

LAKE OAKLAND PURPLE LOOSESTRIFE ALERT

- Purple loosestrife (see picture) is a large, perennial, wetland plant that can grow up to 9 feet tall. It was introduced to the northeastern United States and Canada in the 1800s from Europe.
- Take a cruise around Lake Oakland in August and you will see numerous blooms of purple loosestrife. It has been a very good year for their growth!




Figure 3. Purple loosestrife: a) inflorescence (UGA1291004); b) flowers (UGA1291005); and c) seeds (UGA1291006).

- Purple loosestrife invades natural and disturbed wetlands, such as stream banks, lakeshores, marshes, bogs, fens, sedge meadows, canals, drainage ditches, reservoirs, riparian meadows, wet prairies, and sub-irrigated pastures.
- Once established, purple loosestrife quickly crowds out most native vegetation. At high densities, purple loosestrife can create near-monocultures. In addition to the loss of native biodiversity, purple loosestrife harms waterfowl nesting habitat, reduces water flow and quality, inhibits transportation, and degrades fishing areas.
- Purple loosestrife spreads primarily by seeds. Seeds are dispersed by floating on streams, by birds, wildlife and livestock. In addition to spread by seeds, purple loosestrife also spreads vegetatively. Root fragments cut from the plant can produce new plants and stem pieces may generate new infestations when they float downstream and lodge against a streambank.
- Successful management of purple loosestrife is an intensive process. Herbicides approved for use around water provide short-term control of small infestations or isolated plants but is impractical and uneconomical against large infestations.

WHAT THE LAKE BOARD IS DOING TO ADDRESS PURPLE LOOSESTRIFE

- Biological control is one of the most widely implemented biocontrol of weeds programs in North America. We are working with the Kalamazoo Nature Center to supply us with Black-margined loosestrife beetles that feed exclusively on loosestrife leaves:

Insect Type	Scientific Name Common Name	Appearance
Leaf beetle	<i>Galerucella californiensis</i> (L.) Black-margined loosestrife beetle <i>Galerucella pusilla</i> Duftschmidt Golden loosestrife beetle	

- Ten pots of beetles were planted in June at two Lake Oakland sites (islands in the Sashabaw Creek in-flow and Leggett Lake). Beetles usually begin to show progress around the third year. We are planning to introduce more beetles each year up to that third year for best results, as this will help the beetle population build to a point where they can begin to spread around the area.

WHAT LAKE RIPARIANS CAN DO TO HELP?

- Pulling small, individual plants is feasible (a or b in Figure 4); pulling large plants is very difficult (c in Figure 4). Therefore, you can effectively monitor your lakefront area for emergence of purple loosestrife. There are several properties around Lake Oakland that currently have individual blossoming loosestrife plants (b in Figure 4).

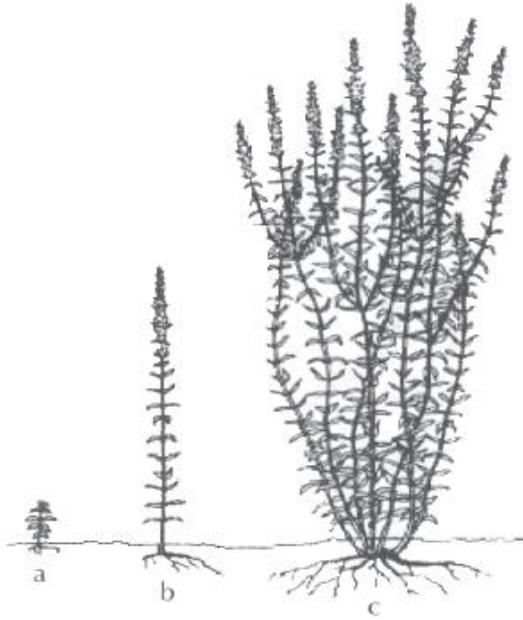


Figure 4. Purple loosestrife: a) seedling, b) one-year-old plant, and c) three-year-old plant.



Figure 5. Purple loosestrife sprouting from rootstocks amid previous year's dead stems. (UGA1291009)

- **Here is what to do:** Carefully pull (or dig) plant from ground in order to capture the entire root, which tends to grow horizontally away from the base of the stem. Let plant dry, then place in garbage (not lawn & leaf bags!).

More detailed information can be found in [Biology and Biological Control of Purple Loosestrife](#) by the USDA Forest Service.