



Big Cypress National Preserve

National Park Service Fire Ecology Annual Report Calendar Year 2010

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A. Summary

The Fuels/Fire effects crew at Big Cypress National Preserve had a busy year. In CY 2010 we completed 24 prescribed fire projects for a total 50,000 acres. When not burning or doing burn prep a vast amount of time was spent preparing and completing the 2010 Fire Management Plan and two new burn plans. 64 pre and post burn plots were visited and a new plot database was created. The new database now contains all the past and current plot data including a self tabulating feature that automatically calculates the inputs for our *Fire Ecology Annual Report*.

The lack of staff has forced the employees in the Fuels/Fire effects crew to come up with innovative and time saving solutions that allowed us to do all the work needed without sacrificing quality. Here is a brief list of some of those accomplishments.

- Updated all site history information and tied it to GIS fire history database.
- Created a comprehensive database for an easy way to compare data collected at many different photopoints.
- Created a database with every plant species ever documented in the Preserve and are currently attaching photos to it for quick identification references.
- Began collecting 360° panoramic photos, in addition to typical N, S, E, and W views, and linked it in GIS so when the photopoint is clicked a 360° view is available for the user.
- Pre and post burn forms were re-written to achieve a quicker and easier user experience. These results are tied back to the main database.

We also maintain 4 weather stations that we perform all annual maintenance on. We have several sites around the preserve that we collect weekly fuel moistures from. We maintained all the fire reports and updated and error checked the WFMI, and WIMS for all the data since 1978. We recently started tracking the hydrology levels at 9 stations on the preserve and we have created a database for those stations that goes back to 2001. All the firefighters at Big Cypress National Preserve are suppression firefighters and prescribed firefighters regardless of their official title. We depend on each other for many things from monitoring to welding to digging handline.

Table 1. Fire Effects Plot Workload (2010) and Total Plots Installed

Park	Monitoring Unit	Type of Plot (FMH, photo point, other)	Pre-burn 2010	Immed. Post 2010	Postburn (1-20 yrs) 2010	Total Plots
Big Cypress	Pine	Photo point	2	10	17	34
Big Cypress	Pine	FMH	0	0	1	3
Big Cypress	Prairie	Photo point	3	3	17	30
Big Cypress	Prairie	FMH	0	1	1	5
Big Cypress	Cypress Savannah	Photo point	0	2	6	12
Big Cypress	Cypress Savannah	FMH	0	0	0	1
Big Cypress	Hammock	Photo point	0	0	0	1
Big Cypress	Mechanical	Photo point	0	0	0	2
Big Cypress	Disturbed	Photo point	1	0	0	1
Total			6	16	42	89

* Pilot sampling plots

Table 2. Fire Ecology Staffing 2010

Every firefighter at BICY, regardless of their position, contributed to monitoring, data collection and entry, burning, and prescribed fire preparations. We had suppression folks; ENGB's, FFT1's, TFLD's, and HMGB's going out in the field to help do plots and monitoring. The people listed below work in Fuels or Fire Effects.

Ecologist and Monitors	Starting Date	Ending Date	# of Pay Periods	READ Qualified (Yes or No)	Training and Development
Jill Waisley	1/1/2010	12/31/2010	26	No	S-215, S-390, Rx-310, S-230, S-231, Initiated ENGB, FEMO (T)
Mindy Wright	1/1/2010	12/31/2010	26	No	ICT5 (T), FIRB(T), FEMO(T), S-215
Justin Turnbo	1/1/2010	12/31/2010	26	No	TFM 25, completed HMGB and TFLD

Table 3. Management Objectives and Monitoring Results

Monitoring Unit	Management Objective (Restoration)	Monitoring Results (XX% confidence interval)	Objective Achieved?	Year Last Analysis Completed
Pine	Consumed 75% of pine litter and palmetto thatch	Total fuel reduction >75% (n= 9 plots visited, 8 fires in pine plots)	YES	
	Reduce existing shrub height >50% 1-yr post burn	Ocular Estimation at photopoint site: >50% reduction 1 yr post (n=6 plots, 8 fires in pine plots)	YES	
Prairie/Cypress Savannah	Reduce existing shrub height in prairies >50% 1-yr post burn	Ocular Estimation at photopoint site: Total woody vegetation reduction >50% (n=12 plots, 7 fires in Prairie/Cypress plots)	YES	
All Units	Treat 75% of burnable veg during each treatment every 3-5yrs	total fuel reduction = 75%-100% (n= 64 plots visited, 15 fires in all plots this year)	YES	

B. Fire ecologist accomplishments and areas of focus

Well the Ecologist never showed up for work. Not one day. We are trying to find them and there is even an APB out right now. Just kidding... we do not have an Ecologist here at BICY. We do collaborate with the Regional Ecologist though.

Table 4. Fire Ecologist Accomplishments/Focus Areas

(Please see B. above)

C. Fire effects crew accomplishments and areas of focus

Table 5. Fire Effects Crew Accomplishments/Focus Areas

Category	Percent Time	Notes
FMH plots	5%	FMH plots that reached completion of 3 yr rotation were converted to photo point plot, of 32 original FMH plots 16 have been converted in last 2 years
WUI plots	25%	Big Cypress 2010 FMP defines WUI as an "Area where an ignition can impact any structure or roadway within one burn period." So all photopoints have been included in this estimate
CBI plots		Beginning of 2011 fiscal year all immediate post burn site visits include CBI data collection.
Wildfire assignments	5%	Assisted CUGA FUM with prescribed fire at Congaree National Park 3 wildfires inside preserve
Prescribed fire projects	15%	24 prescribed fire projects.
Non-fire fuels projects	0	Estimated amount of time spent assisting with non-fire fuels projects; include READ activities
Data entry	29%	Estimated amount of time spent entering data from paper to PC
Data analysis	5%	This is expected to be very low number or zero for fire effects crew/lead monitor
Supervision/Admin	1%	Payroll, travel authorization/voucher, etc.
Training	5%	S-390, Rx-310, S-230, S-231, S-244, S-215, Look-up Look Down, S-212, Refreshers: PLDO, HECM, 130/190,
Miscellaneous	10%	Composed new FMP and 2 Burn Plans

D. Additional Information

Table 6. Data Entry and Projects Monitored

Park	% 2010 Data Entered	% 2010 Data Quality Checked	# Prescribed Fires Monitored*	# Non-fire Fuels Treatments Monitored*	# Wildfires Monitored*	# BAER Treatments Monitored*
Big Cypress National Preserve	100%		27	0	3	

* Number of treatment units with treatment effects monitoring conducted. Include pre-burn and post-burn monitoring but not burn-day monitoring.

E. Optional Information

We do not have the time or the resources to do multiple or repetitive data entry. In the past, the pre and post forms would be done and then another person would enter that data in to a specific individual plot excel spreadsheet (Each plot had its own spreadsheet per year). None of the plot spreadsheets were linked, so every plot that was visited in that year had to be looked at individually and evaluated individually with all the others to see if the objectives were being met in the burn units. Now thanks to Jill Waisley, and her idea to join all the historical and present plot data, we can instantly see if we are meeting objectives and what changes are taking place in a burn unit. When a new pre or post form is completed, the results are self populated in the main database automatically.

When we decided to do our *Fire Ecology Annual Report* we simply went to the totals page in the database, selected 2010, and we were done.