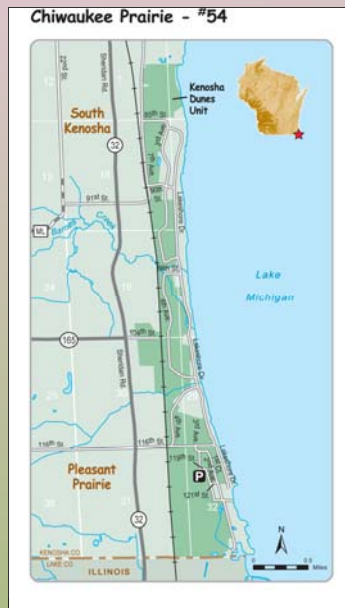


# Chiwaukee Prairie Plants of Concern

A rare plant monitoring program coordinated by the Chiwaukee Prairie Preservation Fund



## ABSTRACT

Fifteen volunteers were trained to collect population data on state-listed and rare plant species following specific standardized protocols, which allows for scientific data analysis across years, including population viability analysis. Since summer 2007, the program has collected information on 24 Wisconsin or Illinois state-listed and rare species. Our goal is to develop this into a long-term volunteer monitoring program that will collect rare plant population data at Chiwaukee Prairie many years into the future. This data will help us manage the prairie to enhance plant biodiversity. It will also help us understand the effects that regional environmental changes, such as global warming, are having on Chiwaukee Prairie. This program is a collaboration with the Chicago Botanic Garden's (CBG) Plants of Concern program and adds information to their regional rare plant database which is used to analyze regional trends (see [www.plantsofconcern.org](http://www.plantsofconcern.org)).

## METHODS

Volunteers attended an all-day training workshop to learn and practice the standardized monitoring protocols and filling out the monitoring forms developed by the CBG. Volunteers learned how to collect data on population area, number of reproducing plants, number of non-reproducing plants, co-occurring species, invasive species, extent of invasion by invasive species, other threats to the population, and recent land management activities. Volunteers learned how to use a GPS unit to collect longitude and latitude coordinates and to navigate to a population waypoint. Volunteers also practiced a pacing exercise used to determine distance.

Rare plants likely to occur at Chiwaukee Prairie were identified using the Chiwaukee Prairie Plant Checklist, published by UW-Parkside in 1986 and lists over 400 plant species. Thirty-three rare plants were identified. Scouting excursions were conducted throughout the growing season to find new populations and subpopulations using information on bloom-time and wetland indicator status.

Data collected are used for internal reporting to the Chiwaukee Prairie Preservation Fund and identify specific management needs and threats to populations. Data are then submitted online to the CBG for regional analysis.



Volunteers counting *Agalinis skinneriana* at one of the subpopulations.



*Phlox glaberrima* & *Penstemon pallidus* *Agalinis skinneriana* *Asclepias viridiflora*  
*Arnoglossum plantagineum*

Chiwaukee Prairie Preservation Fund: [www.chiwaukee.org](http://www.chiwaukee.org)



*Platanthera leucophaea*



*Calamintha arkansana*



*Carex richardsonii*



*Triantha glutinosa*



*Fimbristylis puberula*



*Gentianopsis procera*



*Calopogon tuberosus*

## RESULTS

The first objective of this program is to find rare plant populations so they can be incorporated into the POC program. In 2007, populations of 17 species were found and 7 were incorporated into the POC program and monitored. As of August 2008, populations of 7 additional species were found. Twelve species have been or are scheduled for POC monitoring in 2008. Of the 7 species monitored in 2007, two had new subpopulations found in 2008. Populations are considered subpopulations when the closest individuals in each grouping are separated by more than 50 meters. The most common threats to the populations are brush, such as buckthorn, and trails.

Chiwaukee Prairie Plants of Concern 2007 - 2008 Summary									
Rare Species with Known Locations	Status WI IL	Abundant	2007 Data		2008 Data		2009 Data		
			Pops./ Sub-pops.	Threats	Pops./ Sub-pops.	Threats	Collection Plan		
<i>Agalinis skinneriana</i>	E T	No	1	No	2	Yes	Scheduled		
<i>Arnoglossum plantagineum</i>	T	No	Locations Only		2	Yes	Scheduled		
<i>Asclepias viridiflora</i>	R	No	Not Found		2	Yes	Scheduled		
<i>Calamintha arkansana</i>	C	Yes	Locations Only		To be Determined		To be Determined		
<i>Calopogon tuberosus</i>	E	No	1	No	3	Yes	Scheduled		
<i>Carex richardsonii</i>	C	Yes	Not Found		Locations Only		Scheduled		
<i>Carex viridula</i>	T	No	Not Found		Locations Only		Scheduled		
<i>Erigeron angustifolium</i>	R	Yes	Locations Only		To be Determined		To be Determined		
<i>Fimbristylis puberula</i>	E	No	Not Found		Locations Only		Scheduled		
<i>Gentianopsis crinita</i>	R	Yes	1	Yes	Scheduled		Scheduled		
<i>Gentianopsis procera</i>	C	Yes	1	Yes	Scheduled		Scheduled		
<i>Hypericum kalmianum</i>	E	Yes	Locations Only		To be Determined		To be Determined		
<i>Juncus alpinoarticulatus</i>	E	No	Not Found		Locations Only		Scheduled		
<i>Liatis spicata</i>	C	Yes	Locations Only		To be Determined		To be Determined		
<i>Parnassia glauca</i>	R	Yes	Locations Only		To be Determined		To be Determined		
<i>Penstemon pallidus</i>	C R	No	Locations Only		1	No	Scheduled		
<i>Phlox glaberrima</i>	E	Yes	Locations Only		To be Determined		To be Determined		
<i>Platanthera lacera</i>	R	No	1	Yes	1	Yes	Scheduled		
<i>Platanthera leucophaea</i>	E T	No	1	Yes	1	Yes	Scheduled		
<i>Solidago ohioensis</i>	C	Yes	Locations Only		To be Determined		To be Determined		
<i>Thalictrum revolutum</i>	C	No	Not Found		To be Determined		To be Determined		
<i>Triantha glutinosa</i>	T T	No	Not Found		2	Yes	Scheduled		
<i>Triglochin palustris</i>	C T	No	1	Yes	1	Yes	Scheduled		
<i>Valeriana edulis</i>	R	No	Locations Only		2	No	Scheduled		

E= Endangered, T=Threatened, C=Special Concern (WI), R=Locally Rare (IL)