



Nuttall's Violet



Purple Pincushion Cactus



Textile Onion

Right: Scarlet Globemallow

THUNDER BASIN
RESEARCH INITIATIVE

**Common Herbaceous Plants
of the
Thunder Basin Grasslands**

Thunder Basin Ecology Factsheet #3
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A large, detailed photograph of a Scarlet Globemallow flower, showing its bright orange petals and yellow center. The flower is surrounded by green, lobed leaves and other buds. The background is a blurred natural setting with dry vegetation.

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Common herbaceous plants of Thunder Basin grasslands

The Thunder Basin grasslands in northeastern Wyoming encompass the Thunder Basin National Grasslands managed by the United States Forest Service. Located in the western Great Plains, this area is an ecotone between northern mixed grass prairie, short grass prairie, and the sagebrush steppe. The grasslands range from 3,600 to 5,200 feet, providing space for a wide diversity of plants and animals. This guide is a checklist of 195 species common in the uplands of the region (not the riparian areas or minor areas with conifers) and is a starting point for becoming familiar with the diversity of the Thunder Basin grasslands.



Blue Grama



Tufted Milkvetch

Common Name	Origin ¹	Duration ²	Family	Scientific Name
FORBS (FLOWERING PLANTS)				
alyssum	E	A	Brassicaceae	<i>Alyssum simplex</i>
American licorice	N	P	Fabaceae	<i>Glycyrrhiza lepidota</i>
American vetch	N	P	Fabaceae	<i>Vicia americana</i>
annual buckwheat	N	A or B	Polygonaceae	<i>Eriogonum annuum</i>
annual sunflower	N	A	Asteraceae	<i>Helianthus annuus</i>
bastard toadflax	N	P	Santalaceae	<i>Comandra umbellata</i>
beardtongue	N	P	Scrophulariaceae	<i>Penstemon angustifolius</i>
bigbract verbena	N	A, B, or P	Verbenaceae	<i>Verbena bracteata</i>
black medic	E	A or P	Fabaceae	<i>Medicago lupulina</i>
bluebell bellflower	N	P	Campanulaceae	<i>Campanula rotundifolia</i>
burningbush	N	B or P	Chenopodiaceae	<i>Bassia scoparia</i>
buttecandle	N	P	Boraginaceae	<i>Cryptantha celosioides</i>
Canadian horseweed	N	A	Asteraceae	<i>Conyza canadensis</i>
Carolina draba	N	A	Brassicaceae	<i>Draba reptans</i>
clasping pepperweed	E	A	Brassicaceae	<i>Lepidium perfoliatum</i>
clustered broomrape	N	A	Orobanchaceae	<i>Orobanche fasciculata</i>
common dandelion	N	P	Asteraceae	<i>Taraxacum officinale</i>
common mullein	E	B	Scrophulariaceae	<i>Verbascum thapsus</i>
common pepperweed	N	A or B	Brassicaceae	<i>Lepidium densiflorum</i>
common ragweed	N	A or P	Asteraceae	<i>Ambrosia psilostachya</i>
common yarrow	N	P	Asteraceae	<i>Achillea millefolium</i>
crested pricklepoppy	N	A or P	Papaveraceae	<i>Argemone polyanthemus</i>
crossflower	E	A	Brassicaceae	<i>Chorispora tenella</i>
crownleaf evening primrose	N	P	Onagraceae	<i>Oenothera coronopifolia</i>
curlycup gumweed	N	A, B, or P	Asteraceae	<i>Grindelia squarrosa</i>
cutleaf nightshade	N	A	Solanaceae	<i>Solanum triflorum</i>
cutleaf vipergrass	E	P	Asteraceae	<i>Scorzonera laciniata</i>
desert biscuitroot wild parsley	N	P	Apiaceae	<i>Lomatium foeniculaceum</i>
desert goosefoot	N	A	Chenopodiaceae	<i>Chenopodium pratericola</i>
desert madwort	E	A	Brassicaceae	<i>Alyssum desertorum</i>
dotted blazing star	N	P	Asteraceae	<i>Liatris punctata</i>
European stickseed	E	A or B	Boraginaceae	<i>Lappula squarrosa</i>
fewflower buckwheat little leaf eriogonum	N	P	Polygonaceae	<i>Eriogonum pauciflorum</i>
field chickweed	N	P	Caryophyllaceae	<i>Cerastium arvense</i>
field cottonrose	E	A	Asteraceae	<i>Logfia arvensis</i>
field pennycress	E	A	Brassicaceae	<i>Thlaspi arvense</i>
fineleaf hymenopappas	N	P	Asteraceae	<i>Hymenopappus filifolius</i>
flatspine sticktite	N	A or B	Boraginaceae	<i>Lappula occidentalis</i>
foothill bladderpod	N	P	Brassicaceae	<i>Lesquerella ludoviciana</i>
fuzzytongue penstemon	N	P	Scrophulariaceae	<i>Penstemon eriantherus</i>
granite prickly phlox	N	P	Polemoniaceae	<i>Linanthus pungens</i>
Great Plains bladderpod	N	B or P	Brassicaceae	<i>Lesquerella arenosa</i>
groundplum milkvetch	N	P	Fabaceae	<i>Astragalus crassicaulus</i>
hairy evening primrose	N	B or P	Onagraceae	<i>Oenothera villosa</i>
hairy false goldenaster	N	P	Asteraceae	<i>Heterotheca villosa</i>
herb sophia flixweed tansymustard	E	A	Brassicaceae	<i>Descurainia sophia</i>
hoary fleabane	N	P	Asteraceae	<i>Erigeron canus</i>
Holboell's rockcress	N	B or P	Brassicaceae	<i>Arabis holboellii</i>
James' cryptantha	N	P	Boraginaceae	<i>Cryptantha cinerea</i>
lacy tansyaster	N	P	Asteraceae	<i>Machaeranthera pinnatifida</i>
lambsquarters	E	A	Chenopodiaceae	<i>Chenopodium album</i>
lambstongue ragwort	N	B or P	Asteraceae	<i>Senecio integerrimus</i>
large Indian breadroot	N	P	Fabaceae	<i>Pediomelum esculentum</i>
largeflower hawksbeard	N	A or P	Asteraceae	<i>Crepis occidentalis</i>
leafy wildparsley	N	P	Apiaceae	<i>Musineon divaricatum</i>
little cryptantha	N	A	Boraginaceae	<i>Cryptantha minima</i>
littlepod false flax	E	A	Brassicaceae	<i>Camelina microcarpa</i>

Common Name	Origin ¹	Duration ²	Family	Scientific Name
FORBS (FLOWERING PLANTS), continued				
longleaf phlox	N	P	Polemoniaceae	<i>Phlox longifolia</i>
lotus milkvetch	N	P	Fabaceae	<i>Astragalus lotiflorus</i>
low fleabane	N	P	Asteraceae	<i>Erigeron pumilus</i>
maiden blue eyed Mary	N	A	Scrophulariaceae	<i>Collinsia parviflora</i>
maiden's tears	E	P	Caryophyllaceae	<i>Silene vulgaris</i>
manystem pea	N	P	Fabaceae	<i>Lathyrus polymorphus</i>
meadow deathcamus	N	P	Liliaceae	<i>Zigadenus venenosus</i>
Missouri goldenrod	N	P	Asteraceae	<i>Solidago missouriensis</i>
Missouri milkvetch	N	P	Fabaceae	<i>Astragalus missouriensis</i>
modoc hawksbeard	N	P	Asteraceae	<i>Crepis modocensis</i>
musk thistle	E	B or P	Asteraceae	<i>Carduus nutans</i>
narrowleaf four o' clock	N	P	Nyctaginaceae	<i>Mirabilis linearis</i>
narrowleaf stoneseed narrowleaf puccoon	N	P	Boraginaceae	<i>Lithospermum incisum</i>
neckweed	N	A	Scrophulariaceae	<i>Veronica peregrina</i>
Nuttall's povertyweed	N	A	Chenopodiaceae	<i>Monolepis nuttalliana</i>
Nuttall's violet	N	P	Violaceae	<i>Viola nuttallii</i>
oppositeleaf bahia	N	P	Asteraceae	<i>Picradeniopsis oppositifolia</i>
plains milkweed	N	P	Asclepiadaceae	<i>Asclepias pumila</i>
prairie false dandelion	N	P	Asteraceae	<i>Nothocalais cuspidata</i>
prairie plantain	N	A	Plantaginaceae	<i>Plantago elongata</i>
prairie spiderwort	N	P	Commelinaceae	<i>Tradescantia occidentalis</i>
prairie thermopsis goldenpea sweetpea	N	P	Fabaceae	<i>Thermopsis rhombifolia</i>
prairie thistle	N	B	Asteraceae	<i>Cirsium canescens</i>
prickly Russian thistle	E	A	Chenopodiaceae	<i>Salsola tragus</i>
prostrate knotweed	E	A or P	Polygonaceae	<i>Polygonum aviculare</i>
purple locoweed	N	P	Fabaceae	<i>Oxytropis lambertii</i>
purple prairie clover	N	P	Fabaceae	<i>Dalea purpurea</i>
rayless tansyaster	N	P	Asteraceae	<i>Machaeranthera grindelioides</i>
rosy palafox	N	A	Asteraceae	<i>Palafoxia rosea</i>
rough false pennyroyal	N	A	Lamiaceae	<i>Hedeoma hispida</i>
rush skeletonplant	N	P	Asteraceae	<i>Lygodesmia juncea</i>



Prairie Junegrass and Fuzzy Tongue Penstemon



Dotted Blazingstar

Common Name	Origin ¹	Duration ²	Family	Scientific Name
FORBS (FLOWERING PLANTS), continued				
rusty lupine	N	A	Fabaceae	<i>Lupinus pusillus</i>
sanddune wallflower	N	B or P	Brassicaceae	<i>Erysimum capitatum</i>
sandmat (various)	N	Unknown	Euphorbiaceae	<i>Chamaesyce sp.</i>
scarlet beeblossom scarlet gaura	N	P	Onagraceae	<i>Gaura coccinea</i>
scarlet globemallow	N	P	Malvaceae	<i>Sphaeralcea coccinea</i>
sego lily	N	P	Liliaceae	<i>Calochortus nuttalli</i>
silky sophora	N	P	Fabaceae	<i>Sophora nuttalliana</i>
silverleaf Indian breadroot	N	P	Fabaceae	<i>Pediomelum argophyllum</i>
silverleaf phacelia	N	P	Hydrophyllaceae	<i>Phacelia hastata</i>
silvery lupine	N	P	Fabaceae	<i>Lupinus argenteus</i>
slender milkvetch	N	P	Fabaceae	<i>Astragalus gracilis</i>
slender phlox	N	A	Polemoniaceae	<i>Microsteris gracilis</i>
slimflower scurfpea	N	P	Fabaceae	<i>Psoraleidium tenuiflorum</i>
small ribseed sandmat	N	A	Euphorbiaceae	<i>Chamaesyce glyptosperma</i>
small-leaf pussytoes	N	P	Asteraceae	<i>Antennaria villosifolia</i>
smooth woodyaster	N	P	Asteraceae	<i>Xylorhiza glabriuscula</i>
smoothstem blazing star	N	B P	Loasaceae	<i>Mentzelia laevicaulis</i>
snowball sand verbena	N	P	Nyctaginaceae	<i>Abronia fragrans</i>
spiked ipomopsis	N	P	Polemoniaceae	<i>Ipomopsis spicata</i>
spiny phlox Hood's phlox	N	P	Polemoniaceae	<i>Phlox hoodii</i>
spreading fleabane	N	B	Asteraceae	<i>Erigeron divergens</i>
star lily	N	P	Liliaceae	<i>Leucocrinum montanum</i>
stemless four-nerve daisy	N	P	Asteraceae	<i>Tetraneuris acaulis</i>
stiffstem flax	N	A or P	Linaceae	<i>Linum rigidum</i>
sunbright	N	P	Portulacaceae	<i>Phemeranthus parviflorus</i>
sweet Nuttall's evening primrose	N	P	Onagraceae	<i>Oenothera nuttallii</i>
tall cinquefoil, bigflower cinquefoil	N	P	Rosaceae	<i>Potentilla arguta (P. fissa)</i>
tall tumbled mustard	E	A or B	Brassicaceae	<i>Sisymbrium altissimum</i>
tansyleaf tansyaster	N	P	Asteraceae	<i>Machaeranthera tanacetifolia</i>
Texas toadflax	N	A or B	Scrophulariaceae	<i>Nuttallanthus texanus</i>
textile onion	N	P	Liliaceae	<i>Allium textile</i>
threadleaf phacelia	N	A	Hydrophyllaceae	<i>Phacelia linearis</i>
tiny trumpet	N	A	Polemoniaceae	<i>Collomia linearis</i>
tufted evening primrose	N	P	Onagraceae	<i>Oenothera caespitosa</i>
tufted milkvetch	N	P	Fabaceae	<i>Astragalus spatulatus</i>
twogrooved milkvetch	N	P	Fabaceae	<i>Astragalus bisulcatus</i>
Watson's goosefoot	N	A	Chenopodiaceae	<i>Chenopodium watsonii</i>
wavyleaf thistle	N	P	Asteraceae	<i>Cirsium undulatum</i>
western rock jasmine	N	A	Primulaceae	<i>Androsace occidentalis</i>
western tansymustard	N	A or P	Brassicaceae	<i>Descurainia pinnata</i>
white penstemon	N	P	Scrophulariaceae	<i>Penstemon albidus</i>
white prairie clover	N	P	Fabaceae	<i>Dalea candida</i>
white sagebrush	N	P	Asteraceae	<i>Artemisia ludoviciana</i>
whitest evening-primrose	N	A	Onagraceae	<i>Oenothera albicaulis</i>
wild bergamot	N	P	Lamiaceae	<i>Monarda fistulosa</i>
woodland draba	N	A	Brassicaceae	<i>Draba nemorosa</i>
woolly plantain	N	A	Plantaginaceae	<i>Plantago patagonica</i>
woollypod milkvetch	N	P	Fabaceae	<i>Astragalus purshii</i>
Wyoming besseya	N	P	Scrophulariaceae	<i>Besseya wyomingensis</i>
yellow salsify goat's beard	E	A or B	Asteraceae	<i>Tragopogon dubius</i>
yellow sweetclover	E	A, B, or P	Fabaceae	<i>Melilotus officinalis</i>
SHRUBS				
big sagebrush	N	P	Asteraceae	<i>Artemisia tridentata</i>
fourwing saltbush	N	P	Chenopodiaceae	<i>Atriplex canescens</i>
greasewood	N	P	Chenopodiaceae	<i>Sarcobatus vermiculatus</i>
green rabbitbush	N	P	Asteraceae	<i>Chrysothamnus viscidiflorus</i>
sand sagebrush	N	P	Asteraceae	<i>Artemisia filifolia</i>

Common Name	Origin ¹	Duration ²	Family	Scientific Name
SHRUBS, continued				
silver sagebrush	N	P	Asteraceae	<i>Artemisia cana</i>
soapweed yucca	N	P	Agavaceae	<i>Yucca glauca</i>
winterfat	N	P	Chenopodiaceae	<i>Krascheninnikovia lanata</i>
SUB-SHRUBS				
birdfoot sagebrush	N	P	Asteraceae	<i>Artemisia pedatifida</i>
branched false goldenweed	N	P	Asteraceae	<i>Oenopsis multicaulis</i>
broom snakeweed	N	P	Asteraceae	<i>Gutierrezia sarothrae</i>
pale agoseris	N	P	Asteraceae	<i>Agoseris glauca</i>
prairie sagewort fringed sagewort	N	P	Asteraceae	<i>Artemisia frigida</i>
spreading buckwheat	N	P	Polygonaceae	<i>Eriogonum effusum</i>
CACTI				
brittle pricklypear/ fragile pricklypear	N	P	Cactaceae	<i>Opuntia fragilis</i>
plains pricklypear	N	P	Cactaceae	<i>Opuntia polyacantha</i>
purple pincushion cacti	N	P	Cactaceae	<i>Coryphantha vivipara</i>
GRASSES AND GRASS-LIKES (SEDGES AND RUSHES)				
alkali sacaton	N	P	Poaceae	<i>Sporobolus airoides</i>
annual wheatgrass	E	A	Poaceae	<i>Eremopyrum triticeum</i>
basin wildrye	N	P	Poaceae	<i>Leymus cinereus</i>
blue bunch wheatgrass	N	P	Poaceae	<i>Pseudoroegneria spicata</i>
blue grama	N	P	Poaceae	<i>Bouteloua gracilis</i>
buffalograss	N	P	Poaceae	<i>Buchloe dactyloides</i>
cheatgrass	E	A	Poaceae	<i>Bromus tectorum</i>
common wheat	E	A	Poaceae	<i>Triticum aestivum</i>
composite dropseed rough dropseed	N	P	Poaceae	<i>Sporobolus compositus</i>
crested wheatgrass	E	P	Poaceae	<i>Agropyron cristatum</i>
foxtail barley	N	P	Poaceae	<i>Hordeum jubatum</i>
green needlegrass	N	P	Poaceae	<i>Nassella viridula</i>
hairy woodland brome	N	P	Poaceae	<i>Bromus pubescens</i>
indian ricegrass	N	P	Poaceae	<i>Achnatherum hymenoides</i>
inland saltgrass	N	P	Poaceae	<i>Distichlis spicata</i>
Japanese brome	E	A	Poaceae	<i>Bromus arvensis</i>
Kentucky bluegrass	E	P	Poaceae	<i>Poa pratensis</i>
litte bluestem	N	P	Poaceae	<i>Schizachyrium scoparium</i>
little barley	N	A	Poaceae	<i>Hordeum pusillum</i>
needle and thread	N	P	Poaceae	<i>Hesperostipa comata</i>
needleleaf sedge	N	P	Cyperaceae	<i>Carex duriuscula</i>
plains bluegrass	N	P	Poaceae	<i>Poa arida</i>
plains reedgrass	N	P	Poaceae	<i>Calamagrostis montanensis</i>
prairie Junegrass	N	P	Poaceae	<i>Koeleria macrantha</i>
prairie sandreed	N	P	Poaceae	<i>Calamovilfa longifolia</i>
purple threeawn	N	P	Poaceae	<i>Aristida purpurea</i>
rough barnyardgrass	N	A	Poaceae	<i>Echinochloa muricata</i>
sand dropseed	N	P	Poaceae	<i>Sporobolus cryptandrus</i>
sandberg bluegrass	N	P	Poaceae	<i>Poa secunda</i>
sixweeks fescue	N	A	Poaceae	<i>Vulpia octoflora</i>
sleepygrass	N	P	Poaceae	<i>Achnatherum robustum</i>
slender wheatgrass	N	P	Poaceae	<i>Elymus trachycaulus</i>
squirreltail	N	P	Poaceae	<i>Elymus elymoides</i>
threadleaf sedge	N	P	Cyperaceae	<i>Carex filifolia</i>
tumble grass	N	P	Poaceae	<i>Schedonnardus paniculatus</i>
western wheatgrass	N	P	Poaceae	<i>Pascopyrum smithii</i>

¹ N - native; E - exotic. ² A - annual; B - biennial; P - perennial