

Filipendula occidentalis (S. Wats.) Howell
queen-of-the-forest
Rosaceae (Rose Family)

Filipendula occidentalis
queen of the forest

Status: State Threatened, USFWS Species of Concern
Rank: G2S2

General Description: Strongly rhizomatous perennial herb with erect, mostly simple stems up to 80 inches tall, glabrous or slightly pubescent below, becoming finely pubescent above; leaves pubescent on both surfaces at least on the veins, pinnately divided, the rachis petiole-like, with 1-3 pairs of remote, linear to ovate, serrate to doubly toothed leaflets $\frac{3}{16}$ to $\frac{1}{2}$ inch long, the terminal leaflet broadly ovate, 3 to 8 inches broad and nearly as long, palmately 5 to 7 cleft into ovate to oblong-lanceolate, acute to acuminate doubly serrate lobes; flowers numerous in a nearly flat-topped, open, freely branched panicle of cymes; sepals reflexed, narrowly lanceolate, $\frac{1}{8}$ to $\frac{3}{16}$ inch long; petals white, about $\frac{1}{4}$ inch long, elliptic-oblong; stamens white, about equaling the petals; fruit brownish-hairy, with a slender stipe $\frac{1}{16}$ to $\frac{1}{8}$ inch long, the body of the achene about $\frac{1}{8}$ inch long, strongly flattened.

Identification Tips: *Filipendula occidentalis* occurs with *Ribes bracteosum* and *Rubus parviflorus*, both of which are similar in stem length, leaf size and general morphology. Upon closer examination, however, *F. occidentalis* can be easily distinguished from the other taxa by its pinnately-divided leaves and the many-flowered, flat-topped panicle of cymes.

Phenology: Flowering generally begins during June and continues throughout much of July.

Range: Narrow endemic known from the Coast Range of southwest Washington and northwest Oregon. In Washington, all known occurrences are located in Pacific County in the Olympic Peninsula and Southwest Washington physiographic province.

Habitat: Bedrock crevices that have water seeping over the rock surface throughout much of the year. Occurrences are usually located near the high water mark of rivers or their tributaries.

Ecology: In Washington, *Filipendula occidentalis* occurs in habitats that are geologically and successional stable. The habitat



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Known distribution of
Filipendula occidentalis
in Washington



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

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Photo by WNHP



Photo by Ed Maxwell

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is generally kept open because it is too steep for soil to develop, and probably also by periodic erosion from flooding.

State Status Comments: The limited range and relatively narrow habitat requirements contribute to the species current status.

Inventory Needs: There is potential for additional occurrences in the central and northern Willapa Hills, along the Naselle River, and along portions of the Grays River. Potential habitat also may exist in the Olympic Mountains.

Threats and Management Concerns: Timber management activities leading to alterations in hydrology, increased solar radiation due to canopy removal, disturbance from nearby road and bridge construction, and exposure to herbicides pose the greatest threat to the species.

References:

Hitchcock, C.L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1961. *Vascular Plants of the Pacific Northwest, Part 3: Saxifragaceae to Ericaceae*. University of Washington Press, Seattle. 614 pp.