

Epipactis gigantea Dougl. ex Hook.
giant helleborine
Orchidaceae (Orchid Family)

Status: State Watch
Rank: G3G4S3

General Description: Stems 1 to many from short rhizomes, mostly 12-28 inches tall; leaves numerous, sheathing, the lowest blades almost lacking, but gradually enlarged upward, almost glabrous to slightly scabrous-minutely pubescent, broadly elliptic-lanceolate, mostly $2\frac{3}{4}$ to $5\frac{2}{3}$ inches long and $\frac{1}{2}$ to 2 inches broad; flowers 3-15, rather showy, usually occurring on one side of the stem, the bract gradually reduced upward, but even the uppermost exceeding the ovary; sepals coppery-green, lightly brownish veined, $\frac{1}{2}$ to $\frac{2}{3}$ inch long; petals similar to the sepals, but thinner, and more brownish purple; lip $\frac{2}{3}$ to $\frac{3}{4}$ inch long, the sac with prominent raised, purplish lines leading to the base, 3-lobed; anther $\frac{3}{16}$ inch long; capsule reflexed, $\frac{3}{4}$ to $1\frac{1}{2}$ inch long.

Identification Tips: The only other species of *Epipactis* that occurs within the range of *E. gigantea* in the Pacific Northwest is *E. helleborine*. The two can be distinguished by the latter's smaller flowers and its smaller, unlobed lip.

Phenology: The flowering season is from April through July, varying within this time period depending on the climate of the area and yearly weather patterns.

Range: Scattered from British Columbia, Canada, south to Baja California and in most of the western U.S. to the Rocky Mountains and south to northern Mexico. In WA, the species is found on the Olympic peninsula and on both sides of the Cascades. Populations are reported recently from eleven counties, including Asotin, Chelan, Clallam, Clark, Grant, Klickitat, Okanogan, Skamania, Stevens, Wahkiakum, and Yakima. Historically reported in Douglas, Lewis, San Juan, Spokane, and Whitman counties. Occurs statewide in all physiographic provinces.

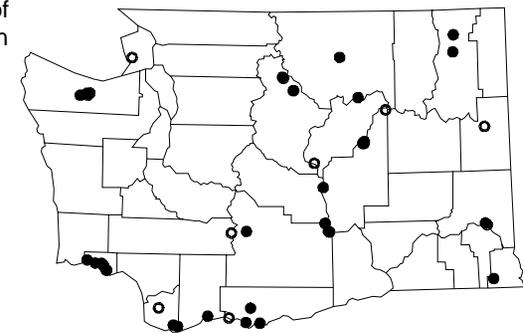
Habitat: Known from streambanks, lake margins, and around springs and seepage areas. The species grows in habitat types that generally have a high density of herbaceous vegetation. The species is sometimes locally abundant, presumably spreading by

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Known distribution of
Epipactis gigantea in
Washington



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

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Habitat (continued): rhizomes along shorelines. Graminoids often provide a significant proportion of the vegetative cover. Shrubby species are often peripheral to the occurrences. There is sometimes a canopy cover of broadleaf, deciduous trees such as red alder (*Alnus rubra*), bigleaf maple (*Acer macrophyllum*) and water birch (*Betula occidentalis*). Elevation 0 to 4000 feet.

Ecology: Although many sites for this species have a relatively dense herbaceous cover, there is generally low overstory cover. Some sites may have been subjected to periodic inundation. Although fire frequency in the vicinity of some sites may be quite high, the microsites would not likely burn as intensely as nearby, drier microsites. The species' response to fire is unknown.

State Status Comments: *Epipactis gigantea* occurrences are widely scattered in the state. The majority of occurrences, however, are located along the Columbia River. Due to extensive manipulation of the river flow many of the occurrences along the Columbia are in areas which have unstable species composition. Some occurrences are rather large, many are small and isolated.

Inventory Needs: Appropriate habitats throughout WA should continue to be inventoried.

Threats and Management Concerns: Changes in the hydro-logic regimes of the known sites is the greatest threat to the species. Other threats include grazing, road construction, deforestation, and development. Also, some sites may be threatened by treatment of lakes and waterways with herbicides.

References:

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