



**National Park Service
Fire Ecology Annual Report
Calendar Year 2005**

Summary

This summer, the Mountains-to-the-Sea Fire Effects Monitoring Crew collected data at five parks, participated in several prescribed burns across the NPS Northeast Region, and completed the conversion of old data and data collection from FMH to FEAT.

Data were collected at Antietam, Fredericksburg and Spotsylvania, Richmond, Saratoga, and Shenandoah. As part of a cooperative manpower-exchange effort, the FEM crew assisted the Shenandoah Vegetation Monitoring crew to collect post-burn data on 40 vegetation transects at Big Meadows, a resource management prescribed burn unit at Shenandoah. In addition, the seasonal Fire Monitor assisted with pre-burn data collection on four non-FMH plots and with burn-day monitoring at Cape Cod National Seashore, which has its own monitoring program.

The Fire Ecologist and Lead Monitor participated in eight prescribed burns conducted at Antietam, Fredericksburg and Spotsylvania, and Richmond, and the seasonal Fire Monitor participated in the research burn at Cape Cod.

The Lead Monitor was instrumental in testing the new FEAT software, single-handedly converted all FMH data to FEAT, and presented a poster, *Using Fire Effects Monitoring for Adaptive Management*, at the George Wright Conference in Philadelphia in March.

Table 1. Management Objectives and Monitoring Results 2005

Once again, no data were analyzed in calendar year 2005.

Table 2. Fire Effects Plot Workload 2005

Park	Monitoring Unit	Type of Plot (FMH, photo point, other)	Pre-burn	Immed. Post	Postburn (1-20 yrs)	Total Plots
Acadia NP	overlooks	FMH forest quad	0	0	0	8
Antietam NB	grassland	FMH brush plot	0	0	1	2
	hardwood	FMH forest plot	0	0	0	1
Cape Cod NS (assist)	Lombard - Paradise Hollow	non-FMH	4	0	0	(lots)
Fred. and Spots. NMP	fields	photo points	0	0	0	8
		FMH brush plots	0	0	4	4
Richmond NBP	Cold Harbor	photo points	0	0	4	4
		FMH forest plots	0	0	2	2
Saratoga NHP	fields	FMH brush plots	0	0	5	13
Shenandoah NP	Big Meadows	non-FMH transects	0	0	(40)	(79)
	Fultz Run	CBI	0	0	0	20
	Grey Birch	FMH forest plots	0	0	0	10
	Rocky Top	CBI	0	0	0	19
	Sawmill	Brown's lines	0	0	0	10
	Shen. Complex	CBI	0	0	0	11
Total			4	0	16 (56)	108 (180)

Table 3. Fire Ecology Staffing 2005

	Starting Date	Ending Date	# of Pay Periods	Training and Development
KellyAnn Gorman	01/01/03	12/31/03	26	MS Access online training, LANDFIRE workshop, VMMC training, Statistics workshop, S-330, I-300, FPA training
Missy Forder	01/10/05	11/12/05	22	MS Access online training, VMMC training, Geo. Wright Society Conference, Statistics workshop, S-490, ArcGIS online training
Jill Stephens	05/02/05	09/30/05	11	CPR, S.A.R.

Table 4. Fire Ecologist Accomplishments / Focus Area

Category	Percent Time	Accomplishments/Focus Areas
General Planning	16%	FMPs, EAs, FONSI, Section 7, Rm18 Chapter 10 (and 9 and 11), etc.
Monitoring Plans	< 1%	
Presentations	< 1%	Presenting results of data collection to resource managers
NPS Meetings/ Task Groups	3%	Park, regional or national – FEAT working group, FMH to FEAT data conversion working group, Adaptive management task group, etc.
Interagency Work	13%	LANDFIRE, FPA, and FRCC
Fire Assignments and Fuels Projects	21%	Prescribed Fire, 10 shifts Wildfire (Ely Severity), 9 shifts All-risk (Katrina), 17 shifts
Research	0	
Monitoring Field Work	6%	ANTI, FRSP, RICH, SARA
Data Entry	0	
Data Management	2%	
Data Analysis	< 1%	
Supervision/Admin	14%	Hiring, supervision, travel, payroll, etc.
Training & Development	9%	Training and professional development; does NOT include PT.
FEM / Fire Ecology	7%	Fire ecology work not related to data collection, management, or analysis, such as: monitoring program development, treatment recommendations, literature search for info about fire regimes and effects, etc.
Prescribed Fire	6%	Prescribed fire program development and implementation, including writing burn plans.
Miscellaneous	3%	Stuff explicitly for SHEN that doesn't fit elsewhere or relate to fire.

Optional question for the fire ecologist

Over the next 6 to twelve months, the Fire Ecologists anticipates that her primary areas of focus will continue to be General Planning, Interagency Work, Fire Assignments, and Supervision/Administration, at approximately 15% each. She hopes to spend more time on Monitoring Plans, Data Analysis, and Presentations to resource managers and less on General Planning, Interagency Work, and Miscellaneous (Shenandoah). She has done little research and am not looking to do more at the present time, and Data Entry is delegated to the Lead Monitor.

Table 5. Fire Effect Crew Accomplishments

Category	Percent Time	Notes
FMH plots	13%	ANTI, FRSP, RICH, and SARA.
Mechanical plots	0	
CBI plots	0	
Other plot work	11%	Time-share with SHEN vegetation monitoring crew collecting data on Long Term Ecological Monitoring vegetation plots; assist SHEN Botany crew with fire effects data collection at Big Meadows; assist graduate student researcher with burn severity data collection at Rocky Top; assist CACO staff with pre-burn and burn day monitoring on non-FMH research plots .
Fire Assignments and Fuels Projects	14%	Prescribed fires, 7 shifts; All-risk assignment (Katrina), 17 shifts.
Data Entry	9%	Completed data entry of all plot data collected in 2005.
Data Management and Conversion	9%	Lead monitor took the lead on data conversion and participated on Data Conversion Working Team.
Data Analysis	0	
Supervision/Admin	9%	Included preparing for travel (but not time spent traveling), ordering supplies, timekeeping, new employee orientation, physicals and doctor appointments, crew leading, paperwork, errands, etc.
Training & Professional Development	20%	PT; Lead Monitor attended Geo. Wright Society conference; training included CPR and First Aid, snake bite and tick safety, Search and Rescue, IT/EEO/other mandatory government training, Fire Effects Monitoring and plant ID, MS Access, S-490, Vegetation Monitoring in a Management Context, fire refresher, statistics workshop, ArcGis.
FEAT Software Testing	12%	The Lead Monitor was involved extensively in testing of the new versions of the FEAT software as it was developed.
Miscellaneous	4%	Things that did not fit in other categories included wildfire readiness, work on the Fire Ecology Library, equipment maintenance, herbarium specimen preparation and classification, and monitoring reports.



**National Park Service
Delaware Water Gap National Recreation Area
Mid-Atlantic Fire Management Area
Fire Ecology Annual Report
Calendar Year 2005**

Summary

The Delaware Water Gap planned to conduct one prescribed burn and monitor a unit burned in 2004 in cooperation with the US Forest Service. Dr. Patrick Brose of the USFS Northeastern Research Station arrived at the end of July to inventory plots from the November 2004 Blue Mountain Lakes #1 prescribed burn and to install new plots for the planned Blue Mountain Lakes #2 prescribed burn. However, the Blue Mountain Lakes #2 burn was not conducted as the weather in October and November was not within prescription on days when personnel could be available. Plans are to conduct this burn in the spring or fall of 2006.

Management Objectives and Monitoring Results 2005

As the BML 2 prescribed burn was not conducted, management objectives were not achieved.

Table 2. Fire Effects Plot Workload 2005

Plots were monitored and installed by Dr. Brose and his seasonal crew.

Park	Monitoring Unit	Type of Plot (FMH, photo point, other)	Pre-burn	Immed. Post	Postburn (1-20 yrs)	Total Plots
Delaware Water Gap	Blue Mountain Lake 1	Other forest plot	6	0	6*	6
Delaware Water Gap	Blue Mountain Lake 2	Other forest plot	15	0	0	15
Total			21		6	21

*Post burn plots that were monitored were the same as the pre-burn plots.

Fire Ecology Staffing 2005

The park has no fire ecology staff

Fire Ecologist Accomplishments/Focus Area

As the park has no fire ecologist, all accomplishments were completed by the FMO and senior firefighter. The percent time is a percent of time associated with prescribed fire and fuels treatment projects and not of time associated with total workload. Prescribed fire and fuels treatment projects account for 50% of the total workload.

Category	Percent Time	Accomplishments/Focus Areas
General Planning	90%	Provided guidance for GATE, GETT, and VAFO FMP's with respect to prescribed fire and fuels treatments Prepared ESF and CatEx for BML2 prescribed fire, Upper Ridge Road and Cliff Park-Milford Knob fuel reduction projects
Monitoring Plans	0%	
Presentations	0%	
NPS Meetings/ Task Groups	0%	
Interagency Work	0%	
Fire Assignments and Fuels Projects	10%	COTR for fuel reduction projects
Research	0%	
Monitoring Field Work	0%	
Data Entry	0%	
Data Management and Conversion	0%	
Data Analysis	0%	
Supervision/Admin	0%	
Training & Professional Development	0%	
Miscellaneous		

Fire Effect Crew Accomplishments

The park has no fire effects crew. All monitoring was performed by Dr. Brose and his seasonal crew. While in the park, 100% of their time was dedicated to installing 15 new plots in the BML 2 unit and monitoring 6 plots in the BML 1 unit over a 3-day period.



**National Park Service
New River Gorge National River
Allegheny Fire Management Area
Fire Ecology Annual Report
Calendar Year 2005**

Summary

In Spring 2005 the New River Gorge National River conducted a prescribed fire over most of the designated grassland area located at the Sandstone Visitor Center. The initial prognosis of the burn seems to be positive in the suppression of undesirable species and favoring of native grasses and forbs. The data suggests that a program of prescribed fire the controlled burn would be beneficial as a an annual or biannual treatment of this site. The landscape as a whole (after the first year of maintenance and the prescribed fire) looks better and is healthier than ever before.