**Table S1.1**. Scientific name, common name, life history group, family, status (N= native, I= introduced), percent of plots present, and average cover when present of 56 vascular plant species recorded in 1196 undisturbed plots in federally-managed grasslands of western North Dakota. Life history groups: C3 = cool season perennial grass, C4 = warm season perennial grass, SE = sedge, SH = shrub, PF= perennial forb, BF = biennial forb, APF = annual, biennial, or perennial forb.

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| Species | Common name | Group | Family | Status | % of plots | Average cover |
| *Bouteloua* *gracilis*  | blue grama  | c4 | Poaceae | N | 32.9% | 22.0% |
| *Poa pratensis* | Kentucky bluegrass | c3 | Poaceae | I | 25.3% | 14.7% |
| *Pascopyrum smithii*  | western wheatgrass | c3 | Poaceae | N | 19.1% | 11.0% |
| *Carex filifolia* | threadleaf sedge | se | Cyperaceae | N | 16.5% | 15.3% |
| *Hesperostipa* *comata* | Needle-and-thread grass | c3 | Poaceae | N | 11.2% | 11.2% |
| *Schizachyrium scoparium* | little bluestem | c3 | Poaceae | N | 6.6% | 21.8% |
| *Nassella viridula* | green needlegrass | c3 | Poaceae | N | 4.2% | 9.3% |
| *Agropyron cristatum* | crested wheatgrass | c3 | Poaceae | I | 3.8% | 11.5% |
| *Aristida* *purpurea* | purple threeawn | c4 | Poaceae | N | 3.3% | 13.7% |
| *Juniperus horizontalis* | creeping juniper | sh | Cupressaceae | N | 2.9% | 21.9% |
| *Distichlis spicata* | Inland saltgrass | c3 | Poaceae | N | 2.2% | 13.1% |
| *Artemisia frigida* | prairie sagewort | pf | Asteraceae | N | 2.0% | 8.3% |
| *Bouteloua curtipendula*  | sideoats grama | c4 | Poaceae | N | 1.8% | 19.7% |
| *Koeleria macrantha* | prairie Junegrass | c3 | Poaceae | N | 1.8% | 10.3% |
| *Antennaria* sp. | pussytoes | pf | Asteraceae | N | 1.7% | 12.1% |
| *Symphoricarpos* sp. | snowberry | sh | Caprifoliaceae | N | 1.5% | 8.8% |
| *Opuntia fragilis* | brittle pricklypear | sh | Cactaceae | N | 1.2% | 8.3% |
| *Muhlenbergia cuspidata* | plains muhly | c3 | Poaceae | N | 1.1% | 11.5% |
| *Artemisia cana* | silver sagebrush | sh | Asteraceae | N | 1.0% | 8.3% |
| *Carex duriuscula* | Needle-leaf sedge | se | Cyperaceae | N | 0.8% | 10.0% |
| *Opuntia polyacantha* | plains pricklypear | sh | Cactaceae | N | 0.6% | 8.3% |
| *Achillea millefolium* | common yarrow | pf | Asteraceae | N | 0.5% | 8.3% |
| *Calamovilfa longifolia* | prairie sandreed | c4 | Poaceae | N | 0.5% | 8.3% |
| *Dichanthelium oligosanthes*  | Scribner's rosette grass | c3 | Poaceae | N | 0.4% | 13.3% |
| *Artemisia campestris* | field sagewort | pf | Asteraceae | N | 0.4% | 8.3% |
| *Poa compressa* | Canada bluegrass | c3 | Poaceae | I | 0.3% | 16.7% |
| *Phlox hoodii* | spiny phlox | pf | Polemoniaceae | N | 0.3% | 10.4% |
| *Helianthus pauciflorus* | stiff sunflower | pf | Asteraceae | N | 0.3% | 8.3% |
| *Sporobolus cryptandrus* | sand dropseed | c4 | Poaceae | N | 0.3% | 8.3% |
| *Bromus inermis* | smooth brome | c3 | Poaceae | I | 0.3% | 8.3% |
| *Gutierrezia sarothrae* | broom snakeweed | sh | Asteraceae | N | 0.3% | 8.3% |
| *Polygala alba* | white milkwort | pf | Polygalaceae | N | 0.3% | 8.3% |
| *Ratibida columnifera* | upright prairie coneflower | pf | Asteraceae | N | 0.3% | 8.3% |
| *Euphorbia esula* | leafy spurge | pf | Euphorbiaceae | I | 0.2% | 16.7% |
| *Poa secunda* | Sandberg bluegrass | c3 | Poaceae | N | 0.2% | 12.5% |
| *Melilotus officinalis* | Yellow sweet clover | pf | Fabaceae | I | 0.2% | 8.3% |
| *Taraxacum officinale* | common dandelion | pf | Asteraceae | I | 0.2% | 8.3% |
| *Tragopogon dubius* | Yellow salsify | bf | Asteraceae | I | 0.2% | 8.3% |
| *Artemisia ludoviciana* | white sagebrush | sh | Asteraceae | N | 0.2% | 8.3% |
| *Dalea candida* | white prairie clover | pf | Fabaceae | N | 0.2% | 8.3% |
| *Echinacea angustifolia* | blacksamson echinacea | pf | Asteraceae | N | 0.2% | 8.3% |
| *Lygodesmia juncea*  | rush skeletonplant | pf | Asteraceae | N | 0.2% | 8.3% |
| *Buchloe dactyloides* | buffalograss | c4 | Poaceae | N | 0.1% | 41.7% |
| *Yucca glauca* | soapweed yucca | sh | Agavaceae | N | 0.1% | 25.0% |
| *Potentilla arguta* | tall cinquefoil | pf | Rosaceae | N | 0.1% | 16.7% |
| *Medicago lupulina* | black medick | apf | Fabaceae | I | 0.1% | 8.3% |
| *Cirsium flodmanii* | Flodman's thistle | pf | Asteraceae | N | 0.1% | 8.3% |
| *Cirsium undulatum* | Wavyleaf thistle | pf | Asteraceae | N | 0.1% | 8.3% |
| *Escobaria vivipara* | spinystar | sh | Cactaceae | N | 0.1% | 8.3% |
| *Oenothera suffrutescens* | scarlet beeblossom | pf | Onagraceae | N | 0.1% | 8.3% |
| *Heterotheca villosa* | hairy false goldenaster | pf | Asteraceae | N | 0.1% | 8.3% |
| *Linum lewisii* | Lewis flax | pf | Linaceae | N | 0.1% | 8.3% |
| *Pseudoroegneria spicata* | bluebunch wheatgrass | c3 | Poaceae | N | 0.1% | 8.3% |
| *Rosa arkansana* | prairie rose | sh | Rosaceae | N | 0.1% | 8.3% |
| *Solidago mollis* | velvety goldenrod | pf | Asteraceae | N | 0.1% | 8.3% |
| *Sphaeralcea coccinea* | scarlet globemallow | pf | Malvaceae | N | 0.1% | 8.3% |