

Asclepias verticillata
Whorled milkweed**EO Num: 1**
EO ID: 1478**G Rank:** G5
S Rank: S1**USFWS ESA:**
Other Agency Status:**EO Type:** Specimen
Id Confirmed: Y - Yes**Data Sensitive:** N
Sensitive Reason:**Township-Range Section Note:**
053N065W Sec: 07 Note:**County:**
Crook**Mapsheet:**
44104-E6: Devils Tower**Directions:**

Black Hills; Devils Tower, ca 600-900 feet northeast of the tower.

General Description:

Ponderosa pine forest with grass understory on rocky-sandy soil.

Minimum Elevation: 4300 ft.**Maximum Elevation:** ft.**Managed By:**

DEVILS TOWER NATIONAL MONUMENT

Management Comments:**Owner Comments:****EO Rank Date:** 2008-07-31
Size of EO:**Basic EO Rank:** Failed to find
EO Rank Comments:**Precision BCD:**
Estimated RA Comments:**Estimated Representational Accuracy:** High**Survey Date:****Last Observed:** 2008-07-31**First Observed:** 1981-07-28**EO Data:**2008-07-31: Failed to find in surveys by B. Heidel and J. Larson. *Asclepias pumila* is widespread and present in the vicinity of the original collection site.

1981-07-28: In flower. Collected by H. Marriott.

Source Feature Data:

Point 1475 --- 053N065W Sec 7 --- 2008-07-31: Bonnie Heidel and Jill Larson, Failed to find. Uncert_Dist (m): 200

Point 1475 --- 053N065W Sec 7 --- 1981-07-28: Hollis Marriott, In flower. (# 889). Uncert_Dist (m): 200

Specimen Data:

Marriott, H.J. (889). 1981. RM. Annotated by R. Dorn 1988.

Bestsource:

Marriott, H.

Reference:

N Primary: Heidel, B. 2008. Survey for Wyoming plant species of concern in Devils Tower National Monument. Prepared for the National Park Service. Wyoming Natural Diversity Database, Laramie, WY.

N Primary: Rocky Mountain Herbarium (RM). University of Wyoming, Department of Botany 3165, 1000 E. University Ave., Laramie, WY 82071. (307) 766-2236.

Y Primary: Marriott, Hollis J. Former Heritage Botanist, WYNDD, and former Public Lands Coordinator, The Nature Conservancy. 655 N. Cedar, Laramie, WY 82070. (307) 721-4909.

Additional Topics:

General Comments: Only known Wyoming occurrence.

Version Author: J.C. Handley

Version Date: 7/6/2007

Transcription Author: WF

Transcription Date: 10/29/1992

Data QC By:

Lead Responsibility: USWYHP

Manual File Note:

Record Created By: WF

Record Creation Date: 10/29/1992

Carex emoryi
Emory's sedge**EO Num: 1**
EO ID: 4586**G Rank:** G5
S Rank: S1**USFWS ESA:**
Other Agency Status:**EO Type:** Survey
Id Confirmed: Y - Yes**Data Sensitive:** N
Sensitive Reason:**Township-Range Section Note:**
053N065W Sec: 07 Note: E2 of SE4
053N065W Sec: 18 Note: N2**County:**
Crook**Mapsheet:**
44104-E6: Devils Tower**Directions:**

Black Hills; Devils Tower National Monument, banks of Belle Fourche River and segment of old abandoned river channel south of entry station.

General Description:

River banks adjoining floodplain terrace of the Belle Fourche River, in a narrow, nearly-continuous wet meadow band. Also in a portion of an abandoned river meander. On moist or saturated silty and sandy silt alluvium.

Minimum Elevation: 3850 ft.**Maximum Elevation:** ft.**Managed By:**
DEVILS TOWER NATIONAL MONUMENT**Management Comments:****Owner Comments:****EO Rank Date:** 2007-06-04
Size of EO: 2+ miles on one or
both sides of river**Basic EO Rank:** Excellent estimated viability
EO Rank Comments: Extensive, numerous**Precision BCD:**
Estimated RA Comments:**Estimated Representational Accuracy:** Very High**Survey Date:** 2007-06-04**Last Observed:** 2007-06-04**First Observed:** 1981-06-05**EO Data:**

Ca 4 subpopulations in ca 1.3 miles.

2007-05-31/06-04: (4 subpopulations) Ca 50% in fruit and 50% vegetative. At least 1000's of clump-forming plants, occurring as dominant in nearly-continuous band on river bank, local co-dominant in old channel. Surveyed by B. Heidel.

1996-summer: (Sec 7; old channel) Recorded in TNC vegetation plot.

1981-06-05: (Sec 7; old channel) In flower. Somewhat common. Collected by H. Marriott.

Source Feature Data:

Line 52852 --- 053N065W Sec 7, 18; west shore --- 2007-06-04: Bonnie Heidel, In fruit and vegetative. (# 2891). Just beginning to shed seed. Largest subpopulation, spanning ca 1.5 miles of almost-continuous river shore.

Interrupted at small cutbank southeast of headquarters, and at river crossing for farm vehicles near upstream end. Occurs with *Eleocharis palustris*, *Alopecurus arundinaceus*, *Phalaris arundinacea*, *Spartina pectinata*.

Uncert_Dist (m): 10

Line 52853 --- 053N065W Sec 7, 18; east shore --- 2007-06-04: Bonnie Heidel, In fruit and vegetative. Second-largest subpopulation, spanning less than 0.5 miles of river bank. Occurs with *Eleocharis palustris*, *Alopecurus arundinaceus*, *Phalaris arundinacea*, *Spartina pectinata*. Uncert_Dist (m): 10

Polygon 52854 --- 053N065W Sec 7 SE4; old channel --- 2007-06-04: Bonnie Heidel, A few in fruit, vegetative. Smallest subpopulation.in the eastern end of a dry, abandoned oxbow that trends northwest-southeast. Occurs with *Poa pratensis*. Uncert_Dist (m):

Polygon 52854 --- 053N065W Sec 7 SE4; old channel --- 1996-summer: TNC vegetation mapping crew, Occurs with *Ambrosia psilostachya*, *Equisetum arvense*, *Glycyrrhiza lepidota*, *Helianthus petiolaris*, *Elymus smithii*, *Spartina pectinata*, and *Sporobolus cryptandrus*. Uncert_Dist (m):

Polygon 52854 --- 053N065W Sec 7 SE4; old channel --- 1981-06-05: Hollis Marriott, In flower. (# 682). Somewhat common. On sandy alluvium. Occurs with *Poa pratensis* and *Bromus tectorum*. Uncert_Dist (m):

Line 52855 --- 053N065W Sec 7 SE4; along east shore --- 2007-06-04: Bonnie Heidel, In fruit and vegetative. Spans ca 0.3 miles, with more interruptions by non-native species (*Phalaris arundinaceus*, *Alopecurus arundinacea*) than the other river bank subpopulations. Occurs with *Eleocharis palustris*, *Alopecurus arundinaceus*, *Phalaris arundinacea*, *Spartina pectinata*. Uncert_Dist (m): 10

Specimen Data:

Marriott, H. (682). 1981. RM.

Heidel, B. (2891). 2007. RM.

Reference:

N Primary: Heidel, Bonnie. Botanist of Wyoming Natural Diversity Database. University of Wyoming, Dept. 3381, 1000 E. University Ave., Laramie, WY 82071.

N Primary: Marriott, Hollis J. Former Heritage Botanist, WYNDD, and former Public Lands Coordinator, The Nature Conservancy. 655 N. Cedar, Laramie, WY 82070. (307) 721-4909.

N Primary: The Nature Conservancy Midwest Regional Office. 1996. Vegetation sampling and classification of Devils Tower National Monument. The Nature Conservancy Midwest Regional Office, MN. (<http://biology.usgs.gov/npsveg/DETO>)

N Primary: Rocky Mountain Herbarium (RM). University of Wyoming, Department of Botany 3165, 1000 E. University Ave., Laramie, WY 82071. (307) 766-2236.

Y Primary: Heidel, B. 2008. Survey for Wyoming plant species of concern in Devils Tower National Monument. Prepared for the National Park Service. Wyoming Natural Diversity Database, Laramie, WY.

Additional Topics:

General Comments: Spikes were beginning to disarticulate in early June of 2007, a late growing season. Early phenology and sporadic flowering may need to be considered when surveying for this species. Marriott's collection was originally determined as *Carex lenticularis*. Reported in plot for TNC Devils Tower vegetation classification project in the oxbow site. Vital to stabilizing river banks despite upstream impoundment.

Version Author: B. Heidel

Version Date: 10/13/2007

Transcription Author: WF

Transcription Date: 2/29/1996

Data QC By: JCH

Lead Responsibility: USWYHP

Manual File Note:

Record Created By: WF

Record Creation Date: 2/29/1996

Elymus villosus
Hairy wildryeEO Num: 2
EO ID: 5124G Rank: G5
S Rank: S1USFWS ESA:
Other Agency Status:EO Type: Survey
Id Confirmed: Y - YesData Sensitive: N
Sensitive Reason:Township-Range Section Note:
053N065W Sec: 07 Note: SW4 of SW4 of NE4County:
CrookMapsheet:
44104-E6: Devils Tower**Directions:**

Black Hills; Devils Tower, ca 0.25 mile northeast of tower.

General Description:Wooded ravine in alluvial fan at base of draw, dominated by Bur oak - Green ash/*Carex sprengei* with high graminoid cover, 2% north-facing slope, deep black loam.**Minimum Elevation:** 4020 ft.**Maximum Elevation:** 4060 ft.**Managed By:**

DEVILS TOWER NATIONAL MONUMENT

Management Comments:**Owner Comments:**EO Rank Date: 2008-07-31
Size of EO:**Basic EO Rank:** Good estimated viability
EO Rank Comments: Good numbers, good condition.**Precision BCD:**
Estimated RA Comments:**Estimated Representational Accuracy:** Very High**Survey Date:** 2008-07-31**Last Observed:** 2008-07-31**First Observed:** 1897-08**EO Data:**

Population less than 100 meters long.

2008-07-31: In fruit. Ca 500+ stems in clumps (individuals). In highest numbers on west side. Surveyed by B. Heidel.

1897-08: Collected by D. Griffiths.

Source Feature Data:Polygon 194819 --- 053N065W Sec 7 SE4 --- 2008-07-31: Bonnie Heidel, In fruit. (# 3236). Ca 500+ stems in clumps (individuals). Occurs with *Carex sprengei*, *Oryzopsis asperifolia*, *Mahonia repens*, *Achillea millefolium*, *Elymus virginicus*, *Poa pratensis*, *Prunus virginiana*. Uncert_Dist (m):

Polygon 194819 --- 053N065W Sec 7 SE4 --- 1897-08: D. Griffiths, (# 567). US? Uncert_Dist (m):

Specimen Data:

Griffiths, D. (567). 1897. US?

Heidel, B. (3236). 2008. RM and Mount Rushmore NM Herbarium.

Bestsource:**Reference:**

N Primary: Heidel, Bonnie. Botanist of Wyoming Natural Diversity Database. University of Wyoming, Dept. 3381, 1000 E. University Ave., Laramie, WY 82071.

N Primary: Rocky Mountain Herbarium (RM). University of Wyoming, Department of Botany 3165, 1000 E. University Ave., Laramie, WY 82071. (307) 766-2236.

Y Primary: Heidel, B. 2008. Survey for Wyoming plant species of concern in Devils Tower National Monument. Prepared for the National Park Service. Wyoming Natural Diversity Database, Laramie, WY.

Additional Topics:

General Comments: Noxious weeds present in the draw include Euphorbia esula, Carduus nutans and Cynoglossum officinale.

Version Author: B. Heidel

Version Date: 10/29/2008

Transcription Author: LAE

Transcription Date: 2/4/1981

Data QC By: JCH

Lead Responsibility: USWYHP

Manual File Note:

Record Created By: HJM

Record Creation Date: 10/24/1989

Filago prolifera
Rabbit tobacco**EO Num: 3**
EO ID: 6733**G Rank:** G5
S Rank: S1**USFWS ESA:**
Other Agency Status:**EO Type:** Survey
Id Confirmed: Y - Yes**Data Sensitive:** N
Sensitive Reason:**Township-Range Section Note:**
053N065W Sec: 07 Note: NW4 of NE4
053N065W Sec: 18 Note: SW4 of SE4**County:**
Crook**Mapsheet:**
44104-E6: Devils Tower**Directions:**

Black Hills; Devils Tower National Monument, prairie dog town on both sides of main park road, ca 0.5 mile southeast of the tower.

General Description:Prairie dog town on broad valley bottom terrace with disturbed well-drained alluvial sand and silt loam soils, on 1-5% south-facing slopes above flats. Found in gaps within *Buchloe dactyloides* sod; not in sod or within right-of-way.**Minimum Elevation:** 3870 ft.**Maximum Elevation:** 3920 ft.**Managed By:**
DEVILS TOWER NATIONAL MONUMENT**Management Comments:****Owner Comments:****EO Rank Date:** 2007-10-13
Size of EO: 10**Basic EO Rank:** Excellent estimated viability
EO Rank Comments: Very large population in good condition.**Precision BCD:**
Estimated RA Comments:**Estimated Representational Accuracy:** Very High**Survey Date:** 2007-06-05**Last Observed:** 2008-06-27**First Observed:** 2007-06-05**EO Data:**

3 subpopulations in ca 0.5 mile.

2008-06-27: None found in brief visit to same locale by B. Heidel.

2007-06-05: (3 subpopulations) In flower and fruit. Locally abundant. Ca at least 10,000's. Highest numbers on north side of road. Surveyed by B. Heidel and J. Daniels.

Source Feature Data:Polygon 52867 --- 053N065W Sec 7, 18 --- 2007-06-05: Bonnie Heidel and Jessica Daniels, In fruit and flower. (# 2905). Includes over half of the population, numbering in the 10,000's; where it is more extensive and numerous in steeper, sandier portion north of road. Occurs with *Elymus smithii*, *Buchloe dactyloides*, *Alyssum desertorum*, *Gaura coccinea*, *Plantago purshii*, *Bromus tectorum*, *Verbena americana*, *Chamaescybe glyptosperma*, *Sphaeralcea coccinea*, *Hedeoma hispida*. **Uncert_Dist (m):**Polygon 52868 --- 053N065W Sec 7 SE4 --- 2007-06-05: Bonnie Heidel and Jessica Daniels, In flower and fruit. Numbering in the 100's, the smallest of three subpopulations. **Uncert_Dist (m):**

Polygon 52869 --- 053N065W Sec 18 NE4 --- 2007-06-05: Bonnie Heidel and Jessica Daniels, In flower and fruit. Includes less than half of an occurrence numbering in the 10,000's. Uncert_Dist (m):

Specimen Data:

Heidel, B. (2905). 2007. RM.

Bestsource:

B. Heidel

Reference:

N Primary: Heidel, Bonnie. Botanist of Wyoming Natural Diversity Database. University of Wyoming, Dept. 3381, 1000 E. University Ave., Laramie, WY 82071.

N Primary: Rocky Mountain Herbarium (RM). University of Wyoming, Department of Botany 3165, 1000 E. University Ave., Laramie, WY 82071. (307) 766-2236.

Y Primary: Heidel, B. 2008. Survey for Wyoming plant species of concern in Devils Tower National Monument. Prepared for the National Park Service. Wyoming Natural Diversity Database, Laramie, WY.

Additional Topics:

General Comments: This is an inconspicuous annual that may have been overlooked, or more likely, that may have had a flush of germination with moist climate conditions in 2007. It represents and addition to the Devils Tower checklist.

Version Author: B. Heidel

Transcription Author: B. Heidel

Data QC By: JCH

Version Date: 10/13/2007

Transcription Date: 6/5/2007

Lead Responsibility: USWYHP

Manual File Note:

Record Created By: thuja

Record Creation Date: 10/8/2007 3:07:12 PM

Glandularia bipinnatifida
Dakota vervain

EO Num: 2
EO ID: 4473

G Rank: G5
S Rank: S1

USFWS ESA:
Other Agency Status:

EO Type: Survey
Id Confirmed: Y - Yes

Data Sensitive: N
Sensitive Reason:

Township-Range Section Note:
053N065W Sec: 18 Note: NE4 of NW4 of NE4

County:
Crook

Mapsheet:
44104-E6: Devils Tower

Directions:

Northwestern Black Hills; Devils Tower National Monument, prairie dog town on south side of main park road, ca 0.5 mile southeast of the tower [located near the northeast end of the second prairie dog town pullout].

General Description:

Prairie dog town on broad valleybottom terrace of disturbed alluvial silt loam soil, at slight 2% south-facing slope above flats; not in right-of-way or among active burrows but restricted to ca 5 meters from road near burrows.

Minimum Elevation: 3870 ft.

Maximum Elevation: ft.

Managed By:

DEVILS TOWER NATIONAL MONUMENT

Management Comments:

Monitoring plot established by Marriott (see 1989 report).

Owner Comments:

EO Rank Date: 2007-06-05

Size of EO: 0.25

Basic EO Rank: Good estimated viability

EO Rank Comments: Persisting as limited population in small area.

Precision BCD:

Estimated Representational Accuracy: Very High

Estimated RA Comments:

Survey Date: 2007-06-05

Last Observed: 2007-06-05

First Observed: 1977-09-16

EO Data:

One small population within ca 5 x 50 meters.

2007-06-05: 70% in flower, 30% in bud. 276 plants. Surveyed by B. Heidel.

2001-09: In flower. Observed by J. Cheatham.

1996-09: In flower. 5 groups occupying 0.25 acre. Surveyed by C. Holbeck.

1989-08-09: 113 flowering plants and 12 vegetative plants in 10 x 5 meters. Individuals typically clustered.

Surveyed by H. Marriott and Gyra

1977-09-16: In flower. Common. Surveyed by H. Marriott.

Source Feature Data:

Polygon 52859 --- 053N065W Sec 18 NE4 --- 2007-06-05: Bonnie Heidel, 70% in flower, 30% in bud. 276 plants.

Occurs with *Elymis smithii*, *Buchloe dactyloides*, *Alyssum desertorum*, *Bromus tectorum*, *Gaura coccinea*,

Plantago purshii, *Chamaesyce glyptosperma*, *Asclepius pumila*, *Filago prolifera*, *Verbena americana*,

Tragopogon sp., *Sphaeralcea coccinea*, *Hedeoma hispida*. Uncert_Dist (m):

Polygon 52859 --- 053N065W Sec 18 NE4 --- 2001-09: Jim Cheatham, In flower. Uncert_Dist (m):

Polygon 52859 --- 053N065W Sec 18 NE4 --- 1996-09-30: Chris Holbeck, In flower. In 5 groups occupying 0.25 acre.

Uncert_Dist (m):

Polygon 52859 --- 053N065W Sec 18 NE4 --- 1989-08-09: Hollis Marriott and Gyra, 113 flowering plants and 12 vegetative plants in 10 x 5 meters. Individuals typically clustered. Uncert_Dist (m):

Polygon 52859 --- 053N065W Sec 18 NE4 --- 1977-09-16: Hollis Marriott, In flower. (# 233). Common. Uncert_Dist (m):

Specimen Data:

Marriott, H.J. (233). 1977. Devils Tower NM Herbarium (photocopy at RM).

Reference:

N Primary: Heidel, Bonnie. Botanist of Wyoming Natural Diversity Database. University of Wyoming, Dept. 3381, 1000 E. University Ave., Laramie, WY 82071.

N Primary: Neighbours, M. and H. Marriott. 1989. Candidate Sensitive plant species, Newcastle Resource Area, Bureau of Land Management. Prepared for the BLM, Casper District, by the Wyoming Natural Diversity Database, Nov. 30, 1989.

N Primary: Marriott, Hollis J. Former Heritage Botanist, WYNDD, and former Public Lands Coordinator, The Nature Conservancy. 655 N. Cedar, Laramie, WY 82070. (307) 721-4909.

N Primary: Marriott, H.J. 1989. Programs for monitoring rare and noxious plant species at Devils Tower National Monument, Wyoming. Report prepared for the National Park Service by the Wyoming Natural Diversity Database, Laramie, WY.

N Primary: Rocky Mountain Herbarium (RM). University of Wyoming, Department of Botany 3165, 1000 E. University Ave., Laramie, WY 82071. (307) 766-2236.

Y Primary: Heidel, B. 2008. Survey for Wyoming plant species of concern in Devils Tower National Monument. Prepared for the National Park Service. Wyoming Natural Diversity Database, Laramie, WY.

Additional Topics: Probably confined to the identical area as delimited in 1988 mapping/monitoring, when the population was delimited by 13 highway posts. There are no metal tags remaining on the highway posts, but the general location and restriction to an area set off by 13 highway posts remains the same. There is only one *Glandularia bipinnatifida* location in Devils Tower National Monument, located in Sec 18 that may barely extend into Sec 7. The label for the first collection (Marriott 233) indicates that the species was collected in the NW 1/4 of Sec 18. This conflicts with the detailed mapping by Marriott (1989); the collection label omitted that the location is in the NW 1/4 of the NE 1/4. The point source feature for this false location has been deleted. The GPS points taken in 2007 correspond exactly with the description given by Marriott (1989) as restricted to an interval within 13 highway post markers, so the point source feature was merged with the small GPS-delimited polygon feature.

General Comments: The population is concentrated directly along the road and has not spread into the contiguous prairie dog town habitat relative to 1988 population dimensions.

Version Author: B. Heidel
Transcription Author: DRC
Data QC By: JCH

Version Date: 10/29/2008
Transcription Date: 8/14/1989
Lead Responsibility: USWYHP

Manual File Note:

Record Created By: HJM

Record Creation Date: 3/15/1991

Helianthemum bicknellii
Plains frostweed

EO Num: 3
EO ID: 2948

G Rank: G5
S Rank: S1

USFWS ESA:
Other Agency Status:

EO Type: Observation
Id Confirmed: Y - Yes

Data Sensitive: N
Sensitive Reason:

Township-Range Section Note:
053N065W Sec: 07 Note: NW4 of SW4

County:
Crook

Mapsheet:
44104-E6: Devils Tower

Directions:

Black Hills; Devils Tower National Monument, near visitors' center parking lot and west base of tower [ca 0.1 mile northeast of parking lot, between upper and lower trails].

General Description:

Open ponderosa pine forest with sparse vegetation, in areas with moss cover of *Polystichum* sp. and relatively low duff.

Minimum Elevation: 4180 ft.

Maximum Elevation: 4200 ft.

Managed By:

DEVILS TOWER NATIONAL MONUMENT

Management Comments:

Owner Comments:

EO Rank Date: 2008-07-31
Size of EO:

Basic EO Rank: Possibly good estimated viability
EO Rank Comments: Good numbers and habitat condition; fair size.

Precision BCD:
Estimated RA Comments:

Estimated Representational Accuracy: Very High

Survey Date: 2008-07-31

Last Observed: 2008-07-31

First Observed: 1982

EO Data:

2008-07-31: In flower and fruit. Ca 50 plants in 3 groups (with numbers of ca 10, 10, and 30 plants). Vigorous, multi-stem growth. Surveyed by B. Heidel and J. Larson.
1982: Collected by H. Marriott.

Source Feature Data:

Point 2945 --- 053N065W Sec 7 SW4 --- 2008-07-31: Bonnie Heidel and Jill Larson, In flower and fruit. Ca 10 plants. Occurs with *Cerastium arvense*. Uncert_Dist (m): 10

Point 2945 --- 053N065W Sec 7 SW4 --- 1982: Hollis Marriott, Observed. Uncert_Dist (m): 10

Point 194790 --- 053N065W Sec 7 SW4 --- 2008-07-31: Bonnie Heidel and Jill Larson, In flower and fruit. Ca 10 plants. Occurs with *Danthonia spicata*, *Festuca idahoensis*, *Dichanthelium scribnerianum*, *Ambrosia trifida*. Uncert_Dist (m): 10

Point 194791 --- 053N065W Sec. 7 SW4 --- 2008-07-31: Bonnie Heidel and Jill Larson, In flower and fruit. Ca 30 plants. Occurs with *Danthonia spicata*, *Festuca idahoensis*, *Dichanthelium scribnerianum*, *Ambrosia trifida*. Uncert_Dist (m): 10

Specimen Data:**Bestsource:****Reference:**

N Primary: Heidel, Bonnie. Botanist of Wyoming Natural Diversity Database. University of Wyoming, Dept. 3381, 1000 E. University Ave., Laramie, WY 82071.

N Primary: Marriott, Hollis J. Former Heritage Botanist, WYNDD, and former Public Lands Coordinator, The Nature Conservancy. 655 N. Cedar, Laramie, WY 82070. (307) 721-4909.

Y Primary: Heidel, B. 2008. Survey for Wyoming plant species of concern in Devils Tower National Monument. Prepared for the National Park Service. Wyoming Natural Diversity Database, Laramie, WY.

Additional Topics:

General Comments: The locations where the species was found in 2008 corresponds closely with the 1982 location description. Its boundaries do not extend into the nearby zone of recently-burned forest. Leafy spurge is present within 10 meters, but not directly overlapping.

Version Author: B. Heidel
Transcription Author: LAE
Data QC By: JCH

Version Date: 10/29/2008
Transcription Date: 4/29/1983
Lead Responsibility: USWYHP

Manual File Note:

Record Created By: HJM
Record Creation Date: 10/24/1989

Oenothera laciniata
Cut-leaved Evening-primrose

EO Num: 4
EO ID: 3665

G Rank: G5
S Rank: S1

USFWS ESA:
Other Agency Status:

EO Type: Specimen
Id Confirmed: Y - Yes

Data Sensitive: N
Sensitive Reason:

Township-Range Section Note:
053N065W Sec: 18 Note: NW4 of NE4

County:
Crook

Mapsheet:
44104-E6: Devils Tower

Directions:

Black Hills; prairie dog town near the amphitheater at Devils Tower National Monument.

General Description:

Prairie dog town, disturbed alluvial soil.

Minimum Elevation: 3850 ft.

Maximum Elevation: ft.

Managed By:

DEVILS TOWER NATIONAL MONUMENT

Management Comments:

Owner Comments:

EO Rank Date: 1982-07-01
Size of EO:

Basic EO Rank: Verified extant (viability not assessed)
EO Rank Comments:

Precision BCD:
Estimated RA Comments:

Estimated Representational Accuracy: High

Survey Date:

Last Observed: 2007-06-05

First Observed: 1982-07-01

EO Data:

2007-06-05: In bud. Observed by B. Heidel.

1982-07-01: Occasional. Collected by H. Marriott.

Source Feature Data:

Point 3662 --- 053N065W Sec 18 NE4 --- 2005-06-05: Bonnie Heidel, In bud. Uncert_Dist (m): 50

Point 3662 --- 053N065W Sec 18 NE4 --- 1982-07-01: Hollis Marriott, (# 1280). Occasional. Uncert_Dist (m): 50

Specimen Data:

Marriott, H.J. (1260). 1982. RM.

Bestsource:

Reference:

N Primary: Heidel, Bonnie. Botanist of Wyoming Natural Diversity Database. University of Wyoming, Dept. 3381, 1000 E. University Ave., Laramie, WY 82071.

N Primary: Rocky Mountain Herbarium (RM). University of Wyoming, Department of Botany 3165, 1000 E. University Ave., Laramie, WY 82071. (307) 766-2236.

Y Primary: Marriott, Hollis J. Former Heritage Botanist, WYNDD, and former Public Lands Coordinator, The Nature Conservancy. 655 N. Cedar, Laramie, WY 82070. (307) 721-4909.

Additional Topics:

Version Author: B. Heidel
Transcription Author: DRC
Data QC By: JCH

General Comments:

Version Date: 12/6/2008
Transcription Date: 8/11/1989
Lead Responsibility: USWYHP

Manual File Note:

Record Created By: MLN
Record Creation Date: 9/18/1990

Viola pedatifida
Prairie violet

EO Num: 2
EO ID: 4479

G Rank: G5
S Rank: S1

USFWS ESA:
Other Agency Status:

EO Type: Survey
Id Confirmed: Y - Yes

Data Sensitive: N
Sensitive Reason:

Township-Range Section Note:
053N065W Sec: 07 Note: SW4 of NW4 of SW4, NE4

County:
Crook

Mapsheet:
44104-E6: Devils Tower

Directions:

Northwest Black Hills; Devils Tower, (1) along Redbed Trail just east of the Visitor Center parking loop below the west face of the tower, (2) in the vicinity of the Redbed Trail ca 0.5 miles northeast of the tower.

General Description:

Ponderosa pine forest with understory of *Poa pratensis* and high cover of *Euphorbia esula*.

Minimum Elevation: 4200 ft.

Maximum Elevation: 4260 ft.

Managed By:

DEVILS TOWER NATIONAL MONUMENT

Management Comments:

Populations could be impacted by recreation use and competition from exotic plants (especially *Euphorbia esula*).

Owner Comments:

EO Rank Date: 1999-06-03
Size of EO:

Basic EO Rank: Possibly good estimated viability
EO Rank Comments: Population small, but 1999 survey was very brief (much additional habitat in vicinity). Trailside populations could be impacted by trampling or wildflower picking.

Precision BCD:
Estimated RA Comments:

Estimated Representational Accuracy: High

Survey Date: 1999-06-03

Last Observed: 2007-06-05

First Observed: 1982

EO Data:

2 subpopulations less than 1 mile apart.

2007-06-05: Failed to find in either locale. Surveyed by B. Heidel.

1999-06-03: (SW4) In flower. 2 plants. Much additional potential habitat in vicinity. Surveyed by W. Fertig.

1982: (NE4) Collected by H. Marriott.

Source Feature Data:

Point 4476 --- 053N065W Sec 7 NE4 --- 2007-06-05: Bonnie Heidel, Failed to find. Uncert_Dist (m): 200

Point 4476 --- 053N065W Sec 7 NE4 --- 1982: Hollis Marriott, Collected. Uncert_Dist (m): 200

Point 193857 --- 053N065W Sec 7 SW4 --- 2007-06-05: Bonnie Heidel, Failed to find. Uncert_Dist (m): 100

Point 193857 --- 053N065W Sec 7 SW4 --- 1999-06-03: Walt Fertig, In flower. 2 plants. Occurs with *Thermopsis rhombifolia*, *Artemisia ludoviciana*, *Antennaria howellii*, *Cerastium arvense*, and *Vicia americana*. Much additional potential habitat in vicinity. Uncert_Dist (m): 100

Specimen Data:

Bestsource:

Marriott, H.

Reference:

N Primary: Heidel, B. 2008. Survey for Wyoming plant species of concern in Devils Tower National Monument. Prepared for the National Park Service. Wyoming Natural Diversity Database, Laramie, WY.

N Primary: Marriott, Hollis J. Former Heritage Botanist, WYNDD, and former Public Lands Coordinator, The Nature Conservancy. 655 N. Cedar, Laramie, WY 82070. (307) 721-4909.

Y Primary: Fertig, Walter. Former botanist. Wyoming Natural Diversity Database, University of Wyoming, Dept. 3381, 1000 E. University Ave., Laramie, WY 82071.

Additional Topics:

General Comments: In 1999, the habitat was described as having a high cover of *Euphorbia esula*. Concerted herbicide control since then is one possible explanation for the failure to find the species in 2007.

Version Author: B. Heidel

Transcription Author: LAE

Data QC By: JCH

Version Date: 10/29/2008

Transcription Date: 4/29/1983

Lead Responsibility: USWYHP

Manual File Note:

Record Created By: HJM

Record Creation Date: 10/24/1989