

Northern Tallgrass Calcareous Fen

Site Characteristics: This fen can be found in previously glaciated regions of Iowa on flat to gently sloping ground with most occurrences naturally small and patchy. Calcium-rich groundwater emerges as springs that are commonly associated with parent materials of porous bedrock or coarse-textured glacial deposits such as outwash. The groundwater is cold, anoxic, and circumneutral; conditions that promote the accumulation of organic material resulting in the development of shallow to deep peat soils. There may be calcium carbonates precipitated in the soil.

Vegetation Characteristics: The vegetation of this fen is dominated by graminoids and may contain small shrubs. Many species are inhibited by the water conditions and thus the vegetation cover is moderate, which allows the growth of many heliophytic species. The predominant vegetation is 25-35 cm tall while some species grow to 75-85 cm. The most abundant species are northern reedgrass, fen panicled sedge, fen star sedge, spikerush spp., Kalm's lobelia, marsh wild timothy, grass of Parnassus, beaked rush, threesquare, prairie cordgrass, and common arrow-grass. Shrubs that occur with the herbaceous species include bog birch, shrubby cinquefoil, and willow spp. (sage willow is highly characteristic; others include beaked willow and pussy willow). Prairie herb associates include big bluestem, flat-topped aster, swamp thistle, blazingstar, wood lily, Riddell's goldenrod, white camass, and golden Alexander's.

Range: Northern Iowa

Conservation Status: G2 – Imperiled

Management Considerations: This community has fairly restricted environmental requirements and occurs in a somewhat restricted range in northern Iowa. About half the currently documented occurrences are in good condition. Long-term declines in fen quality have been noted, with many occurrences degraded by alterations to hydrology (such as ditching, draining, or gravel mine operations nearby), by grazing and trampling, or by fire suppression.

Iowa NRCS Plant Community Description

This community description is a compilation of the Community Association and its over-riding Community Alliance descriptions as provided by NatureServe (www.natureserve.org/explorer). Where necessary, community descriptions were adapted as recommended by Iowa plant community experts.

6/13/2013

NORTHERN TALLGRASS CALCAREOUS FEN						
SCIENTIFIC NAME	COMMON NAME	STRATA	FUNCTIONAL GROUP	IA CofC	SEEDS/LB	STATE STATUS
<i>Andropogon gerardii</i>	Big bluestem	Herbaceous Layer	P-GRASS, WARM SEASON	4	160,000.00	
<i>Betula pumila</i>	Swamp birch	Shrub Layer	SHRUB	9	480,000.00	T
<i>Calamagrostis stricta</i>	Northern reed grass	Herbaceous Layer, Dominant	P-GRASS, COOL SEASON	7	2,302,499.00	
<i>Carex lasiocarpa</i>	Woollyfruit Sedge	Herbaceous Layer	P-SEDGE, COOL SEASON	10	224,000.00	
<i>Carex prairea</i>	Fen panicked sedge	Herbaceous Layer, Dominant	P-SEDGE, COOL SEASON	10	1,344,000.00	
<i>Carex sterilis</i>	Fen star sedge	Herbaceous Layer, Dominant	P-SEDGE, COOL SEASON	10	1,040,000.00	SC
<i>Cirsium muticum</i>	Swamp thistle	Herbaceous Layer	B-FORB	9	112,000.00	SC
<i>Dasiphora fruticosa</i>	Shrubby cinquefoil	Shrub Layer	SHRUB	10	2,267,962.00	T
<i>Doellingeria umbellata</i>	Flat-topped aster	Herbaceous Layer	P-FORB	6	1,072,000.00	
<i>Eleocharis spp.</i>	Spikerush	Herbaceous Layer, Dominant	SEDGE, COOL SEASON			
<i>Liatris ligulistylis</i>	Blazing star	Herbaceous Layer	P-FORB	6	160,000.00	
<i>Lilium philadelphicum</i>	Wood lily	Herbaceous Layer	P-FORB	9	240,000.00	
<i>Lobelia kalmii</i>	Kalm's lobelia	Herbaceous Layer, Dominant	P-FORB	10	28,349,523.00	SC
<i>Muhlenbergia glomerata</i>	Marsh wild Timothy	Herbaceous Layer, Dominant	P-GRASS, WARM SEASON	10	3,600,000.00	
<i>Oligoneuron riddellii</i>	Riddell's goldenrod	Herbaceous Layer	P-FORB	8	1,488,000.00	
<i>Parnassia glauca</i>	Grass of Parnassus	Herbaceous Layer, Dominant	P-FORB	8	4,800,000.00	
<i>Rhynchospora capillacea</i>	Beaked rush	Herbaceous Layer, Dominant	P-SEDGE, COOL SEASON	10	412,357.00	T
<i>Salix bebbiana</i>	Beaked willow	Shrub Layer	SHRUB	7	2,500,000.00	
<i>Salix candida</i>	Sage willow	Shrub Layer	SHRUB	8		SC
<i>Salix discolor</i>	Pussy willow	Shrub Layer	SHRUB	3	1,417,476.00	
<i>Salix spp.</i>	Willow	Shrub Layer				
<i>Schoenoplectus americanus/pungens</i>	Threesquare	Herbaceous Layer, Dominant	P-SEDGE, COOL SEASON	7	192,000.00	
<i>Solidago nemoralis</i>	Field goldenrod	Herbaceous Layer	P-FORB	4	4,800,000.00	
<i>Spartina pectinata</i>	Prairie cordgrass	Herbaceous Layer, Dominant	P-GRASS, WARM SEASON	4	105,600.00	
<i>Triglochin maritima</i>	Common arrow-grass	Herbaceous Layer, Dominant	P-FORB	10	650,778.00	T
<i>Zigadenus elegans</i>	White camass	Herbaceous Layer	P-FORB	8	672,000.00	
<i>Zizia aurea</i>	Golden Alexander's	Herbaceous Layer	P-FORB	6	176,000.00	

Iowa NRCS Plant Community Description

This community description is a compilation of the Community Association and it's over-riding Community Alliance descriptions as provided by NatureServe (www.natureserve.org/explorer). Where necessary, community descriptions were adapted as recommended by Iowa plant community experts.

6/13/2013