Species Status Assessment

Common Name	mountain fescue	**Date Updated:**	2024-03-20
Scientific Name	*Festuca saximontana var. saximontana*	**Updated By:**	Gregory J. Edinger
Family	Poaceae		

Species Synopsis *(a short paragraph which describes species taxonomy, distribution, recent trends, and habitat in New York):*

Mountain fescue (*Festuca saximontana* var. *saximontana*), also called sheep fescue, is a perennial graminoid in the Grass Family (Poaceae). There are nine species of *Festuca* in NY of which three are native to the state (Werier et al. 2023).

Mountain fescue grows in open habitats in Canada, Alaska, and Greenland, and perhaps in the Russian Far East. Its range in the US includes most of the west, but east of the Mississippi River it is only known from Wisconsin, Michigan, New York, and Vermont. This species is now known in New York from a single location in the High Peaks of the Adirondacks, where five plants were last observed in 1990 on a dry anorthosite cliff face 200 feet above the talus area (NYNHP 2023). In addition, there are historical records from scattered other locations in eastern New York (NYNHP 2023, 2024).

The existing mountain fescue population may be subject to natural threats such as rockslides and/or recreational threats, such as inadvertent trampling by rock climbers. As a boreal species, mountain fescue may also be negatively affected by climate changes. Mountain fescue has always been rare in New York. The single existing population has persisted at the site since at least 1910 when it was first discovered. Additional inventory and monitoring are needed to determine current population trends in the state. Additional searching of appropriate habitat and monitoring of the known population are needed (NYNHP 2023, 2024).

I. Status

a. Current legal protected Status

i. Federal: **Candidate:**

ii. New York: Endangered

b. Natural Heritage Program

i. Global: G5T5

ii. New York: S1 **Tracked by NYNHP?** On Active Tracking List

Other Ranks:

COSEWIC: Not listed in Canada
IUCN Red List: Not assessed by IUCN Red List

Status Discussion:

Festuca saximontana var. saximontana is Endangered in New York (Ring 2023). There is currently only one existing occurrence of mountain fescue in NY, and one or two historical records in the state (NYNHP 2023, 2024).

II. Abundance and Distribution

Region	Present?	Abundance	Distribution	Time Frame	Listing status or S-Rank	SGCN?
North America	Yes	Unknown	Unknown	Unknown		
Northeastern US	Yes	Unknown	Unknown	Unknown		
New York	Yes	Unknown	Unknown	Unknown	E	
Connecticut	No	-	-	-		
Massachusetts	No	-	-	-		
New Jersey	No	-	-	-		
Pennsylvania	No	-	-	-		
Vermont	Yes	Unknown	Unknown	Unknown	S1	
Ontario	Yes	Unknown	Unknown	Unknown	S4	
Quebec	No	-	-	-		

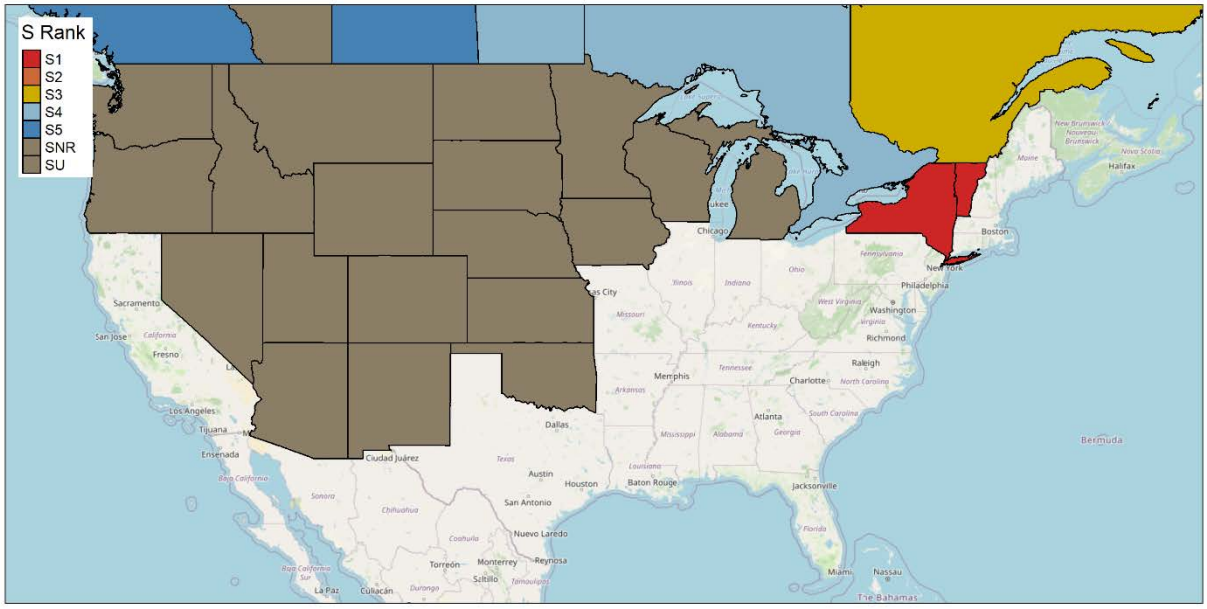

Figure 11: Festuca saximontana var. saximontana North American distribution.

Percent of North American Range in NY	Classification of NY Range	Distance to core population, if not in NY
1-25%	Peripheral	Unknown

III. NY Rarity and Trends

Trends Discussion

Additional inventory and monitoring of mountain fescue is needed to determine current population trends in the state. Mountain fescue has always been rare in New York. The single existing population has persisted at the site since at least 1910 when it was first discovered. (NYNHP 2023, 2024).

Details of historic and current occurrence

Mountain fescue grows in open habitats in Canada, Alaska, and Greenland, and perhaps in the Russian Far East. Its range in the U.S. includes most of the west, but east of the Mississippi River it is only known from Wisconsin, Michigan, New York, and Vermont. This species is now known in New York only from a single location in the High Peaks of the Adirondacks, where five plants were last observed in 1990 on a dry anorthosite cliff face 200 feet above the talus area (NYNHP 2023). In addition, there are historical records from scattered other locations in eastern New York (NYNHP 2023, 2024).

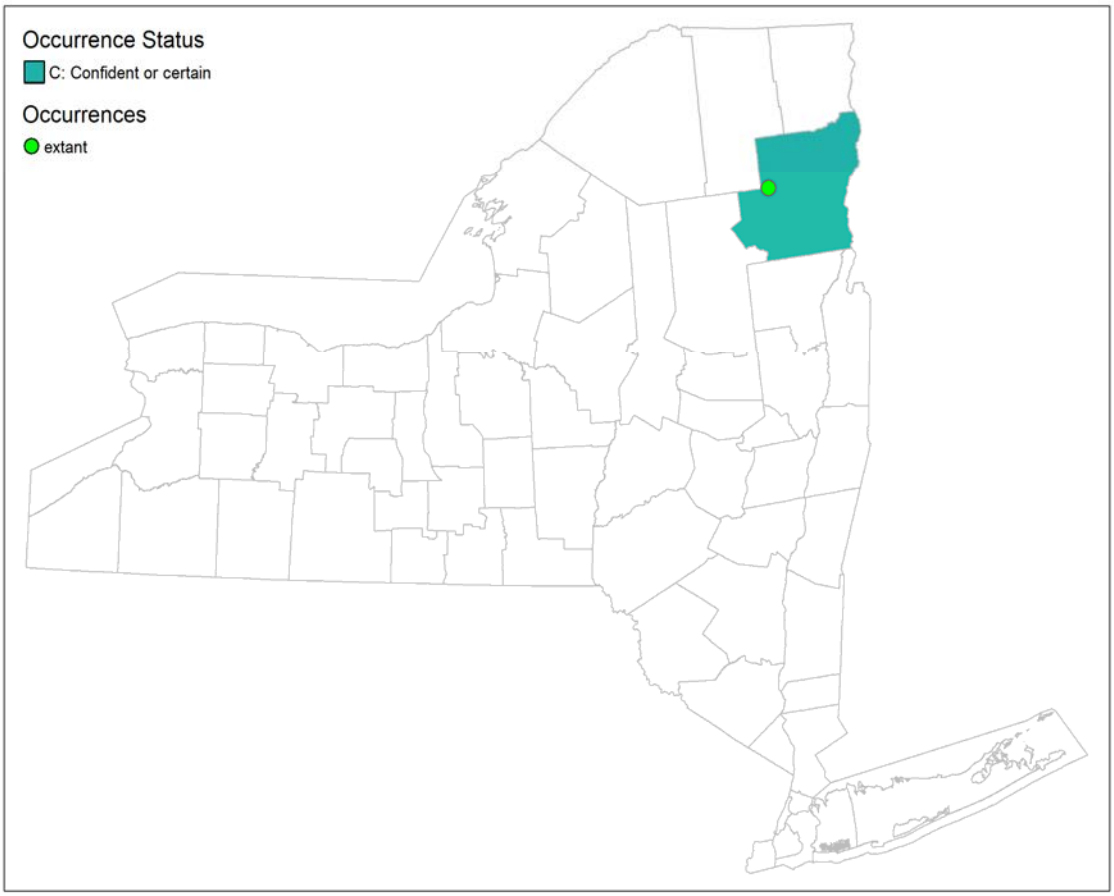

Figure 22: *NYS distribution for* Festuca saximontana *var.* saximontana

Table 1. *Number of records (element occurrences) of* Festuca saximontana *var.* saximontana *grouped by the dates known to be extant (the years spanning first observation to last observation) and the number and percent of total of USGS 7.5 minute map quadrangles these observations fall within for New York State.*

Years	# of Records	# of distinct quads	% of quads in State
Pre-1995	1	1	0.1
1995-2004	0	0	0.0
2005-2014	0	0	0.0
2015-2023	0	0	0.0

Monitoring in New York

No regular monitoring program is currently in place in New York. This species is now known in New York only from a single location in the High Peaks of the Adirondacks, where five plants were last observed in 1990 (NYNHP 2023, 2024).

IV. Primary Habitat or Community Type *(from NY crosswalk of NE Aquatic, Marine, or Terrestrial Habitat Classification Systems):*

NYNHP Ecological Communities: Cliff community (Edinger et al. 2014, NYNHP 2023, 2024)

Habitat or Community Type Trend in New York

Declining: **Stable:** **Increasing:** **Unknown:** ✓

Time Frame of Decline/Increase:

Habitat Specialist **Yes:** ✓ **No:**

Habitat Discussion:

The only known New York population occurs on a dry anorthosite cliff within the High Peaks of the Adirondacks (NYNHP 2023, 2024).

V. Species Demographics and Life History *(include information about species life span, reproductive longevity, reproductive capacity, age to maturity, and ability to disperse and colonize):*

The single existing population of mountain fescue in NY has persisted at the site for about 80 years, from when it was first discovered in 1910 to when it was last observed in 1990 (NYNHP 2023, 2024). At least one western seed company describes *Festuca saximontana* as a "cool season, long-lived perennial bunchgrass" (Granite Seed 2024). Demographic and life history information for mountain fescue is needed.

Table 2. *Phenology of* Festuca saximontana *var.* saximontana *in New York State.*

Phenology	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Flowering												
Fruiting												

VI. Threats

The existing mountain fescue population may be subject to natural threats such as rockslides and/or recreational threats, such as inadvertent trampling by rock climbers. As a boreal species, mountain fescue may also be negatively affected by climate changes (NYNHP 2023, 2024).

Are there regulatory mechanisms that protect the species or its habitat in New York?

Yes: **No:** ✓ **Unknown:**

If yes, describe mechanism and whether adequate to protect species/habitat:

Describe knowledge of management/conservation actions that are needed for recovery/conservation, or to eliminate, minimize, or compensate for the identified threats:

Rock climbers occasionally use the cliffs which are the one known site for mountain fescue in New York. Management and education should focus on protecting this and the other rare species at the site from any associated human disturbance (NYNHP 2023, 2024).

Complete Conservation Actions table using IUCN conservation actions taxonomy at link below. Use headings 1-6 for Action Category (e.g., Land/Water Protection) and associated subcategories for Action (e.g., Site/Area Protection) - https://www.iucnredlist.org/resources/conservation-actions-classification-scheme

Table 3. *Recommended conservation actions for* Festuca saximontana *var.* saximontana*.*

Conservation Actions	
Action Category	**Action**
Land/water protection	1.1. Site/area protection
Land/water protection	1.2. Resource & habitat protection
Land/water management	2.1. Site/area management
Land/water management	2.2. Invasive/problematic species control
Land/water management	2.3. Habitat & natural process restoration

VII. References

This SSA drew heavily from these resources:

NatureServe. 2023. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. http://www.natureserve.org/explorer. [Accessed 12/14/2023].

New York Natural Heritage Program, State University of New York College of Environmental Science and Forestry. 2023. Element Occurrence and Element Dataset. Albany, New York. [Exported 12/14/2023].

New York Natural Heritage Program. 2024. Online Conservation Guide for *Festuca saximontana* var. *saximontana*. Available from: https://guides.nynhp.org/sheep-fescue/. Accessed January 4, 2024.

Werier, David, Kyle Webster, Troy Weldy, Andrew Nelson, Richard Mitchell, and Robert Ingalls. 2023 New York Flora Atlas. [S. M. Landry and K. N. Campbell (original application development), USF Water Institute. University of South Florida]. New York Flora Association, Albany, New York. [Accessed 11/21/2023].

Additional references:

Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. Ecological Communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. New York Natural

Heritage Program, New York State Department of Environmental Conservation, Albany, NY. https://www.nynhp.org/documents/39/ecocomm2014.pdf

Fernald, M.L. 1950. Gray's manual of botany. 8th edition. D. Van Nostrand, New York. 1632 pp.

Flora of North America Editorial Committee. 2007a. Flora of North America North of Mexico. Vol. 24. Magnoliophyta: Commelinidae (in part): Poaceae, part 1. Oxford Univ. Press, New York. xxviii + 911 pp.

Gleason, Henry A. and A. Cronquist. 1991. Manual of Vascular Plants of Northeastern United States and Adjacent Canada. The New York Botanical Garden, Bronx, New York. 910 pp.

Granite Seed. 2024. FESTUCA SAXIMONTANA - Rocky Mountain Fescue. https://graniteseed.com/seed/grass-species/festuca-saximontana/#:~:text=Cool%20season%2C%20long%2Dlived%20perennial,sandy%20and%20gravelly%20mountainous%20soils. [Accessed 3/20/2024].

Holmgren, Noel. 1998. The Illustrated Companion to Gleason and Cronquist's Manual. Illustrations of the Vascular Plants of Northeastern United States and Adjacent Canada. The New York Botanical Garden, Bronx, New York.

Mitchell, Richard S. and Gordon C. Tucker. 1997. Revised Checklist of New York State Plants. Contributions to a Flora of New York State. Checklist IV. Bulletin No. 490. New York State Museum. Albany, NY. 400 pp.

Ring, Richard M. 2023. New York Rare Plant Status Lists. New York Natural Heritage Program, State University of New York College of Environmental Science and Forestry, Albany, NY. December 2023. 108 pp.

Voss, E.G. 1972. Michigan flora: A guide to the identification and occurrence of the native and naturalized seed-plants of the state. Part I. Gymnosperms and monocots. Cranbrook Institute of Science and Univ. Michigan Herbarium. Ann Arbor. 488 pp.