

# Plant Diversity Website

## ***Vicia americana*** Muhl. ex Willd.

**Common Names:** American Vetch (1)

**Etymology:** *Vicia* is Latin for the common name “vetch”. The species name “americana” indicates this type of Vetch is native to the Americas (3).

**Botanical synonyms:** None found in the literature.

**FAMILY:** Fabaceae (Pea family)

**Quick Notable Features:**

- Terminal leaflet has a forked-tendrill or bristle
- Completely herbaceous yet climbing up to 1 m
- Typically has 4-10 purple flowers per inflorescence

**Plant Height:** 20 to 100 cm in length (2).

**Subspecies/variety recognized:** *Vicia americana* var. *truncata* (Nutt.) Brewer; *Vicia americana* var. *angustifolia* Nees (4).



**Most Likely Confused with:** Other legumes

like: *Vicia carolina*, *V. cracca*, *V. tetrasperma*, and *V. villosa*. *Phaseolus polystachios* and *P. vulgaris*. *Pisum sativum*. *Pueraria lobata*. *Strophostyles helvula*. *Wisteria frutescens* and *W. sinensis*, *Amphicarpaea bracteata*, *Apios americana*, *Desmodium rotundifolium*. *Lathyrus japonicus*, *L. latifolius*, *L. ochroleucus*, *L. palustris*, *L. pratensis*, *L. sylvestris*, *L. tuberosus*, and *L. venosus*.

**Habitat Preference:** *V. americana* is commonly found in dry to moist areas, woods with swamps, forests, clear areas, canyons, and meadows. It prefers sandy soils and a variety of soils pH ranging from basic to acidic (5).

**Geographic Distribution in Michigan:** *V. americana* can be found throughout the lower and upper peninsulas of Michigan (1).

**Known Elevational Distribution:** The elevation distribution ranges from 1360 to 3180m in Utah (11).

**Complete Geographic Distribution:** *V. americana* is native to most of the continental United States, Alaska, and Canada. The exceptions are the southeastern states (Kentucky, North Carolina to Louisiana) and the New England states (Vermont to Maine). In Canada, it is found in every province except Nunavut, Newfoundland, New Brunswick, and Nova Scotia. In Mexico, it can be found in the states of Chihuahua, Mexico, and Morelos (1,5,12).

**Vegetative Plant Description:** *Vicia americana* is a perennial plant. The compound leaves, from the base to the tendril, are commonly 7 to 9cm in length, typically glabrous and pinnate, have two sharp and serrate stipules at the base, 4-8 leaflet pairs, which vary in pubescence presence and shape. The leaflets are usually entire (rarely toothed). The leaflets are 1.2 to 1.4cm wide and 2.5 to 3cm long. The secondary veins are “rib-like” and prominent. The stem can climb up to 100cm. The taproot’s depth can reach down to 100cm (1,2,4,13, and 14 (cited in 15)).



**Climbing Mechanism:** *V. americana* uses the tendril of its terminal leaflet to climb (2).

**Flower Description:** The inflorescence has 4 to 10 purple hermaphroditic flowers, each about 15 to 25mm in length. Each flower has a five-toothed calyx tube 3.5 to 5.5mm in length sometimes reported as somewhat gibbous at the base, a 15 to 25mm long bluish-purple corolla, 10 stamens, and an ovary composed of 1 superior pistil with 1 stigma (2,4,8,9,17,20).



**Flowering Time:** *Vicia americana* commonly blooms from May to July (7).

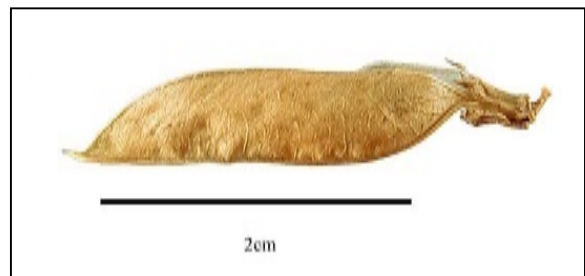
**Pollinator:** Bumblebees are reported to pollinate the flower (16).

**Fruit Type and Description:** The glabrous or hairy fruit is a legume and typically 25 to 35mm long, each containing 8 to 14 seeds. The pods dehisce when they are ripe (2,4,9,19).

**Seed Description:** The subglobose seeds are 3 to 4mm in length (4).

**Dispersal Syndrome:** Not found in the literature.

**Distinguished by:** *Lathyrus* leaflets are typically wider in proportion to their length than *Vicia*'s leaflet proportions. *Desmodium*, *Phaseolus*, *Amphicarpaea*, and *Strophostyles* have 3 leaflets while *Vicia* has 2, 4, or more leaflets. *Pisum* has longer and wider stipules than its lowest leaflets while *Vicia* has smaller stipules than its lowest leaflets. *Wisteria* is a woody vine while *Vicia* is herbaceous. *Apios* has a developed terminal leaflet while *Vicia* has a terminal leaflet commonly represented by a forked-tendril or bristle, and *Pueraria* leaflets have no tendril (1,2).



**Other members of the family in Michigan:** *Wisteria* (1), *Amorpha* (2), *Amphicarpea* (1), *Anthyllis* (1), *Apios* (1), *Astragalus* (3), *Baptisia* (4), *Caragana* (1), *Cercis* (1), *Chamaecrista* (2), *Cladrastis* (1), *Colutea* (1), *Crotalaria* (1), *Cytisus* (1), *Dalea* (1), *Desmodium* (12), *Genista* (1), *Gleditsia* (1), *Glycine* (1), *Gymnocladus* (1), *Hedysarum* (1), *Kummerowia* (1), *Lathyrus* (10), *Lespedeza* (13), *Lotus* (1), *Lupinus* (2), *Melilotus* (2), *Mimosa* (1), *Orbexilum* (1), *Phaseolus* (2), *Pisum* (1), *Pueraria* (1), *Robinia* (3), *Securigera* (1), *Senna* (1), *Strophostyles* (1), *Tephrosia* (1), *Trifolium* (9), *Vicia* (7), *Vigna* (1) [1].

**Ethnobotanical Uses:** American Vetch can be used to revegetate slimmed conifer or burnt areas. Native Americans eat the seeds and seedpods. The crushed and brewed leaves can be applied during baths to treat soreness and can treat spider bites (5,6).

**Phylogenetic Information:** *Vicia americana* is a member of the Fabaceae, subfamily Faboideae. Families Fabaceae, Polygalaceae, Quillajaceae, and Surianaceae form the Fabales order. The Fabales, Rosales, Cucurbitales, and Fagales form a monophyletic group within the Eurosids I within the larger Rosid group. All are eudicots are angiosperms (11).

**Interesting Quotation or Other Interesting Factoid not inserted above:** Native American women have used the brewed leaves as a medicine for love (6).

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