

Semi-
Aquatic
Invasive
Plant

Purple Loosestrife

Lythrum salicaria



What is it and Why is it a Problem?

Purple Loosestrife is a perennial flowering plant that invades disturbed areas of lakeshores, rivers, roadside ditches and wetlands. It spreads easily due to 2.7 million highly viable seeds which are produced annually and dispersed by wind, animals (including humans), and water currents. In addition, it can spread via cut stems and roots which grow to create new neighbouring plants. It forms dense mats of roots that cover vast areas and outcompete native plants for nutrients and space, as well as degrade habitat for native birds, insects, fish and other species.



How Can it be Managed?

Prevention

- Report sightings of any invasive species online through [EDDMapS Ontario](#), a web-based mapping system which also has an app, or through the [Invasive Species in Ontario](#) project on [iNaturalist.org](#).
- Stay on the trail and keep pets on a leash to avoid unintentionally spreading the seeds.
- Do not buy, sell or plant Purple Loosestrife Yellow in your garden. Purple Loosestrife can look similar to native Fireweed (*Epilobium agustifolium*), Blue Vervain (*Verbena hastata*), Blazing Stars (*Liatris* spp.), Winged Loosestrife (*Lythrum alatum*) and Swamp Loosestrife (*Decodon verticillatus*) - ensure you know the difference between invasive Purple Loosestrife and these natives and remember to only plant native plants in your garden.



What Does it Look Like?

- Flowers have 5 - 7 pink-purple petals about 10 mm long with yellow centres, located on flower spikes at the top of the stem
- Leaves are downy, smooth-edged, whorled, arranged opposite, and 3 - 10 cm long
- Stems are woody, square, and produced via one horizontal stem underground, called a rhizome, which erects 30 - 50 stems
- Seeds are as small as a grain of sand, numerous and contained in capsules
- Can grow up to 2.4 m tall and 1.5 m wide

Removal

Hand pulling is recommended for young, small stands and should be done in June, July and early August when it is in flower (before it goes to seed). Make sure you remove all the entire rootstock when hand pulling or excavating. Usually, moist soil is easiest for efficiently removing roots. Mowing or cutting can be conducted but should be done before the plant goes to seed and needs to occur multiple times in a season. Ensure that you dispose of cuttings and wash machinery in between. Another option for larger and harder to manage infestations is biocontrol through the use of commercially available *Galerucella californiensis* and *G. pusilla* beetles which feast on the plant's leaves, stems and buds. So far, there have been no known non-target implications of using these beetles and they have been proven effective at reducing the population size of Purple Loosestrife by 90%. One last option for very persistent infestations is herbicide application, but just make sure you check the [Ontario Government's Allowable List of Pesticides](#) and follow the Ontario Pesticides Act and Ontario Regulation 63/09 and local by-laws. Keep in mind that herbicides are not recommended for use in wetland and lake areas due to difficulties that arise in protecting non-target species in aquatic ecosystems. Refer to OMNRF's [Purple Loosestrife Best Management Practices in Ontario](#) for a full description on how to manage Purple Loosestrife and ensure you follow [OMNRF's rules](#) regarding invasive species removal.

Disposal

Dispose of Purple Loosestrife by collecting the plant pieces in a black sealed bag and drying them out for 1 -3 weeks. After this, the plant pieces can be brought to a landfill. Do not compost in your backyard - only compost at a designated composting facility if your municipality has one.

References

[Great Lakes Nonindigenous Species Information System](#), produced by the National Oceanic and Atmospheric Administration

[Grow Me Instead \(Southern Ontario\) Brochure](#), produced by the Ontario Invasive Plant Council

[Methods to Control Invasive Species](#), produced by Credit Valley Conservation

[Ontario Invading Species Awareness Program](#), developed by the Ontario Ministry of Natural Resources and Forestry (MNRF), and the Ontario Federation of Anglers and Hunters (OFAH).

[Purple Loosestrife Best Management Practices in Ontario](#), produced by the Ontario Invasive Plant Council

[Purple Loosestrife: What You Should Know, What You Can Do](#), produced by Ontario Federation of Anglers and Hunters and Ministry of Natural Resources and Forestry

