Purple Loosestrife *Lythrum salicaria*

Purple loosestrife is an herbaceous perennial with a square woody stem. The leaves are lance shaped and are oriented opposite and/or whorled around the stem. They are also heart shaped at the base of the leaf. Loosestrife grow 4-10 feet tall depending on conditions. Flowers bloom between June and September. These showy flowers are magenta in color and form a spike 4 – 20 inches tall. Individual flowers have five to seven petals. Flowers give way to fruits that contain approximately 100 tiny dark seeds. A single plant can produce 2.5 million seeds in a single growing season and seed banks can be viable for up to 30 years. Loosestrife reproduces by seed dispersal and vegetatively along underground stems, which can grow about one foot a year. A single rootstock can have 30 – 50 stems attached to it. Loosestrife needs the temperature to be above 20°C. It has a high temperature for many different habitats but prefers areas inundated regularly with water, such as wet meadows and floodplains and usually in open fields where there is plenty of sunlight. It is not successful in saline wetlands.

**Native Alternatives**

- Small Bladderwort (*Utricularia gibba*)
- Tasselflower (*Drosera binata*)
- Spotted Lemma (*Lemma maculata*)
- Green Arrowhead (*Sagittaria sagittifolia*)
- Eastern Serpentine (*Saxifraga aginashi*)

**How can you remove it from your garden or property?**

- Individual plants can be hand-pulled before seed set
- Larger stands are more difficult to control or eliminate
- Do not cut the root because disturbance can cause spreading
- Stands can be cut low on the stem and then the remaining stem burned because it can re-sprout from remaining root tissue
- A glyphosate herbicide (Roundup) has been successful for spot treatments
- Use care when applying herbicides. Most are non-specific and can damage any other surrounding herbaceous plants.
- If Purple loosestrife is found near a water source be sure to use a herbicide that is safe to use in or near water.

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Winged Euonymus; Burning Bush *Euonymus alatus*

Burning Bush is a multi-stemmed, fast growing, woody shrub that can reach heights ranging from 8 – 23 feet. The bark is grey to brown in color. Leaves occur opposite along the branches. They are suborbicular, elliptical – ovate and have finely toothed margins. They are approximately 8 cm long and are dark green in the summer then turning to a purplish red – scarlet in the fall. The autumn color is where the name burning bush originates. The stems have distinctive rectangular, corky wings (approximately 2-4 wings per stem). The flowers are small and inconspicuous yellow – green flowers. They have four petals and appear in clusters at stem branches between April and June. The fruits are smooth 1-4 lobed capsules, which are red-purple and aid color to the shrub in late summer. The fruits mature between September and October when they split open and reveal four red-orange seeds, which will continue into January. The seeds are eaten and dispersed by birds.

**Where does the plant originate? Why was it brought to the United States? What is its distribution?**

- Native to China and Japan
- Introduced in 1680 as an ornamental landscaping shrub
- It can be found along the eastern coast of the United States from New Hampshire to Georgia then west through the Great Lakes states and the mid western plains

**What problems does it cause?**

- Threatens a variety of habitats: forests (upland and moist), coastal scrublands, and prairies
- Toleration of a variety of soil types, pH values, and salt Tolerance of areas in full shade
- Forms dense thickets that displace native woody and herbaceous plants
- Forms a "seed shadow," young seedlings have to ability to grow under and in the shadows of parent plants
- Can have long term effects on plant populations by shading tree seedlings and seedlings
- Has the ability to change a prairie land into a scrubland ecosystem
- Altering the ecosystems will change habitat and food source availability to native birds and animals
- Is able to reproduce by root suckers and birds aid in spreading by eating seeds

**How can you remove it from your garden or property?**

- Plants up to two feet tall can be pulled out by hand preferably after rain when the soils are moist
- Larger plants can be dug out with weed pulling tools
- Cutting stems close to the ground and then burning out the stump or constant cutting of regrowth is effective
- A wide variety of herbicides can be applied either as foliar sprays or to cut stumps
- Herbicides: glyphosate, imazapyr, triclopyr
- Herbicides should be applied in the early summer months

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**References**