

# Blue Wild Rye



*Elymus glaucus* ssp. *glaucus*



Photo credits: *Timothy Howard*

**Scientific Name** *Elymus glaucus* ssp. *glaucus*

**Family Name** Poaceae  
Grass Family

## Did you know?

Blue Wild Rye is native to only one New York county (Sullivan). New York marks the eastern edge of its range, which in the west extends from Alaska to Texas. Its common name refers the leaves and spikelets, which may sometimes be purplish or bluish.

## Summary

**Protection** Endangered in New York State, not listed federally.

This level of state protection means: listed species are those with: 1) 5 or fewer extant sites, or 2) fewer than 1,000 individuals, or 3) restricted to fewer than 4 U.S.G.S. 7 ½ minute topographical maps, or 4) species listed as endangered by U.S. Department of Interior.

**Rarity** G5T5, S1

A global rarity rank of G5T5 means: Secure globally - Both the species as a whole and the subspecies/variety are common in the world; widespread and abundant (but may be rare in some parts of its range).

A state rarity rank of S1 means: This plant is endangered/critically imperiled in New York because of extreme rarity (typically 5 or fewer populations or very few remaining individuals) or is extremely vulnerable to extirpation from New York due to biological factors.

## Conservation Status in New York

There is only one known, native population of this species in New York.

## Short-term Trends

This one native population of this species in the state was first discovered in 2006, and found to be persisting in 2007.

## Long-term Trends

The long-term trends of this species recently discovered in New York are unknown.

# Conservation and Management

## Threats

There are no known immediate threats to the single population of this species in New York.

## Conservation Strategies and Management Practices

No management needs are apparent.

## Research Needs

Inventory and research should focus on whether this newly-documented species is as rare in the state as it appears to be, and if so, why.

# Habitat

The site where *Elymus glaucus* ssp. *glaucus* occurs in New York is a pitch pine oak heath rocky summit natural community. The plants occur near the top of an east-facing ridge, between 1700 and 1800 feet in elevation. There are areas of oak and pine forest as well as ledges and rocky outcrops dominated by grasses and sedges (New York Natural Heritage Program 2009).

## Associated Ecological Communities

### Pitch Pine-oak-heath Rocky Summit

A community that occurs on warm, dry, rocky ridgetops and summits where the bedrock is non-calcareous (such as quartzite, sandstone, or schist), and the soils are more or less acidic. This community is broadly defined and includes examples that may lack pines and are dominated by scrub oak and/or heath shrubs apparently related to fire regime.

## Other Probable Associated Communities

Pitch pine-oak-heath woodland

## Associated Species

Hay Sedge (*Carex argyrantha*)  
Blue Ridge Sedge (*Carex lucorum*)  
Pignut Hickory (*Carya glabra*)  
Pink Corydalis (*Corydalis sempervirens*)  
Eastern Hay-scented Fern (*Dennstaedtia punctilobula*)  
Wavy Hair Grass (*Deschampsia flexuosa*)  
White Oak (*Quercus alba*)  
Scrub Oak (*Quercus ilicifolia*)  
Red Oak (*Quercus rubra*)  
Little Bluestem (*Schizachyrium scoparium*)  
Early Lowbush Blueberry (*Vaccinium pallidum*)

## Identification Comments

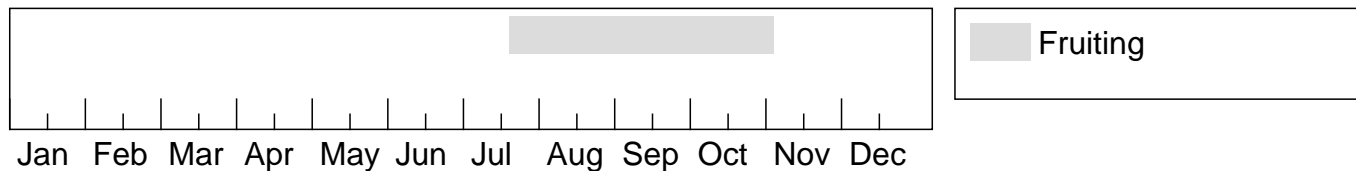
Blue Wild Rye is a perennial grass which grows in clumps 30 to 140 cm tall, occasionally spreading by underground stems (rhizomes). The leaf blades are 10 to 17 mm wide and usually without hairs. The erect stems are topped by a spike (inflorescence), 5 to 12 cm long and 5 to 15 mm wide. As in all grasses, the small, inconspicuous flowers occur in scaly structures called spikelets. *Elymus glaucus* ssp. *glaucus* usually has 2 spikelets per node and internodes 4 to 8 mm long. Each spikelet has 2 to 4 florets, each with awns projecting 10 to 25 mm from one of the scales (the lemma) (FNA 2008).

## Best Life Stage for Identifying This Species

Fruiting individuals are needed for positive identification.

## The Best Time to See

The best time to see this plant is when it is fruiting, from mid-July through October.



**The time of year you would expect to find Blue Wild Rye in New York.**

## Similar Species

*Elymus glaucus* is unique among the *Elymus* species of eastern North America for having glumes (the bracts at the base of each spikelet) with hyaline (thin and translucent), overlapping margins. In New York, it is most similar to *E. riparius*, *E. villosus*, and *E. virginicus*. In addition to having hyaline-edged glumes, it differs from these species by having fewer (6 to 7) stem leaves than do *E. riparius* (9 to 10), or *E. virginicus* (7 to 10), and having longer (7.5 to 10.5 mm long) paleas than does *E. villosus* (5.5 to 6.7 mm long). *Elymus glaucus* ssp. *glaucus* is the only subspecies of *E. glaucus* which occurs in New

York (FNA 2007, Voss 1972).

## Taxonomy

**Kingdom** Plantae

└─ **Phylum** Anthophyta

└─ **Class** Monocots (Monocotyledoneae)

└─ **Order** Cyperales

└─ **Family** Poaceae (Grass Family)

## Additional Resources

### Links

#### Google Images

<http://images.google.com/images?hl=en&q=elymus+glaucus+ssp.+glaucus&gbv=2>

#### Flora of North America

<http://hua.huh.harvard.edu/FNA/families.shtml>

#### New York Flora Atlas

<http://www.newyork.plantatlas.usf.edu/Plant.aspx?id=2403>

### Best Identification Reference

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