The Potential Vascular Plant Flora Of Devils Tower National Monument

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16 April 2001

INTRODUCTION

The vascular plant flora of Devils Tower National Mounment was inventoried by Hollis Marriott in the early 1980s (Marriott 1982, 1995; San Miguel and Marriott 1996). Since then, additional rare plant and vegetation mapping studies have been conducted at the park (Marriott 1989; The Nature Conservancy 1996). These studies and other historical records were synthesized into a single checklist by Fertig (2000). That list contained 449 plant taxa (Table 1), including 7 plants considered "species of special concern" by the state natural heritage program and 62 non-native species.

In March 2001, Vanessa Hill of the National Park Service contracted with the Wyoming Natural Diversity Database (WYNDD) to compile a list of all vascular plant species that potentially occur in Devils Tower National Monument (but which have not been previously documented). The following report contains the results of this study.

METHODS

To determine which additional species might be present (but undocumented) at Devils Tower, I conducted a query of WYNDD's county-level vascular plant species database for Crook and Weston counties, Wyoming. At present, there are 1030 vascular plant taxa known from the area, of which 449 (43.6%) have previously been reported for the Park (Fertig 2000). Based on information on the general habitat requirements of the remaining 581 species, I eliminated those species that are not typically found in the vegetation types represented at Devils Tower (The Nature Conservancy 1996). Finally, I used the digital range maps available from the RM's "Atlas of the Vascular Plants of Wyoming" (www.esb.utexas.edu/tchumley/wyomap/atlas.htm) to eliminate those plant species that were not known from the vicinity of the Park. Using statewide abundance and habitat requirements, I assessed the probability of occurrence (high or moderate) for each of the remaining species on the list.

RESULTS AND DISCUSSION

Based on this assessment, an additional 101 vascular plant species may occur at Devils Tower National Monument (Table 2). Of these, 22 are ranked as highly probable and 79 as moderately probable. If the 22 high probability taxa are included in the Park checklist, the current species count of 449 would represent 95.3% of the total flora, well within the National Park Service's nationwide goal of 90% completeness of the species lists for each park unit. This percentage drops to 85.0% if all 101 potential taxa are considered.

The majority of the potential new species for the Monument are exotics that might be associated with roadsides or prairie dog colonies, or wetland species that might occur along the Belle Fourche River. A small number of common Great Plains grassland species may also be unrepresented.

A more complete and systematic survey of Devils Tower NM is likely to document additional vascular plant species not presently known for the Park and could improve knowledge of the location and abundance of rare species and the distribution of noxious weeds. Such a study should be conducted at several times during the growing season to ensure that early and late flowering species are not overlooked. The park should be also be stratified by major habitat types to ensure that all vegetation types are adequately sampled. Special attention should be directed towards possibly under-sampled habitats, such as remnant prairie uplands, wetlands, and weed-prone prairie dog towns. Voucher specimens should be collected for all new species to the park and confirmed by an expert.

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Table 1.

Known Vascular Plant Flora of Devils Tower National Monument Site

The following species list is modified from Fertig (2000) and is based on historical records from the Rocky Mountain Herbarium, a floristic study conducted by Hollis Marriott (1982) and subsequent species checklists prepared by Marriott (1995) and San Miguel and Marriott (1996). Nomenclature follows Dorn (1992) for scientific names and Hitchcock and Cronquist (1973) and Welsh et al. (1993) for common names. Family (FAM) acronyms are based on Weber (1982). Global and state abundance ranks (Grank and Srank respectively) are derived from WYNDD records. Non-native status (indicated by "SE" in Srank field) is based on Fertig (1999). Information on distribution patterns (Dist), Growth form (Form), and primary biome affinity are from Fertig (unpublished data).

Key: Grank and Srank: Abundance is based on a scale of 1 (rarest) to 5 (abundant) for each species and variety (T) at a global (G) or state (S) scale. SE indicates a species that is not native to WY or North America. Distribution (Dist): W = Widespread across WY, P = peripheral in WY (at the edge of its main range), S = Sparse (widely distributed across state but restricted to small, patchy habitats), D = Disjunct (widely isolated in WY from the main contiguous portion of the species' range), E = endemic to WY, R = regional endemic (global range limited to WY and 1 or more neighboring states). Form: tree, shrub, perennial forb (FORB), annual forb (A-FORB), perennial graminoid (GRASS), annual graminoid (A-GRASS), and ferns or fern-allies (FERN). Biome: ALP = Alpine, EDF = Eastern Deciduous Forest, GRS = Great Plains, IDS = Intermountain Desert steppe, RMF = Rocky Mountain Forest, WET = Wetlands.

Fam	**Species**	**Synonym**	**GRank**	**SRank**	**Dist**	**Form**	**Biome**
ACE	*Acer negundo var. interius*		G5T?	S4	W	TREE	WET
ADI	*Cheilanthes feei*		G5	S3	W	FERN	RMF
ADI	*Pellaea occidentalis*	*Pellaea glabella var. occidentalis*	G5	S3	W	FERN	RMF
AGA	*Yucca glauca*		G5	S4	W	SHRUB	GRS
AMA	*Amaranthus albus*		G5	S3	W	A-FORB	GRS
AMA	*Amaranthus blitoides*	*Amaranthus graecizans*	G?	S5	W	A-FORB	GRS
AMA	*Amaranthus retroflexus*		G?	SE		A-FORB	
ANA	*Rhus trilobata*	*Rhus aromatica var. trilobata*	G5	S5	W	SHRUB	IDS
ANA	*Toxicodendron rydbergii*	*Rhus radicans*	G5	S3S4	W	SHRUB	GRS
API	*Cicuta maculata var. angustifolia*	*Cicuta douglasii*	G5T?	S3S4	W	FORB	WET

API	*Cymopterus montanus*		G4	S2S3	W	FORB	GRS
API	*Lomatium foeniculaceum*		G5	S4	W	FORB	IDS
API	*Lomatium orientale*		G5	S4	W	FORB	GRS
API	*Osmorhiza longistylis var. longistylis*		G5	S3	W	FORB	RMF
API	*Perideridia montana*	*Perideridia gairdneri*	G5	S4	W	FORB	RMF
API	*Sanicula marilandica*		G5	S3	W	FORB	RMF
APO	*Apocynum androsaemifolium*		G5	S4	W	FORB	RMF
APO	*Apocynum cannabinum*		G5	S3	W	FORB	RMF
ASC	*Asclepias pumila*		G5	S2	W	FORB	GRS
ASC	*Asclepias speciosa*		G5	S4	W	FORB	WET
ASC	*Asclepias stenophylla*		G4G5	S1S2	P	FORB	GRS
ASC	*Asclepias verticillata*		G5	S1	P	FORB	GRS
ASC	*Asclepias viridiflora*		G5	S3	W	FORB	GRS
ASL	*Cystopteris fragilis*		G5	S5	W	FERN	RMF
ASL	*Woodsia oregana*		G5	S3	W	FERN	RMF
ASL	*Woodsia scopulina*		G5	S3S4	W	FERN	RMF
AST	*Achillea millefolium var. lanulosa*	*Incl. var. alpicola*	G5	S5	W	FORB	RMF
AST	*Agoseris glauca var. laciniata*		G4G5T?	S4	W	FORB	RMF
AST	*Ambrosia psilostachya*	*Ambrosia coronopifolia*	G5	S4	W	FORB	GRS
AST	*Antennaria howellii*	*Antennaria neodioica, A. neglecta var. howellii*	G4G5	S3	W	FORB	GRS
AST	*Antennaria parvifolia*		G5	S4S5	W	FORB	GRS
AST	*Arctium minus*		G?	SE		FORB	
AST	*Arnica fulgens*		G5	S4S5	W	FORB	RMF
AST	*Arnica sororia*		G5	S3	W	FORB	RMF
AST	*Artemisia campestris var. scouleriana*		G5T?	S4	W	FORB	RMF
AST	*Artemisia cana var. cana*	*Seriphidium canum*	G5T4?	S4S5	W	SHRUB	GRS
AST	*Artemisia dracunculus*	*Oligosporus dracunculus*	G5	S5	W	FORB	IDS
AST	*Artemisia frigida*		G5?	S5	W	SHRUB	IDS
AST	*Artemisia ludoviciana var.*		G5T?	S5	W	FORB	GRS

	ludoviciana						
AST	*Artemisia tridentata var. tridentata*	*Seriphidium tridentatum*	G5T?	S4	W	SHRUB	IDS
AST	*Artemisia tridentata var. wyomingensis*	*Seriphidium vaseyanum*	G5T?	S5	W	SHRUB	IDS
AST	*Aster falcatus var. falcatus*		G4G5QT?	S3	W	FORB	GRS
AST	*Aster laevis*		G5	S3	W	FORB	GRS
AST	*Aster novae-angliae*		G5	S1	P	FORB	EDF
AST	*Aster oblongifolius*		G5	S2	P	FORB	GRS
AST	*Balsamorhiza sagittata*		G4G5	S5	W	FORB	RMF
AST	*Brickellia eupatorioides var. corymbulosa*	*Kuhnia eupatorioides var. corymbulosa*	G5T?	S3	W	FORB	GRS
AST	*Carduus nutans*		G?	SE		FORB	
AST	*Chrysothamnus nauseosus var. graveolens*		G5T5	S3	W	SHRUB	RMF
AST	*Cirsium arvense*		G5	SE		FORB	
AST	*Cirsium flodmanii*		G5	S3S4	W	FORB	GRS
AST	*Cirsium undulatum*		G5	S4	W	FORB	GRS
AST	*Cirsium vulgare*		G5	SE		FORB	
AST	*Crepis acuminata*		G5	S5	W	FORB	RMF
AST	*Dyssodia papposa*		G5	S3	W	A-FORB	GRS
AST	*Echinacea angustifolia*	*Echinacea pallida var. angustifolia*	G4Q	S3	W	FORB	GRS
AST	*Erigeron canus*		G4	S3	W	FORB	GRS
AST	*Erigeron ochroleucus var. ochroleucus*		G5T3	S4	W	FORB	RMF
AST	*Erigeron strigosus*		G5	S3	W	A-FORB	GRS
AST	*Erigeron subtrinervis var. subtrinervis*		G5T?	S3S4	W	FORB	RMF
AST	*Gnaphalium viscosum*	*Gnaphalium macounii*	G5	S2	W	A-FORB	WET
AST	*Grindelia squarrosa var. quasiperennis*		G5T?	S4	W	FORB	GRS
AST	*Gutierrezia sarothrae*		G5	S5	W	SHRUB	GRS
AST	*Haplopappus nuttallii*	*Machaeranthera grindelioides*	G5	S5	W	FORB	GRS
AST	*Haplopappus spinulosus var.*	*Machaeranthera*	G5T4Q	S3S4	W	FORB	GRS

	spinulosus	*pinnatifida*					
AST	*Helianthus annuus*		G5	S5	W	A-FORB	GRS
AST	*Helianthus maximiliani*		G5	S2	W	FORB	GRS
AST	*Helianthus pauciflorus var. subrhomboideus*	*Helianthus rigidus var. subrhomboideus*	G5T?	S3	W	FORB	GRS
AST	*Helianthus petiolaris*		G4G5	S4	W	A-FORB	GRS
AST	*Heterotheca villosa var. villosa*	*Chrysopsis villosa var. villosa*	G5	S3	W	FORB	GRS
AST	*Hieracium albiflorum*		G4G5	S3S4	W	FORB	RMF
AST	*Hieracium umbellatum var. scabriusculum*	*Hieracium canadense*	G?	S2	W	FORB	RMF
AST	*Hymenopappus polycephalus*	*Hymenopappus filifolius var. polycephalus*	G5T4T5	S4S5	W	FORB	GRS
AST	*Hymenoxys acaulis var. acaulis*	*Tetraneuris acaulis*	G5T5	S5	W	FORB	GRS
AST	*Iva xanthifolia*		G5	S4	W	A-FORB	GRS
AST	*Lactuca canadensis*		G5	S1	P	FORB	GRS
AST	*Lactuca oblongifolia*	*Lactuca pulchella, Lactuca tatarica var pulchella*	G5T5	S5	W	FORB	RMF
AST	*Lactuca serriola*		G?	SE		A-FORB	
AST	*Liatris punctata*		G5	S4	W	FORB	GRS
AST	*Lygodesmia juncea*		G5	S4S5	W	FORB	GRS
AST	*Machaeranthera canescens var. canescens*	*Aster canescens*	G5T5	S5	W	FORB	RMF
AST	*Matricaria matricarioides*		G5	S4S5	W	A-FORB	RMF
AST	*Microseris nutans*		G5	S5	W	FORB	RMF
AST	*Nothocalais cuspidata*	*Microseris cuspidata*	G5	S3	W	FORB	GRS
AST	*Onopordum acanthium*		G?	SE		FORB	
AST	*Ratibida columnifera*		G5	S4S5	W	FORB	GRS
AST	*Ratibida tagetes*		G4G5	SE*		FORB	
AST	*Senecio canus*	*Packera cana*	G5	S5	W	FORB	RMF
AST	*Senecio plattensis*		G5	S3	W	FORB	GRS
AST	*Senecio rapifolius*		G4?	S3	R	FORB	RMF
AST	*Solidago missouriensis var. fasciculata*		G5T?	S3	W	FORB	GRS

AST	*Solidago mollis*		G5	S3	W	FORB	GRS
AST	*Solidago nemoralis var. longipetiolata*		G5T5	S3	W	FORB	GRS
AST	*Solidago rigida var. humilis*		G5T?	S3	W	FORB	GRS
AST	*Taraxacum laevigatum*		G?	SE		FORB	
AST	*Taraxacum officinale*		G5	SE		FORB	
AST	*Tragopogon dubius*		G?	SE		FORB	
AST	*Verbesina encelioides var. exauriculata*	*Ximensia encelioides*	G5T?	S2	W	A-FORB	GRS
BER	*Mahonia repens*	*Berberis repens*	G5	S4S5	W	SHRUB	RMF
BOR	*Cryptantha celosioides*		G5	S5	W	FORB	GRS
BOR	*Cryptantha torreyana*		G5	S3	W	A-FORB	RMF
BOR	*Cynoglossum officinale*		G?	SE		FORB	
BOR	*Hackelia deflexa var. americana*		G5TU	S3	W	FORB	RMF
BOR	*Lappula redowskii var. redowskii*	*Lappula occidentalis*	G5	S5	W	A-FORB	IDS
BOR	*Lithospermum incisum*		G5	S5	W	FORB	GRS
BOR	*Mertensia lanceolata*		G5	S3	W	FORB	GRS
BOR	*Onosmodium molle var. occidentale*		G4G5T4?	S3	W	FORB	GRS
BRA	*Alyssum desertorum*		G?	SE		A-FORB	
BRA	*Arabis confinis*	*Arabis x divaricarpa*	G4G5T?	S4	W	FORB	RMF
BRA	*Arabis glabra var. glabra*		G5T5	S4S5	W	FORB	RMF
BRA	*Arabis hirsuta var. pycnocarpa*		G5T5	S3S4	W	FORB	RMF
BRA	*Arabis holboellii var. collinsii*		G5T?	S3S4	W	FORB	GRS
BRA	*Camelina microcarpa*		G?	SE		A-FORB	
BRA	*Capsella bursa-pastoris*		G?	SE		A-FORB	
BRA	*Chorispora tenella*		G?	SE		A-FORB	
BRA	*Descurainia pinnata var. filipes*	*Descurainia incisa ssp. filipes*	G5T?	S3	W	A-FORB	IDS
BRA	*Descurainia pinnata var. osmiarum*	*Descurainia pinnata ssp. halictorum*	G5T?	S2	W	A-FORB	IDS
BRA	*Descurainia sophia*		G?	SE		A-FORB	

BRA	*Draba nemorosa*		G5	SE		A-FORB	
BRA	*Draba reptans*		G5	S3	W	A-FORB	GRS
BRA	*Erysimum asperum var. asperum*		G5	S4	W	FORB	GRS
BRA	*Erysimum cheiranthoides*		G5	S3	W	FORB	RMF
BRA	*Hesperis matronalis*		G4G5	SE		FORB	
BRA	*Lepidium densiflorum var. macrocarpum*		G5T5	S5	W	FORB	GRS
BRA	*Lesquerella alpina var. alpina*	*Incl var spathulata*	G4	S5	W	FORB	IDS
BRA	*Physaria brassicoides*		G5	S3	R	FORB	GRS
BRA	*Rorippa curvipes var. curvipes*		G5T?	S3	W	FORB	WET
BRA	*Rorippa palustris var. fernaldiana*		G5T?	S3	W	FORB	WET
BRA	*Sisymbrium altissimum*		G?	SE		A-FORB	
BRA	*Sisymbrium loeselii*		G?	SE		A-FORB	
BRA	*Thlaspi arvense*		G?	SE		A-FORB	
CAC	*Coryphantha missouriensis*		G5	S2	W	FORB	GRS
CAC	*Opuntia fragilis*		G4G5	S2S3	W	FORB	GRS
CAC	*Opuntia polyacantha var. polyacantha*		G5T5	S5	W	FORB	IDS
CAM	*Campanula rotundifolia*		G5	S5	W	FORB	RMF
CAM	*Triodanis perfoliata*		G5	S3	W	A-FORB	GRS
CHN	*Atriplex patula*		G5	S2	P	A-FORB	GRS
CHN	*Atriplex subspicata*		G5	S3	W	A-FORB	GRS
CHN	*Chenopodium berlandieri var. zschackei*	*Chenopodium album var. berlandieri*	G5T?	S5	W	A-FORB	GRS
CHN	*Chenopodium desiccatum*		G5	S3	W	A-FORB	GRS
CHN	*Chenopodium fremontii*		G5	S3	W	A-FORB	RMF
CHN	*Chenopodium pratericola*	*Chenopodium leptophyllum var. oblongifolium*	G5	S4	W	A-FORB	IDS
CHN	*Chenopodium rubrum var. rubrum*		G5	S2	W	A-FORB	GRS
CHN	*Chenopodium simplex*	*Chenopodium hybridum; C. gigantospermum*	G5	S2	W	A-FORB	RMF
CHN	*Kochia scoparia*		G?	SE		A-FORB	

CHN	*Salsola australis*	*Salsola kali; S. iberica; S. pestifer*	G?	SE		A-FORB	
CIS	*Helianthemum bicknellii*		G5	S1	P	FORB	GRS
CMM	*Tradescantia occidentalis*		G5	S3S4	W	FORB	GRS
CNV	*Convolvulus arvensis*		G?	SE		FORB	
CNV	*Evolvulus nuttallianus*		G5	S3	W	FORB	GRS
COR	*Cornus sericea*	*Cornus stolonifera var. stolonifera*	G5	S4	W	SHRUB	WET
CPP	*Cleome serrulata*		G5	S5	W	A-FORB	GRS
CPP	*Polanisia trachysperma*	*Polanisia dodecandra ssp. trachysperma*	G5T?	S3	W	A-FORB	GRS
CPR	*Symphoricarpos albus var. albus*		G5T4	S2S3	W	SHRUB	GRS
CPR	*Symphoricarpos occidentalis*		G5	S4	W	SHRUB	RMF
CPR	*Viburnum lentago*		G5	S2	P	SHRUB	EDF
CRY	*Cerastium arvense*		G5	S5	W	FORB	RMF
CRY	*Cerastium nutans*		G5	S1?	S	A-FORB	EDF
CRY	*Silene antirrhina*		G5	S3	W	A-FORB	GRS
CRY	*Silene menziesii var. menziesii*		G5T?	S3S4	W	FORB	RMF
CRY	*Stellaria media*		G?	SE		A-FORB	
CUC	*Echinocystis lobata*		G5	S2S3	W	A-FORB	GRS
CUP	*Juniperus communis var. depressa*		G5T5	S5	W	SHRUB	RMF
CUP	*Juniperus scopulorum*		G5	S5	W	TREE	RMF
CYP	*Carex backii var. backii*		G4	S2	P	GRASS	RMF
CYP	*Carex blanda*		G5?	S2	P	GRASS	EDF
CYP	*Carex brevior*		G5?	S3	W	GRASS	GRS
CYP	*Carex emoryi*		G5	S1	P	GRASS	WET
CYP	*Carex filifolia*		G5	S5	W	GRASS	RMF
CYP	*Carex foenea*	*Carex siccata*	G5	S3	W	GRASS	GRS
CYP	*Carex gravida var. gravida*		G5T?	S2	P	GRASS	GRS
CYP	*Carex hoodii*		G4G5	S5	W	GRASS	RMF
CYP	*Carex lanuginosa*		G5	S5	W	GRASS	WET
CYP	*Carex microptera var. microptera*	*Carex festivella, C. macloviana var. microptera*	G5?	S4S5	W	GRASS	RMF

CYP	*Carex nebrascensis*		G5	S5	W	GRASS	WET
CYP	*Carex pensylvanica var. digyna*	*Carex heliophila; C. inops*	G5T5	S3S4	W	GRASS	GRS
CYP	*Carex praegracilis*		G5	S5	W	GRASS	WET
CYP	*Carex rossii*		G5	S4S5	W	GRASS	RMF
CYP	*Carex sprengelii*		G5?	S3	W	GRASS	RMF
CYP	*Carex stenophylla*	*Carex eleocharis*	G5	S5	W	GRASS	GRS
CYP	*Carex torreyi*		G4	S2	W	GRASS	GRS
CYP	*Carex utriculata*	*Carex rostrata (sensu lato)*	G5	S4S5	W	GRASS	WET
CYP	*Eleocharis palustris*	*Eleocharis macrostachya*	G5	S5	W	GRASS	WET
CYP	*Scirpus microcarpus*		G5	S3	W	GRASS	WET
CYP	*Scirpus pungens var. polyphyllus*	*Scirpus americanus, misapplied*	G5	S5	W	GRASS	WET
ELE	*Shepherdia argentea*		G5	S3S4	W	SHRUB	WET
EQU	*Equisetum arvense*		G5	S5	W	FERN	WET
EQU	*Equisetum laevigatum*		G5	S5	W	FERN	WET
ERI	*Arctostaphylos uva-ursi var. adenotricha*		G5T?	S3	W	SHRUB	RMF
ERI	*Arctostaphylos uva-ursi var. uva-ursi*		G5T?	S3	W	SHRUB	RMF
ERI	*Pterospora andromedea*		G5	S3	W	FORB	RMF
EUP	*Euphorbia brachycera var. robusta*	*Euphorbia robusta*	G5	S4	W	FORB	GRS
EUP	*Euphorbia esula var. uralensis*		G5T?	SE		FORB	
EUP	*Euphorbia glyptosperma*	*Chamaesyce glyptosperma*	G5	S5	W	A-FORB	GRS
EUP	*Euphorbia spathulata*		G5	S2	W	A-FORB	GRS
FAB	*Astragalus adsurgens var. robustior*		G5T5	S5	W	FORB	GRS
FAB	*Astragalus agrestis*	*Astragalus dasyglottis*	G5	S5	W	FORB	RMF
FAB	*Astragalus bisulcatus var. bisulcatus*		G5T5	S5	W	FORB	GRS
FAB	*Astragalus crassicarpus var. crassicarpus*	*Incl. var. paysonii*	G5T5	S4	W	FORB	GRS

FAB	*Astragalus drummondii*		G5	S4S5	W	FORB	GRS
FAB	*Astragalus flexuosus*		G5	S3	W	FORB	GRS
FAB	*Astragalus gilviflorus var. gilviflorus*		G5T?	S3	W	FORB	GRS
FAB	*Astragalus lotiflorus*		G5	S3	W	FORB	GRS
FAB	*Astragalus missouriensis*		G5	S4S5	W	FORB	GRS
FAB	*Astragalus purshii var. purshii*		G5T?	S5	W	FORB	RMF
FAB	*Astragalus spatulatus*		G5	S5	W	FORB	GRS
FAB	*Dalea candida var. oligophylla*	*Petalostemon candidum; P. occidentale*	G5T?	S4S5	W	FORB	GRS
FAB	*Dalea purpurea*	*Petalostemon purpureum*	G5	S4	W	FORB	GRS
FAB	*Glycyrrhiza lepidota var. lepidota*		G5	S5	W	FORB	GRS
FAB	*Hedysarum boreale*		G5	S3	W	FORB	RMF
FAB	*Lathyrus ochroleucus*		G4G5	S2S3	P	FORB	EDF
FAB	*Lathyrus polymorphus var. incanus*		G5?TU	SH	P	FORB	GRS
FAB	*Lotus unifoliolatus*	*Lotus purshianus*	G5	S2S3	P	A-FORB	GRS
FAB	*Lupinus argenteus var. argenteus*		G5?T?	S5	W	FORB	RMF
FAB	*Medicago lupulina*		G?	SE		A-FORB	
FAB	*Medicago sativa*		G?T?	SE		FORB	
FAB	*Melilotus albus*		G?	SE		A-FORB	
FAB	*Melilotus officinalis*		G?	SE		FORB	
FAB	*Oxytropis besseyi var. besseyi*		G5T5	S4	R	FORB	GRS
FAB	*Oxytropis campestris var. gracilis*			S3	W	FORB	RMF
FAB	*Oxytropis lambertii*		G5	S4	W	FORB	GRS
FAB	*Pediomelum argophyllum*	*Psoralea argophylla*	G5	S4	W	FORB	GRS
FAB	*Pediomelum esculentum*	*Psoralea esculenta*	G5	S4	W	FORB	GRS
FAB	*Psoralidium lanceolatum*	*Psoralea lanceolata*	G5	S4S5	W	FORB	GRS
FAB	*Thermopsis rhombifolia*	*Incl. var annulocarpa*	G5T?	S4S5	W	FORB	GRS

FAB	*Trifolium repens*		G?	SE		FORB	
FAB	*Vicia americana var. americana*		G5TU	S3	W	FORB	RMF
FAB	*Vicia americana var. minor*		G5T?	S5	W	FORB	RMF
FAG	*Quercus macrocarpa*		G5	S2S3	P	TREE	EDF
FUM	*Corydalis aurea var. aurea*		G5T5	S4	W	FORB	RMF
GER	*Geranium bicknellii*		G5	S2	W	FORB	RMF
GER	*Geranium carolinianum*		G5	S2	P	A-FORB	GRS
GER	*Geranium pusillum*		G?	SE		A-FORB	
GRS	*Ribes aureum var. villosum*	*Ribes odoratum*	G4G5	S3	W	SHRUB	GRS
GRS	*Ribes cereum var. pedicellare*	*Ribes cereum var. inebrians*	G5T5	S5	W	SHRUB	RMF
GRS	*Ribes oxyacanthoides var. oxyacanthoides*		G5T?	S2	W	SHRUB	GRS
GRS	*Ribes oxyacanthoides var. setosum*	*Ribes setosum*	G5T4?	S4	W	SHRUB	RMF
HYD	*Ellisia nyctelea*		G5	S3	W	A-FORB	GRS
HYD	*Phacelia linearis*		G5	S4	W	A-FORB	RMF
IRI	*Sisyrinchium montanum*		G5	S3	W	FORB	WET
JUN	*Juncus balticus var. montanus*		G5T?	S5	W	GRASS	WET
JUN	*Juncus interior*		G4G5	S3S4	W	GRASS	GRS
LAM	*Hedeoma drummondii*		G5	S3S4	W	FORB	GRS
LAM	*Hedeoma hispidum*	*Hedeoma hispida*	G5	S3	W	FORB	GRS
LAM	*Mentha arvensis*		G5	S5	W	FORB	WET
LAM	*Monarda fistulosa var. menthifolia*		G5T?	S4	W	FORB	GRS
LAM	*Nepeta cataria*		G?	SE		FORB	
LAM	*Salvia reflexa*		G5	S2S3	W	FORB	GRS
LIL	*Allium textile*		G5?	S5	W	FORB	IDS
LIL	*Calochortus gunnisonii*		G5	S4	W	FORB	GRS
LIL	*Calochortus nuttallii*		G5	S5	W	FORB	RMF
LIL	*Disporum trachycarpum*		G5	S3S4	W	FORB	RMF
LIL	*Leucocrinum montanum*		G5	S4	W	FORB	GRS
LIL	*Maianthemum stellatum*	*Smilacina stellata*	G5	S5	W	FORB	RMF
LIL	*Smilax herbacea var. lasioneuron*		G5	S2	W	FORB	GRS
LIL	*Zigadenus venenosus var. gramineus*		G5T5	S5	W	FORB	RMF

LIN	*Linum australe*		G5	S2	S	A-FORB	GRS
LIN	*Linum lewisii*	*Linum perenne var. lewisii*	G4G5	S5	W	FORB	RMF
LIN	*Linum rigidum var. compactum*		G4?	S2	W	A-FORB	GRS
LIN	*Linum rigidum var. rigidum*		G4G5T?	S3	W	A-FORB	GRS
LOA	*Mentzelia decapetala*	*Nuttallia decapetala*	G5	S3	W	FORB	GRS
LOA	*Mentzelia dispersa*	*Acrolasia dispersa*	G5	S3S4	W	A-FORB	IDS
MLV	*Malva rotundifolia*		G?	SE		A-FORB	
MLV	*Sphaeralcea coccinea*		G5?	S5	W	FORB	IDS
NYC	*Mirabilis linearis*		G5	S3S4	W	FORB	GRS
NYC	*Mirabilis nyctaginea*		G5	S3	W	FORB	GRS
OLE	*Fraxinus pennsylvanica*		G5	S3	W	TREE	WET
ONA	*Epilobium ciliatum var. ciliatum*	*Epilobium watsonii*	G5T?	S5	W	FORB	WET
ONA	*Gaura coccinea*		G5	S4S5	W	FORB	GRS
ONA	*Gayophytum diffusum var. strictipes*		G5	S4S5	W	A-FORB	RMF
ONA	*Oenothera albicaulis*		G5	S3	W	A-FORB	GRS
ONA	*Oenothera caespitosa var. caespitosa*		G5TU	S5	W	FORB	IDS
ONA	*Oenothera coronopifolia*		G5	S3S4	W	FORB	GRS
ONA	*Oenothera laciniata*		G5	S1	P	A-FORB	GRS
ONA	*Oenothera villosa var. strigosa*	*Oenothera strigosa*	G5T?	S3S4	W	FORB	GRS
ORC	*Calypso bulbosa*		G5	S3	W	FORB	RMF
ORC	*Corallorrhiza maculata*		G5	S3	W	FORB	RMF
ORO	*Orobanche fasciculata*		G4	S4S5	W	FORB	RMF
ORO	*Orobanche ludoviciana var. ludoviciana*		G5	S3	W	FORB	GRS
OXL	*Oxalis dillenii*		G5	S3	W	FORB	GRS
OXL	*Oxalis stricta*		G5	S2	P	FORB	GRS
PGL	*Polygala alba*		G5	S2	P	FORB	GRS
PIN	*Pinus ponderosa*		G5	S4	W	TREE	RMF
PLG	*Eriogonum flavum var. flavum*		G5T4T5	S5	W	FORB	GRS
PLG	*Eriogonum pauciflorum var. pauciflorum*	*Incl var. gnaphalodes*	G5T4	S3	W	FORB	GRS

PLG	*Polygonum aviculare*	*Polygonum arenastrum*	G?	SE		A-FORB	
PLG	*Polygonum convolvulus*	*Fallopia convolvulus*	G?	SE		A-FORB	
PLG	*Polygonum douglasii var. douglasii*		G5T5	S5	W	A-FORB	RMF
PLG	*Rumex crispus*		G?	SE		FORB	
PLG	*Rumex salicifolius var. triangulivalvis*	*Rumex mexicanus*	G5	S5	W	FORB	RMF
PLG	*Rumex venosus*		G5?	S3	W	FORB	GRS
PLM	*Collomia linearis*		G5	S5	W	A-FORB	RMF
PLM	*Ipomopsis congesta var. pseudotypica*		G5T?	S2	R	FORB	GRS
PLM	*Linanthus septentrionalis*		G5	S5	W	A-FORB	RMF
PLM	*Microsteris gracilis var. humilior*		G5T?	S4	W	A-FORB	GRS
PLM	*Phlox alyssifolia*		G5	S3	W	FORB	GRS
PLM	*Phlox hoodii*		G5	S5	W	FORB	RMF
POA	*Agropyron cristatum var. cristatum*	*A. pectiniforme*	G5	SE		GRASS	
POA	*Agrostis exarata*		G5	S3S4	W	GRASS	WET
POA	*Agrostis scabra*	*Agrostis hiemalis*	G5	S5	W	GRASS	WET
POA	*Agrostis stolonifera*	*Agrostis alba*	G5	SE		GRASS	
POA	*Alopecurus aequalis*		G5	S4	W	GRASS	WET
POA	*Andropogon gerardii*		G5	S3	W	GRASS	GRS
POA	*Andropogon scoparius*	*Schizachyrium scoparium*	G5	S4	W	GRASS	GRS
POA	*Aristida purpurea var. longiseta*	*Aristida longiseta*	G5T5?	S3S4	W	GRASS	GRS
POA	*Avena sativa*		G?	SE		A-GRASS	
POA	*Beckmannia syzigachne*		G5	S4	W	A-GRASS	WET
POA	*Bouteloua curtipendula*		G5	S3	W	GRASS	GRS
POA	*Bouteloua gracilis*		G5	S5	W	GRASS	GRS
POA	*Bromus anomalus*		G5	S4	W	GRASS	RMF
POA	*Bromus carinatus*	*Bromus marginatus*	G5	S5	W	GRASS	RMF
POA	*Bromus commutatus*		G?	SE		A-GRASS	
POA	*Bromus inermis var. inermis*		G4G5T?	SE		GRASS	
POA	*Bromus inermis var. purpurascens*		G4G5T?	S3	W	GRASS	RMF

POA	*Bromus japonicus*		G?	SE		A-GRASS	
POA	*Bromus tectorum*		G?	SE		A-GRASS	
POA	*Buchloe dactyloides*		G4G5	S3	W	GRASS	GRS
POA	*Calamagrostis montanensis*		G5	S3	W	GRASS	RMF
POA	*Calamovilfa longifolia*		G5	S4S5	W	GRASS	GRS
POA	*Dactylis glomerata*		G?	SE		GRASS	
POA	*Danthonia spicata*		G5	S3	W	GRASS	RMF
POA	*Danthonia unispicata*		G5	S3S4	W	GRASS	RMF
POA	*Distichlis spicata var. stricta*		G5	S5	W	GRASS	GRS
POA	*Echinochloa muricata*		G5	S4	W	A-GRASS	GRS
POA	*Elymus canadensis var. canadensis*		G5T?	S3	W	GRASS	RMF
POA	*Elymus elymoides var. breviflorus*	*Sitanion hystrix*	G5T?	S3S4	W	GRASS	RMF
POA	*Elymus elymoides var. elymoides*	*Sitanion hystrix*	G5T5	S5	W	GRASS	RMF
POA	*Elymus glaucus*		G5	S4	W	GRASS	RMF
POA	*Elymus hispidus var. ruthenicus*	*Agropyron intermedium; Elytrigia intermedia*	G?	SE		GRASS	
POA	*Elymus repens*	*Agropyron repens; Elytrigia repens*	G5	SE		GRASS	
POA	*Elymus smithii*	*Agropyron smithii; Pascopyrum smithii*	G5	S5	W	GRASS	GRS
POA	*Elymus spicatus*	*Agropyron spicatum; Pseuodroegneria spicata*	G5	S5	W	GRASS	IDS
POA	*Elymus trachycaulus var. andinus*	*Agropyron caninum var. andinum; A. subsecundum*	G5T5	S4	W	GRASS	RMF
POA	*Elymus trachycaulus var. trachycaulus*	*Agropyron caninum*	G5T5	S5	W	GRASS	RMF
POA	*Elymus villosus*		G5	S1	P	GRASS	EDF
POA	*Elymus virginicus*		G5	S2	W	GRASS	WET
POA	*Eragrostis cilianensis*		G?	SE		A-GRASS	
POA	*Festuca arundinacea*		G?	SE		GRASS	

POA	*Festuca idahoensis*	*Festuca ovina var. ingrata*	G5	S4S5	W	GRASS	RMF
POA	*Festuca octoflora*	*Vulpia octoflora*	G5	S4	W	A-GRASS	IDS
POA	*Festuca pratensis*		G5	SE		GRASS	
POA	*Festuca rubra var. rubra*		G5T4	S2	W	GRASS	RMF
POA	*Festuca saximontana*	*Festuca ovina var. rydbergii*	G5	S4S5	W	GRASS	RMF
POA	*Glyceria striata*		G5	S4	W	GRASS	WET
POA	*Hordeum jubatum*		G5	S5	W	GRASS	GRS
POA	*Hordeum x caespitosum*	*Hordeum adscendens*	G5	S3	W	GRASS	GRS
POA	*Koeleria macrantha*	*Koeleria cristata; K. pyramidata*	G5	S5	W	GRASS	GRS
POA	*Leersia oryzoides*		G5	S1S2	P	GRASS	WET
POA	*Muhlenbergia cuspidata*		G4	S3	W	GRASS	GRS
POA	*Muhlenbergia mexicana*		G5	S1	P	GRASS	WET
POA	*Muhlenbergia racemosa*		G5	S3	W	GRASS	RMF
POA	*Oryzopsis asperifolia*		G5	S3	W	GRASS	RMF
POA	*Oryzopsis hymenoides*		G5	S5	W	GRASS	IDS
POA	*Oryzopsis micrantha*		G5	S3	W	GRASS	GRS
POA	*Panicum capillare*		G5	S4	W	A-GRASS	GRS
POA	*Panicum oligosanthes var. scribnerianum*	*Dichanthelium oligosanthes var. scribnerianum*	G5T5	S3	W	GRASS	GRS
POA	*Panicum wilcoxianum*	*Dichanthelium wilcoxianum*	G5	S1S2	P	GRASS	GRS
POA	*Phalaris arundinacea*		G5	S3S4	W	GRASS	WET
POA	*Phleum pratense*		G?	SE		GRASS	
POA	*Poa bulbosa*		G?	SE		GRASS	
POA	*Poa compressa*		G?	SE		GRASS	
POA	*Poa interior*	*Poa glauca var. glauca*	G5	S4S5	W	GRASS	RMF
POA	*Poa pratensis*		G?	SE		GRASS	
POA	*Poa secunda var. elongata*	*Poa canbyi*	G5	S5	W	GRASS	RMF
POA	*Poa secunda var. secunda*	*Poa sandbergii*	G5	S5	W	GRASS	IDS
POA	*Schedonnardus paniculatus*		G5	S3	W	GRASS	GRS
POA	*Schizachne purpurascens*		G5	S3	W	GRASS	RMF
POA	*Secale cereale*		G?	SE		A-GRASS	
POA	*Setaria viridis*		G?	SE		A-GRASS	
POA	*Spartina pectinata*		G5	S3S4	W	GRASS	WET

POA	*Sporobolus cryptandrus*		G5	S4	W	GRASS	GRS
POA	*Stipa comata var. comata*		G5T?	S5	W	GRASS	GRS
POA	*Stipa spartea*		G5	S2	P	GRASS	GRS
POA	*Stipa viridula*	*Nassella viridula*	G5	S4	W	GRASS	GRS
POR	*Portulaca oleracea*		G?	SE*		A-FORB	
POT	*Potamogeton pectinatus*	*Coleogeton pectinatus; Stuckenia pectinata*	G5	S3	W	FORB	WET
PRM	*Androsace occidentalis*		G5	S3	W	A-FORB	GRS
PRM	*Dodecatheon pulchellum*	*Dodecatheon pauciflorum*	G5	S4	W	FORB	RMF
PRM	*Lysimachia ciliata*	*Steironema ciliatum*	G5	S3	W	FORB	WET
PTG	*Plantago major*	*Incl. "native" var. pachyphylla*	G5	SE		FORB	
PTG	*Plantago patagonica var. patagonica*		G5T5	S5	W	A-FORB	GRS
PTG	*Plantago patagonica var. spinulosa*		G5T?	S3	W	A-FORB	GRS
RAN	*Anemone cylindrica*		G5	S2S3	W	FORB	GRS
RAN	*Anemone patens var. multifida*	*Anemone nuttalliana*	G5T?	S4	W	FORB	RMF
RAN	*Clematis ligusticifolia*		G5	S3S4	W	FORB	GRS
RAN	*Delphinium bicolor*		G4G5	S4S5	W	FORB	RMF
RAN	*Myosurus minimus*		G5	S3	W	A-FORB	WET
RAN	*Ranunculus abortivus*		G5	S3	W	FORB	RMF
RAN	*Ranunculus aquatilis var. diffusus*	*Ranunculus circinatus var. subrigidus & R. longirostris*	G5	S4S5	W	FORB	WET
RAN	*Ranunculus cymbalaria*	*Includes vars. alpinus & saximontanus*	G5	S5	W	FORB	WET
RAN	*Ranunculus glaberrimus var. ellipticus*	*Includes var. glaberrimus*	G5T5	S5	W	FORB	RMF
RAN	*Ranunculus macounii*		G5	S4	W	FORB	WET
RAN	*Ranunculus sceleratus var. multifidus*	*Hecatonia scelerata*	G5T5	S3	W	A-FORB	WET

RAN	*Ranunculus testiculatus*	*Ceratocephala orthoceras*	G?	SE		A-FORB	
RAN	*Thalictrum dasycarpum*		G5	S2S3	W	FORB	RMF
RHM	*Ceanothus velutinus var. velutinus*		G5	S3S4	W	SHRUB	RMF
ROS	*Amelanchier alnifolia var. alnifolia*		G5T?	S4S5	W	SHRUB	RMF
ROS	*Crataegus columbiana var. chrysocarpa*	*Crataegus chrysocarpa; C. rotundifolia*	G5	S2	W	SHRUB	RMF
ROS	*Fragaria virginiana*		G5	S5	W	FORB	RMF
ROS	*Geum aleppicum*		G5	S3	W	FORB	WET
ROS	*Geum macrophyllum var. perincisum*		G5T?	S4S5	W	FORB	RMF
ROS	*Geum triflorum*		G4G5	S4S5	W	FORB	RMF
ROS	*Potentilla arguta*	*Drymocallis arguta*	G5	S4S5	W	FORB	RMF
ROS	*Potentilla fissa*	*Drymocallis fissa*	G4G5	S3	W	FORB	RMF
ROS	*Potentilla pensylvanica*		G5	S3	W	FORB	RMF
ROS	*Prunus americana*		G5	S3	W	SHRUB	EDF
ROS	*Prunus pensylvanica*		G5	S2	P	TREE	RMF
ROS	*Prunus virginiana var. melanocarpa*		G5T5	S5	W	SHRUB	RMF
ROS	*Pyrus malus*	*Malus pumila*	G?	SE		TREE	
ROS	*Rosa arkansana*		G5	S3S4	W	SHRUB	GRS
ROS	*Rosa woodsii*		G5	S5	W	SHRUB	RMF
ROS	*Rubus idaeus var. aculeatissimus*		G5	S4	W	FORB	RMF
RUB	*Galium aparine var. echinospermon*		G5T?	S3	W	A-FORB	WET
RUB	*Galium boreale*		G5	S5	W	FORB	RMF
RUB	*Galium triflorum*		G5	S3	W	FORB	RMF
SAL	*Populus deltoides var. occidentalis*	*Populus deltoides ssp. monilifera*	G5	S4S5	W	TREE	WET
SAL	*Populus tremuloides*		G5	S5	W	TREE	RMF
SAL	*Salix amygdaloides*		G5	S4	W	TREE	WET
SAL	*Salix eriocephala var. famelica*	*Salix eriocephala*	G5	S3	W	SHRUB	WET
SAN	*Comandra umbellata var. pallida*		G5T?	S5	W	FORB	IDS

SAX	*Heuchera richardsonii*		G5	S3	W	FORB	GRS
SAX	*Lithophragma parviflorum*	*Lithophragma parviflora*	G5	S3S4	W	FORB	RMF
SCR	*Besseya wyomingensis*		G5	S5	W	FORB	RMF
SCR	*Castilleja sessiliflora*		G5	S3	W	FORB	GRS
SCR	*Orthocarpus luteus*		G5	S5	W	A-FORB	RMF
SCR	*Penstemon albidus*		G5	S4	W	FORB	GRS
SCR	*Penstemon eriantherus var. eriantherus*		G4T?	S4S5	W	FORB	GRS
SCR	*Penstemon glaber var. glaber*		G5T?	S4	W	FORB	GRS
SCR	*Penstemon gracilis*		G5	S3	W	FORB	GRS
SCR	*Penstemon grandiflorus*		G5?	S2	P	FORB	GRS
SCR	*Scrophularia lanceolata*		G5	S3	W	FORB	RMF
SCR	*Verbascum thapsus*		G?	SE		FORB	
SCR	*Veronica americana*		G5	S5	W	FORB	WET
SCR	*Veronica peregrina var. xalapensis*		G5T5	S4	W	A-FORB	WET
SEL	*Selaginella densa*	*Incl. vars standleyi, densa, & scopulorum*	G5	S5	W	FERN	RMF
SOL	*Solanum nigrum*	*Solanum ptycanthum; S. americanum*	G?	S2	W	A-FORB	GRS
SOL	*Solanum triflorum*		G5	S3	W	A-FORB	GRS
URT	*Parietaria pensylvanica*		G5	S3	W	A-FORB	RMF
URT	*Urtica dioica var. procera*		G5	S4S5	W	FORB	RMF
VIO	*Viola adunca*		G5	S5	W	FORB	RMF
VIO	*Viola canadensis*		G5	S3	W	FORB	RMF
VIO	*Viola nephrophylla*		G5	S3	W	FORB	WET
VIO	*Viola nuttallii*		G5	S3S4	W	FORB	GRS
VIO	*Viola pedatifida*		G5	S1	P	FORB	GRS
VIO	*Viola vallicola*	*Viola nuttallii var. vallicola*	G4Q	S5	W	FORB	RMF
VIT	*Parthenocissus vitacea*		G4	S2	W	SHRUB	EDF
VIT	*Vitis riparia*		G5	S3	W	SHRUB	EDF
VRB	*Glandularia bipinnatifida*	*Verbena bipinnatifida*	G5	S1	P	FORB	GRS
VRB	*Verbena bracteata*		G4G5	S5	W	FORB	GRS

Table 2.

Potential Vascular Plant Flora of Devils Tower National Monument

The following species consists of species that are not currently known from the vicinity of Devils Tower NM in Crook County, Wyoming, but have not yet been documented in the park. The probability that a species is present is indicated in the "Pot DTNM" column as High or Moderate (Mod). Nomenclature follows Dorn (1992) for scientific names and Hitchcock and Cronquist (1973) and Welsh et al. (1993) for common names. Family (FAM) acronyms are based on Weber (1982). Global and state abundance ranks (Grank and Srank respectively) are derived from WYNDD records. Non-native status (indicated by "SE" in Srank field) is based on Fertig (1999). Information on distribution patterns (Dist), Growth form (Form), and primary biome affinity are from Fertig (unpublished data).

Key: Grank and Srank: Abundance is based on a scale of 1 (rarest) to 5 (abundant) for each species and variety (T) at a global (G) or state (S) scale. SE indicates a species that is not native to WY or North America. Distribution (Dist): W = Widesprerad across WY, S = Sparse (widely distributed across state but restricted to small, patchy habitats), P = Peripheral in WY (at the edge of its main range), D = Disjunct (widely isolated in WY from the main contiguous portion of the species' range), E = Endemic to WY, R = Regional endemic (global range limited to WY and 1 or more neighboring states). Form: tree, shrub, perennial forb (FORB), annual forb (A-FORB), perennial graminoid (GRASS), annual graminoid (A-GRASS), and ferns or fern-allies (FERN). Biome: ALP = Alpine, EDF = Eastern Deciduous Forest, GRS = Great Plains, IDS = Intermountain Desert steppe, RMF = Rocky Mountain Forest, WET = Wetlands.

Fam	**Species**	**Synonym**	**GRank**	**SRank**	**Dist**	**Form**	**Biome**	**Pot DTNM**
ALI	*Alisma triviale*	*A. plantago-aquatica var. americanum*	G5	S3	W	FORB	WET	Mod
ALI	*Sagittaria cuneata*		G5	S3S4	W	FORB	WET	Mod
API	*Conium maculatum*		G4G5	SE		FORB		Mod
API	*Cymopterus acaulis*		G5	S4	W	FORB	GRS	High
API	*Musineon divaricatum*		G5	S4S5	W	FORB	GRS	Mod
AST	*Agoseris glauca var. glauca*		G4G5T?	S4	W	FORB	RMF	High
AST	*Ambrosia artemisiifolia*		G5	S2S3	W	A-FORB	GRS	Mod
AST	*Ambrosia trifida*		G5	S3	W	A-FORB	GRS	Mod
AST	*Antennaria dimorpha*		G5	S4	W	FORB	IDS	Mod
AST	*Antennaria microphylla*		G4G5	S5	W	FORB	RMF	High

AST	*Arnica cordifolia*		G5	S5	W	FORB	RMF	Mod
AST	*Artemisia biennis var. biennis*		G5T?	S3S4	W	FORB	IDS	Mod
AST	*Aster ciliolatus*		G5	S3	W	FORB	RMF	Mod
AST	*Aster hesperius*	*A. lanceolatus var. hesperius*	G5T5?	S3	W	FORB	WET	Mod
AST	*Bidens frondosa*		G5	S2	W	A-FORB	WET	Mod
AST	*Centaurea repens*		G?	SE		FORB		Mod
AST	*Conyza canadensis*		G5	S4S5	W	A-FORB	GRS	High
AST	*Crepis occidentalis var. costata*		G5T?	S3	W	FORB	IDS	High
AST	*Erigeron divergens*		G5	S3S4	W	FORB	IDS	Mod
AST	*Erigeron philadelphicus*		G5	S2	P	FORB	GRS	Mod
AST	*Erigeron pumilus var. pumilus*		G5T?	S5	W	FORB	GRS	Mod
AST	*Eupatorium maculatum var. bruneri*		G5TU	S2	W	FORB	WET	Mod
AST	*Filago arvensis*	*Logfia arvensis*	G?	SE		A-FORB		Mod
AST	*Helianthus nuttallii*		G5	S3S4	W	FORB	RMF	Mod
AST	*Madia glomerata*		G5	S3S4	W	A-FORB	RMF	Mod
AST	*Rudbeckia hirta*		G5	S3	W	FORB	GRS	High
AST	*Senecio integerrimus var. exaltatus*		G5T?	S5	W	FORB	RMF	High
AST	*Solidago canadensis var. gilvocanescens*		G5T?	S3	W	FORB	GRS	Mod
AST	*Solidago missouriensis var. missouriensis*	*Incl var. extraria*	G5T?	S5	W	FORB	RMF	Mod
AST	*Sonchus asper*		G?	SE		A-FORB		Mod
AST	*Xanthium strumarium var. canadense*		G5T5	S5	W	A-FORB	GRS	Mod
BOR	*Hackelia floribunda*		G5?	S5	W	FORB	RMF	Mod
BRA	*Alyssum alyssoides*		G?	SE		A-FORB		High
BRA	*Arabis holboellii var. secunda*	*A. holboellii var. retrofracta*	G5T5	S5	W	FORB	RMF	Mod
BRA	*Descurainia pinnata var. brachycarpa*		G5T5	S3	W	A-FORB	GRS	Mod
BRA	*Erysimum inconspicuum*		G4G5	S4	W	FORB	RMF	Mod

BRA	*Lepidium perfoliatum*		G?	SE		A-FORB		High
BRA	*Lesquerella arenosa var. arenosa*	*L. ludoviciana var. arenosa*	G5T5	S4	W	FORB	GRS	Mod
CAN	*Humulus lupulus var. neomexicanus*		G5T4T5	S3	W	FORB	GRS	Mod
CHN	*Monolepis nuttalliana*		G5	S5	W	A-FORB	IDS	High
CLL	*Callitriche palustris*	*C. verna*	G5	S4	W	FORB	WET	Mod
CNV	*Calystegia sepium var. angulata*	*Convolvulus sepium*	G5T5	S2	W	FORB	GRS	Mod
CRS	*Sedum lanceolatum*		G5	S5	W	FORB	RMF	High
CRY	*Arenaria hookeri var. hookeri*		G4G5T?	S5	W	FORB	IDS	Mod
CRY	*Arenaria lateriflora*	*Moehringia lateriflora*	G5	S3	W	FORB	RMF	Mod
CRY	*Silene drummondii*	*Lychnis drummondii, incls vars striata and drummondii; Gastrolychnis drummondii*	G5	S4S5	W	FORB	RMF	Mod
CYP	*Carex atherodes*		G5	S2	W	GRASS	WET	Mod
CYP	*Carex bebbii*		G5	S2	W	GRASS	WET	Mod
CYP	*Carex praticola*		G5	S3	W	GRASS	WET	Mod
CYP	*Eleocharis acicularis*		G5	S3	W	GRASS	WET	Mod
CYP	*Scirpus pallidus*	*S. atrovirens var. pallidus*	G5	S3	W	GRASS	WET	Mod
CYP	*Scirpus validus*		G5	S4	W	GRASS	WET	Mod
FAB	*Astragalus plattensis*		G5	S3	W	FORB	GRS	Mod
FAB	*Astragalus tenellus*		G5	S5	W	FORB	RMF	Mod
FAB	*Lupinus sericeus*		G5	S3	W	FORB	RMF	High
FAB	*Oxytropis sericea var. sericea*		G5T?	S5	W	FORB	GRS	High
FAB	*Trifolium pratense*		G?	SE		FORB		Mod
HAL	*Myriophyllum sibiricum*	*M. exalbescens; M. spicatum var. exalbescens*	G5	S3	W	FORB	WET	Mod
IRI	*Iris missouriensis*		G5	S4	W	FORB	WET	Mod
JUN	*Juncus compressus*		G5	SE		GRASS		Mod

JUN	*Juncus nodosus*		G5	S3	W	GRASS	WET	Mod
JUN	*Juncus tenuis var. dudleyi*	*J. dudleyi [incl var. tenuis]*	G5	S3	W	GRASS	WET	Mod
JUN	*Juncus torreyi*		G5	S3	W	GRASS	WET	Mod
LAM	*Lycopus americanus*		G5	S3	W	FORB	WET	High
LAM	*Prunella vulgaris var. lanceolata*		G5T?	S3	W	FORB	WET	Mod
LAM	*Stachys palustris var. pilosa*		G5T?	S3	W	FORB	WET	Mod
LMN	*Lemna minor*		G5	S3S4	W	FORB	WET	Mod
ONA	*Calylophus serrulatus*		G5	S3S4	W	FORB	GRS	Mod
ONA	*Epilobium brachycarpum*	*E. paniculatum*	G5	S5	W	A-FORB	RMF	Mod
PLG	*Eriogonum annuum*		G5	S3	W	A-FORB	GRS	Mod
PLG	*Polygonum achoreum*	*P. erectum var. achoreum*	G5	S3	W	A-FORB	RMF	Mod
PLG	*Polygonum lapathifolium*	*Persicaria lapathifolia*	G5	SE		A-FORB		Mod
PLG	*Polygonum ramosissimum*		G5	S3	W	A-FORB	GRS	Mod
PLG	*Rumex maritimus var. fueginus*		G5	S3	W	A-FORB	WET	Mod
POA	*Agropyron cristatum var. desertorum*	*A. desertorum*	G?	SE		GRASS		Mod
POA	*Alopecurus carolinianus*		G5	S2	W	A-GRASS	GRS	Mod
POA	*Bromus ciliatus*		G5	S5	W	GRASS	RMF	Mod
POA	*Cenchrus longispinus*		G5	S2S3	W	A-GRASS	GRS	Mod
POA	*Elymus lanceolatus var. lanceolatus*	*Agropyron dasystachyum var. dasystachyum*	G5T5	S5	W	GRASS	RMF	High
POA	*Glyceria grandis*		G5	S3	W	GRASS	WET	High
POA	*Poa fendleriana*		G5	S4S5	W	GRASS	RMF	High
POA	*Poa palustris*		G5	SE		GRASS		High
POA	*Stipa nelsonii var. dorei*	*S. occidentalis var. nelsonii*	G5T?	S4	W	GRASS	RMF	Mod
POA	*Triticum aestivum*		G?	SE		A-GRASS		Mod

POR	*Claytonia perfoliata*	*Montia perfoliata*	G5	S2	W	A-FORB	RMF	Mod
POT	*Potamogeton filiformis*	*Stuckenia filiformis*	G5	S3	W	FORB	WET	Mod
POT	*Potamogeton foliosus*		G5	S3	W	FORB	WET	Mod
RAN	*Actaea rubra*		G5	S4	W	FORB	RMF	Mod
ROS	*Geum canadense*		G5	S2	P	FORB	EDF	Mod
ROS	*Physocarpus monogynus*		G4	S3	W	SHRUB	RMF	Mod
ROS	*Potentilla glandulosa var. pseudorupestris*	*Drymocallis glandulosa*	G5T?	S4S5	W	FORB	RMF	High
ROS	*Potentilla gracilis var. nuttallii*	*P. gracilis var. fastigiata*	G5T?	S5	W	FORB	RMF	High
ROS	*Potentilla norvegica*		G5	SE		A-FORB		High
ROS	*Rosa sayi*	*R. acicularis var. sayi*	G5TU	S4S5	W	SHRUB	RMF	Mod
SAL	*Salix bebbiana*		G5	S5	W	SHRUB	WET	Mod
SCR	*Collinsia parviflora*		G5	S5	W	A-FORB	RMF	High
SCR	*Limosella aquatica*		G5	S3	W	FORB	WET	Mod
SCR	*Penstemon nitidus var. nitidus*		G5T?	S3	W	FORB	RMF	Mod
SOL	*Physalis heterophylla*		*G5*	*S2*	*P*	*FORB*	*GRS*	*Mod*
SOL	*Solanum rostratum*		*G5*	*S3*	*W*	*A-FORB*	*GRS*	*Mod*
TYP	*Typha latifolia*		*G5*	*S3S4*	*W*	*GRASS*	*WET*	*Mod*