



Stream Team Academy
Fact Sheet Series:

- #1: Tree Planting Guide
- #2: Spotlight on Big Muddy
- #3: Lewis & Clark
- #4: Missouri Is Number One?
- #5: Responsible ATV Use
- #6: Headwater Streams
- #7: Whatology?
- #8 Exotic Does Not Mean Beauty
- #9 Wetlands
- #10 Stream Sedimentation
- #11 Emerald Ash Borer Found in Missouri
- #12 Protecting Prairies = Protecting Streams

Watch for more Stream Team Academy Fact Sheets coming your way soon. Plan to collect the entire educational series for future reference! Contact us at 1-800-781-1989 if you'd like a copy of previous Fact Sheets.

PROTECTING PRAIRIES = PROTECTING STREAMS

An Educational Series For Stream Teams To Learn and Collect

By Carol Davit, development coordinator, Missouri Prairie Foundation

Prairie streams ran constant and clear, even in the height of summer, according to the writings of early explorers in Missouri. The permanent stream flow they encountered before statehood is likely attributed to intact prairie vegetation, massive root systems, and the sponge-like prairie soil that captured and held spring rainwater and then released it slowly to streams.

Today, less than one percent of Missouri's original tallgrass prairie—a landscape that once blanketed 15 million acres—remains intact. Along with the conversion of nearly all of Missouri's prairie to agriculture and other uses has been the degradation of streams as well as the depletion of groundwater in Missouri's prairie region.

THE MISSOURI PRAIRIE FOUNDATION

The Missouri Prairie Foundation (MPF), a nonprofit, 44-year-old conservation organization, was formed in 1966 by a group of citizens concerned with our diminishing prairie resources. It was motivated—in the same spirit that Missouri Stream Team formed to rally for streams—to take action to conserve prairies and all associated life forms and communities, like prairie streams. The Missouri Prairie Foundation now owns 14 tracts of prairie across the state available for the public to enjoy. In total, MPF owns and/or manages nearly 4,000 acres of prairie. MPF also works with private landowners in Missouri's historic prairie region to restore native grasslands.

MPF PUBLISHES HYDROLOGY ARTICLE

MPF produces a quarterly magazine, the *Missouri Prairie Journal*, sent to members, teachers, libraries, elected offices, and others. The spring 2010 issue, also available online at www.moprairie.org, features an article by USGS hydrologists that compares hydrology and water quality of tallgrass prairie and agricultural streams in Missouri. Based on a USGS report by David Heimann published in 2009 (<http://pubs.usgs.gov/sir/2009/5213/>), the article provides numerous results from the study of streams in prairie and agriculture-dominated landscapes. For example, in the streams studied at tallgrass prairie sites, as opposed to streams studied in agricultural sites, there was less direct runoff, indication of greater contribution



East Drywood Creek within Prairie State Park in Barton County is one of the very few—and perhaps only—remaining perennial streams in Missouri that drains only prairie.

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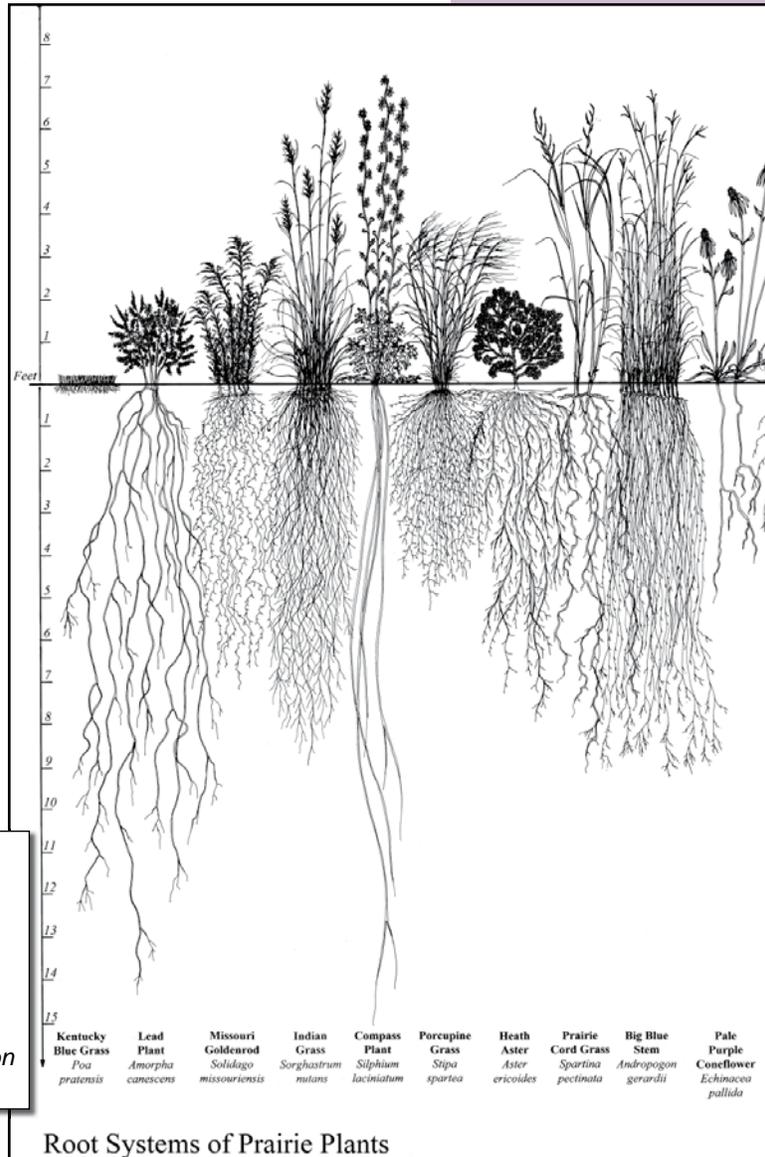
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to streamflow from groundwater, decreased amount of total phosphorus, lower maximum concentration of atrazine, lower median fecal coliform densities, and overall indication of greater infiltration of precipitation.

Other prairie stream articles published in the *Missouri Prairie Journal* are available at www.moprairie.org.

YOU ARE INVITED TO PRAIRIE BIOBLITZ MAY 29, 2010

Stream Team members are invited to participate in the Missouri Prairie Foundation's Prairie BioBlitz on May 29, 2010, at Penn-Sylvania Prairie in Dade County. Take part in intensive nature study with experts on mammals, birds, amphibians, reptiles, bees, butterflies, moths, plants and more, and help inventory species on this 160-acre original prairie owned by the Missouri Prairie Foundation. After a potluck picnic dinner, enjoy stargazing with a telescope and camping on the prairie. Some surveying and inventory work will carry over to the next morning. To RSVP to the event and to sign up with an inventory group, visit www.moprairie.org or call 1-888-843-6739.



In urban and rural settings, prairie grasses and wildflowers look lovely and their extensive root systems also carry out important work below ground: improving the water-holding capacity of soil, preventing erosion, filtering surface water and also channeling water underground, helping to recharge groundwater. [Credit: Conservation Research Institute, Heidi Natura.]

Root Systems of Prairie Plants



The mission of the Missouri Prairie Foundation is to protect and restore prairie and other native grassland communities through acquisition, management, education, and research. To become a member or for more information, visit www.moprairie.org, write to info@moprairie.com, or call 1-888-843-6739.