

BWSR Featured Plants

Name: Native loosestrifes (*Lysimachia*)

Plant family: Primrose (*Primulaceae*)



Left: Fringed loosestrife (*Lysimachia ciliata*) typically blooms June through August. **Photo Credit:** Katy Chayka **Center:** Swamp loosestrife (*Lysimachia thysiflora*) typically blooms May through July. **Photo Credit:** Peter Dziuk **Right:** Prairie loosestrife (*Lysimachia quadriflora*) typically blooms July through August. **Photo Credit:** Katy Chayka

While they share the common name “loosestrife,” a group of plants unrelated to the invasive purple loosestrife (*Lythrum salicaria*) can be useful in habitat restorations. Six indigenous species of *Lysimachia* plus three non-native garden species thrive in Minnesota. There is a native loosestrife suitable for almost any wet location — including prairies,

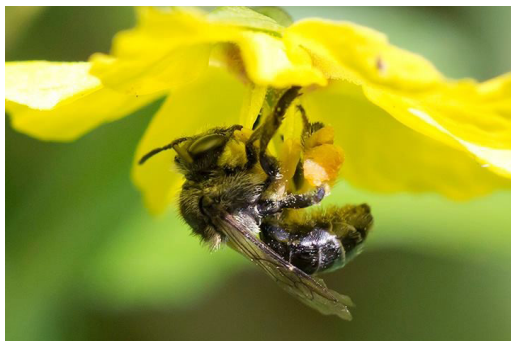
woodlands and wetlands. The spreading growth habit of this group makes them ideal for stabilizing erosion-prone areas. Their yellow flowers provide an important pollen and oil resource for the rare *Macropis* oil bee. The *Macropis* bee is, in turn, host for the even more rare (and declining) cleptoparasitic bee *Epeoloides pilosula*.

Identification

Species in the genus *Lysimachia* are rhizomatous, herbaceous plants with ovate to lance-shaped leaves in a predominately opposite arrangement along the stem. Bright to pale-yellow, five-petaled flowers rise on stalks from leaf axils. Some of the more common species, such as *Lysimachia ciliata*, produce flowers that point face-down.

Importance to Bees

Of special note is the parasitic bee *Epeoloides pilosula*, which parasitizes the nests of *Macropis* bees by depositing eggs in provisioned nests. These eggs hatch, and then kill the *Macropis* larvae and consume the pollen provision. *E. pilosula* was once widespread in the eastern U.S., but has only been detected a handful of times in the past 50 years. It is endangered in Connecticut, likely due to the



A *Macropis nuda* female visits a fringed loosestrife (*Lysimachia ciliata*) flower at the Eloise Butler Wildflower Garden in Minneapolis. **Photo Credit:** Joel Gardner

increasing rarity of its *Macropis* host, and is likely on the verge of extinction. While more research is needed to understand the

best strategies for conserving these bees, *Lysimachia* will remain an important resource in this increasingly threatened system.

Uses

Lysimachia species' rhizomatous growth habit and preferences for wet areas make them excellent choices for restorations in wet prairies, riparian zones, shorelines and wetlands. The blooms of *Lysimachia ciliata* produce no nectar, but are known to be the sole pollen host for bees in the genus *Macropis* (oil bees). Oil bees use the pollen and floral oils to construct nests and as an additive to the pollen provisions they provide to larvae. *Macropis nuda* is the

best known of these species, but Minnesota is home to at least three others: *Macropis steironematis*, *Macropis ciliata*, and *Macropis patellata*. While we lack data on the distribution and abundance of *Macropis* species, it is generally agreed that their rarity and highly specific floral association makes them a group of conservation concern. Other pollen-foraging bees known to visit *Lysimachia* species include small metallic sweat bees (*Lasioglossum*).

Habitat

All *Lysimachia* species prefer moist conditions. Their sunlight preference ranges from shade to open fields. Bloom time also varies by species, but generally tends to be early to mid-summer. Of the three most commonly available species through Minnesota native seed providers, fringed loosestrife,

Lysimachia ciliata is the most widely distributed in the state. It also can be seen in Twin Cities-area gardens. Prairie loosestrife, *Lysimachia quadriflora*, and tufted loosestrife, *Lysimachia thrysiflora*, are broadly distributed in the state, but more difficult to find from seed companies or nurseries.

Fringed loosestrife (*Lysimachia cilata*), which blooms June through August, prefers wet shady areas along streams, in wet meadows and in wet woods. Prairie loosestrife, AKA four-flower loosestrife (*Lysimachia quadriflora*), blooms July through August in open moist areas such as low

prairies, wetlands, calcareous fens, and marsh margins. It prefers calcium-rich soil. Tufted loosestrife, AKA swamp or water loosestrife (*Lysimachia thrysiflora*), blooms May through July, growing in most wetland types, including bogs, fens, marshes and swamps.

Resources and References

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