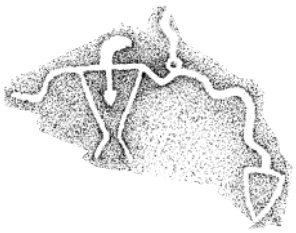
Pipestone National Monument

National Park Service
U.S. Department of the Interior



The Resource Report

Newsletter of the Pipestone National Monument Resource Management Division

Winter—Spring 2009

Inside this issue:

Volunteer Opportunities

- Join in the native seed collecting and cleaning effort!
- Help remove the dirt and lichens from the historic Sioux Quartzite inscriptions.
- Conduct breeding bird surveys-training provided!
- Assist with museum inventory.
- Call Gia Wagner at (507)-825-5464, extension 220 for additional information or to sign up.

Prairie Restoration Project

In 2007, Pipestone National Monument staff began restoration of 18 acres of recently acquired land along Hiawatha Avenue. Nine acres were previously used as a cornfield and the remainder was lawn grasses. In order to prevent this area from becoming a source of weeds, staff chose to aggressively restore the area to native prairie.

A plan for the restoration was drafted based on scientific research and practices previously used at the Monument. Implementation began in 2007. Two key goals of the restoration are to minimize the establishment of non-native vegetation and to establish a native prairie that has a diversity of native species. Only native local seed is used to ensure the plants are well adapted to the local environmental conditions.

Cutting corn stalks, 2007

The initial year of restoration began with employees cutting and discing the corn field. Maintenance staff assisted with the seeding of the southern portion of the area.

In 2008, exotic species were removed, the lawn grass was treated and tilled. The native vegetation that grew was mowed to allow for additional seeding to be done with an ATV. Park employees continued the restoration efforts by encouraging the growth of the previous year's plantings and began preparing the seedbed of the remaining land. The north half of the cornfield and a section of turfgrass were treated with herbicide and disced numerous times. Park staff vigilantly removed or treated invasive exotic plants as they were discovered. Several native plants including prairie clover, big bluestem, and switchgrass were thriving in the newly planted south section in 2008.

Biological Technician Seth Hendriks spot spraying weeds, 2007

This year, the north section is scheduled for spring seeding. Future goals include removal of exotic vegetation and reseeding the entire area to increase diversity.

Volunteers Lance Preston and Shirley Knutson

Volunteer Lance Preston cleaning prairie seed collected during Public Lands Day, 2008

Did You Know?

In 1859, land surveyors used the Nicollet marker as a center point for the one square mile reserve that would later become the National Monument.

Volunteer Spotlight: Lance Preston and Shirley Knutson

Pipestone National Monument's dedicated and tireless volunteers, Lance Preston and Shirley Knutson, are working on two Resource Management projects. These volunteers also help staff the front desk.

Shirley recently finished scanning the Monument's museum collection of photographic slides and began scanning the museum photograph collection. This project will allow access and use of the image collections while preserving the condition of the collections. The work is tedious but critically important. Shirley has saved the park thousands of dollars through her efforts!

Lance assisted the Monument with cataloguing its library. Lance has also been cleaning the forb seed collected last fall by volunteers during Public Lands Day; another tedious but crucial task. Thanks to both volunteers for their enthusiasm and perseverance!

Volunteers are always needed. See the listing on the front page for details.

Historic Inscription and Plaque Cleaned and Maintained

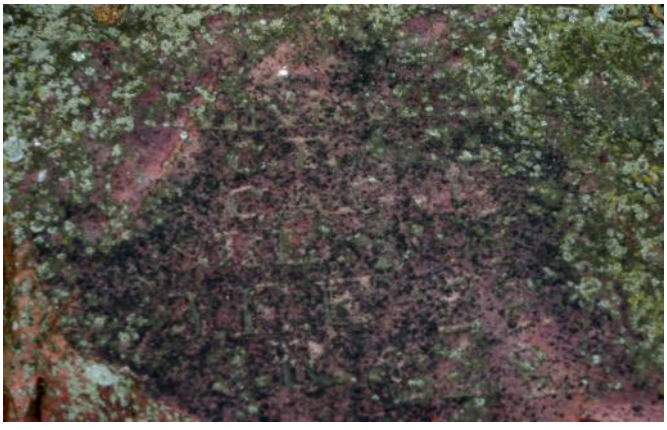
During the summer of 2008, Resource Management staff cleaned the Nicolett inscription, maintained the Daughters of the American Revolution (DAR) commemorative plaque, and painted the protective fence surrounding them.

Over time, lichens and dirt became lodged in the quartzite carvings. An environmentally friendly cleaner removed years of buildup. As a result, the Nicollet inscription and the commemorative plaque are a little easier to read. The plaque was also re-cemented, cleaned, and waxed. Repeating this project periodically will insure the long-term protection of these nationally significant objects.

In 1838, the French scientist Joseph Nicolett and members of the U.S. Army Corps of Topographical engineers arrived in the Pipestone Quarry area. Six members of the expedition inscribed their names on the Sioux Quartzite escarpment near Leaping Rock. In September 1925, the local chapter of the Daughters of the American Revolution cemented a bronze commemorative plaque at the base of the Nicollet marker stone. The plaque is on the List of Classified Structures; a list of significant historical structures kept by the federal government.

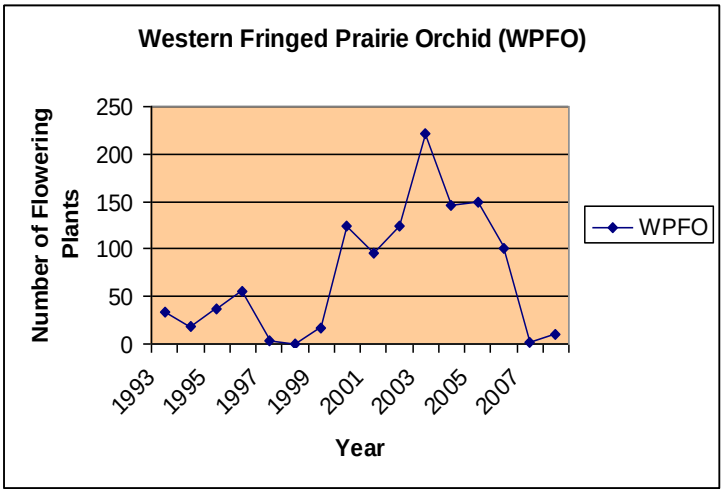
Left: The DAR plaque prior to cleaning.

Right: The Nicollet inscriptions covered with dirt and lichens.



Threatened Fringed Prairie Orchid Monitoring

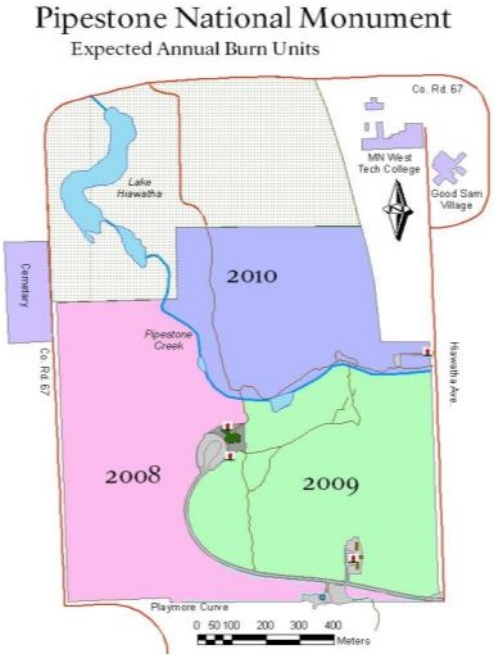
In July of 2008, NPS staff monitored the abundance of the federally threatened western prairie fringed orchid (WPFO) in the national monument. A crew of five biologists collected data including height, number of flowers, and location. In 2008, 10 flowering orchids were found (see included chart for population trends). The abnormally dry weather in 2006-07 may be a factor in the recent decline in the number of flowering orchids. However, based on 15 years of data gathered at the Monument, flowering in the WPFO may simply be cyclical. Scientists will continue monitoring the orchids and any long-term trends.



The WPFO and other rare plants have been listed as threatened due to conversion of the native prairie to agricultural use, fluctuations in the weather such as severe drought, flooding and frost, and the widespread use of herbicides and insecticides.

The WPFO relies almost solely on hawk-moths or sphinx moths for pollination. Unfortunately, populations of these moths also face serious challenges including habitat fragmentation and insecticide drift from aerial spraying. Survival of the WPFO requires not only protecting its habitat but also insuring the survival of the orchid's pollinators.

Flowering Western Prairie Fringed Orchids



Fire Plays an Important Role in Prairie Health

In the spring of 2008, wildland firefighting professionals arrived at the Monument to conduct the annual prescribed fire. The goal was the safe completion of a prescribed burn of the west/ southwest unit of the Monument; about 100 acres of prairie. Strong late afternoon winds forced the crew to cease operations at about 75 percent completion.

Prescribed fires improve the condition of native plants and help reduce invasive flora. Native warm season plants have adapted to regular prairie fires over the millennia. The Monument conducts its burns in the spring when cool season, non-native grasses like smooth brome are susceptible to fire damage. During this time, the warm season grasses growing points are below the surface and safe from potential damage. The southeast unit is scheduled for burning during May 2009.

PIPESTONE
NATIONAL
MONUMENT

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We're on the Web!
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New Developments at Pipestone National Monument

Resource Management staff members are developing a 'Seasons of the Tallgrass Prairie' interpretive display. The project will display the unique changes experienced at the Monument during the spring, fall, summer and winter months. Photographs will be chosen and printed on high quality display material. When visitors do not have trail access, they can view the Monument's flora and fauna in the visitor center.

Pipestone National Monument staff plans for repairs to the historic dam located on Lake Hiawatha. The original dam was built in 1924 and revised in 1934 by the Indian branch of the Civilian Conservation Corps. Park workers repaired the damage to the structure caused by ice and flooding in 1963. Plans for the dam repair are currently under development with the goal of preserving the historical identity of a rare, surviving CCC project.

Note to readers:

The **Resource Report** was developed to keep our neighbors and friends informed about the cultural and natural resources of the Monument. We hope to publish two or three issues a year. As a biologist, it's a challenge to break down scientific information into something interesting for everyone to read and as a government employee, not to use acronyms! I thank the Friends of Pipestone National Monument, who have been so supportive of the Resource Management program and have provided the valuable editing and content suggestions that make this a readable newsletter. We hope to make this a valuable and interesting publication. If you have suggestions for an article or just a question about the natural or cultural resources, please get in touch with either Gia Wagner at (507)-825-5464, extension 220 or Biological Technician Josh Brinkman at extension 222. You can also reach us via email at gia_wagner@nps.gov.