

Plant Diversity Website

Euonymus obovatus Nutt.

Common Names: Running Strawberry-bush, Running Euonymus

Etymology: *Euonymus* is ancient Greek meaning “good name.” *Obovatus* means obovate, referring to leaf shape (3).

Botanical synonyms: *Euonymus obovata* Nutt., *E. americanus* L., *E. angustifolius* Pursh, *E. muricatus* Raf., *E. sarmentosus* (Nutt.) G. Don, *E. sempervirens* Marshall (7).

FAMILY: Celastraceae (the staff-vine family)

Quick Notable Features:

- Simple, opposite, serrate, obovate leaves.
- Red tuberculate fruit
- Prostrate growth form

Plant Height: Branches reach up to 1m high (3, R.J. Burnham pers. obs.).



Subspecies/varieties recognized: None found.

Most Likely Confused with: Often confused with *E. americanus*. May also be mistaken for *E. fortunei*, *Vinca minor*, and low, trailing individuals of *Lonicera*.

Habitat Preference: The species is found in rich, damp calcareous soils and is shade tolerant. It grows in swamps, woods, thickets, or slopes (1, 3, 9).

Geographic Distribution in Michigan: Prevalent in the southern Lower Peninsula (1).

Known Elevational Distribution: Found in the southern Appalachians of North Carolina, up to 1,200 meters (2).

Complete Geographic Distribution: This native of the eastern United States is found from Georgia to Michigan and New York, and from the eastern coast of the U.S. west to Arkansas and Missouri (2, 5, 11).

Vegetative Plant Description: Low trailing perennial deciduous shrub to prostrate vine, with stems remaining green. Leaves simple, opposite, serrate, obovate to oblong, 3-6cm long, 1.3-3.8cm wide. The leaves are glabrous, thin, opaque, obtuse, with petioles .2 to .4cm long, unlike the one similar species, *E. americanus* (14). Branchlets are 4-sided, growing 30-60cm high (3, 4, 9).

Climbing Mechanism: Sprawler with stems commonly rooting (11, pers. obs. Susu Yuan, 2006).

Flower Description: Flowers are greenish-purple, small, perfect, borne on axillary pedunculate cymes of 2-5. Flowers are 5-merous, 6-8mm in diameter. Sepals are short and flat, uniting at the base. Petals are rounded and broadly spreading. Stamens are short; style short or absent. Stamens borne on a flat disk attached to the calyx. The superior ovary is largely immersed in the disk. Ovary and stigma are 5-lobed (3, 4, 5, 14).



Flowering Time: Late spring (May and June) in Northeastern U.S. (3).

Pollinator (and evidence): Bee and fly pollinated (9).

Fruit Type and Description: The fruit is a 1.5cm wide leathery, tuberculate, 3-lobed capsule that is red when ripe. Each locule has 1-4 seeds; seeds are covered in a fleshy red aril (5).



Seed Description: Seeds are completely covered in fleshy red aril (5).

Dispersal Syndrome (and evidence): Bird dispersed, August thru October (8).

Distinguished by: In Michigan this species is commonly misidentified as a southern species *E. americanus* (1). *E. obovatus* and *E. americanus* share the same general habit. *E. obovatus* has obtuse and petioled leaves and 3-lobed capsules whereas leaves of *E. americanus* are nearly sessile and the fruits are sometimes 5-lobed (3, 12). *E. americanus* has not been reported in Michigan, but its range extends to Ohio and Indiana (2).



Leaf shape comparison between *E. fortunei* (top) and *E. obovatus* (bottom)

E. fortunei is a widely cultivated evergreen shrub to woody vine; the specific form varies greatly depending on cultivar (3, 14). Its leaves are elliptical, coriaceous, and have strong whitish venation beneath; *E. obovatus* leaves are obovate, thin, and have veins that are more or less the same color as the leaf lamina and much less apparent. *E. fortunei* fruits are smooth and globose while *E. obovatus* fruits strongly tuberculate (3, 11).

Vinca minor may resemble *E. obovatus* in general habit. However, *V. minor* leaves are entire, sometimes occur in whorls of four, and the plants bear abundant white stem latex.

E. obovatus may resemble low, trailing individuals of

the genus *Lonicera*. However, *Lonicera* spp. leaves are entire while *E. obovatus* leaves are finely serrate (12).

Other members of the family in Michigan (number species): *Celastrus* (2), *Euonymus* (4).

Ethnobotanical Uses: Decoction of plants taken to clear circulatory or urinary tracts. Also used as a counter to witchcraft (10).

Phylogenetic Information: Families Celastraceae and Lepidobotryaceae belong in the order Celastrales. Celastrales belong in the Eurosids I. They form a monophyletic group with the Malpighiales and Oxidales and are Eudicots. Celastrales are angiosperms (6).

Interesting Quotation or Other Interesting Factoid not inserted above: The name *Euonymus* is ironic due to the genus' notoriety for poisoning cattle (3).

Literature and websites used:

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- 3) Image of fruit © Greg Vaclavek and the University of Wisconsin - Stevens Point.
- 4) Dried leaf image by Robyn J. Burnham, University of Michigan, Ann Arbor, MI.

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