

WRITTEN FINDINGS OF THE WASHINGTON STATE NOXIOUS WEED CONTROL BOARD

Scientific Name: *Lysimachia vulgaris* L.

Common Name: Garden loosestrife

Family: Primulaceae

Legal Status: Class B: a) regions 1, 2, 3, 4, 6, 7, 8, 9, 10
 b) region 5 except King County.
 c) those portions of King County lying north of I-90 and east of the line extending from SR522 to SR 202 to E. Lake Sammamish Parkway; west of I-5 including Vashon Island; south of I-90 and east and south of I-405 to the county line.

Description and Variation: Garden loosestrife is an erect rhizomatous perennial that may attain a height of 1 meter or more. Both stems and leaves are softly hairy. Lance-shaped leaves, 8-12 cm long, occur on the stem in an opposite or whorled arrangement. The leaves are dotted with black or orange glands. The yellow, primrose-like flowers occur in a cluster at the top of the plant. Each flower has five petals and a calyx with reddish-brown margins. The fruit is a dry capsule.

Economic Importance: *Beneficial:* Flavanol glycosides extracted from *Lysimachia vulgaris* var. *davurica* are used in Chinese folk medicine for the treatment of high blood pressure.

Detrimental: Its apparent ability to invade and establish itself in wetlands threatens the native character of this natural resource in Washington. Although, garden loosestrife is only known from King County, its extent on Lake Sammamish indicates it can be significantly aggressive and invasive.

Purple loosestrife, a serious noxious weed in problem in many Washington wetlands, was first documented on Lake Sammamish in 1929. There is good reason to believe the garden loosestrife introduction to Lake Sammamish is considerably more recent. However, in spite of its more recent introduction, observations indicate garden loosestrife is far more abundant and appears to be outcompeting purple loosestrife.

Habitat: *Lysimachia vulgaris* occurs in moist habitats, such as fens, wet woods, lake shores, and river banks.

Geographic Distribution: *Lysimachia vulgaris* is a native of Eurasia, where it occurs in fens, wet woods, lake shores and river banks almost throughout Europe. In North America, it is naturalized in parts of Quebec, Illinois, Ohio, Kentucky, West Virginia, and Pennsylvania. The species appears to be increasing in the Ohio River Valley (Cusick 1986).

In Washington, wild populations of garden loosestrife are currently known from Lake Sammamish and Lake Washington. Scattered clumps of *Lysimachia vulgaris* are known from the north and south end of Lake Washington, but no comprehensive survey has been conducted to determine the extent of the infestation. On Lake Sammamish, garden loosestrife is well established along the northern shores and extends south to Alexander's Resort on the eastern shore and south to Vasa Park on the western shore.

In 1996, infestations were reported in Thurston County (Chambers Lake) and in Skagit County. In 1997, an infestation was reported from Stevens County.

History: The only herbarium collection of *Lysimachia vulgaris* from Washington was made in 1978 by Dr. Bastiaan Meeuse. It is stored at the University of Washington herbarium. The collection comes from the east-northeast corner of Lake Washington near Juanita Junction. Extensive established populations along the shores of Lake Sammamish were observed in 1991.

Growth and Development: *Lysimachia vulgaris* is a rhizomatous or stoloniferous perennial that appears to remain in the vegetative stage for some time prior to blooming. According to Cusick (1986), the presence of a flowering specimen indicates it has been in an area for some years.

Reproduction: Garden loosestrife spreads by seed and rhizome (stolon). The species flowers from July to September.

Response to Herbicides: Response to herbicides is not currently known. Applications of Rodeo® to the Lake Sammamish populations will be monitored for effectiveness.

Response to Cultural Methods: Garden loosestrife has been covered with black plastic at least one site on Lake Sammamish. This may be effective on very small populations or serve as a suppression tool where herbicides are not desired. Other alternatives have not been studied. Since the species has extensive rhizomes, handpulling or digging would be limited to very small infestations.

Biocontrol Potentials: No biological control agents are presently known. No research is currently being conducted.

References:

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*Cusick, A.W. 1986. Distributional and taxonomic notes on the vascular flora of West Virginia. Castanea. 51: 56-65.

*Coffey, V.J. and S.B. Jones, Jr. 1980. Biosystematics of *Lysimachia* section *Seleucia* (Primulaceae). Brittonia. 32: 309-322.

*Dupstadt, W.H. 1977. Some new state records and other plant finds in West Virginia. *Castanea*. 42: 257-258.

*Gleason, H.A. 1952. The New Britton and Brown Illustrated Flora of the Northeastern United State and Adjacent Canada. 3: 38-39.

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**References available from the Washington State Noxious Weed Control Board office in Kent.*

Rationale for listing: *Lysimachia vulgaris* is an example of an exotic introduction to Washington that could have a serious negative impact on the native character of Washington's wetlands. Presently, this species has a limited distribution in Washington; no populations are known from outside King County. The extent of garden loosestrife populations on Lake Sammamish illustrates that this species can be significantly aggressive and invasive. Purple loosestrife was first documented on Lake Sammamish in 1929. There is good reason to believe the garden loosestrife introduction to Lake Sammamish is considerably more recent. However, in spite of its more recent introduction, observations indicate garden loosestrife is far more abundant and appears to be outcompeting purple loosestrife. Control of this species will be complicated by two factors: 1) the species is a rhizomatous (stoloniferous) perennial, and 2) it inhabits environmentally sensitive wetland sites. Therefore, from an economic and environmental perspective, the Washington State Noxious Weed Control Board believes it is advisable to prevent the expansion of garden loosestrife in the state.