
Broad Incidental Take Permit/Authorization Grassland and Savanna Protocols

Listed Plants in Prairies, Grasslands, and Savannas (*Required on Public Lands, Encouraged on Private Lands*)

This Broad Incidental Take Permit/Authorization (BITP/A) has been issued by the Wisconsin Department of Natural Resources to allow landowners to conduct certain grassland and savanna management activities while remaining in compliance with the state’s endangered species law (s. 29.604, Wis. Stats.). This BITP/A allows for the incidental taking (mortality) of the state endangered and threatened plant species in Section I that may occur as a result of the grassland and savanna management activities listed in Section II.

Full background information/criteria on this BITP/A can be found here:

https://dnr.wi.gov/topic/ERReview/Documents/GSP_Overview.pdf

Protocols for all other species covered under this BITP/A can be found here:

<https://dnr.wi.gov/topic/ERReview/ItGrasslands.html>

Note: If carrying out a given protocol is not feasible, or multiple listed species in a given management area pose conflicts, contact the Bureau of Natural Heritage Conservation (NHC) at DNRRERReview@wisconsin.gov. Staff in NHC will work with species experts and managers to establish an acceptable protocol for a given site that will allow for incidental take without further legal consultation or public notice.

I. Species Covered

Common Name	Scientific Name	Wisconsin Status
Round-stemmed false foxglove	<i>Agalinis gattingeri</i>	Threatened
Pale false foxglove	<i>A. skinneriana</i>	Endangered
Carolina anemone	<i>Anemone caroliniana</i>	Endangered
Hudson Bay anemone	<i>A. multifida</i>	Endangered
Woolly milkweed	<i>Asclepias lanuginosa</i>	Threatened
Dwarf milkweed	<i>A. ovalifolia</i>	Threatened
Purple milkweed	<i>A. purpurascens</i>	Endangered
Prairie milkweed	<i>A. sullivantii</i>	Threatened
Ground plum	<i>Astragalus crassicaarpus</i>	Endangered
Kitten tails	<i>Besseyia bullii</i>	Threatened
Wild hyacinth	<i>Camassia scilloides</i>	Endangered
Hill’s thistle	<i>Cirsium hillii</i>	Threatened
Small white lady’s-slipper	<i>Cypripedium candidum</i>	Threatened
Pale purple coneflower	<i>Echinacea pallida</i>	Threatened
Hairy Fimbristylis	<i>Fimbristylis puberula</i>	Endangered
Round-seed St. John’s wort	<i>Hypericum sphaerocarpaceum</i>	Threatened
Prairie bushclover	<i>Lespedeza leptostachya</i>	Endangered
Slender bushclover	<i>L. virginica</i>	Threatened
Silver bladderpod	<i>Lesquerella ludoviciana</i>	Threatened
Dotted blazingstar	<i>Liatris punctata</i>	Endangered
Brittle pricklypear	<i>Opuntia fragilis</i>	Threatened

Species Covered (cont.)

Common Name	Scientific Name	Wisconsin Status
Clustered broomrape	<i>Orobanche fasciculata</i>	Threatened
Smooth phlox	<i>Phlox glaberrima</i>	Endangered
Pale green orchid	<i>Platanthera flava</i>	Threatened
Prairie white-fringed orchid	<i>P. leucophaea</i>	Endangered
Pink milkwort	<i>Polygala incarnata</i>	Endangered
Prairie parsley	<i>Polytaenia nuttallii</i>	Threatened
Rough rattlesnake-root	<i>Prenanthes aspera</i>	Endangered
Nodding rattlesnake-root	<i>P. crepidinea</i>	Endangered
Hairy wild petunia	<i>Ruellia humilis</i>	Endangered
Small skullcap	<i>Scutellaria parvula</i> var. <i>parvula</i>	Endangered
Dwarf huckleberry	<i>Vaccinium caespitosum</i>	Endangered
Sand violet	<i>Viola fimbriatula</i>	Endangered

II. Management Protocols for Permitted/Authorized Incidental Take

If the management activity is for the purpose of recovering, maintaining or improving the grassland, prairie or savanna ecosystem that includes habitat for one or more of the species listed Section I, then incidental take is allowed if these conditions are followed.

A. Burning:

Prescribed fire is compatible with all of Wisconsin’s threatened or endangered prairie and savanna plants AT SOME POINT in the year. Please refer to Table 1 below for the dates when burning will not result in take. These dates are based on the plants’ flowering time. That is the time when the plant has most of its energy above ground, and therefore may be vulnerable to fire. If you burn part ($\leq 25\%$ is allowed) of a rare plant population during flowering time, report the fire’s effects on the plants to NHC. We will use this information to improve incidental take guidelines in coming years. Burning is limited to 25 % of the populations of monocarpic species during the period when the plant holds its seeds. In a few cases, we have data suggesting that a species survives fire even when it is flowering. Those are marked with “no restriction”, in Table 1.

B. Mowing:

Managers may mow perennial species once per growing season. Because mowing destroys much of a plant’s foliage, repeated treatments during the growing season may lead to mortality of threatened or endangered plants, and is prohibited without special permission. Poorly timed mowing could destroy populations of the monocarpic plants *Agalinis gattingeri*, *Agalinis skinneriana*, *Polygala incarnata*, and *Polytaenia nuttallii*. The first three of those species are short, and can survive mowing at the heights suggested in Table 1. *Polytaenia nuttallii* is tall, and must not be mowed while it is flowering or developing fruit. None of the protected plant species may be annually mowed in excess of five years.

C. Selective Brush/Tree-cutting:

Unless the workers can recognize listed plants, brush cutting may result in cutting down or trampling rare plants. In cases where the workers do recognize the listed plants, they may judiciously cut around the plants at any time of year. If they can not recognize the plants, cutters must follow the guidelines for mowing, printed above. Tree cutting using heavy equipment may kill

rare plants through trampling and tearing up roots. For that reason, it is only allowed in threatened or endangered plant population sites while the ground is frozen. Tree cutting using light equipment and/or horses may destroy the plant parts above ground, but will generally not tear up roots. It is allowed during the same seasons when burning is allowed, and also while the ground is frozen. Ground is considered frozen when equipment results in minimal soil disturbance and does not leave tracks or ruts.

D. Grazing:

We expect grazing to have detrimental or fatal effects on some threatened or endangered plants, but to have indirect positive effects for some. Very few data are available on this subject. We require that any grazing plan be accompanied by a monitoring scheme, and that the results be reported to the NHC. Grazing of up to 25% of a threatened or endangered species population is allowed.

E. Herbicide Use:

Broadcast herbicide in rare plant populations during the growing season will likely result in mortality. As a general practice, broadcast herbicide is prohibited from threatened or endangered plant population sites. Exceptions can be made for those herbicides that do not impact rare species present (e.g., herbicides that target only grasses or monocots are permitted where a threatened or endangered dicot is present). Most of the threatened and endangered plant species that grow in prairies and savannas are dormant during some portion of the year. For those species, judicious timing may allow broadcast herbicide application without significant threat to protected plants. Contact NHC if you wish to develop such a plan. Stem-by-stem herbicide application to exotic species and woody plants will not likely result in mortality of threatened or endangered plants. Applicators in rare plant population sites must be trained to recognize the protected plant species. Leave a suitable untreated buffer area around rare plants to prevent damage from herbicide drift.

F. Tree Planting:

Planters may mechanically disrupt protected plants. Managers must secure special permission for tree planting through consultation with the NHC.

G. Flooding:

Flooding will kill any of these species and is not permitted.

H. Harvesting Seed from Threatened or Endangered Plants:

Collecting seed from perennial plants will not lead to take unless the collector pulls the plant out of the ground. After flowering, *Agalinis gattingeri*, *Agalinis skinneriana*, *Polygala incarnata*, and *Polytaenia nuttalli* survive to the next year only as seeds. They are not perennials. Removal of those seeds may lead to take, and may reduce the population size in subsequent years. Seeds of the above-listed non-perennial plants growing in remnant prairies or savannas may only be harvested if the seed will be sown in immediately adjacent patches of protected potential habitat. No more than one fourth of the seed in that population may be collected in any one year. If the manager intends to sow the seed somewhere other than immediately adjacent to the donor population, she or he must secure an Endangered Species Permit from the Bureau of Endangered Resources before harvesting seed. Managers may collect seed from listed perennial plants growing in planted prairies or in propagation beds without special incidental take permit.

Definition of “Site” for Listed Prairie, Grassland and Savanna Plants: This protocol refers to treatments to the actual land where listed plants are rooted within a given project area. The more precisely a manager determines the site location, the less area falls under management restrictions. NHC’s *Guide to Wisconsin’s Endangered and Threatened Plants* and the University of Wisconsin’s web site, *Wisconsin’s Vascular Plants* [<http://wiscinfo.doit.wisc.edu/herbarium/>] offer descriptions of plant habitats. For further assistance in determining a rare plant location, contact NHC.

**TABLE 1. Specifics of Protocol for Incidental Take Authorization
for Listed Plants in Prairies, Grasslands, and Savannas
(Required on Public Lands, Encouraged on Private Lands)**

Latin Plant Name (P – perennial M – monocarpic)	English Plant Name	Season of no restrictions on prescribed burns	Season when managers may burn only 25% of local population	Mowing no more than once each growing season †	Season when horse-powered tree removal is allowed	Season when tree harvest with heavy equipment is allowed
<i>Agalinis gattingeri</i> M	Round-stemmed False Foxglove	mid Mar – Jul	Aug – early Mar	Over 6” high only	Late Oct – early Jul	When ground is frozen
<i>Agalinis skinneriana</i> M	Pale False Foxglove	mid Mar – Jun	Jul – early Mar	Over 6” high only	Late Oct – early Jul	When ground is frozen
<i>Anemone caroliniana</i> P	Carolina Anemone	Jun – early Apr	mid Apr - May	+	Jun – early Apr	When ground is frozen
<i>Anemone multifida</i> P	Hudson Bay Anemone	Jun – early Apr	mid Apr - May	+	Jun – early Apr	When ground is frozen
<i>Asclepias lanuginosa</i> P	Woolly Milkweed	Late Jul – early May	Late May – mid Jul	+	Mid Jul – late May	When ground is frozen
<i>Asclepias ovalifolia</i> P	Dwarf Milkweed	Mid Sep – May	Jun – mid Sep	+	Mid Sep – Jun	When ground is frozen
<i>Asclepias purpurescens</i> P	Purple Milkweed	Late Jul – early Jun	Late Jun – mid Jul	+	Mid Jul - late Jun	When ground is frozen
<i>Asclepias sullivantii</i> P	Prairie Milkweed	Aug – Jun	July	+	Aug - Jun	When ground is frozen
<i>Astragalus crassicaarpus</i> P	Ground Plum	Jun – Apr	May	+	Jun - Apr	When ground is frozen
<i>Besseyia bullii</i> P	Kitten Tails	Full year	No restriction	+	Any season	When ground is frozen
<i>Camassia scilloides</i> P	Wild Hyacinth	Full year	No restriction	+	Any season	When ground is frozen

Latin Plant Name (P – perennial M – monocarpic)	English Plant Name	Season of no restrictions on prescribed burns	Season when managers may burn only 25% of local population	Mowing no more than once each growing season †	Season when horse-powered tree removal is allowed	Season when tree harvest with heavy equipment is allowed
<i>Cirsium hillii</i> P	Hill's Thistle	Sep – early Jun	mid Jun – Aug	+	Aug - mid Jun	When ground is frozen
<i>Cypripedium candidum</i> P	Small White Lady's-slipper	Jun – early May	Late May	+	Jun - early May	Not applicable
<i>Echinacea pallida</i> P	Pale Purple Coneflower	Sep – early Jun	Late Jun – Aug	+	Aug - Late Jun	When ground is frozen
<i>Fimbristylis puberula</i> P	Hairy Fimbristylis	Nov – Jun	Jul – Oct	+	Oct - Jul	When ground is frozen
<i>Hypericum sphaerocarpaceum</i> P	Round-seed St. John's-wort	Sep – mid Jun	Late Jun – Aug	+	Aug - Late Jun	When ground is frozen
<i>Lespedeza leptostachya</i> P	Prairie Bushclover	Late Sep – early Aug	mid Aug – mid Sep	+	Mid Sep - mid Aug	When ground is frozen
<i>Lespedeza virginica</i> P	Slender Bushclover	Late Sep – early Jul	mid Jul – mid Sep	+	Mid Sep - mid Jul	When ground is frozen
<i>Lesquerella ludoviciana</i> P	Silver Bladderpod	Jun – Apr	May	+	Jun - Apr	When ground is frozen
<i>Liatris punctata</i> P	Dotted Blazingstar	Oct – Jul	Aug – Sep	+	Sep - Aug	When ground is frozen
<i>Opuntia fragilis</i> P	Brittle Pricklypear	July – May	June	+	July - May	When ground is frozen
<i>Orobanche fasciculata</i> P	Clustered Broomrape	Late Jul – early Jun	mid Jun – early Jul	+	Early Jul - mid Jun	Not applicable
<i>Phlox glaberrima</i> P	Smooth Phlox	Aug – mid Jun	Late Jun - Jul	+	Aug – mid Jun	When ground is frozen
<i>Platanthera flava</i> P	Pale Green Orchid	Early Sep - early Jun	mid Jun – late Aug	+	Early Sep - early Jun	When ground is frozen
<i>Platanthera leucophaea</i> P	Prairie White-fringed Orchid	Sep – early Jul	mid Jun – Aug	+	Sep – early Jul	Not applicable

Latin Plant Name (P – perennial M – monocarpic)	English Plant Name	Season of no restrictions on prescribed burns	Season when managers may burn only 25% of local population	Mowing no more than once each growing season †	Season when horse-powered tree removal is allowed	Season when tree harvest with heavy equipment is allowed
<i>Polygala incarnata</i> M	Pink Milkwort	Late Sep – Jun	Jul – early Sep	Over 1' high only	Early Sep - Jul	When ground is frozen
<i>Polytaenia nuttallii</i> M	Prairie Parsley	Sep – early May	Late May – late Aug	Not from late May to Sep	Late Aug - late May	When ground is frozen
<i>Prenanthes aspera</i> P	Rough Rattlesnake-root	Early Oct – mid Jul	Late Jul – late Sep	+	Early Oct – mid Jul	When ground is frozen
<i>Prenanthes crepidinea</i> P	Nodding Rattlesnake- root	Oct – Jul	Aug – Sep	+	Oct - Jul	When ground is frozen
<i>Ruellia humilis</i> P	Hairy Wild Petunia	Oct – early Jun	mid Jun – late Sep	+	Oct – early Jun	When ground is frozen
<i>Scutellaria parvula</i> var. <i>parvula</i> P	Small Skullcap	Late Aug - mid May	late May – early Aug	+	Late Aug - mid May	When ground is frozen
<i>Vaccinium caespitosum</i> P	Dwarf Huckle-berry	mid Sep – mid Jul	Late Jul – early Sep	+	mid Sep – mid Jul	When ground is frozen
<i>Viola fimbriatula</i> P	Sand Violet	Full year	No restriction	+	Any season	When ground is frozen

KEY TO CHART:

† = No protected plant species may be annually mowed in excess of 5 consecutive years.

+ = Mowing allowed once per growing season.

Prepared by NHC Plant Team (J. Dobberpuhl, E. Judziewicz, K. Kearns, D. Kopitzke, M. Martin, T. Meyer, K. Westad), Rich Henderson and Randy Hoffman, 1999