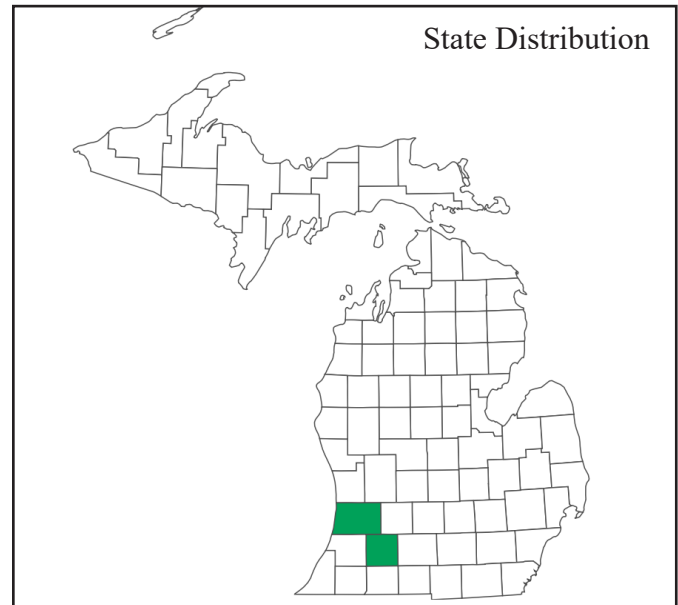
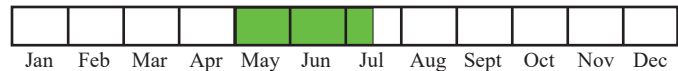
Photograph by [The Prairie Preacher](#), iNaturalist

Best Survey Period



**Legal status:** State Special Concern (SC)

**Global and state rank:** G4 (Apparently Secure) and SNR (State Not Ranked)

**Other common name(s):** Shining wedge-grass, shining wedge grass, shiny wedgrass, shiny wedgescale

**Family:** Poaceae – the grass family

**Synonyms:** *Aira mollis*, *A. nitida*, *A. pensylvanica*, *Eatonia dudleyi*, *E. glabra*, *E. nitida*, *E. pensylvanica*, *Glyceria pensylvanica*, *Graphephorum nitida*, *Koeleria pensylvanica*, *Reboulea nitida*, *R. pensylvanica*, *Trisetum pensylvanicum*

**Taxonomy:** The genus *Sphenopholis* is within the subfamily Pooideae and tribe Poeae. This tribe is the largest within the grasses, consisting of 115 genera and 2500 species, although its taxonomy is unclear and may be para or polyphyletic (Barkworth 2021). Originally, species of *Sphenopholis* were placed across seven other genera, but they were coalesced and described under the single genus by F. Lamson-Scribner in 1906. Worldwide

there are six extant *Sphenopholis* species, including shining wedgrass (*Sphenopholis nitida*), longleaf wedgescale (*S. filiformis*), slender wedgrass (*S. intermedia*), prairie false oat (*S. interrupta*), prairie wedgrass (*S. obtusata*), and swamp wedgescale (*S. pensylvanica*). There is a single known hybrid between prairie wedgrass and swamp wedgescale known as pallid wedge grass (*Sphenopholis* x *pallens*). Other than shining wedgrass, there are two other *Sphenopholis* species that occur in Michigan: slender wedgrass and prairie wedgrass.

**Total Range:** Shining wedgrass occurs in the eastern half of the contiguous United States of America and in Ontario, Canada. It ranges from Texas east to Florida; north to New England, New York, and Ontario; and west to Michigan, Illinois, and Missouri. It is listed as Critically Imperiled (S1) in Ontario and Vermont; Imperiled (S2) in Massachusetts; Vulnerable (S3) in Illinois; Apparently Secure (S4) in New Jersey, Delaware, West Virginia, Kentucky, North Carolina, and South Carolina; and Secure (S5) in New York, Pennsylvania, Ohio, and Virginia (NatureServe 2023).



**State Distribution:** Southern Michigan appears to be the northern extent of shining wedgegrass. Specimens have been collected in Allegan, Berrien, Calhoun, Cass, Ingham, Ionia, Kalamazoo, Kent, Macomb, Oakland, Ottawa, St. Joseph, Van Buren, and Washtenaw counties. Most of these collections were made over a hundred years ago, and it is uncertain whether populations in many of these counties are extant or extirpated. Extant populations have been most recently observed in Allegan and Kalamazoo County (MNFI 2026).

**Recognition:** Shining wedgegrass is a slender, tufted grass that ranges from 30–70 cm (12–28 in) tall. Sheaths and leaves are softly pubescent, although occasionally glabrous as in the subspecies *glabra*. Leaf blades are 2–5 mm (0.08–0.2 in) wide and 3–10 cm (1.2–3.9 in) long. The panicle is few-flowered, diffuse, narrow, lax and loosely spreading at anthesis then becoming erect and contracted at maturity. The panicle is 5–15 cm (2–5.9 in) long and 5 cm (2 in) wide when young and 1 cm (0.4 in) wide when mature. The spikelets are 3–3.5 mm (0.12–0.14 in) long, two to three-flowered, and disarticulate below the glumes. This disarticulation causes spikelets to easily fall from the panicle when disturbed, and panicles often disintegrate rapidly after maturity. **The first glume, when folded, is around 0.3–0.7 mm (0.01–0.03 in) wide**, and 1/3 as wide as the second glume. **The second glume is broadly rounded to obtuse with an abrupt acuminate tip. Lemmas are usually awnless but occasionally have an awn up to 0.2 mm long.**

Shining wedgegrass is most often confused with slender wedgegrass, even by experienced botanists. It is not uncommon for herbarium specimens to be mislabeled or misidentified as one species or the other. Shining wedgegrass can also appear similar to prairie wedgegrass, although the two species are more easily distinguished at a glance based on panicle density. Shining wedgegrass is the least dense and fewest-flowered of all three species while prairie wedgegrass is the densest and most compact. Without direct comparison, however, differentiation may still be difficult based on the

panicle alone. The species can also be distinguished based on spikelet and floret characteristics. The shape of the second glume is one of the best diagnostic traits for the wedgegrasses, and the tip of the second glume is broadly round in shining wedgegrass, acute in slender wedgegrass, and distinctly cucullate (i.e., possessing a hoodlike curl) in prairie wedgegrass. When folded, the first glume of shining wedgegrass is wider than the first glume of both slender and prairie wedgegrass which does not exceed 0.3 mm (0.012 in) wide in either species. Additionally, **the anthers of shining wedgegrass are larger than the other two species at 0.7–1.5 mm (0.03–0.06 in) in length** while those of both slender wedgegrass and prairie wedgegrass are not over 0.5 mm (0.02 in).

Outside of the genus *Sphenopholis*, shining wedgegrass can also resemble drooping bluegrass (*Poa languida*), which can occur in the same habitat (Reznicek et al. 2011). The first and second glumes of drooping bluegrass are about equal in width, as opposed to the first glume being a third as wide as the second in shining wedgegrass, and florets have a callous with a cobwebby base while the florets of shining wedgegrass are completely glabrous.

**Best survey time/phenology:** The best time to survey for shining wedgegrass is during late spring and early summer as the panicle opens relatively early and matures rapidly. Once the mature spikelets drop, identification becomes very difficult to impossible. In Michigan, most observations have been made from the third week of May to the last week of June, but a single herbarium collection was made as late as the third week of July (COHM 2026).

**Habitat:** Across its range, shining wedgegrass occurs in dry, rich, or moist woodlands in association with oaks as well as rocky slopes and on bluffs above streams and rivers. Documented Michigan occurrences are in oak-hickory woods, specifically 1) in the shade along a west-facing slope adjacent to hardwood-conifer swamp, 2) on a steep north/north-west facing slope in a dry-mesic southern



forest, and 3) on a south-east-facing wooded slope above the Kalamazoo River. At the latter location, the species is associated with smooth pussytoes (*Antennaria parlinii*), Pennsylvania sedge (*Carex pensylvanica*), panic grass (*Dichanthelium commutatum* subsp. *ashei*), witch-hazel (*Hamamelis virginiana*), round-lobed hepatica (*Hepatica americana*), cluster-leaved tick-trefoil (*Hylodesmum glutinosum*), ironwood (*Ostrya virginiana*), downy Solomon seal (*Polygonatum pubescens*), red oak (*Quercus rubra*), fragrant sumac (*Rhus aromatica*), sassafras (*Sassafras albidum*), bluestem goldenrod (*Solidago caesia*), heart-leaved aster (*Symphyotrichum cordifolium*), and basswood (*Tilia americana*) (MNFI 2026).

Outside of Michigan, shining wedgegrass occurs in similar habitats (e.g., oak-hickory uplands, wooded ravines, bluffs), albeit with different associates: white oak (*Quercus alba*), chinquapin oak (*Q. muhlenbergii*), black oak (*Q. velutina*), fragrant sumac (*Rhus aromatica*), zarzaparrilla (*Smilax bonanox*), coralberry (*Symphoricarpos orbiculatus*), purple cliffbrake (*Pellaea atropurpurea*), smooth cliffbrake (*P. glabella*), southern wild comfrey (*Cynoglossum virginianum*), woodland sunflower (*Helianthus divaricatus*), and false sunflower (*Helipopsis helianthoides*), and may-apple (*Podophyllum peltatum*) (COMH, 2026).

**Biology:** Shining wedgegrass is a cool-season grass that naturally occurs at low densities or in localized populations within the broader landscape. It is perennial, cespitose, and non-rhizomatous. Fruits contain a liquid endosperm, which is less common than solid or semi-solid endosperm in grasses (Terrell 1971). It is a trait restricted to the tribe Poeae, to which *Sphenopholis* belongs (Watson-Lazowski et al. 2026). Shining wedgegrass is symbiotic with two important groups of fungal endophytes (i.e. organisms that lives within the tissues of plants), which are *Epichloë* and *Neotyphodium* (Afkhani and Rudgers 2008). These two genera are known to form facultative relationships with approximately 20-30% of grass species. Like most other species of *Sphenopholis*,



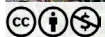
Photograph by [The Prairie Preacher](#), iNaturalist

Figure 2. The width, texture, and shape of the first glume, second glume, and lemma are distinguishing characteristics.

shining wedgegrass is edible to livestock, although it is too sparse within the landscape to be a valuable forage species.

Little else is known about the biology of shining wedgegrass, but studies regarding its congener prairie wedgegrass may provide insight into its population dynamics with other grass species as well as germination conditions. In a study regarding the germination competitiveness of sparse versus common prairie grass species, it was found that the seedlings of sparse species, including prairie wedgegrass, exhibited a competitive advantage when grown with other common prairie grass species such as big bluestem (*Andropogon gerardii*), little bluestem (*Schizachyrium scoparium*), and Indian grass (*Sorghastrum nutans*) (Rabinowitz et al. 1984). Seedlings of the same sparse grasses performed worse when grown together indicating a predisposition to low landscape density and diffuse populations. Another characteristic of prairie wedgegrass that aids in competitive ability is its flat, lightweight spikelets which allow for better dispersion compared to the larger and heavier seeds and spikelets of common grasses (Rabinowitz and Rapp 1981). Research into the role of warming





Photograph by [Jesse Lincoln](#), Michigan Natural Features Inventory

Figure 3. Habit in dry, rich forest.

temperatures and light on the germination of native plant species in Canada revealed that prairie wedgegrass responded positively to increased light availability and warmer temperatures, although the response was more significant to light (Dhar et al. 2025). Its germination response supports the hypothesis that prairie wedgegrass may be somewhat tolerant to the effects of climate change.

**Conservation/management:** Little is known of the proper methods to conserve and manage shining wedgegrass. As with many rare species, populations are likely impacted by development, loss of viable habitat, fragmentation, and competition with invasive species. Oak-hickory, dry-mesic forests are fire-dependent systems. Alteration of historic fire regimes via removal and suppression of Indigenous people and culture resulted in succession of less fire-tolerant mesic forest species (Nuzzo 1986). Persistence of this species is owed to the restoration and management of the forests in which it resides.

Habitat protection is also vital to the survival of the species, and only three of the known occurrences are under the protection of non-governmental land conservancies, State government, or Federal government. The remaining known occurrences are on private land.

**Comments:** The name *Sphenopholis* translates to “wedge scale” in Greek, referring to the larger of the two glumes within a spikelet. The epithet “nitida” means shining in Latin and refers to the shiny appearance of the culm. There is a known subspecies shining wedgegrass, subsp. *glabra*, that was collected from Oakland County. As the epithet implies, these specimens exhibit glabrous sheaths and blades.

**Research needs:** More research is needed to better understand the biology, ecology, and effective management strategies of shining wedgegrass. Little is known of important faunal associates, potential threats, genetics, and population demographics within Michigan. While fire has been suggested for management of extant populations, research is needed to confirm its efficacy. Additionally, status surveys are recommended to assess current population conditions and habitat viability at surveyed sites and locations noted in older herbarium specimens. Additional surveys in surrounding areas with suitable habitat are also advised, as this species may be overlooked and undercollected where it occurs.

**Related abstracts:** dry southern forest, dry-mesic southern forest, mesic southern forest

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