



Western Prairie Fringed Orchid Monitoring at Pipestone National Monument

Importance: *A threatened species*

The western prairie fringed orchid (*Platanthera praeclara*) is a perennial orchid native to tallgrass prairies of the central and eastern Great Plains. It is one of many plant species that has declined because of the extensive loss of tallgrass prairie in the Midwest. In 1989, the US Fish and Wildlife Service listed the orchid as *threatened* under the Endangered Species Act of 1973. Pipestone National Monument may support the largest population of this orchid within its ecoregional section, making the park important to the recovery of the species.



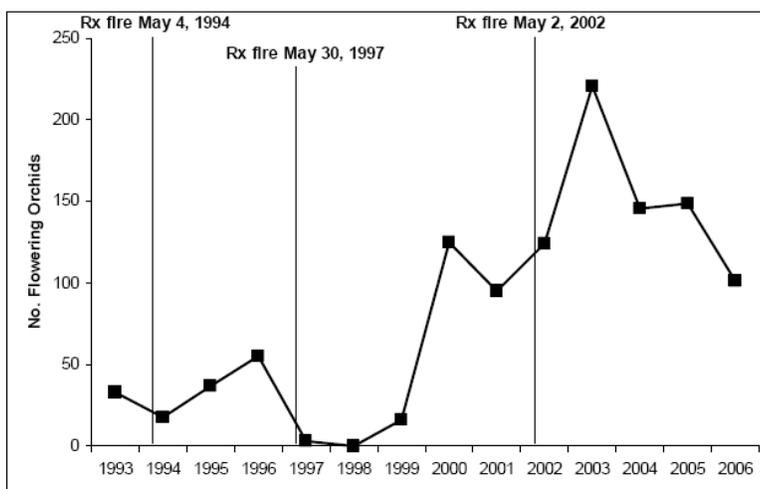
HTLN file photo

Long Term Monitoring: *Assessing trends in population size*¹

The Heartland Network, Inventory and Monitoring Program, has worked with park staff to assess western prairie fringed orchid population trends since 1993. A park crew counts plants by slowly sweeping through the search unit looking for flowering orchids. They use a GPS receiver to record locations of plants and to log other information, such as height and number of flowers per plant. Heartland Network staff then examines population trends relative to growing conditions and management activities.

Status and Trends: *Overall increase in the population size since 1993*

The overall increase in population size suggests that land management practices at Pipestone National Monument are successfully protecting the species within the park. Additionally, scientists made several other important observations:



1. Timing of prescribed fire may have an impact on orchid populations with late spring fires suppressing the number of flowering orchids.
2. Precipitation during the dormant season may affect the number of flowering orchids.
3. Abnormally dry conditions, as seen in 2006, may result in a reduction in plant height and reproduction.

Abundance of flowering western prairie fringed orchids at Pipestone National Monument, 1993-2006.

Heartland Network Inventory and Monitoring Program of the National Park Service. Visit www1.nature.nps.gov/im/units/htln/index.htm.



¹ Young, C., L. Morrison, G. Wagner, and J. Haack. 2006. Summary Report: Western Prairie Fringed Orchid Monitoring at Pipestone National Monument, 1993-2006. Resource Technical Report NPS/MWR/HTLN/NRTR—2006/005. National Park Service, Omaha, Nebraska.