

The Weather Vane

The Newsletter of the Heartland Inventory and Monitoring Network

Volume 8 / Number 1, January–February, 2012

News in Brief

[Park acronyms are given on page 2](#)

Aquatic Monitoring

We sampled BUFF invertebrates in December. We will publish and post the Springs Community report and resource brief soon.

Breeding Bird Monitoring

We distributed reports for ARPO, HOCU, and LIBO to the parks and posted resource briefs on the web site. New Arc-GIS tools have improved bird habitat mapping from data collected during bird surveys.

Data Management

Staff continue reviewing legacy references and holdings to update the NPS web portal, IRMA. These include NatureBib and other references. Staff implemented a new management system to organize network photos.

GIS/Land Cover Monitoring

Service pack 3 was released and should be installed on computers running ArcGIS 10.

Fire Ecology

We completed monitoring reports for GWCA and HOME. Reports for WICR and TAPR are in review. Sherry makes calls to parks in January to plan 2012 Rx-fire monitoring. Fire history geodatabases are up to date; let us know if you need a new copy.

Fish Community Monitoring

Status reports and resource briefs for PERI and HOSP near publication. This spring, we will complete a revised protocol for BUFF and OZAR fish monitoring, based on findings from the 5-year analysis of data.

Invasive Plant Monitoring

We continue working on reports for ARPO, HOCU, LIBO, and OZAR.

Rare Plant Monitoring

Staff completed the annual Missouri bladderpod monitoring report.

Vegetation Community Monitoring

Review of the WICR monitoring report for restored prairie/savanna began. Staff continue park-based visual plant identification

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Overcoming the Stovepipe

Strategic integration, synergy, creativity, partnerships, innovation, collaboration . . . these are popular terms in current management-speak. Why then do our operations often fall short of these aspirations? They are simply hard to achieve. Programs have different priorities usually driven by different evaluation standards. They have different lexicons and business practices as well. The devil is truly in the details. Success requires overcoming the stovepipe, a narrow functional view of an organization, and achieving a cross-functional view of our responsibilities. Doing so leads to activity-based management, instead of narrow function-specific approaches.

In this special feature of The Weather Vane, we celebrate our success in integrating services provided to parks within the network and among our partner service-providers. Our approach places the National Park Service (NPS) mission above program functions, adding value to our services, and thereby increasing the overall return on investment. The fruits of our labors emerge:

- The HTLN invasive plant management team (EPMT) is informed by and its effectiveness evaluated through invasive plant monitoring.
- The partnership between National Interagency Fire Center, Midwest Region, Missouri State University and HTLN provides fire effects monitoring and fire ecology support to parks.
- A multi-disciplinary planning approach assists park managers in coordinating their various management tools to most effectively achieve objectives.
- The decentralized organization of the HTLN EPMT promotes partnerships with parks in carrying out invasive plant management.

- A culture of collaboration and cooperation promotes effective communication thereby improving resource protection.
- Vegetation monitoring and fire effects monitoring support one another through shared expertise, integrated field crews, and fire-specific, short-term monitoring.
- Breeding bird monitoring conducted by the network is augmented by park-directed volunteers, who use network protocols to collect data annually.

These examples demonstrate that through persistence and incremental steps programs can retain autonomy, while integrating actions for the preservation of all resources.

— written by Mike DeBacker

BOD Meeting Highlights

The Board of Directors (BOD) held their quarterly meeting by conference call on October 24, 2011. They

- Approved the FY2011 Administrative Report and FY2012 Work Plan.
- Approved fund for an Exotic Plant Management Team field leader. This shared position is duty-stationed at CUVA.
- Decided that there will be no biennial meeting in 2012 due to travel ceiling and other considerations.
- Suggested that the communication work group be reestablished with a goal for each park to create a product/program based on HTLN data.
- Reed Detring (OZAR), Wendy Lauritzen (TAPR), and Ed Wood (ARPO) received thanks for their service to the BOD these last two years. Jim Heaney (GWCA) will serve as the new BOD chair.

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How Exotic! A Good Operational Model

As with any centralized service in the NPS, an Inventory and Monitoring network or an Exotic Plant Management Team (EPMT) serving many parks only makes sense to the extent that such a unit achieves greater efficiencies than parks can achieve working alone. An EPMT by design provides sufficient well-trained staff and equipment to treat invasive plants in parks effectively.



Vegetation monitoring with park staff assistance at HOME, HTLN file photo.

Although potentially beneficial, centralized services have some drawbacks. For example, parks can implement invasive plant management treatments that are time-sensitive, because park employees are located where they

observe the growing season progress. Familiarity with the local resources and localized logistics enhance the park staff's ability to conduct work locally. In contrast, personnel of a centralized EPMT possess technical expertise and concentrated staff effort that are often unavailable in parks.

Fortunately, the HTLN EPMT finds that a good operational model is often for park and EPMT staff to work cooperatively together. In October and November, two EPMT staff worked with two staff from Buffalo National River (BUFF) as a team. The BUFF staff included a natural resource employee and a fire management employee. Both were chainsaw qualified and were able to apply herbicides. Both knew the park inside and out. Both were also in furlough status.

The EPMT staff directed the BUFF staffs' skills to projects identified during earlier invasive plant reconnaissance trips. The EPMT staff also recommended the best treatment methods and herbicides, and then supervised field operations. The team worked together for four weeks.

Operational efficiencies became obvious. The EPMT received trained,

knowledgeable and motivated staff - without navigating the hiring process. The staff from BUFF required no travel or per diem allowances. Extending the duration of seasonal employees potentially increased employee satisfaction, given the regular uncertainty associated with annual budgets.

The BUFF and EPMT staff learned from each other, exchanging knowledge of the park, its resources, and land management techniques. Similar cooperative efforts between park and EPMT staff occurred at Cuyahoga Valley National Park and Pea Ridge National Military Park as well.

Experience revealed a less than obvious fact. The EPMT must go beyond being a service provider to be effective. There are too many invasive plants in too many places for such a singular purpose to ever work well.

Yes, achieving cooperation requires sharing time, expertise and money, not just goodwill. And, as with all funds, strings are always attached. Nonetheless, cooperative investment in invasive plant management could pay dividends with real conservation benefits for natural resources across the parks that cooperate as the Heartland Network.

— written by Craig Young

Imagine There's No Heaven — Tree-of-Heaven, I mean

During prescribed fire operations on 25 August 2011 at Wilson's Creek National Battlefield (WICR), Chris Kopek, lead fire effects monitor, spotted a large tree-of-heaven (*Ailanthus altissima*), while observing the fire near the park's west boundary. Kopek also found many saplings scattered throughout the immediate location of the large parent-tree.

Tree-of-heaven is an invasive exotic species targeted for eradication or control by HTLN's Exotic Plant Man-

agement Team (EPMT). Being aware of the big picture, Kopek went beyond fire effects monitoring and took the initiative to deal with the tree he found by asking Dan Drees, fire ecologist, to verify identification of the tree and document its location with GPS.

The Buffalo River Fire Module on location to assist with the prescribed fire had several crewmembers with advanced chainsaw training. A sawyer was directed to the location and in short order the tree lay on the ground exactly where the sawyer had intended.

The sawyer had considered the need for secondary treatment and had left a larger than usual stump that was later cut and chemically treated by the EPMT crew to prevent re-sprouting. The EPMT also treated saplings in the vicinity.

Tree-of-heaven is incredibly prolific and if left unchecked could easily dominate the woodland. Coordinat-



Treating tree-of-heaven mother tree by Nancy Fraley, USDI NPS, Bugwood.org.



Clump of tree-of-heaven by John M. Randall, The Nature Conservancy, Bugwood.org

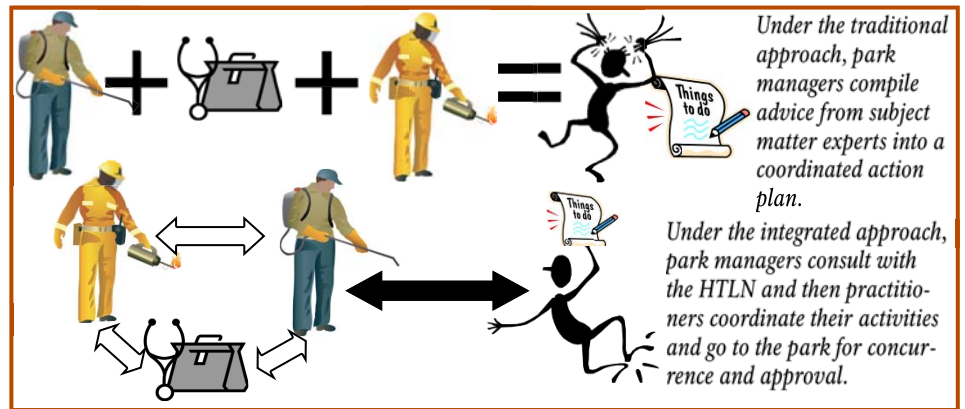
ing field observations and thinking outside of the program-level box allowed a parent-tree to be efficiently and effectively dispatched through coordinated efforts.

— written by Chris Kopek

Getting Our Act Together

Integration among program areas in the HTLN facilitates interdisciplinary planning. Interdisciplinary planning makes it easier for park managers to design a suite of actions that achieve overall objectives. Simple, right?

Now, imagine you're a ranger in a small cultural park and you have natural resource management as a collateral duty. One of your responsibilities is to plan and direct management actions (e.g. fire, restoration, invasive plants). Every year you contact your EPMT liaison for recommendations on treating invasive plants, next you contact your fire ecologist to discuss when and where to burn, next you contact a regional office expert or monitoring project manager, and so forth. Great, you now have a lot of advice from natural resource professionals. What happens next?



You, the ranger with collateral resource management duties, must figure out how to integrate this advice, account for potential synergistic or deleterious interactions among treatments, and devise a work plan to achieve overall objectives. Yeah, right!

Our HTLN approach is to start with listening. We listen to park managers and to one another as we develop a collective understanding of

overall park goals. Within that context, network staff work together to design a suite of activities to achieve overall park goals. The recommendations are then reviewed and modified in consultation with park managers. Holistic planning is another value added service we can provide to park managers to ensure our programs are important and relevant to their needs.

— written by Mike DeBacker

Collaboration at GWCA — An Effort That Costs Peanuts

The Heartland Network's fire monitoring program and EPMT worked together to maximize the benefit of invasive plant treatments in the prairie at George Washington Carver National Memorial (GWCA) in 2011. Throughout the year, HTLN ecologists in the inventory and monitoring programs, fire program and invasive plants program coordinated responses and actions to address fully park management needs.

For example, the park drafted an annual work plan for prairie management and requested a review by the HTLN. As a group, we were able to provide feedback based on monitoring data, research, and expertise. The EPMT also shared spatial information

about treatment locations in the prairie with the fire effects program, while the fire effects program advised on upcoming prescribed burns, closing the information loop.

In October, about one month after a prescribed fire in the prairie at GWCA, network and park staff met to survey the burned prairie units. During the walk-through, staff noticed sprouting of native woody and non-native herbaceous plants. As a result, the park was able to apply herbicide treatments within the burned area to control these plants, while they were the most vulnerable. Newly sprouting sericea (*Lespedeza cuneata*) plants, in particular, were more easily treated in the post-burn condition because most non-target biomass was removed. Target plants were also more easily identified at this time.



The view from the visitor center observation deck provides visitors with exposure to prairie and woodlands. The cultural landscape can be affected by the invasive species in the park. Photo from GWCA.

Observation of the prairie by a team facilitated a better understanding of how to coordinate park and network management efforts. It combined the economy of scale from using centralized special teams of experts with the intimate knowledge of the landscape needs that only park staff have.

— written by Sherry Leis



Sprouting sericea, sometimes called Chinese bush-clover, after prescribed fire. Photo by Sherry Leis, HTLN Fire Ecologist.

(Continued from page 1)

guides. Tentative dates for 2012 sampling have been added to the Sharepoint calendar. We started planning for accuracy assessment of vegetation inventories at GWCA, PERI, and WICR.

Wetland Monitoring

We wrapped up the season with nearly 350 volunteer hours in well monitoring and

vegetation surveys at nine areas of management concern. We gave presentations to nearly 80 Volunteers-in-Parks as part of the volunteer enrichment series in October.

Whitetail Deer Monitoring

Surveys began Jan 3rd at ARPO and run through mid-February. We survey at ARPO, PERI and WICR again this year.

Mill Mountain Mimosa — Seeing the Forest for the Trees

Fire management staff located at Ozark National Scenic Riverways (OZAR) takes responsibility for fire management in several NPS units. The goal of the program is to restore and maintain fire-dependent ecosystems, while addressing hazard fuel load concerns. As with many NPS programs, it uses high-quality seasonal staff and empowers that staff with real responsibility and decision making authority in the field. They achieve a level of stewardship expected in the NPS.

Matt Heinz, a winter seasonal employee doing fire line preparation in 2010 for OZAR, reported finding a large mimosa tree (*Albizia julibrissin*) and many saplings in the Mill Mountain prescribed burn unit. Heinz cut down the mother tree and recorded coordinates of the infestation. The recorded information passed from Dan Drees, fire ecologist at OZAR fire management, to Kim Houf, terrestrial ecologist at OZAR, and finally to Craig Young, EPMT coordinator. This summer, Adam Throckmorton and Jordan Bell successfully located and then treated the Mill Mountain mimosa infestation before it could contaminate a portion of the park with very high natural integrity.

Heinz, Throckmorton and Bell are emblematic of typical NPS seasonal and field employees. They are highly educated in natural resource management and very motivated to make tangible contributions to resource stewardship. They believe that NPS employees have both an obligation and an opportunity to enhance integrity of natural and cultural resources, and they act accordingly.

The information moved swiftly through a series of experts, but the real story is the big-picture approach taken by field staff. It is the skill and dedication of our field staff that delivers stewardship results.

— edited by Sherry Middlemis-Brown



Glade burning at WICR, HTLN file photo

Fire in Wire Road Glade

Wilson's Creek National Battlefield (WICR) burned a glade in August 2011, intending to restore exceptional habitat that supports rare species. Glades, characterized by shallow rocky soils, depend on fire to maintain a mix of distinctive species.

Prescribed fire encourages a balance of grassland and woodland species and glade specialists. Without fire, eastern redcedar and other invasive trees and shrubs choke areas with relatively deep soils, potentially excluding rare species that characterize a healthy glade community. These species may increase hazard fuels as well.

The Wire Road Glade had been burned six years ago and densities of redcedar and other woody invaders have been increasing since. The WICR managers cut adult redcedar trees one year prior



Pre-burn virtual site 145 AS-AF

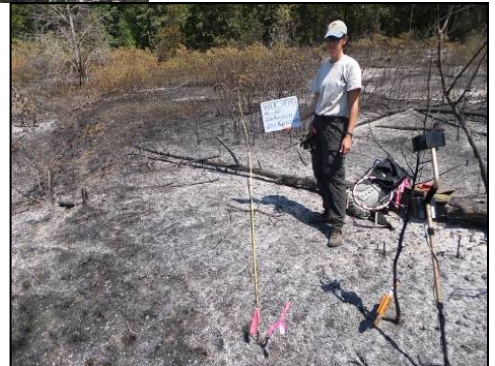
to the burn, leaving slash in place, as the first step in a two stage restoration. The WICR managers designed the August fire to reduce the redcedar cover and fuel loads on the glade. An interagency crew, including the NPS, Missouri Department of Conservation and US For-

est Service, conducted the fire. The glade burned intensely with fire severity averaging in the moderate to heavy categories. Dead and down fuel loads decreased on the glade by 68% and overall fuel loads decreased by 60-72%.

Eastern redcedar, ranging in size from seedlings to trees less than 3 meters tall, located in the core of the glade were killed. Crews used leaf blowers to disperse piles of ash from burned redcedar slash in an effort to expedite vegetation recovery.

Long-term monitoring of the glade vegetation, particularly abundance of rare species, will help assess whether the short-term achievements (e.g. redcedar removal) translate into healthy rare species populations.

— written by Sherry Leis



Post-burn virtual site 145 AS-AF. HTLN file photos.

Abbreviations

NPS = National Park Service
ARPO = Arkansas Post National Memorial
BUFF = Buffalo National River
CUVA = Cuyahoga Valley National Park
EFMO = Effigy Mounds National Monument
GWCA = Geo. Washington Carver Nat. Mon.
HEHO = Herbert Hoover Nat. Historic Site
HOME = Homestead Nat. Mon. of America
HOCU = Hopewell Culture Nat. Historical Park
HOSP = Hot Springs National Park
LIBO = Lincoln Boyhood National Memorial
OZAR = Ozark National Scenic Riverways
PERI = Pea Ridge National Military Park
PIPE = Pipestone National Monument
TAPR = Tallgrass Prairie National Preserve
WICR = Wilson's Creek National Battlefield

More on the Web

HTLN website: <http://science.nature.nps.gov/im/units/htln/index.cfm>

Are you a HTLN park manager and want to see the monitoring schedule? <http://inpmwroxshare.nps.doi.net:2011/sites/heartland/Lists/Calendar/calendar.aspx>

Information on OZAR fire management: <http://www.nps.gov/ozar/parkmgmt/firemanagement.htm>

Least Wanted: Alien Plan Invaders fact sheets: <http://www.nps.gov/plants/alien/fact.htm>

Visit a park: [www.nps.gov/\[park abbreviation\]](http://www.nps.gov/[park abbreviation])