

The Weather Vane

The Newsletter of the Heartland Inventory and Monitoring Network

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News in Brief

Aquatic Monitoring

The five year synthesis review of BUFF and OZAR data continues. Peer review began on spring communities report. We sample HEHO and EFMO in July.

Breeding Bird Monitoring

HTLN staff began 2011 field season May 16th with visits to ARPO, LIBO and HOCU. Park staff and citizen scientists will survey birds in the remaining eight parks.

Fire Ecology

Staff completed burns and monitoring at FOSC and TAPR, and monitored vegetation structure at TAPR in May. We participated in Fire in Eastern Oaks Conference in May.

Fish Community Monitoring

We complete a WICR fish report in June. The five year review of BUFF and OZAR monitoring continues with a draft report expected this fall. Sampling at HEHO and EFMO streams, and OZAR springs occurs in July.

Invasive Plant Monitoring

Staff have selected a contractor to conduct monitoring in ARPO, HOCU, and LIBO this field season. Field work at those parks may begin as early as June 15.

Rare Plant Monitoring

Staff completed Missouri bladderpod monitoring and noted a high number of plants on Bloody Hill Glade following the 2010 prescribed fire.

Vegetation Community Monitoring

Staff monitored at WICR in May. We establish and sample new monitoring sites at LIBO at the end of June. Kansas Biological Survey completed HOME and TAPR vegetation maps. Vegetation map field work begins at PERI and continues through the field season at WICR and GWCA.

Wetland Monitoring

Doug Marcum, a Kent State University student, joined the CUVA wetland team in

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Citizen Scientist Aid Bird Monitoring in Heartland Parks

Birds have a tremendous following among the public and many parks provide information on bird status and trends through interpretive programs. Birds also serve as an important measure of vegetation management success, especially restoring natural habitats.

Combining local birders with a need to assess habitat management success, Heartland Inventory and Monitoring Network (HTLN) has asked citizen scientists to assist with breeding bird surveys. Since 2001, each year nearly 60 citizen scientists and park staff put on binoculars, grab a bird guide, and head into the field in support of HTLN bird monitoring efforts. Many birders have returned year after year to assist with bird surveys.

The first breeding bird surveys started at Tallgrass Prairie National Preserve, Kansas (TAPR) in 2001. Since then, birds have been surveyed during 2694 plot visits across ten additional network parks that include (see page 2 for park name abbreviations):

- ARPO, Arkansas
- EFMO, Iowa
- GWCA, Missouri
- HEHO, Iowa
- HOME, Nebraska
- HOCU, Ohio
- LIBO, Indiana
- PERI, Arkansas
- PIPE, Minnesota
- WICR, Missouri

To date, nearly 21,000 bird observations have been made, with 153 differ-

ent bird species identified. The large number of bird species recorded demonstrates the rich bird diversity the Midwest has to offer.

Additional parks were added to the monitoring program beginning in 2005. First, only two additional parks joined the monitoring program. However by 2008, eleven parks were included in the monitoring program.

Without help from citizen scientists, the HTLN would be unable to survey birds across the network annually. The short five to six week window for conducting breeding bird surveys only allows HTLN staff to visit a few parks in any given year. However, citizen scientists and park staff allow 11 parks in the program to have annual

surveys. In 2010, citizen scientists contributed over 49 field days bird monitoring, a major contribution to the 600 plots surveyed each year. In addition to HTLN efforts, parks such as Cayuhoga Valley NP and Hot Springs NP also rely on citizen scientist for park based bird monitoring.

To view reports on Heartland's bird monitoring efforts, please visit our web site (More on the Web).

by Dave Peitz



Citizen scientists Jim Fuller (left) and Ken Lowder (right) work with HTLN staff, Dave Peitz (center), at Herbert Hoover National Historic Site, 2010.

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of our heritage



Beneath the Mighty Chestnut Tree at Hot Springs NP

Most people born after 1950 have never seen the spreading branches of a mighty chestnut tree, like the one Henry W. Longfellow immortalized in his poem, *The Village Blacksmith* (1841). Although this American chestnut (*Castanea dentata*) fell to road expansion, many native chestnuts, including the diminutive Ozark chinquapin (*Castanea ozarkensis*), succumbed to chestnut blight (*Cryphonectria parasitica*) early in the 20th century.

Chestnut blight prevents trees from attaining maturity. Stumps sprout and eventually bear nuts, but rarely reach

Photo from before blight eliminated mature American chestnuts. Notice the man standing at base of tree. The Ozark chinquapin is a sub-canopy tree, never attaining the stature of the American chestnut. USDA-NRCS PLANTS Database



(Continued from page 1)

May. Luke Biscan, a University of Kentucky student, will begin June 6th. Field work is in full swing and efforts on protocol continue.

White-tailed Deer Monitoring

The 2011 white-tailed deer reports for ARPO, PERI, and WICR are done and have been sent to the parks for review.

Acronyms

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

their potential height before blight kills them. This sprouting cycle has prevented total loss of the species. Unfortunately, scientists do not know how long sprouting will continue and new development has removed stumps in areas where the cycle persisted.

Concerned enthusiasts in Missouri and Arkansas have implemented restoration of this species on private and public lands. The restorations depend on planting trees that sprout from nuts of trees resistant to blight. Scientists continue hypovirulence research, the use of a virus to attack blight, in the hope of improving survival in both American and Ozark chestnuts.

Sugarloaf Mountain within Hot Springs National Park currently hosts a community of the relatively rare Ozark chestnut. Unfortunately, no healthy adults have been located inside the park boundary and most of the individuals are young stump sprouts. This locale also appears to provide an almost ideal environment for reintroduc-



Typical stump suckering on chestnut.
Photo public domain by Javier Baño.

tion. The rocky, highly fractured Bigfork Cherts and Arkansas Novaculite soils are naturally well drained and still free of many of the invasive exotics that plague lower slopes.

The park is currently evaluating a planting project that would involve offspring of the same genetic stock that have proven to be blight resistant in other locations. With a helping hand and some TLC, perhaps the highly prized Ozark Chinquapin Chestnuts can again populate the upland forests within Hot Springs National Park.

By Stephen Rudd and Sherry Middlemis-Brown

Heartland BOD makes important staffing decisions

In a conference call on April 26, the Heartland Board of Directors (BOD) made several noteworthy decisions regarding staffing. Several minor changes to the network staffing plan were approved including: changing the duty station of the EPMT crew boss and technician from EFMO to WICR, and making permanent the cartographic technician position that is currently a term position.

The BOD approved a new cooperative agreement with Missouri State University to support network education and interpretation efforts. The agreement funds a part-time research assistant, along with students and graduate students, to develop and carry

out programs that incorporate science and natural resources. The network Science Communication Work Group will help identify projects and set priorities for the research assistant.

Finally, the BOD approved funding a detail position to advance the planning and writing of a Heartland Network Disturbed Lands / Vegetation Adaptation Proposal. In the future, we hope to submit the proposal for funding following the model of the HTLN EPMT. Jessica Bolwahn has accepted the detail and will be working one day per week on the project. Members of the Heartland Sharepoint site can view a revised organization chart (below).

Submitted by Mike DeBacker

More on the Web

HTLN bird monitoring reports: <http://science.nature.nps.gov/im/units/htln/wildlife.cfm?tab=0#TabbedPanels1>

Sharepoint members review organization chart at: <http://inpmwroxshare.nps.doi.net:11122/Shared%20Documents/HTLN%20organizational%20chart.pptx>

A recent report by Karola Mlekush, HTLN botanist, on chinquapin oaks at WICR was recently added to the HTLN website, http://science.nature.nps.gov/im/units/htln/library/Vegetation/PlantComm/WICR_PlantCom_2011_r.pdf

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