

Plant Diversity Website

***Lonicera sempervirens* L.**

Common Names: trumpet honeysuckle, coral honeysuckle (4).

Etymology: *Lonicera* is named for the 16th century German botanist, physicist and herbalist Adam Lonitzer (also spelled Lonicer). The name *sempervirens* comes from two words: *semper* means “always” in Latin, and *virens* comes from the Latin *viridis*, which means “green.” The term honeysuckle comes from the honey or nectar that can be easily sucked from the flower (3, 4).

Botanical synonyms: *Lonicera sempervirens* L. var. *hirsutula* Rehd., *Lonicera sempervirens* L. var. *minor* Ait., *Lonicera sempervirens* L. var. *sempervirens* L. [superfluous autonym], *Phenianthus sempervirens* (L.) Raf. (1)

FAMILY: Caprifoliaceae, the Honeysuckle family

Quick Notable Features (8):

- the lobes of the corolla are just about equal
- the corolla may be red or yellow outside, but is always yellow inside

Plant Height: The plant quickly reaches a height of 5m (10).

Subspecies/varieties recognized: Two varieties are known: var. *minor* is infrequent and has a corolla only 2-3cm long, while var. *hirsutula* has hirtellous branchlets and strigose-pilose adaxial surfaces to the leaves. The corolla is also pubescent in this variety (4).

Most Likely Confused with: *L. caprifolium*, and it may also be confused with some species of the genus *Euonymus*.

Habitat Preference: It is mostly found in woods and thickets (4).

Geographic Distribution in Michigan: This species is only found in Kalamazoo and Muskegon counties (1).

Known Elevational Distribution: no information found

Complete Geographic Distribution: This species is native to the eastern United States from CT to FL. It has spread to almost every state east of the Mississippi river as well as IL, IA, MO, AR, LA, KS, OK and TX, usually as an escape from cultivation (1, 5).

Vegetative Plant Description: The twining and trailing glabrous, woody stem bears opposite leaves that are glabrous to minutely pilose. The firm leaves are green above and white beneath



with an oblong to elliptic to obovate shape. They are 2.5 – 7.5 cm long and 1.2 – 2 cm wide. The one or two uppermost pairs are connate into a disk below the inflorescence and all the leaves have entire margins. The pith is white and the plant lacks stipules, while the bark is smooth and does not peel, except in the oldest stems. The twigs are light yellow-green or light green and become light orange-brown or light yellowish green or gray with age. Both terminal and axial buds are present, and the scales are imbricate, light brown and glabrous. The leaf scars are thin-crescent shaped (4, 12).

Climbing Mechanism: Darwin noted that all members of the genus *Lonicera* climb with the apex of the plant, moving dextrally (left to right) or, as Darwin referred to it “with the sun” (9).

Flower Description: According to Fernald the flowers are in mostly “2-6 sessile remote (indistinct) whorls, forming interrupted spikes.” The calyx and corolla are fused, as can be seen in the image to the right. The 4-5.5cm long corolla is “slenderly trumpet-shaped, nearly regular, with subequal, short, rounded, erect lobes” that are deep red and rarely orange to yellow on the outside, but always yellow on the inside. The lobes are much shorter than the tube. The 5 stamens and 1 style are barely exerted. The gynoecium is fused into an inferior ovary and has 2-3 locules (4, 5, 6, 12).



Flowering Time: In the northeastern and central United States and adjacent Canada it is known to flower from late March to July (4).

Pollinator: Honeysuckles are favorites among hummingbirds and the long, narrow, red throat of the trumpet honeysuckle is a classic example of a hummingbird-pollinated plant. Red, orange and deep pink naturally attract hummingbirds, as does the tubular shape. In the east, the plant is pollinated by ruby-throated hummingbirds, while the plant attracts Anna’s, black-chinned, Rufous and broad-tailed hummingbirds in its western range (13, 14).

Fruit Type and Description: The fruit is a glabrous, orange-red to red berry. It is usually 6-7mm in diameter and personal observations show that the calyx is persistent. A young fruit can be seen in the image (4).



Seed Description: The several seeds are 4-4.5mm long and 3-3.5mm broad (4).

Dispersal Syndrome: The small, “attractive red, orange or black” fruits of the genus *Lonicera* are consumed by birds and the few to many seeds of each fruit are dispersed as the bird travels (7). The most common dispersal agents include *Turdus migratorius*, the robin; *Catharus minima*, the gray-cheeked thrush; *Catharus ustulatus*, Swainson's thrush; *Dumetella carolinensis*, the gray catbird; *Bombycilla cedrorum*, the cedar waxwing; *Cardinalis cardinalis*, the cardinal;

Carpodacus purpureus, the purple finch; *Carduelis tristis*, the goldfinch; *Zonotrichia albicollis*, the white-throated sparrow; and *Mimus polyglottus*, the mockingbird (16). The fruits are consumed by mammals, both large and small, as well, but are not a large part of their diet (15).

Distinguished by: In Michigan *L. sempervirens* is most likely confused with *L. caprifolium*, another escapee from cultivation. They are both distinguished from other species of *Lonicera* by their long corolla tubes; those of other *Lonicera* species do not exceed 2.9cm. To distinguish *L. sempervirens* from *L. caprifolium* one must observe the inflorescences. The inflorescences of *L. sempervirens* are stalked above the terminal connate leaf pair. The flowers have nearly regular corollas and leaves may be slightly pubescent abaxially. In contrast, *L. caprifolium* bears sessile flowers at the base of the connate leaves, and has a bilateral corolla and glabrous leaves. The corollas of *L. caprifolium* are white or purplish, and white within. Some native *Lonicera* shrubs can be distinguished from their invasive relatives by pith color, but a similar convention could not be found to distinguish the climbers.

Sometimes *L. sempervirens* may be confused with *L. japonica*, whose leaves are broader, more yellow-green, hairier, and less glaucous beneath. However, The young stems and leaves of *L. sempervirens* are glabrous, not pubescent. *L. japonica* also has white or slightly yellow flowers, as opposed to the red to yellow outer corolla and yellow inner corolla of *L. sempervirens*. However, the easiest way to distinguish the two species is by observing the pair of leaves below the inflorescence. In *L. japonica* they are distinct; in *L. sempervirens* they are connate around the stem.

This species may also be misidentified as members of the genus *Euonymus*, which have finely serrated leaf margins. The margins of *L. japonica* are almost always entire; however, when they are toothed, the sinuses are rather large and could never be considered “finely serrated” (11).

Other members of the family in Michigan (number species): *Lonicera* – 18, *Diervilla* – 1, *Kolkwitzia* – 1, *Linnaea* – 1, *Sambucus* – 2, *Symphoricarpos* – 3, *Triosteum* – 2, *Viburnum* – 11 (1).

Ethnobotanical Uses: *L. sempervirens* is not very commonly used by humans other than for its attractive flowers. The sap of the plant can be used to treat bee stings. The berries may cause mild to moderate nausea, vomiting, and diarrhea. The leaves can be dried and, oddly, smoked to treat asthma. It is most commonly used to attract butterflies and hummingbirds to one's garden and has been cultivated since 1686 (10, 12).

Phylogenetic Information: The Caprifoliaceae consists of 36 genera. Subclades include Linnaeae (*Dipelta*, *Abelia*, *Kolkwitzia*, *Valeriana* and *Dipascus*), Diervilleae (*Diervilla* and *Weigela*) and an unnamed clade consisting of *Lonicera*, *Symphoricarpos*, and their relatives. Currently, Caprifoliaceae is the only member of the Dipsacales clade, but this organization is somewhat in doubt (2). As it stands, the Dipsacales are part of the Euasterids II, which also contains the Aquifoliales, Apiales, Dipsacales, and Asterales. All are members of the Core Asterids of the Asterid clade, which, along with the Rosids, make up the Core Tricolpates (2).

Interesting Quotation or Other Interesting Factoid not inserted above:

- It has been observed that the seeds of *Lonicera* species remain viable after storage for 15 years in sealed containers, at low temperatures (7).
- Has been cultivated since 1686 (12).
- It is considered endangered in Maine (1).
- Michigan is just barely within the range of this species. Observing its spread in relation to climate change could prove interesting.

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