The Weather Vane

The Newsletter of the Heartland Network Inventory and Monitoring Program

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News in Brief

Aquatic Monitoring
We expect the results from the contaminant metals field work at OZAR soon. Progress continues on several draft reports. Sample processing and data entry continue for 2008 collections. Revision of the stream geomorphology protocol continues.

Bird Monitoring
Network staff will monitor birds at HEHO, HOME, PIPE, and EFMO in 2009. We continue working with parks to organize volunteer bird monitoring that will complement staff work. Internal review began for reports on HOCU, GWCA, PERI, and WICR.

Data Management
Staff are developing data matrices for breeding bird monitoring to use in GIS analysis. Biologists will examine habitat variables in a spatiotemporal context. Staff commenced integrating HTLN databases with the "R" statistical software environment, using Open Database Connectivity (ODBC) technology.

Fire Ecology
Staff participated in a prescribed fire at WICR. A fire report and GIS boundaries were produced in addition to other monitoring data. Results of photoboard sampling for biomass were negative. Further testing may be done this summer. Fire occurrence data have been processed for TAPR, EFMO, and WICR.

Fish Community Monitoring
Processing fish samples from 2008 continues. Staff are writing annual reports for park staff and state agencies. We will present monitoring results for OZAR and BUFF at a state natural resource conference in Missouri this winter.

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Networking to Control Invasive Plants – Let's Make a Plan

The Heartland I&M Network staff play an important and specific role in managing invasive plants: we determine how best to find and count invasive plants, we find and count plants in the field, and we report those findings. The resulting information serves as a natural starting place for invasive plant management planning. Invasive plant management responsibility falls to park natural resource managers or in some other networks, to Exotic Plant Management Teams (EPMTs).


Northern Great Plains EPMT, NPS

Network staff continue to assist in invasive plant management planning. The basis for this involvement is our familiarity with data describing invasive plant abundance and distribution on most parks in the Network. A Student Conservation Association intern supports this effort. We required individual management plans for each park before we could devise a multi-park plan to guide an EPMT. Draft management recommendations for each park may be viewed at the HTLN SharePoint Site (see "More on the Web", page 2, for NPS Intranet link).

In developing these recommendations for each species, we outlined: 1) an estimate of exotic plant abundance, 2) a management goal, 3) treatment method(s), 4) a responsible party (park or EPMT), and 5) an estimate of treatment days required for a four-person team. The simplifying assumptions that were used to keep these recommendations tractable are described in each draft. Finally, control treatments were scheduled at the biologically appropriate times. The result, we trust, will allow for rigorous development of EPMT budgets and work plans.

A few caveats are in order. First, we acknowledge that in the best case scenario, a vegetation management plan should precede development of an invasive plant management plan. That is, invasive plant management only makes sense within a context of more carefully stated vegetation management objectives. Eradication of all of a park's invasive plants is not usually a strategic vegetation management objective.

Secondly, we recognize that our recommendations may oversimplify the situation for many parks. For this reason, we ask that park resource managers review the recommendations and then suggest changes as needed. Wholesale cri-

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. . . protecting the habitat of our heritage

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Invasive Plant Monitoring
The report of the invasive plant survey for Hopewell Culture NHS is complete and available on the HTLN website.

Landuse/Landcover
Fieldwork will be done in early March for the Eastern half of BUFF.

Plant Community Monitoring
Staff recently completed field sampling and data entry for TAPR. Analysis of 2008 field data from GWCA began. Model development and spatial analysis continues as part of the EFMO RSS project.

Rare Plant Monitoring
The 2008 update on the status of the western prairie fringed orchid at Pipestone NM is complete and available on the HTLN website.

Wetland Monitoring
A preliminary draft of the protocol narrative is anticipated for review in February.

White-tailed Deer Monitoring
Our 2009 deer monitoring at ARPO, PERI and WICR commenced January 5. Surveys will run through mid-February.

(Continued from page 1: Forest for the Trees)

tiques of the simplifying assumptions are appropriate also. You can discuss these concerns with the HTLN botanist, Craig Young (Craig_Young@nps.gov or 417.732.6438 x 281). More importantly, we urge NPS staff to discuss these issues with the larger group at: http://inpmwro_share.nps.doi.net:11122/IEPM/Lists/Team%20Discussion/AllItems.aspx.

We look forward to this opportunity to work together and to benefit from the insights, experience, and suggestions of Network park resource managers.

— Craig Young

Park Acronyms

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 Memorial Park*
PIPE = *Pipestone National Monument*
TAPR = *Tallgrass Prairie National Preserve*
WICR = *Wilson's Creek National Battlefield*

Data, data, and more data! Now what do I do with it?

The Network began long-term monitoring several years ago and has produced a plethora of information for the parks about the status of natural resources. Now, what does the natural resource manager do with all this information?

First, HTLN produces reports. These concise documents report and interpret data, often providing recommendations for management. You will find them at NPS Intranet http://www1. nrintra.nps.gov/im/units/htln/reports.cfm. Additionally, many reports have resource briefs accessible through links preceding the report titles on the report page. The one-page report brief presents a synopsis of the report using common terminology and a chart illustrating changes in population status or trends.

If a manager needs quick data on average water temperature or Simpson's diversity values, he or she can access it directly at the NPS Intranet site http://www1.nrintra.nps.gov/im/units/htln/ctd.cfm. These tables provide natural resource "current conditions" used in Resource Stewardship Strategies.

Two other web pages help both the resource manager and the interpretation manager to share information with the public. The Education and Outreach page, http://science.nature.nps.gov/im/units/htln/education.cfm, has downloadable video, audio, PowerPoint presentations, posters, archived editions of The Weather Vane and more.

The Fire Ecology page, http://science.nature.nps.gov/im/units/htln/fire.cfm, has information about the Fire Ecology program, reports, a Fire Resource Kit and templates for site bulletins and fire notices. The Kit has made information relating to prescribed fire and tallgrass prairie fire ecology accessible with a few clicks of the mouse. Sherry Leis, fire ecologist for HTLN, works with parks to better understand fire effects over the short- and long-term in parks.

Leo Acosta, former resource manager at ARPO, has utilized HTLN exotic plant survey data to locate and prioritize exotic plants for treatment. According to Leo, the report and geodatabase made decision-making easy. Leo also found the deer surveys useful. The reports told him the status of the population and trends over time.

Meg Plona at CUVA uses the invasive plant survey information to quantify invasive plant cover visually. A university student created an extension to the survey that allows Meg to implement invasive plant control. The survey included two Metro Park districts that have land within the National Park boundary, providing much needed information to partners. Meg also has partners requesting maps and information that will result from the tailor-made CUVA Wetland Protocol.

Gia Wagner has used invasive plant density information to demonstrate the urgency of PIPE's problem in their Project Management Information System proposed project justifications and criteria. Gia sees other uses down the road, as HTLN gathers more years of data for analysis.

Network staff have shown a willingness to gear their analyses to specific issues at each park. The staff offers their expertise to assist parks in planning management action. Learn more about the connections between data and park management at the NPS Intranet site http://www1.nrintra. nps.gov/im/units/htln/ctd.cfm.

— Sherry Middlemis-Brown

More on the Web

NPS Int*ra*net sites:

Invasive plant recommendations
http://inpmwro_share.nps.doi.net:11122/IEPM/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2fIEPM%2fShared%20Documents%2fManagementRecommendations&FolderCTID=&View=%7b62BF7175%2d67F8%2d4973%2d8D90%2dB881FA3FC4F0%7d

Connect the dots http://www1.nrintra.nps.gov/im/units/htln/ctd.cfm

Fire Ecology http://science.nature.nps.gov/im/units/htln/fire.cfm