

BUYER BEWARE!

Three native plant species have non-native lookalikes that have infiltrated the native plant trade.

Agastache foeniculum vs. *Agastache rugosa*

Common names:

- *Agastache foeniculum*: anise hyssop, blue giant hyssop, lavender hyssop
- *Agastache rugosa*: Korean hyssop, Korean mint, blue licorice, purple giant hyssop, wrinkled giant hyssop, etc.

Both species have leaves that smell of fennel when crushed. Both will freely reseed, but *A. rugosa* is especially successful at spreading by seed, and seeds will continue to germinate for years even after you've eliminated it from your garden beds.

Some native plant sellers have *not* removed seed of *A. rugosa* from their seed mixes of prairie species. Ask before you buy!



photo courtesy of Michael Lynch



In both photos, NATIVE *Agastache foeniculum* is on the left, NON-NATIVE *Agastache rugosa* is on the right.

ABOVE – leaf upper surface.

A. foeniculum (NATIVE, on the left) has sharper teeth on the margin and a darker, glossier leaf surface.

A. rugosa (NON-NATIVE, on the right) has rounder teeth on the margin and a duller leaf surface. The more heart-shaped leaf base is also diagnostic.

The difference in leaf size won't always be diagnostic. Lower leaves on *A. foeniculum* may get quite large.

LEFT – leaf undersides.

A. foeniculum (NATIVE, on the left) has tangled hairs so densely matted that the underside of the leaf is barely visible.

A. rugosa (NON-NATIVE, on the right) has less dense hairs, often concentrated along the veins. You can also see areoles (round indentations) dotting the surface.

Usually the lower surface of *A. foeniculum* will be whitish or grey from the dense mat of hairs, but this may not be the case early in the growing season.

Be aware that native *Agastache scrophulariifolia* (purple giant hyssop) resembles both of these but lacks the fennel scent. The sepals beneath the petals are green, not purplish as in the other species. See MinnesotaWildflowers.info for images.

***Viburnum trilobum* (or *Viburnum opulus* var. *americanum*) vs. *Viburnum opulus* (or *Viburnum opulus* var. *opulus*)**

- Common names:
- *Viburnum trilobum* (= *Viburnum opulus* var. *americanum*): (American) high-bush cranberry
 - *Viburnum opulus* (= *Viburnum opulus* var. *opulus*): guelder-rose, European high-bush cranberry

Both species have opposite leaves with three deep lobes, flat-topped clusters of white flowers with the outer flowers larger, and tart red fruits. For years, nurseries have been selling the non-native species as the native one. The error is so widespread that in central and southern Minnesota the non-native species has become invasive and is now more common than the native one, which it displaces in natural habitats. The best way to distinguish them is by the glands on the petiole (leaf-stalk).



all photos courtesy of Peter Dziuk of MinnesotaWildflowers.info



LEFT – NATIVE *V. trilobum*, showing the leaf shape and flower cluster. NON-NATIVE *V. opulus* is similar-looking.

MIDDLE – NATIVE *V. trilobum* has glands on the leaf-stalks that are flat-topped or rounded, with a round cross-section.

RIGHT – In NON-NATIVE *V. opulus* these glands are concave, with an elliptical cross-section, often appearing to be stalked.

Celastrus scandens* vs. *Celastrus orbiculatus

- Common names:
- *Celastrus scandens*: American bittersweet
 - *Celastrus orbiculatus*; Oriental bittersweet

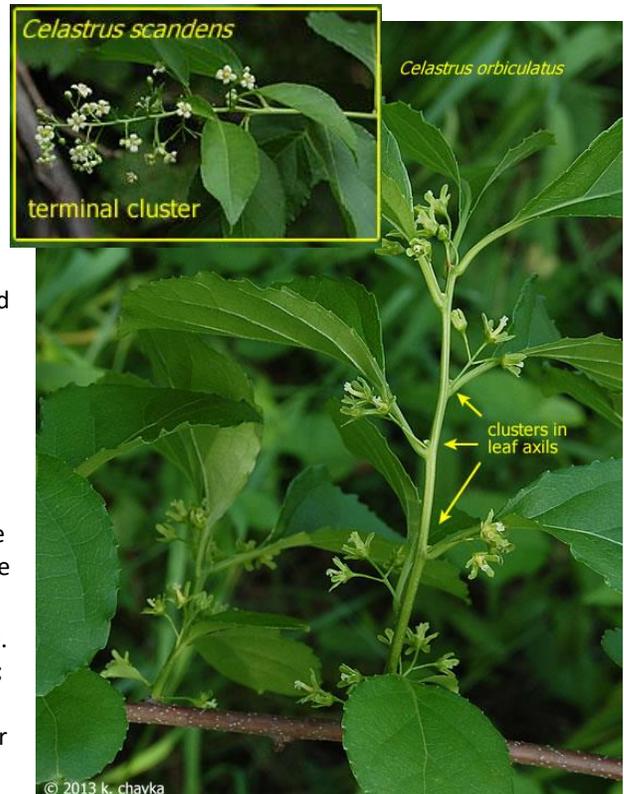
Both species are climbing woody vines, with orange roots and alternate oblong to ovate leaves. Male and female flowers are on separate plants. Non-native *Celastrus orbiculatus* is now ruled a noxious weed in Minnesota and its sale is now banned in this state. However, difficulty in distinguishing the two has resulted in *C. orbiculatus* being sold as the native *C. scandens*!

IMAGE RIGHT – location of flowers.

In NATIVE *C. scandens* (inset), flowers and fruits are borne in long clusters (3–8 cm) at the end of branches (“terminal”).

In NON-NATIVE *C. orbiculatus* (larger image) the flowers and fruits are in small clusters (1–2 cm) borne at the base of leaves along the stem (“axillary”). These clusters may have up to 7 flowers but more typically just 3.

BELOW – leaf shape. The leaves are also slightly different in shape. The leaves of NATIVE *C. scandens* (left) are proportionally narrower; those of NON-NATIVE *C. orbiculatus* (right) are proportionally wider. Also, new leaves of *C. scandens* are curled inward toward the upper surface; those of *C. orbiculatus* are not curled but folded inward.



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