

Solving the Mystery of ‘Morden Pink’ Loosestrife

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Purple loosestrife (*Lythrum salicaria*) is an aggressively invasive perennial weed that is found throughout much of New York State. This attractive summer flowering species has been planted as an ornamental for many years in gardens and amenity areas. Its attractive purple and pink flowers form dense showy spikes. The combination of pink/purple spikes and long-lasting summer flowering has made purple loosestrife a desirable plant over the years. Unfortunately, it is a prolific seed producer and when seeds get established in fresh water wetlands and the edges of ponds and lakes, the mature plants create such a dense underground network of roots and rhizomes that any native vegetation is excluded. Because of this invasive behavior, as of 2015, *L. salicaria* has been prohibited for sale, transport or planting in New York (6 CRR-NY 575). That part is straight forward. Now for the mystery!

The only other *Lythrum* species that even slightly resembles it is *Lythrum virgatum* L. (wand loosestrife). Although not native to North America, *L. virgatum* is rarely grown and the species is not considered invasive *per se* (in NY). The *Lythrum* cultivar ‘Morden Pink’ is supposedly a mutant form of *Lythrum virgatum* L. (wand loosestrife) that was obtained in 1934 from plants grown at the Agricultural Research Station at Morden, Manitoba. However in 1992, Canadian researchers re-examined the original pressed specimens

and found that most of them were ‘all clearly selections of *L. salicaria*’. So, if this is correct, then the assumption that Morden Pink is an exempt cultivar has been based on false information from the beginning. Since the current regulation in New York (6 CRR-NY 575.8) states that ‘a plant cultivar whose parent species is a prohibited invasive species’ is also prohibited. This would strongly indicate that the several Morden cultivars ‘Morden Pink, Morden Gleam and Morden Rose’ are not exempt from prohibition.

In 2018 we had an opportunity to evaluate some plant samples that were brought in by either nurseries or plant inspectors. Each of the three samples were thought to be ‘Morden Pink’. I began by trying to find a botanical description of ‘Morden Pink’. I simply wanted to know what makes it different from either *L. salicaria* or *L. virgatum*. After reaching out to well-known horticulturists and botanists, I came to the conclusion that it has not ever been described botanically in the literature. That left me to examine the characteristics of the two species. This is where I found a ‘litmus test’ to separate them. According to six taxonomic sources, all agree that *L. virgatum* is entirely or nearly *glabrous* (smooth) throughout: leaves, stems and inflorescences. They also describe *L. salicaria* as variable but usually mostly pubescent, but occasionally can be nearly glabrous. So.... if a sample has pubescence on the



Pubescence (hairs) cover the leaves and stem of purple loosestrife



Summer flowers of purple loosestrife (prohibited in NY)

leaves or flower parts, then it is likely in *L. salicaria*. If it is even slightly pubescent, it can't be *L. virgatum*. All three samples had some level of pubescence on the leaf margins and the flower parts. Additionally, we were able to have the fresh tissue of each sample (plus a wild type) tested by a colleague at the Cold Spring Harbor Lab for DNA analysis.

The results were that all samples tested positive for being members of *L. salicaria* species.

This confirms the fairly easy test of presence of pubescence as one that can at least eliminate *L. virgatum* as a possibility.

So, it appears that the currently available plants being sold as 'Morden Pink' are in fact selections from *L. salicaria* and therefore are prohibited from sale in New York.

Literature of interest:

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