

The Weather Vane

The Newsletter of the Heartland Network Inventory and Monitoring Program

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News in Brief

GIS and Data Management

Staff acquired new object-based orthophoto and satellite image classification software to use with spectral-based classification to monitor land-use changes. Staff completed operational versions of the OZAR springs database and the small streams fish database. They are available on line (page 2).

Vegetation Monitoring

Network staff completed this year's field sampling collecting over 25,000 new data records. We completed data entry and verification has begun. We continue to develop a decision support model for evaluating monitoring data.

Invasive Plant Monitoring

Network staff conducted field reconnaissance at Hot Springs National Park to prepare for invasive plant monitoring in 2008.

Rare Plant Monitoring

We completed the annual western prairie fringed orchid and Missouri bladderpod monitoring reports (see page 2, More on the Web).

White-tail Deer Monitoring

The final deer monitoring protocol went to the printers. Staff scheduled the 2008 field season, which begins first week of January at WICR. Deer will be surveyed once a week for six weeks, at each park (ARPO, PERI and WICR).

Grassland Bird Monitoring

The Technical Committee reviewed a proposal to increase bird community monitoring. We anticipate asking the Board of Directors for final approval. We coordinated with Dr. Larkin Powell, University of Nebraska-Lincoln, on a sampling schedule for 2008 for HOME, PIPE and TAPR. Dr. Powell will study bird productivity and site fidelity.

Fish Community Monitoring

We completed annual fish monitoring at OZAR. We revised a database for small stream parks and completed a spring community database. Fish sample processing from FY07 continues and annual reports will follow. We began the small stream fish monitoring protocol revision.

Aquatic Invertebrate Monitoring

Staff are preparing for the 3rd monitoring season at BUFF & OZAR. We processed all FY07 BUFF samples; we completed 75% of OZAR samples. We continue the processing of Springs and Prairie park samples and the revision of the old "prairie protocol". Springs protocol will go to peer review.

Returning to an Era

Vegetation monitoring at Pea Ridge National Military Park (PERI) benefits from collaborative efforts of park and network staff. Expanding HTLN vegetation community monitoring to include PERI in 2007 coincided with development of an 1860's era vegetation map for the park. Desired conditions for the park includes returning the vegetation community and associated resource conditions to those similar to the Civil War battle time in 1862.

Working toward this goal requires knowledge of desired conditions in spatial context with a map representing vegetation communities of that era. Understanding current community conditions helps to identify starting points and actions needed to achieve desired conditions. Long-term monitoring across the park provides current condition status and records trends.

Kevin Eads, Chief of Resource Management, and HTLN staff separated the 4300 acre park into three working areas, including cultural (2007 acres) and natural (2025 acres) areas. They used proximity to the battlefield and its associated viewshed as the basis for division. Areas within the park not directly tied to the battle were labeled as natural resources.

The viewshed around Elkhorn Tavern contributes to both cultural and natural resource interpretation and comprised the third area. Types of monitoring and management overlap here, because of its location, surrounding woodland community and role in interpreting the battle.



Sherry Leis and Cole Hendrix in a plot.

The cultural area will focus on returning to battle-era conditions, while the natural area will preserve woodland community integrity. PERI staff leads the cultural area monitoring, while HTLN leads the natural area monitoring. Fire effects monitoring continues primarily in the natural area, but with two sites in the restored prairie and three in the Elkhorn Tavern area.

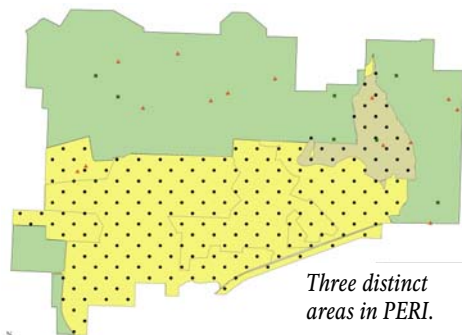
HTLN staff developed a sampling frame for any new monitoring projects in the park. A 200 meter grid forms the basis for all new vegetation monitoring and for exotic species surveys. Future bird community monitoring will use the grid as well. Vegetation monitoring sites in the cultural area coincide with the grid.

In the natural area the sampling grid was used along with topographic stratification to deploy sites based on the HTLN vegetation monitoring protocol.

As of 2007, 237 vegetation monitoring sites have been established and monitored across both the cultural and natural areas. This is in addition to the 2006 HTLN exotic species survey. The park and HTLN worked together to develop data collection methods, monitoring calendar and metrics.

The 2007 data will compare current conditions against historic conditions to determine the level of departure from desired conditions and direct management in both cultural and natural areas. Working together, HTLN can help PERI to create a high quality scene that assists in interpretation of the battle, while maintaining natural community function.

— Kevin James



Three distinct areas in PERI.

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... protecting the habitat of our heritage



The Visitor Center with Pizzazz.

George Washington Carver's boyhood home consists of rolling hills, woodlands and prairies filled with natural wonders. George Washington Carver National Monument in Missouri offers an opportunity for visitors to enjoy the landscape that ignited Carver's interest in nature and science. The monument recently renovated the Carver Visitor Center to enhance this opportunity for learning about an extraordinary scientist.

Carver's entire life, including lesser known aspects of the man.

The exhibits encourage visitors to try their hand at activities that were part of Carver's life and times. From the cabin that teaches about hardships of slavery, to a

map that reveals Carver's travels, the exhibits go far beyond Carver's life to his influence on agriculture and the events and issues of that time.

Carver's scientific exploration began when he was a child living on the Moses Carver Farm. Today, the National Monument carries on his legacy by offering hands-on science lessons with students of all ages. The visitor center provides the space and activities that support the monument's curriculum

based programs.

The integration of high-tech with his world of birds, bees and butterflies would have intrigued Carver. A touch screen computer offers students age appropriate learning activities and links to formal curricula. Nothing is left out of this investigation of the natural world.

The completed visitor center combines the original 1960 visitor center building with the addition of a new and expanded theater, improved museum exhibit area, interactive exhibit space, interactive classroom space, a terrarium, archives and library.

"The interior of the newly expanded visitor center is beautiful and spacious," according to Diane Eilenstein, Interpretive Ranger.

The new space expands a fantastic opportunity for visitors to explore Carver and his greatest interest — nature — in a leisurely manner. New and refurbished exhibits allow the visitor to become immersed in the life of George Washington Carver, from early childhood through his adulthood. Exhibits encompass

"The thoughtful educator realizes that a very large part of the child's education must be gotten outside of the four walls designated as class room. He also understands that the most effective and lasting education is the one that makes the pupil handle, discuss and familiarize himself with the real things about him, of which the majority are surprisingly ignorant." -- G.W. Carver, *Bulletin 18: Nature Study and Gardening for Rural Schools*, pg. 3, June 1910.

nature trail. The addition features two levels with a view of the prairie.



The visitor center is set up to encourage exploration and informal discovery based education. The spacious layout allows the visitor to experience the exhibits without a great amount of interruption from other visitors. The public address system announces upcoming activities.

Superintendent Reginald M. Tiller said, "We . . . hope that our visitors are able to experience the legacy of Dr. Carver in a new, powerful and very interactive way."

George Washington Carver felt that God gave him talent and opportunities to live a life of service to fellow human beings. His science provided a means for farmers to better their standard of living. The visitor center allows the visitor to contemplate the importance and meaning of Dr. Carver's contributions to the nation that became the agricultural leader of the world.



Written with the assistance of Diane Eilenstein,
Park Ranger, GWCA

Photos provided by GWCA from the opening of the
Visitor Center.

Three-year Review

... and ballgame!

The 2008 Heartland Network annual meeting and three-year review is scheduled for August 17-20, 2008 in Springfield, MO. Review panel members are Steve Cinnamon,

Steve Fancy, George Oviatt, and Carmen Thomson. Review material will be posted at: http://www1.nrintra.nps.gov/im/monitor/networks/HTLN/HTLN_review.cfm.

We'll kick off the review with a group visit to Hammons Field to watch the Springfield Cardinals play on Monday night.

More on the Web

HTLN Databases: <http://science.nature.nps.gov/nrdata>

HTLN Reports: <http://www1.nature.nps.gov/im/units/htln/reports.cfm>

GWCarver NM: <http://www.nps.gov/gwca>

Pea Ridge NMP: <http://www.nps.gov/peri>