

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Grant Kohrs Ranch Vascular Plant Survey
Type of Project (circle one) Research (Biological Sciences)
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Investigators and Agency Representative: Dr. Peter Rice, University of Montana, Missoula, MT 59812; 406-243-2671; biopmr@selway.umt.edu
Tara Carolin, Glacier National Park, West Glacier, MT 59936; 406-888-7919; tara_carolin@nps.gov
Project Abstract: Grant Kohrs Ranch NHS is about 1500 acres of pastures, uplands and riparian areas along the Clark Fork River. Peter Rice will work with the National Park Service to survey vascular plant species on the Ranch to achieve a 90% completeness. Areas to be surveyed include: UPLANDS: SW corner (north of Taylor Creel & west of Kohrs Ditch) dry lands above west side hayfields areas east of K-M Ditch, and east of railroad tracks (some now being irrigated with waste water) area west of borrow pit (east of K-M Ditch) DITCHES: Kohrs Ditch (west) Kohrs-Manning Ditch (east) Many weeds along the ditches. RAILROAD TRACKS: Mix of weeds and "desirable" exotics. This survey will be completed during a 2 ½ week period in the spring of 2002 with emphasis on identification of ephemerals and cool season plants. During the summer researchers will also survey for 2 ½ weeks to record warm season species.
Final Report(s): For Text Report see following pages. INVADERS Database http://invader.dbs.umt.edu
Keywords: Grant Kohrs Ranch National Historic Site; vascular plants; inventory and monitoring

Vascular Plant Survey of Grant-Kohrs Ranch National Historic Site

Peter M. Rice and Janet G. Hardin
Division of Biological Sciences
University of Montana
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In 1983 Peter M. Rice and Gary J. Ray conducted a baseline plant inventory of the Grant-Kohrs Ranch National Historic Site. At that time the ranch occupied only 216 acres and included the central area surrounding the main house and associated outbuildings, as well as pastures and a hayfield on the east side of the Clark Fork River, north of Cottonwood Creek. Subsequent acquisitions have enlarged the historic site to its current size of 1,618 acres. Those additional areas on the east bank include pastures, remnant prairie (now being irrigated with sewage effluent and used as pasture) and borrow pit wetlands to the north of the original boundary. West of the river riparian wetlands, flood-irrigated pastures and hayfields, and rangeland on dry upland benches are now included in the park boundary. In 2000-2001 Rice and Janet G. Hardin compiled a species list for the fenced 126 acre Clark Fork riparian zone as part of vegetation investigations in a natural resource damage assessment. Finally, in 2002 Rice and Hardin surveyed the upland grasslands, irrigation ditch system, sloughs, borrow pits, sewage effluent fields, and the strip of land currently leased by the Burlington Northern/Montana Western Railroad. Also examined were the submerged and emergent aquatic plants in beaver ponds, sloughs and ditches.

The 1983 and 2000-2001 surveys were conducted throughout the growing season. In 2002 field work began on May 6 and continued through August 28. That survey focused on three growth periods: spring ephemerals (May), peak biomass (early July), and warm season forbs (late August).

The species lists from 1983, 2000-2001, and 2002 were compiled in a Microsoft Access database and reformatted to match the table structures developed for the NPS Inventory and Monitoring Network. Nomenclature was updated by using the Integrated Taxonomic Information System (ITIS).

A total of 341 taxa have been identified on the Ranch -- 12 to the genus level and 329 to species. These vascular flora represent 210 genera and 59 families. The numbers of newly observed species in each year were: 159 (1983), 87 (2000), 16 (2001), and 79 (2002). Life-form categories include 5 spore-bearing taxa, 6 tree species, 29 shrub species, 67 graminoid (grass, sedge, rush) taxa, and 234 species of forbs. 86 species are exotic to North America and constitute 25% of the taxa. Of those exotic species, 11 are designated as noxious in the state of Montana, and a total of 57 species are considered

noxious by various state and provincial governments in some portion of their North American distribution.

None of the plant species observed is considered rare to the point of being formally listed as a Species of Concern, Threatened or Endangered by the Montana Natural Heritage Program. However, the complex nature of the ranch landscape means that there are a few species that were observed in very small numbers or in very localized sites, and these have been described as “rare” in the Access database. The recent drought may have had an effect on the relative abundances of some of these species as observed in the last few years.

The number of taxa reflects the management history and complex environment encompassed by the ranch. These include areas highly impacted by humans and livestock (roads, railroads, borrow pits, home sites, corrals, pastures and hayfields), as well as areas in which recognizable native plant communities remain. The most complex and vegetatively diverse of these is the riparian zone. Despite the damaging impacts of mining wastes deposited from upstream, the riparian zone includes 185 plant taxa (54% of the species documented on the ranch) in 22 community types. It also supports the greatest concentration of exotic weeds. The dry upland benches of the west side have primarily been used for grazing, and retain much of the character of natural grassland communities. These are primarily the bluebunch wheatgrass/western wheatgrass habitat type and the bluebunch wheatgrass/Sandberg’s bluegrass type (needle-and-thread grass phase). These community types also occur to a lesser degree east of the river, in the strip of land owned by the railroad and in the non-irrigated area between the Kohrs-Manning Ditch and the borrow pit (now a wetland). The fences around the riparian zone and the non-irrigated uplands help maintain these areas in a condition approaching the potential natural communities.

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PLANT SPECIES OF GRANT-KOHRS RANCH NHS

<u>SPECIES</u>	<u>COMMON NAME</u>	<u>FAMILY</u>	<u>Native/Exotic</u>
TREES			
<i>Betula pendula</i>	European white birch	Betulaceae	E (o)*
<i>Fraxinus pennsylvanica</i>	green ash	Oleaceae	N (o)
<i>Juniperus scopulorum</i>	Rocky Mountain juniper	Cupressaceae	N
<i>Malus</i> sp.	apple	Rosaceae	E (o)
<i>Populus balsamifera</i> ssp <i>trichocarpa</i> (<i>Populus trichocarpa</i>)	black cottonwood	Salicaceae	N
<i>Populus tremuloides</i>	quaking aspen	Salicaceae	N
SHRUBS			
<i>Alnus incana</i>	gray alder	Betulaceae	N
<i>Amelanchier alnifolia</i>	western serviceberry	Rosaceae	N
<i>Artemisia frigida</i>	fringed sagebrush	Asteraceae	N
<i>Atriplex gardneri</i>	Gardner's saltbush	Chenopodiaceae	N
<i>Betula occidentalis</i>	water birch	Betulaceae	N
<i>Cercocarpus ledifolius</i>	curl-leaf mountain mahogany	Rosaceae	N
<i>Chrysothamnus viscidiflorus</i>	Douglas rabbitbrush	Asteraceae	N
<i>Cornus sericea</i> (<i>C. stolonifera</i>)	redosier dogwood	Cornaceae	N
<i>Dasiphora floribunda</i> (<i>Potentilla fruticosa</i>)	shrubby cinquefoil	Rosaceae	N
<i>Ericameria nauseosa</i> (<i>Chrysothamnus nauseosus</i>)	rubber rabbitbrush	Asteraceae	N
<i>Gutierrezia sarothrae</i>	broom snakeweed	Asteraceae	N
<i>Krascheninnikovia lanata</i>			
<i>(Erotia lanata; Ceratoides lanata)</i>	winterfat	Chenopodiaceae	N
<i>Lonicera utahensis</i>	Utah honeysuckle	Caprifoliaceae	N
<i>Lonicera x bella</i>	Bell's honeysuckle	Caprifoliaceae	E (o)
<i>Prunus virginiana</i>	chokecherry	Rosaceae	N
<i>Ribes aureum</i>	golden currant	Grossulariaceae	N
<i>Ribes oxyacanthoides</i> (<i>R. setosum</i>)	Canadian gooseberry	Grossulariaceae	N
<i>Rosa woodsii</i>	Wood's rose	Rosaceae	N
<i>Salix bebbiana</i>	Bebb willow	Salicaceae	N
<i>Salix boothii</i>	Booth's willow	Salicaceae	N
<i>Salix drummondiana</i>	Drummond's willow	Salicaceae	N
<i>Salix exigua</i>	sandbar willow, coyote willow	Salicaceae	N
<i>Salix geyeriana</i>	Geyer willow	Salicaceae	N
<i>Salix lucida</i> ssp <i>lasiandra</i> (<i>S. lasiandra</i>)	Pacific willow	Salicaceae	N
<i>Salix lutea</i>	yellow willow	Salicaceae	N
<i>Solanum dulcamara</i>	bittersweet nightshade	Solanaceae	N
<i>Symphoricarpos occidentalis</i>	western snowberry	Caprifoliaceae	N
<i>Syringa vulgaris</i>	common lilac	Oleaceae	E (o)
<i>Tetradymia canescens</i>	spineless horsebrush	Asteraceae	N

GRAMINOID

		<i>Achnatherum hymenoides</i> (<i>Oryzopsis hymenoides</i>)	Poaceae	Indian ricegrass N
<i>Agropyron cristatum</i>	crested wheatgrass	Poaceae	E	
<i>Agrostis idahoensis</i>	Idaho bentgrass	Poaceae	N	
<i>Agrostis stolonifera</i>	redtop	Poaceae	E	
<i>Alopecurus aequalis</i>	shortawn foxtail	Poaceae	N	
<i>Alopecurus pratensis</i>	meadow foxtail	Poaceae	E	
<i>Aristida purpurea</i> var. <i>longiseta</i> (<i>A. longiseta</i>)	red threeawn	Poaceae	N	
<i>Beckmannia syzigachne</i>	slough grass	Poaceae	N	
<i>Bouteloua gracilis</i>	blue grama	Poaceae	N	
<i>Bromus inermis</i>	smooth brome	Poaceae	E	
<i>Bromus japonicus</i>	Japanese brome	Poaceae	E	
<i>Bromus tectorum</i>	downy brome	Poaceae	E	
<i>Calamagrostis canadensis</i>	bluejoint reedgrass	Poaceae	N	
<i>Calamagrostis montanensis</i>	plains reedgrass	Poaceae	N	
<i>Calamagrostis stricta</i> ssp. <i>inexpansa</i> (<i>C. inexpansa</i>)	northern reedgrass	Poaceae	N	
<i>Carex aquatilis</i>	water sedge	Cyperaceae	N	
<i>Carex atherodes</i>	awned sedge	Cyperaceae	N	
<i>Carex bebbii</i>	Bebb's sedge	Cyperaceae	N	
<i>Carex douglasii</i>	Douglas' sedge	Cyperaceae	N	
<i>Carex duriuscula</i> (<i>C. stenophylla</i>)	needleleaf sedge	Cyperaceae	N	
<i>Carex microptera</i>	smallwing sedge	Cyperaceae	N	
<i>Carex nebrascensis</i>	Nebraska sedge	Cyperaceae	N	
<i>Carex pellita</i> (<i>C. lanuginosa</i>)	woolly sedge	Cyperaceae	N	
<i>Carex praegracilis</i>	clustered field sedge	Cyperaceae	N	
<i>Carex scirpoidea</i>	Canadian single-spike sedge	Cyperaceae	N	
<i>Carex simulata</i>	shortbeak sedge	Cyperaceae	N	
<i>Carex stipata</i>	sawbeak sedge	Cyperaceae	N	
<i>Carex utriculata</i> (<i>C. rostrata</i> var. <i>utriculata</i>)	Northwest Territory sedge	Cyperaceae	N	
<i>Catabrosa aquatica</i>	brookgrass	Poaceae	N	
<i>Dactylis glomerata</i>	orchardgrass	Poaceae	N	
<i>Deschampsia caespitosa</i>	tufted hairgrass	Poaceae	N	
<i>Eleocharis palustris</i>	creeping spikerush	Cyperaceae	N	
<i>Elymus canadensis</i>	Canada wildrye	Poaceae	N	
		<i>Elymus caninus</i>		
		bearded wheatgrass	Poaceae	N
<i>Elymus elymoides</i> ssp. <i>elymoides</i> (<i>Sitanion hystrix</i>)	squirreltail	Poaceae	N	
		<i>Elymus repens</i>		
		quackgrass	Poaceae	E
		<i>Festuca campestris</i>		
		rough fescue	Poaceae	N
<i>Festuca occidentalis</i>	western fescue	Poaceae	N	
<i>Glyceria grandis</i>	American mannagrass	Poaceae	N	
		<i>Hesperostipa comata</i>		
		needle-and-thread	Poaceae	N
<i>Stipa comata</i>	sweetgrass	Poaceae	N	
<i>Hierochloe odorata</i>	foxtail barley	Poaceae	N	
<i>Hordeum jubatum</i>	Baltic rush	Juncaceae	N	
<i>Juncus balticus</i>	thread rush	Juncaceae	N	

<i>Juncus nodosus</i>	knotted rush	Juncaceae	N
(<i>K. cristata</i>)	prairie junegrass	Poaceae	N
(<i>Elymus cinereus</i>)	basin wildrye	Poaceae	N
<i>Lolium pratense</i>	meadow fescue	Poaceae	E
(<i>Festuca pratensis</i>)	alkali muhly	Poaceae	N
<i>Muhlenbergia asperifolia</i>			
(<i>Stipa viridula</i>)	<i>Nassella viridula</i>	Poaceae	N
<i>Pascopyrum smithii</i>	green needlegrass	Poaceae	
(<i>Agropyron smithii</i>)	western wheatgrass	Poaceae	N
<i>Phalaris arundinacea</i>	reed canarygrass	Poaceae	E
<i>Phleum pratense</i>	timothy	Poaceae	E
<i>Poa compressa</i>	Canada bluegrass	Poaceae	E
<i>Poa cusickii</i>	Cusick's bluegrass	Poaceae	N
(<i>Poa fendleriana</i>)	Kentucky bluegrass	Poaceae	E
<i>Poa pratensis</i>			
<i>Poa secunda</i>	Sandberg's bluegrass	Poaceae	N
(<i>Poa gracillima</i>)	Sandberg's bluegrass	Poaceae	N
<i>Poa secunda</i> ssp. <i>juncifolia</i>	Sandberg's bluegrass	Poaceae	N
(<i>Poa juncifolia</i>)	Sandberg's bluegrass	Poaceae	N
<i>Poa secunda</i>	Sandberg's bluegrass	Poaceae	N
(<i>P. sandbergii</i>)			
(<i>Agropyron spicatum</i>)	<i>Pseudoroegneria spicata</i>	Poaceae	N
<i>Scirpus microcarpus</i>	bluebunch wheatgrass	Poaceae	N
<i>Schoenoplectus tabernaemontani</i>	smallfruit bulrush	Cyperaceae	N
(<i>Scirpus validus</i>)	softstem bulrush	Cyperaceae	N
<i>Setaria viridis</i>	green foxtail	Poaceae	E
<i>Spartina gracilis</i>	alkali cordgrass	Poaceae	N
<i>Thinopyrum intermedium</i>	intermediate wheatgrass	Poaceae	E

FORBS

<i>Achillea millefolium</i>	common yarrow	Asteraceae	N
<i>Achillea ptarmica</i>	sneezeweed	Asteraceae	E
<i>Acroptilon repens</i>			
(<i>Centaurea repens</i>)	Russian knapweed	Asteraceae	E
<i>Agoseris glauca</i>	pale agoseris	Asteraceae	N
<i>Allium cernuum</i>	nodding onion	Liliaceae	N
<i>Allium textile</i>	textile onion	Liliaceae	N
<i>Allium schoenoprasum</i>	wild chives	Liliaceae	N
<i>Alisma plantago-aquatica</i>	American waterplantain	Alismataceae	N
	<i>Alyssum alyssoides</i>	Brassicaceae	yellow alyssum
	desert alyssum	Brassicaceae	E
<i>Alyssum desertorum</i>			E
<i>Amaranthus blitoides</i>	prostrate pigweed	Amaranthaceae	N
(<i>A. graecizans</i>)	redroot pigweed	Amaranthaceae	N
<i>Amaranthus retroflexus</i>	western rock jasmine	Primulaceae	N
<i>Androsace occidentalis</i>	littleleaf pussytoes	Asteraceae	N
<i>Antennaria microphylla</i>	umber pussytoes	Asteraceae	N
<i>Antennaria umbrinella</i>	Holboell's rockcress	Brassicaceae	N
<i>Arabis holboellii</i>	spreadingpod rockcress	Brassicaceae	N
<i>Arabis x divaricarpa</i>	ballhead sandwort	Caryophyllaceae	N
<i>Arenaria congesta</i>			
<i>Argentina anserina</i>	silverweed cinquefoil	Rosaceae	N
(<i>Potentilla anserina</i>)			

<i>Artemisia biennis</i>	biennial wormwood	Asteraceae	N
<i>Artemisia campestris</i>	common sagewort	Asteraceae	N
<i>Artemisia ludoviciana</i>	Louisiana wormwood	Asteraceae	N
<i>Asclepias speciosa</i>	showy milkweed	Asclepiadaceae	N
<i>Astragalus adsurgens</i>	standing milkvetch	Fabaceae	N
<i>Astragalus purshii</i>	Pursh's milkvetch	Fabaceae	N
<i>Atriplex patula</i>	halberd-leaf orache	Chenopodiaceae	N
<i>Barbarea vulgaris</i>	yellow rocket	Brassicaceae	E
<i>Besseya wyomingensis</i>	Wyoming kittentail	Scrophulariaceae	N
<i>Bidens cernua</i>	nodding beggartick	Asteraceae	N
<i>Callitricha stagnalis</i>	pond water-starwort	Callitrichaceae	E
<i>Camelina microcarpa</i>	smallseed falseflax	Brassicaceae	E
<i>Campanula rapunculoides</i>	creeping bellflower	Campanulaceae	E
<i>Campanula rotundifolia</i>	bluebell	Campanulaceae	N
<i>Capsella bursa-pastoris</i>	shepherd's purse	Brassicaceae	E
<i>Cardaria chalapensis</i>	heartpod hoarycress	Brassicaceae	E
<i>Cardaria draba</i>	whitetop	Brassicaceae	E
<i>Cardaria pubescens</i>	globe-pod hoarycress	Brassicaceae	E
<i>Carduus nutans</i>	musk thistle	Asteraceae	E
<i>Centaurea biebersteinii</i> (<i>C. maculosa</i>)	spotted knapweed	Asteraceae	E
<i>Cerastium fontanum</i> ssp <i>vulgare</i> (<i>C. vulgatum</i>)	comon mouse-ear chickweed	Caryophyllaceae	E
	<i>Chamaesyce serpyllifolia</i>	Euphorbiaceae	N
<i>(Euphorbia serpyllifolia)</i>	thyme-leaf sandmat		
<i>Chamerion angustifolium</i> (<i>Epilobium angustifolium</i>)	fireweed	Onagraceae	N
<i>Chenopodium album</i>	lambsquarters	Chenopodiaceae	E
<i>Chenopodium glaucum</i>	oak-leaf goosefoot	Chenopodiaceae	E
<i>Chenopodium leptophyllum</i>	slimleaf lambsquarters	Chenopodiaceae	N
<i>Cicuta douglasii</i>	water hemlock	Apiaceae	N
<i>Cirsium arvense</i>	Canada thistle	Asteraceae	E
<i>Cirsium flodmanii</i>	Flodman's thistle	Asteraceae	N
<i>Cirsium undulatum</i>	wavyleaf thistle	Asteraceae	N
<i>Cirsium vulgare</i>	bull thistle	Asteraceae	E
<i>Cleome serrulata</i>	Rocky Mountain beeplant	Capparaceae	N
<i>Collomia linearis</i>	slender-leaf collomia	Polemoniaceae	N
<i>Convolvulus arvensis</i>	field bindweed	Convolvulaceae	E
<i>Crepis modocensis</i>	common hawksbeard	Asteraceae	N
<i>Crepis runcinata</i>	dandelion hawksbeard	Asteraceae	N
<i>Cryptantha interrupta</i>	Elko cryptantha	Boraginaceae	N
<i>Cynoglossum officinale</i>	houndstongue	Boraginaceae	E
<i>Delphinium nuttallianum</i> var <i>nuttallianum</i>	Nuttall's larkspur	Ranunculaceae	N

<i>Descurainia incana</i>			
(<i>D. richardsonii</i>)	mountain tansymustard	Brassicaceae	N
<i>Descurainia sophia</i>	flixweed	Brassicaceae	E
<i>Dodecatheon conjugens</i>	Bonneville shootingstar	Primulaceae	N
<i>Dodecatheon pulchellum</i>	dark-throat shootingstar	Primulaceae	N
<i>Douglasia montana</i>	Rocky Mountain dwarf-primrose	Primulaceae	N
<i>Draba nemorosa</i>	woodland whitlowgrass	Brassicaceae	N
<i>Draba verna</i>	spring whitlowgrass	Brassicaceae	N
<i>Elodea canadensis</i>	broad waterweed	Hydrocharitaceae	N
<i>Epilobium ciliatum</i>			
(<i>E. ciliatum watsonii</i>)	fringed willowherb	Onagraceae	N
<i>Epilobium minutum</i>	chaparral willowherb	Onagraceae	N
<i>Epilobium palustre</i>	marsh willowherb	Onagraceae	N
<i>Equisetum arvense</i>	field horsetail	Equisetaceae	N
<i>Equisetum fluviatile</i>	water horsetail	Equisetaceae	N
<i>Equisetum hyemale</i>	horsetail	Equisetaceae	N
<i>Equisetum laevigatum</i>	smooth scouring-rush	Equisetaceae	N
<i>Erigeron compositus</i>	cutleaf daisy	Asteraceae	N
<i>Erigeron glabellus</i>	smooth fleabane	Asteraceae	N
<i>Erigeron ionochophyllus</i>	short-ray boreal-daisy	Asteraceae	N
<i>Erigeron pumilus</i>	shaggy fleabane	Asteraceae	N
<i>Eriogonum umbellatum</i>	sulfur buckwheat	Polygonaceae	N
		<i>Eurybia integrifolia</i>	
(<i>Aster integrifolius</i>)	thickstem aster	Asteraceae	N
<i>Erysimum inconspicuum</i>	smallflower wallflower	Brassicaceae	N
<i>Euphorbia esula</i>	leafy spurge	Euphorbiaceae	E
<i>Fritillaria pudica</i>	yellow bells	Liliaceae	N
<i>Gaillardia aristata</i>	common gaillardia	Asteraceae	N
<i>Galeopsis tetrahit</i>	bristly hempnettle	Lamiaceae	E
<i>Galium boreale</i>	northern bedstraw	Rubiaceae	N
<i>Galium trifidum</i>	small bedstraw	Rubiaceae	N
<i>Gaura coccinea</i>	scarlet gaura	Onagraceae	N
<i>Geum macrophyllum</i>	large-leaf avens	Rosaceae	N
<i>Geum triflorum</i>	prairie smoke	Rosaceae	N
<i>Glecoma hederacea</i>	ground ivy	Lamiaceae	E
<i>Glycyrrhiza lepidota</i>	licorice	Fabaceae	N
<i>Grindelia squarrosa</i>	curlycup gumweed	Asteraceae	N
<i>Gypsophila paniculata</i>	baby's breath	Caryophyllaceae	E
<i>Helianthus annuus</i>	common sunflower	Asteraceae	N
<i>Helianthus nuttallii</i>	Nuttall's sunflower	Asteraceae	N
<i>Heracleum maximum</i>			
(<i>H. lanatum</i>)	cow parsnip	Apiaceae	N
<i>Hesperis matronalis</i>	dame's rocket	Brassicaceae	E
<i>Heterotheca villosa</i>			
(<i>Chrysopsis villosa</i>)	hairy goldenaster	Asteraceae	N
<i>Heuchera parvifolia</i>	little-leaf alumroot	Saxifragaceae	N
<i>Hieracium umbellatum</i>	narrowleaf hawkweed	Asteraceae	N
<i>Hippuris vulgaris</i>	common mare's-tail	Hippuridaceae	N
<i>Hydrophyllum capitatum</i>	ballhead waterleaf	Hydrophyllaceae	N
<i>Hyoscyamus niger</i>	henbane	Solanaceae	E
		<i>Ionactis alpina</i>	
(<i>Aster scopolorum</i>)	crag aster	Asteraceae	N
<i>Iris missouriensis</i>	Rocky Mountain iris	Iridaceae	N
<i>Kochia scoparia</i>	kochia	Chenopodiaceae	E
<i>Lactuca serriola</i>	prickly lettuce	Asteraceae	E
<i>Lactuca tatarica</i> var <i>pulchella</i>			
(<i>L. pulchella</i>)	blue lettuce	Asteraceae	N

<i>Lappula occidentalis</i>			
(<i>L. redowskii</i>)	western sticktight	Boraginaceae	N
<i>Lemna minor</i>	common duckweed	Leumnaceae	N
<i>Lepidium latifolium</i>	perennial pepperweed	Brassicaceae	E
<i>Lepidium perfoliatum</i>	clasping pepperweed	Brassicaceae	E
<i>Lesquerella alpina</i>	alpine bladderpod	Brassicaceae	N
<i>Lewisia rediviva</i>	bitterroot	Portulacaceae	N
<i>Linaria vulgaris</i>	yellow toadflax	Scrophulariaceae	E
<i>Linum perenne</i> (<i>L. lewisii</i>)	blue flax	Linaceae	N
<i>Lithospermum incisum</i>	fringed gromwell	Boraginaceae	N
<i>Lomatium triternatum</i>	nineleaf biscuitroot	Apiaceae	N
<i>Lupinus sericeus</i>	silky lupine	Fabaceae	N
<i>Lygodesmia juncea</i>	skeletonweed	Asteraceae	N
<i>Lysimachia thyrsiflora</i>	tufted loosestrife	Primulaceae	N
<i>Maianthemum stellatum</i>			
(<i>Smilacina stellata</i>)	starry false Solomon's seal	Liliaceae	N
<i>Medicago lupulina</i>	black medick	Fabaceae	E
<i>Medicago sativa</i>	alfalfa	Fabaceae	E
<i>Melilotus officinalis</i> (includes <i>M. albus</i>)	yellow sweetclover	Fabaceae	E
<i>Mentha arvensis</i>	wild mint	Lamiaceae	N
<i>Mertensia oblongifolia</i>	oblongleaf bluebells	Boraginaceae	N
<i>Mimulus guttatus</i>	common monkeyflower	Scrophulariaceae	N
<i>Musineon divaricatum</i>	leafy musineon	Apiaceae	N
<i>Myosotis scorpioides</i>	common forget-me-not	Boraginaceae	E
<i>Myosotis verna</i>	spring forget-me-not	Boraginaceae	N
<i>Myriophyllum sibiricum</i>	shortspike watermilfoil	Halgaraceae	N
<i>Nothocalais troximoides</i> (<i>Microseris troximoides</i>)	false agoseris	Asteraceae	N
<i>Oenothera villosa</i>			
(<i>O. strigosa</i>)	hairy evening primrose	Onagraceae	N
<i>Onobrychis viciifolia</i>	sainfoin	Fabaceae	E
<i>Opuntia polyacantha</i>	plains pricklypear	Cactaceae	N
<i>Orobanche ludoviciana</i>	Louisiana broomrape	Orobanchaceae	N
<i>Oxytropis besseyi</i>	Bessey's locoweed	Fabaceae	N
<i>Packera cana</i>			
(<i>Senecio canus</i>)	woolly groundsel	Asteraceae	N
<i>Penstemon eriantherus</i>	fuzzytongue penstemon	Scrophulariaceae	N
<i>Penstemon nitidus</i>	waxleaf penstemon	Scrophulariaceae	N
<i>Penstemon procerus</i> var <i>procerus</i>	pincushion beardtongue	Scrophulariaceae	N
<i>Petasites sagittatus</i>	arrowleaf sweet coltsfoot	Asteraceae	N
<i>Phacelia linearis</i>	threadleaf phacelia	Hydrophyllaceae	N
<i>Phlox hoodii</i> ssp. <i>muscoidea</i> (<i>P. muscoidea</i> ; <i>P. bryoides</i>)	moss phlox	Polemoniaceae	N
<i>Phlox longifolia</i>	longleaf phlox	Polemoniaceae	N
<i>Plantago australis</i> ssp <i>hirtella</i> (<i>P. hirtella</i>)	Mexican plantain	Plantaginaceae	N
<i>Plantago eriopoda</i>	saline plantain	Plantaginaceae	N
<i>Plantago major</i>	common plantain	Plantaginaceae	E
<i>Plantago patagonica</i>	woolly plantain	Plantaginaceae	N
<i>Platanthera dilatata</i>			
(<i>Habenaria dilatata</i>)	white bog orchid	Orchidaceae	N
<i>Polygonum achoreum</i>			
		Polygonaceae	striate knotweed
<i>Polygonum amphibium</i> var <i>emersum</i> (<i>P. coccineum</i>)	water smartweed	Polygonaceae	N

<i>Polygonum aviculare</i>	prostrate smartweed	Polygonaceae	E
<i>Polygonum convolvulus</i>	black bindweed	Polygonaceae	E
<i>Polygonum douglasii</i>	Douglas' knotweed	Polygonaceae	N
<i>Polygonum lapathifolium</i>	pale smartweed	Polygonaceae	E
<i>Polygonum persicaria</i>	lady's thumb	Polygonaceae	E
<i>Potentilla gracilis</i>	graceful cinquefoil	Rosaceae	N
<i>Potentilla hippiana</i>	woolly cinquefoil	Rosaceae	N
<i>Potentilla pensylvanica</i>	prairie cinquefoil	Rosaceae	N
<i>Potentilla recta</i>	sulphur cinquefoil	Rosaceae	E
<i>Pyrola asarifolia</i>	pink wintergreen	Ericaceae	N
<i>Pyrrocoma integrifolia</i> (<i>Haplopappus integrifolius</i>)	entire-leaved goldenweed	Asteraceae	N
<i>Ranunculus acriformis</i>	sharp-leaf buttercup	Ranunculaceae	N
<i>Ranunculus aquatilis</i>	white water buttercup	Ranunculaceae	N
<i>Ranunculus cymbalaria</i>	alkali buttercup	Ranunculaceae	N
<i>Ranunculus gmelinii</i>	lesser yellow water buttercup	Ranunculaceae	N
<i>Ranunculus longirostris</i> (<i>R. aquatilis</i> var. <i>aquatilis</i> ; <i>R. subrigidus</i>)	longbeak watercrowfoot	Ranunculaceae	N
<i>Ranunculus pensylvanicus</i>	Pennsylvania buttercup	Ranunculaceae	N
<i>Ranunculus repens</i>	creeping buttercup	Ranunculaceae	E
<i>Ranunculus sceleratus</i>	celeryleaf buttercup	Ranunculaceae	N
<i>Rorippa obtusa</i>	blunt-leaf yellowcress	Brassicaceae	N
<i>(Nasturtium officinale)</i>	watercress	Brassicaceae	E
<i>Rorippa sylvestris</i>	creeping yellowcress	Brassicaceae	E
<i>Rubus idaeus</i>	American red raspberry	Rosaceae	N
<i>Rumex acetosella</i>	sheep sorrel	Polygonaceae	E
<i>Rumex crispus</i>	curly dock	Polygonaceae	E
<i>Rumex maritimus</i>	golden dock	Polygonaceae	N
<i>Rumex obtusifolius</i>	bitter dock	Polygonaceae	E
<i>Rumex salicifolius</i> var. <i>mexicanus</i> (<i>R. salicifolius</i> ssp. <i>triangulivalvus</i>)	willow dock	Polygonaceae	N
<i>(S. kali; S. iberica)</i>	prickly Russian thistle	Chenopodiaceae	E
<i>Solanum dulcamara</i>	bittersweet	Solanaceae	E
<i>Schoenocrambe linifolia</i>	flaxleaf plains mustard	Brassicaceae	N
<i>Scutellaria galericulata</i>	marsh skullcap	Lamiaceae	N
<i>Senecio integerrimus</i>	lambstongue groundsel	Asteraceae	N
<i>Silene latifolia</i> ssp. <i>alba</i> (<i>Lychnis alba</i>)	bladder campion	Caryophyllaceae	E
<i>(S. cucubalus)</i>	bladder campion	Caryophyllaceae	E
<i>Sisymbrium altissimum</i>	Jim Hill mustard	Brassicaceae	E
<i>Sisymbrium loeselii</i>	false London rocket	Brassicaceae	E
<i>Sisyrinchium idahoense</i>	Idaho blue-eyed grass	Iridaceae	N
<i>Sium suave</i>	common waterparsnip	Apiaceae	N
<i>Solidago canadensis</i>	Canada goldenrod	Asteraceae	N
<i>Solidago missouriensis</i>	Missouri goldenrod	Asteraceae	N
<i>Sonchus arvensis</i>	perennial sowthistle	Asteraceae	E
<i>Sphaeralcea coccinea</i>	scarlet globemallow	Malvaceae	N
<i>Stachys palustris</i>	marsh hedgenettle	Lamiaceae	N
<i>Stellaria longipes</i>	longstalk starwort	Caryophyllaceae	N
<i>(Haplopappus acaulis)</i>	stemless goldenweed	Asteraceae	N
<i>(Potamogeton filiformis)</i>	fineleaf pondweed	Potamogetonaceae	N

		<i>Stuckenia pectinatus</i>	
(<i>Potamogeton pectinatus</i>)	sago pondweed	Potamogetonaceae	N
(<i>Aster campestris</i>)	western meadow aster	Asteraceae	N
(<i>Aster chilensis</i>)	Pacific aster	Asteraceae	N
<i>Symphyotrichum falcatum</i>			
(<i>Aster falcatus</i>)	white prairie aster	Asteraceae	N
(<i>Aster laevis</i>)	smooth blue aster	<i>Symphyotrichum laeve</i> Asteraceae	N
<i>Symphyotrichum lanceolatum</i> ssp <i>hesperium</i>	white panicle aster	Asteraceae	N
(<i>Aster hesperius</i>)	western mountain aster	Asteraceae	N
<i>Symphyotrichum spathulatum</i>			
(<i>Aster occidentalis</i>)	white heath aster	Asteraceae	N
<i>Tanacetum vulgare</i>	common tansy	Asteraceae	E
<i>Taraxacum officinale</i>	dandelion	Asteraceae	E
<i>Thalictrum dasycarpum</i>	purple meadowrue	Ranunculaceae	N
<i>Thalictrum occidentale</i>	western meadowrue	Ranunculaceae	N
<i>Thlaspi arvense</i>	field pennycress	Brassicaceae	E
<i>Tragopogon dubius</i>	western salsify	Asteraceae	E
<i>Tragopogon pratensis</i>	meadow salsify	Asteraceae	E
<i>Trifolium longipes</i>	longstalk clover	Fabaceae	N
<i>Trifolium pratense</i>	red clover	Fabaceae	E
<i>Trifolium repens</i>	white clover	Fabaceae	E
<i>Triglochin maritimum</i>	arrowgrass	Juncaginaceae	N
<i>Typha latifolia</i>	cattail	Typhaceae	N
<i>Urtica dioica</i>	stinging nettle	Urticaceae	N
(<i>U. vulgaris</i>)		<i>Utricularia macrorhiza</i>	
<i>Valeriana edulis</i>	common bladderwort	Lentibulariaceae	N
<i>Verbascum thapsus</i>	tobacco root	Valerianaceae	N
<i>Veronica anagallis-aquatica</i>	common mullein	Scrophulariaceae	E
<i>Vicia americana</i>	water speedwell	Scrophulariaceae	E
<i>Vicia cracca</i>	American vetch	Fabaceae	N
<i>Viola</i> sp.	bird vetch	Fabaceae	E
(<i>V. nephrophylla</i> ?)	violet	Violaceae	N
<i>Zannichellia palustris</i>	horned pondweed	Potamogetonaceae	N
<i>Zigadenus elegans</i>	mountain deathcamas	Liliaceae	N
<i>Zigadenus venenosus</i>	meadow deathcamas	Liliaceae	N
<i>Zizia aptera</i>	heart-leaf alexanders	Apiaceae	N

* (o) ornamental or found at sites of old structures