

## **Purple Loosestrife: An Invasive Wetland Plant**

*Lythrum salicaria L.*

Common Name: Purple Loosestrife

### **Biology**

Purple loosestrife is an herbaceous, wetland perennial plant, with numerous angled stems growing to lengths of six feet. Attached directly to woody, four-sided stems are long, lance shaped leaves covered with fine hairs. The arrangement of the leaves can be whorled, opposite, or spiraled. Flowering occurs from late July to September, creating numerous bright purple flowers on long spikes. Flowers have between 5-7 petals. Fertilized flowers produce fruit capsules containing numerous reddish-brown seeds.

### **Reproduction**

Purple loosestrife can reproduce sexually by prolific seed dispersal and asexually by vegetative reproduction. Of the two, seed dispersal is more common. Each plant can produce over million seeds with a 60-70% survival rate. Due to their small size, seeds are easily dispersed by adhering to wildlife. Furthermore, seeds may remain viable in the soil for several years. Although less common, vegetative reproduction occurs by cuttings and shoots.

### **Habitat**

Believed to originate from Europe, this species has invaded most states, excluding Florida, Arizona, Louisiana, Georgia, Alaska, and Hawaii. Purple loosestrife is a generalist species; therefore, it has a wide range of environmental tolerances. It is often the first species to invade a disturbed site. It commonly found on freshwater shorelines and banks, coastal grasslands, herbaceous and shrub wetlands, gardens, and yards. Although it can grow in a range of soil conditions, water fluctuations, and water qualities, this species grows prolifically in moist soils.

### **Impacts and Threats Posed by Purple Loosestrife**

Purple loosestrife invasions severely alter ecosystems. The dense mono-stands formed by Purple loosestrife completely exclude native plant species. Additionally, Purple loosestrife does not provide ideal habitat or food for native wildlife. Therefore, the native wildlife is forced to relocate or perish. Ultimately, this event diminishes biodiversity. Furthermore, the dense mono-stands clog wetlands and water bodies by reducing flow and collecting sediment. Thereby, impacting flood retention and the residential and commercial use of invaded habitats.

### **Management Methods**

General management methods include:

- mechanical removal
- biocontrol
- herbicides
- inundation

## Literature Cited

1. <http://www.mass.gov/dcr/watersupply/lakepond/factsheet/Purple%20Loosestrife.pdf>
2. <http://www.gri.msstate.edu/ipams/Species.php?SName=&CName=Purple+loosestrife>
3. <http://nbii-nin.ciesin.columbia.edu/ipane/icat/browse.do?specieId=72>