

Slender Wheatgrass

Elymus trachycaulus

Description

Slender Wheatgrass is a perennial grass that may grow to 3 feet (1 m) in height. The leaves are alternately arranged, consisting of a basal sheath portion that envelopes the stem and a linear shaped, flattened, and untoothed blade that is 2 to 5 inches (5-13 cm) in length, about 3/8 inch (7-12 mm) in width, and pointed at the tip. The minute flowers, appearing in summer, occur in an elongate and very slender unbranched inflorescence. The inflorescence contains many individual flower-bearing spikelets that occur singly in an alternating arrangement. The lower part of each spikelet, more specifically the scales called glumes, tends to remain attached to the inflorescence after the fruits mature and drop from the plant. This species closely resembles the weedy and exotic species known as quackgrass (*Elymus repens*), but the latter produces well-developed rhizomes (often forming colonies), has longer anthers, a hairless spikelet axis, and the complete spikelet (including the glumes) falls as one unit at maturity.



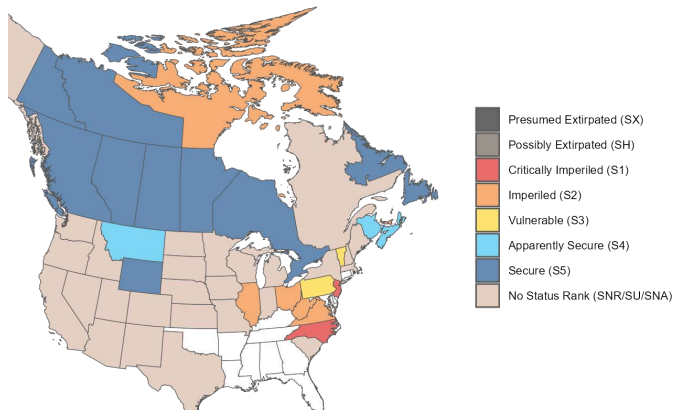
Photo source: John Kunsman, PNHP

Distribution & Habitat

Slender Wheatgrass has a transcontinental range across North America. In Pennsylvania, it has been documented historically mostly in the northern counties. It grows primarily in well-drained habitats that receive considerable sun, such as woods borders, rocky banks, grasslands, barrens, thickets, and utility rights-of-way.

North American State/Province Conservation Status

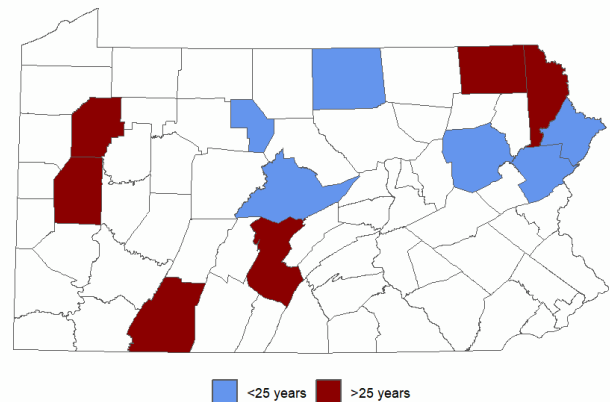
Map by NatureServe 2025



Current State Status

The PA Biological Survey (PABS) considers Slender Wheatgrass to be a species of special concern, based on the limited number of locations recently confirmed. It does not have a PA legal rarity status, but has been assigned a PABS suggested rarity status of Tentatively Undetermined.

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Conservation Considerations

The viability of populations of Slender Wheatgrass will require maintaining early successional conditions and controlling invasive species. In some cases, active management, such as periodic mowing or the use of prescribed fire may be needed to create the proper successional stage and ecological conditions for this species to thrive.

NatureServe conservation status ranks

G5 – Globally secure; S2S3 – Vulnerable in Pennsylvania

References

- NatureServe. 2025. NatureServe Explorer [web application] NatureServe, Arlington, Virginia. Available at <https://explorer.natureserve.org> (Accessed: May 8, 2025)
- Pennsylvania Natural Heritage Program. 2025.
- Rhoads, A.F. and W.M. Klein, Jr. 1993. The Vascular Flora of Pennsylvania. American Philosophical Society, Philadelphia, Pennsylvania.
- Rhoads, A.F. and T.A. Block. 2007. The Plants of Pennsylvania: An Illustrated Manual. 2nd edition. University of Pennsylvania Press, Philadelphia, Pennsylvania.