

Hierochloe odorata L.

common northern sweetgrass
Poaceae (Grass Family)

Status: State Review Group 1

Rank: G5SNR

General Description: Adapted from Hitchcock et al. (1969) and Cronquist et al. (1977): *Hierochloe odorata* is a rhizomatous, usually purplish-based perennial grass, 6 to 20 in. (1.5-5 dm) tall. The sheaths are glabrous to minutely hairy on the innovations (offshoots from rhizomes). The ligule (membranous projection inside the sheath at the junction) is 1/8 to 3/16 in. (3-5 mm) long, blunt to pointed, and slightly torn with a small fringe of hairs at the margin. The collars (band of lighter tissue at the junction of the blade and sheath) on the innovations usually have minute white hairs, while those of the mature plants are mostly glabrous. The blades are flat and on the offshoots are mostly 1/8 to 3/16 (3-5 mm) broad and up to 10 in. (25 cm long), while those of the mature plant are greatly shortened, often only 3/8 to 3/4 in. (1-2 cm) long. The inflorescence is 2 to 4 in. (5-10 cm) long and open-pyramidal. The spikelets are 3/16 to 1/4 in. (5-6 mm) long and 3-flowered. The first 2 florets are male, and the terminal floret is bisexual. The two glumes (membranous bracts beneath the florets) are unequal in size, broad, and equal or slightly exceed the florets. The lemma (outer bract of the floret) is strongly hairy, unawned, and pointed. The anthers are about 1/16 in. (1.7 mm) long.

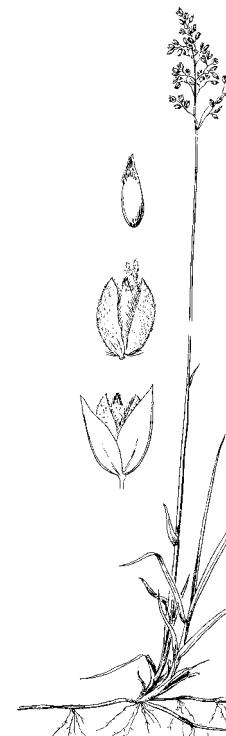
Identification Tips: The only other species of *Hierochloe* that occurs in Washington is *H. occidentalis*. These species can be distinguished by the shape and hairiness of their lemmas (outer bracts of the florets). The lemma of *H. odorata* is pointed, unlobed, and uniformly hairy over the back and margins. The lemma of *H. occidentalis* is rounded, shallowly 2-lobed, and only minutely hairy over the back but long-hairy along the margins. A technical key is recommended for identification.

Phenology: This species blooms from April through July in Washington.

Range: *Hierochloe odorata* is found from Alaska to Labrador, south to Oregon, Nevada, Arizona, New Mexico, South Dakota, the Great Lakes region, Pennsylvania, and in Eurasia. In Washington, this species has historically been found in Benton, Chelan, Kittitas, Klickitat, Pend Oreille, Skagit, Skamania, Spokane, Stevens, Whitman, and Yakima counties, although recent sightings have been from only Chelan, Okanogan, and Skamania counties.

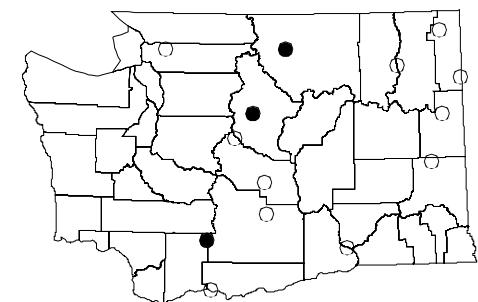
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Illustration by Jeanne R. Janish

Known distribution of
Hierochloe odorata
in Washington



- Current (1980+)
- Historic (older than 1980)

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Robert H. Mohlenbrock @ USDA-NRCS PLANTS
Database / USDA NRCS. 1992. Western wetland
flora: Field office guide to plant species. West
Region, Sacramento, CA.

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Habitat: This species may be found on moist slopes, meadows, and stream banks from the foothills to sub-alpine elevations. It has been found in Washington at elevations from 325 to 4420 feet (100-1350 m).

Ecology: This species is an important cultural plant for many Native Americans, and may be occasionally planted within or near Native American communities.

State Status Comments: This species is known in Washington from less than fifteen occurrences most of which are historic. Because *Hierochloe odorata* was recently added to the Washington rare plant list, not much is known about the degree of its rarity in the state at this time.

Inventory Needs: Historic sites need to be revisited.

Threats and Management Concerns: This species' greatest threats include competition by weedy species and habitat degradation.

Comments: This species is also known as *Hierochloe hirta* Schrank ssp. *arctica* J. Presl.

References:

Cronquist et al. 1977. *Intermountain Flora Vascular Plants of the Intermountain West, U.S.A. Volume 4: the Monocotyledons*. The New York Botanical Garden, Bronx, New York. 584 pp.

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1969. *Vascular Plants of the Pacific Northwest Part 1: Vascular Cryptogams, Gymnosperms, and Monocotyledons*. University of Washington Press, Seattle, WA. 914 pp.