

# Invasive Alien Plant Species of Virginia

## Purple Loosestrife (*Lythrum salicaria* L.)

### Description

Purple loosestrife is an herbaceous perennial characterized by long showy spikes of magenta flowers. Usually under 4 feet in height, the plant may reach up to 10 feet tall in nutrient-rich habitats. Purple loosestrife has flowers with 5 to 7 petals which occur in dense clusters on terminal spikes and which bloom from June to September. The leaves are usually opposite or in whorls of 3, lance-shaped, and without teeth. The plant is a member of the loosestrife family (Lythraceae) and may be confused with other members of that family, particularly with the native winged loosestrife (*Lythrum alatum*), which is rare in Virginia. Winged loosestrife, however, is generally smaller in height, averaging about 2 feet, has alternate leaves on the upper portion of the stem, and has fewer, more widely-spaced flowers. Purple loosestrife is virtually indistinguishable from another Eurasian species, *Lythrum virgatum*, and its cultivars.

### Habitat

Purple loosestrife occurs in a variety of wetland habitats, including wet meadows, marshes, river banks, and the edges of ponds and reservoirs.

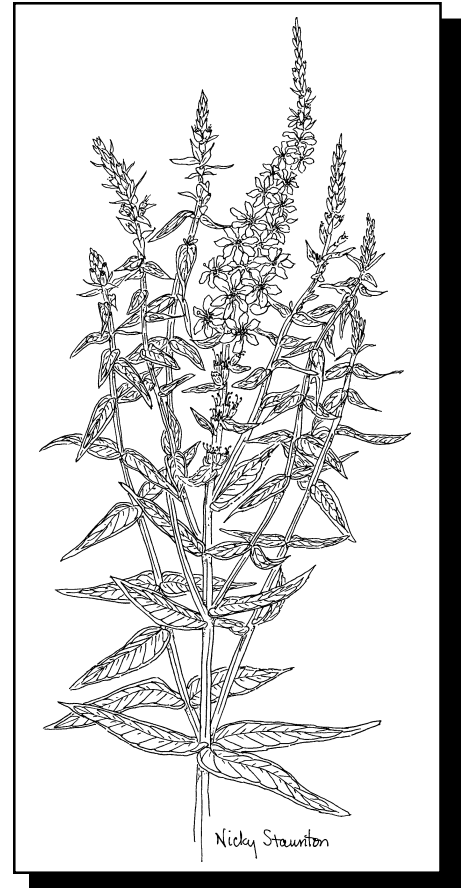
### Distribution

A native of Eurasia, purple loosestrife was introduced into the

northeastern U.S. and Canada in the early 1800's. The plant has subsequently spread westward and southward through most of temperate North America. Purple loosestrife is infrequent but widespread in Virginia, where it is known from 32 counties.

### Threats

According to most reports, purple loosestrife crowds out native wetland vegetation, such as cattails, grasses, sedges, and rushes. The plant thrives in disturbed wetlands but also invades natural wetland communities. It often forms extensive monospecific stands in place of a diverse mixture of native species which provide the food and shelter required by many species of native wildlife. Purple loosestrife itself is of little or no value to wildlife. Purple loosestrife may have achieved its widespread distribution due to its lack of natural predators in North America, as well as its reproductive capabilities. A single stalk may produce as many as 300,000 seeds, and densities of up to 80,000 stalks per acre have been reported. The species also readily reproduces from stem or root segments. Cultivars of *Lythrum salicaria* and the closely related Eurasian *Lythrum virgatum*, are widely sold by commercial nurseries. Many of these cultivars are



*Purple Loosestrife* (*Lythrum salicaria* L.)

advertised as being sterile. The results from research have shown that these commercial cultivars are highly fertile both when crossed among themselves and with wild purple loosestrife populations. Thus, these cultivars can be contributing to the spread of purple loosestrife in the wild, although this has not been conclusively demonstrated.

### Control

Accurate identification through field guides or a knowledgeable person

For more information, contact the Department of Conservation and Recreation or the Virginia Native Plant Society.



Department of Conservation & Recreation  
CONSERVING VIRGINIA'S NATURAL AND RECREATIONAL RESOURCES  
217 Governor Street, Richmond, VA 23219  
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### Virginia Native Plant Society

Blandy Experimental Farm  
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Mark R. Warner, Governor • W. Tayloe Murphy, Jr., Secretary of Natural Resources • Joseph H. Maroon, Director, Department of Conservation and Recreation

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should be made before control measures are begun. Early detection of the plant is important as small populations are more successfully controlled than large, entrenched populations. Small populations of purple loosestrife may be removed by hand pulling. This method should be avoided after flowering so as not to scatter seed. Pulled plants should be bagged at the site so that fragments are not dropped along the exit route. Burning is the preferred method of disposal. Follow-up treatments may be needed in subsequent years to remove new plants which sprout from seed persisting in the ground. Digging plants out is not recommended as this creates disturbance, which may favor the spread of the species. Where mechanical removal is not feasible, purple loosestrife may be removed by spot application of glyphosate herbicide to individual plants. As glyphosate is a nonselective herbicide, it should be used sparingly to avoid contact with desirable species which may grow beneath the loosestrife. These

species will be important for recolonizing the area after loosestrife has been removed. As with mechanical control methods, follow-up treatments may be needed in subsequent years to remove new plants which have sprouted from the seed bank.

### Suggested Alternatives for the Garden

A growing interest in ecologically-informed gardening has brought about greater commercial availability of native plants suitable for the garden. Some species which are similar in appearance to purple loosestrife but are not invasive to natural areas include the following: obedient plant (*Physostegia virginiana*) produces flowers shaped like dragon heads and the seed are a source of food for songbirds. The pink flowers of spiked blazing star (*Liatris spicata*) and button blazing star (*Liatris squarrosa*) provide food for butterflies and hummingbirds, and the seeds are eaten by songbirds. Whenever buying native species of plants,

check that they are nursery-grown from seed and not taken from the wild. Collecting plants from the wild for resale can damage ecological communities and assist further spread of invasive species.

### References

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**Illustration by Nicky Staunton.**

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