

ATTACHMENT SS2

REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: ***Dichanthelium linearifolium* (Scribn. ex Britton & A. Br.) Gould** slim-leaf dichanthelium

SYNONYMS: *Panicum linearifolium* Scribn. ex Britton & A. Br. [Rydberg 1932; Dorn 1992, misapplied?]; *Panicum wernerii* Scribn. [Rydberg 1932];

Also treated here [see sect 1]:

***Dichanthelium depauperatum* (Muhl.) Gould**

SYNONYM: *Panicum depauperatum* Muhl. [Rydberg 1932; Dorn 1992, misapplied?]

***Dichanthelium perlongum* (Nash) Freckmann**

SYNONYM: *Panicum perlongum* Nash [Rydberg 1932; Harrington 1954; Van Bruggen 1976; Great Plains Flora Association 1977]

Criteria	Rank	Rationale	Literature Citations
<p>1 Distribution within R2</p>	<p><u>B</u></p> <p>(B)</p> <p>(B)</p> <p>(B)</p>	<p>Evaluator's note: Following Freckman, Freckmann & Lelong intend to recognize the species <i>D. depauperatum</i> and <i>D. perlongum</i> in their forthcoming treatment for the <i>Flora of North American, North of Mexico</i>. This has some bearing in FS R2, because <i>D. perlongum</i> is more widely distributed in R2 than either <i>D. depauperatum</i> or <i>D. linearifolium</i> (<i>sensu stricto</i>). According to Freckmann & Lelong's draft treatment, <i>D. depauperatum</i> and <i>D. linearifolium</i> occupy the se ¼ of R2, while <i>D. perlongum</i> is more broadly distributed throughout the Region. Their draft treatment of the complex is not entirely satisfactory, however, and the three species are often distinguished only with difficulty. Until their treatment is published, I think it best to continue to consider the complex as a broadly defined <i>D. linearifolium</i>, as I do in sects 3–8. For the benefit of future reviewers, however, I provide separate descriptions for the ranges of <i>D. depauperatum</i>, <i>D. linearifolium</i> and <i>D. perlongum</i> here and in the NF R2 occurrences table below. The combination of these ranges reveals that <i>D. linearifolium</i> (<i>sensu lato</i>) is rather widely distributed within R2, from nw-most (Crook and Weston Cos) WY, e through the w ½ of SD, s through the e ½ of NE and e ½ of KS; and in central and se-most (Baca and Las Animas Cos) CO.</p> <p>Confidence in Rank High or Medium or Low</p> <p><i>D. depauperatum</i>: Mapped by Freckmann & Lelong from se-most NE, central KS, and central CO. Species is known to KANU staff only from se-most KS, and CO distribution is suspect. Included by Dorn as "reported [but unverified]" in WY. [Vouchers at KANU from Cherokee, Crawford, Labette, and Woodson Cos, KS.] Status: G5; NE S1.</p> <p><i>D. linearifolium</i> (<i>s.s.</i>): Mapped by Freckmann & Lelong from e ½ of NE and e ½ of KS; and se-most- (Baca and Las Animas Cos) and n-central CO. R.L. McGregor has found that this species is rare in KS, largely limited to the se ¼ of the state with only a few specimens taken from the ne corner. Mapped by Hartman from Crook and Weston Cos, WY (but I assume these records should be referred to <i>D. perlongum</i>); CO distribution is suspect. [Vouchers at KANU from Anderson, Chautauqua, Cherokee, Jefferson, Montgomery, Shawnee, and Woodson Cos, KS; and Jefferson Co, NE.] Status: G5; WY S1 (probably to be referred to <i>D. perlongum</i>?)</p> <p><i>D. perlongum</i>: Mapped by Freckmann & Lelong from w ½ of SD, the e ½ of NE, the e ½ of KS, and central CO. CO distribution is suspect. Mapped by Hartman (as <i>D. linearifolium</i>) from Crooks and Weston Cos, WY. [Vouchers at KANU from 20 cos in KS; Greeley, Holt, Johnson, Pawnee, Pierce, and Richardson Cos, NE; Custer, Lawrence, Pennington Cos, SD; and Weston Co, WY.] Status: [See <i>D. linearifolium</i> above.]</p>	<ul style="list-style-type: none"> • Dorn 1992 • Freckmann 1978 • Freckmann & Lelong in prep. • Freeman in prep. • Great Plains Flora Association 1977 • Hartman 1997 • Rubright 2000 • Weber & Wittman 2001

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Criteria	Rank	Rationale	Literature Citations
2 Distribution outside R2	<u>C</u> (C) (C) (B)	<p>For the benefit of future reviewers, I provide separate descriptions for the ranges of <i>D. depauperatum</i>, <i>D. linearifolium</i> and <i>D. perlongum</i> here and in the NF R2 occurrences table below, following the range maps provided by Freckmann & Lelong. The combination of these ranges reveals that <i>D. linearifolium</i> (s.l.) is widely distributed outside R2, from sw ND, e and n through n MN to e ME; thence s through central GA; thence s and w through the n 2/3 of TX to w-central NM; thence n and e through central CO, e NE and n-east WY. Also in se Canada.</p> <p>Confidence in Rank High or Medium or Low</p> <p><i>D. depauperatum</i>: Range mapped by Freckmann & Lelong from throughout the e US: central CO (based on misidentified material?); w MN, e to e ME; thence s to central GA; thence w to e TX. Also reported by Gould & Clark from se Canada: Ont e to Newfoundland.</p> <p><i>D. linearifolium</i> (s.l.): Range mapped by Freckmann & Lelong from e ½ of the US: from w MN, e to e ME; thence s to central SC; thence w through n 2/3 of TX to w-central NM. Also reported by Gould & Clark from se Canada.</p> <p><i>D. perlongum</i>: Range mapped by Freckman & Lelong from the central and s Great Plains and Upper Midwest of the US, from sw ND, e and n through n MN; thence s and e to e MI; thence s and w through s MO to s OK; thence n and w into n-central CO. (Also in s Canada?)</p>	<ul style="list-style-type: none"> Freckmann & Lelong in prep. Gould & Clark 1979
3 Dispersal Capability	B	<p>Evaluator was unable to find any information about species' dispersal capabilities. Observation of herbarium specimens at KANU suggests that none of the species demonstrate particularly heavy fruit set. Fruit has no obvious adaptations for dispersal, although it is likely that it is dispersed over short distances by some combination wind and vertebrate and invertebrate animal vectors. For the most part, species appear to be restricted to higher quality habitats.</p> <p>Confidence in Rank High or Medium or Low</p>	<ul style="list-style-type: none">
4 Abundance in R2	B	<p>Observation of herbarium specimen labels at KANU suggests that species are often common to abundant where encountered. Species are inconspicuous, especially where they growing in tallgrass prairie, and are probably frequently overlooked by collectors. Though much of their tallgrass prairie habitat has been lost, I suspect species are secure throughout R2.</p> <p>Confidence in Rank High or Medium or Low</p>	
5 Population Trend in R2	D	<p>Evaluator was unable to find any information about population trends in R2.</p> <p>Confidence in Rank High or Medium or Low</p>	

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Criteria	Rank	Rationale	Literature Citations
6 Habitat Trend in R2	B	Found in a variety of upland habitats, including xeric to mesic tallgrass- and mixed grass prairies, woodlands and open forests; usually on fine to coarse sandy soils or near surfacing sandstone, but also encountered on granitic- and limestone soils. Sometimes reported from disturbed sites, but in KS species appear to be fairly conservative. Species (especially <i>D. perlongum</i>) have undoubtedly lost a considerable area of their native tallgrass prairie habitat, due to conversion to cropland. However, habitat is probably stable throughout much of R2, especially on rocky soils. Confidence in Rank High or Medium or Low	<ul style="list-style-type: none"> Freckmann & Lelong in prep. Gould & Clark 1978
7 Habitat Vulnerability or Modification	B	Evaluator was unable to find any direct information on habitat vulnerability [but see sect 6]. Confidence in Rank High or Medium or Low	
8 Life History and Demographics	B	Cespitose, perennial graminoid. Flowering and fruiting from May to early June (fide Freckmann & Lelong). Related species have been suggested to be largely autogamous by Spellenberg. Evaluator was unable to find any other information about life history of these species. I suspect, however, that species are palatable to livestock and may decline under heavy grazing pressure. Confidence in Rank High or Medium or Low	<ul style="list-style-type: none"> Spellenberg 1975
Evaluator: Caleb A. Morse, R.L. McGregor Herbarium (KANU), University of Kansas Campus West, 2045 Constant Ave, Lawrence KS 66047			Date: 01/08/02

National Forests in the Rocky Mountain Region where species is KNOWN (K) or LIKELY (L)¹ to occur:

Note: "X" = *D. linearifolium sensu lato*; "L" = *D. linearifolium sensu stricto*; "P" = *D. perlongum* [see sect 1 for explanation]; as far as evaluator is aware, *D. depauperatum* is unknown and unlikely to occur on any FS R2 lands.

¹ Likely is defined as more likely to occur than not occur on the National Forest or Grassland. This generally can be thought of as having a 50% chance or greater of appearing on NFS lands.

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<u>Colorado NF/NG</u>	<u>Known</u>	<u>Likely</u>	<u>Kansas NF/NG</u>	<u>Known</u>	<u>Likely</u>	<u>Nebraska NF/NG</u>	<u>Known</u>	<u>Likely</u>	<u>South Dakota NF/NG</u>	<u>Known</u>	<u>Likely</u>	<u>Wyoming NF/NG</u>	<u>Known</u>	<u>Likely</u>
Arapaho-Roosevelt NF		X	Cimmaron NG		L?	Samuel R. McKelvie NF		L, P	Black Hills NF	P2		Shoshone NF		
White River NF						Halsey NF		L, P	Buffalo Gap NG		P	Bighorn NF		
Routt NF						Nebraska NF		P	Ft. Pierre NG		P	Black Hills NF		P
Grand Mesa, Uncompahgre, Gunnison NF						Ogalala NG						Medicine Bow NF		
San Juan NF												Thunder Basin NG		P3
Rio Grande NF														
Pawnee NG														
Pike-San Isabel NF		L?												
Comanche NG		L												

- P2 KANU catalog # 180766: SD, Lawrence Co: ca 2 mi N Rochford along rd to Nahant, T2N R3E S11 n end, Elev ca 1737 m, 14 Jul 1957, C.A. Taylor 8763. KANU catalog # 180770: SD, Pennington Co: 7 mi N, 2.5 mi E Hill City, Set Bullock Peak, Elev ca 6000 ft, 2 Aug 1969, S. Stephens 35226 & R. Brooks.
- P3 KANU catalog # 180814: WY, Weston Co: ca 8 airmi NNW Newcastle, Black Hills, W Plum Cr, ca 1 mi N confluence with E Plum Cr, T46N R62W S14, Elev 4700 ft, 2 Aug 1984, H. Marriott 8382.

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