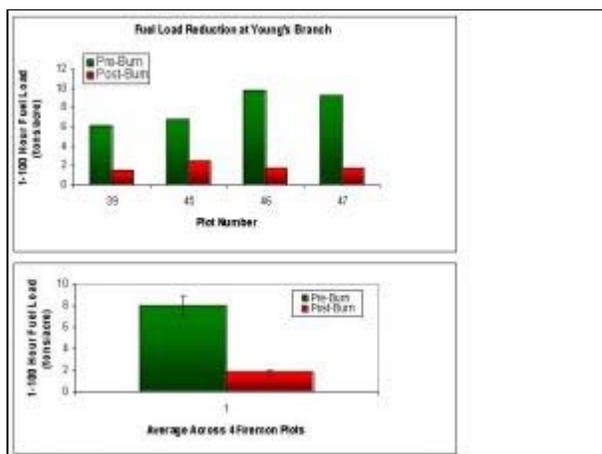




## Wayne deploys Firemon Plots to aid in Project level Monitoring

*Wayne National Forest Interdisciplinary Monitoring Team uses unusual protocols to improve monitoring at the Project level.*



Pre and post fuel loads from Young's Branch prescribed burn based on monitoring taken on Firemon plots.

In 2005, the Forest assembled an interdisciplinary monitoring team to discuss and research different protocols for project-level monitoring. The team looked at Forest Health Monitoring (FIA), National Park Service (Forest Monitoring Handbook), and Silvah Oak and Firemon protocols. Firemon was the most robust and flexible protocol because it allowed us to measure a variety of life forms and include customized measures. After testing the Firemon protocols in the field, we adopted this protocol.

Today, there are 234 permanent Firemon Plots on the Wayne National Forest. The table below details the types of baseline measurements that were taken at each site. Some plots were re-measured or have been identified for further measurements. The Pine Creek and Buckhorn plots were completed by a local contractor. Buckhorn and Pine Creek have plots evenly distributed among four treatments: timber harvest, timber harvest and prescribed burning, prescribed burning only and control.

The 44 ice storm study plots were established and measured to evaluate the effects of the 2003 ice storm. The plots cover a wide geographic area and were placed to sample areas where Firemon plots were not installed. These plots were completed between June and September 2007 by seasonal technicians from Ohio University. Ryan Trimbath, a graduate of Ohio University led the field crews in this effort. Fuel loadings ranged from 8-33 tons per acre and averaged 16 tons per acre across the Ice Storm Study Plots.

Young's Branch fuel plots were measured in 2005 by Ironton Fire Crew, Jason Simms, Zach Allen, Jennifer Brown and Scottie Kisor and re-measured in 2007 after the burns (see graph). Fuel loads from four plots decreased significantly ( $p$ -value < 0.01) in 1-100 hour fuels. On average, fuels decreased 77%. 1-1000 hour fuels decreased by 38% however, one thousand hour fuels alone did not decrease significantly.

This winter more plots are being measured on the Athens District with objective of covering vegetation management projects with monitoring plots to better evaluate the

effects of prescribed fire and timber harvesting.

## Table of Firemon Plots on the Wayne National Forest

### Data Collected and Year Measured

Site Name (# Plots) Fuels / Under-story / Overstory and Regen / Herps / Birds / Bat Habitat / Witness Trees

Youngs Branch Rx (15) 2005 - Fuels only

Darby Creek Rx (15) 2005 - Fuels only

Pine Creek\* (72) 2006 2006 2008 2007/08 2007/08 2008 2007

Buckhorn\* (68) 2007 2007 2007 2008 2008 2007 n/a

Ice Storm Study (44) 2007 2007 2007 2007 2007 2007 2007

Bailey Rx Fire (20) 2008 2006 2008

Total - 234 plots

Methods and Measurements Used: Fuels: 3-7 Brown's transects; Understory vegetation: 3 point intercept transects; Snags: on 0.1ac plot, Overstory: on 0.05ac plot, Sapling: on NE quadrant of 0.05ac plots, Seedlings: on 0.001ac plot; Herps: 2'x4' cover board; Birds: point count surveys; Bat and Herp habitat: on overstory plots and fuels transects.

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