

Plant Diversity Website

Rubus laciniatus Willd.

Common Names: Cutleaf Blackberry (1), Blackberry (2), Evergreen Blackberry, Slashed Blackberry (5)

Etymology: *Rubus* is derived from the Latin for blackberry, bramble, or raspberry. *Laciniatus* comes from the Latin *lacinia* and refers a fringed margin (3).

Botanical synonyms: *Rubus vulgaris* (5), *Rubus fruticosus laciniatus* Weston (8).

FAMILY: Rosaceae (the rose family)

Quick Notable Features:

- Leaves with very jagged margins, close to twice compound
- Shiny black fruits (blackberries)
- Stems covered in broad, curved thorns that are red at the base and yellow at the tip

Plant Height: Grows as tall as 3m (5).

Subspecies/varieties recognized: *Rubus laciniatus* Willd. subsp. *selmeri* (Lindg.) A. van de Beek (7)

Most Likely Confused with: *Rosa multiflora* and *Rosa setigera*, because of the spines

Habitat Preference: Found most often on waste ground, thinned areas, and disturbed forest margins (2, 5). “Commonly associated understory species include thimbleberry (*R. parviflorus*), salmonberry (*R. spectabilis*), huckleberry (*Vaccinium spp.*), deerfern (*Blechnum spicant*), Oregon oxalis (*Oxalis oregana*), and false lily-of-the-valley (*Maianthemum dilatatum*)” (5).

Geographic Distribution in Michigan: Found in four counties in Michigan: Berrien, Kent, Marquette, and Oakland (1).

Known Elevational Distribution: Recorded up to 1700m in Colorado (5).

Complete Geographic Distribution: Naturalized in the United States, but native to Eurasia, *R. laciniatus* is found in two groups of states. The eastern group extends from Missouri southeast to South Carolina and northeast to Vermont, while the western group forms an arc from California north to Washington and south to Colorado (1, 4). The species is cultivated in Hawaii and is widely naturalized in most of its North American territory (5).

Vegetative Plant Description: *R. laciniatus* is an arching shrub that can be semi-erect to erect. The angled, finely pubescent stems are many-branched and trail at the ends. The stems are also covered in broad, curved thorns that are reddish at the base and yellow to white at the tip.



The alternately-arranged leaves are usually palmately compound but can be pinnately compound; each has five serrate, lobed leaflets. These leaflets are pubescent to glabrous above and densely pubescent below and serrate. The leaf margin is sometimes pubescent, and the leaf apices come to a sharp point. Like most *Rubus*, *R. laciniatus* has perennial woody roots and biennial stems (2, 4, 5, 6).

Climbing Mechanism: The scrambling apices are supported by long petioles (2, 4), but the curved thorns also must aid in supporting the plant (pers. obs.).

Flower Description: Flowers of *R. laciniatus* are borne in compound, paninculate cymes. These inflorescences are armed with flat, sickle-shaped prickles. The flowers are white to dark pink, perfect, and 5-merous. The green calyx is armed with slender prickles and each sepal is 8-10mm long, lanceolate, covered in silky hair. The petals are 2-2.5cm long, 3-lobed apically, and terminate abruptly. The many stamens are white-pink, and the mostly connate pistils are greenish pink (2, 4, 5, 6).



Flowering Time: In Illinois, *R. laciniatus* flowers in June and July (6).

Pollinator: *R. laciniatus* is capable of seed development without pollination (5), although it can be pollinated as well. No specific pollinator was found in the literature.

Fruit Type and Description: The mature aggregate fruit is black, 1.5-2.5cm long, 1-2.5cm wide. It is edible, juicy, and sweet (2). In the Northeast, the fruit develops from July to October (5).

Seed Description: Very small (301,762 per kg) (5).

Dispersal Syndrome: Presumably animal-dispersed. The blackberries are known to be consumed by many mammal and bird species (5). The aggregates are delicious (ReBecca Sunday, pers., obs.).

“The mostly biennial stems of blackberries typically develop from perennial rootstocks or creeping stems located aboveground. Most species within the *Rubus* genus are capable of vigorous sprouting from root or stem suckers and rooting stem tips” (5). *R. laciniatus* is known specifically to use adventitious root suckers and nodal sprouting as methods of vegetative reproduction (5).



Distinguished by: The flowers of *Rosa multiflora* are white, but have yellow reproductive parts (as opposed to the pink and green of *Rubus laciniatus*). Furthermore, the petal apices of *R. multiflora* are not three-lobed. The leaves of *R. multiflora* are much more distinctly divided, clearly pinnately compound, and are not twice-compound; the leaves have seven leaflets per leaf as opposed to five per leaf in *R. laciniatus*.

The flowers of *Rosa setigera* are soft pink to bright pink and are rarely white like *R. laciniatus*; furthermore, the petals of *R. setigera* are unlobed and the reproductive parts are yellow. *R. setigera* usually has three leaflets and occasionally five; *R. laciniatus* is just the opposite.

Other members of the family in Michigan: *Rubus* (48), *Agrimony* (5), *Amelanchier* (6), *Argentina* (1), *Aruncus* (1), *Chamaerhodos* (1), *Comarum* (1), *Crataegus* (42), *Dalibarda* (1), *Dasiphorda* (1), *Duchesnea* (1), *Filipendula* (1), *Fragaria* (2), *Geum* (9), *Gillenia* (2), *Malus* (4), *Photinia* (2), *Physocarpus* (2), *Potentilla* (11), *Prunus* (16), *Pyrus* (1), *Rosa* (18), *Sanguisorba* (3), *Sibbaldiopsis* (1), *Sorbaria* (1), *Sorbus* (3), *Spiraea* (6), *Waldsteinia* (1) (source 1).

Ethnobotanical Uses: The fruit is edible (5, 7), and a dye can be obtained from it (8).

Phylogenetic Information: Rosaceae members are found in almost every inhabitable part of the world (1). Within this enormous family, *Rubus* is within the subfamily Rosoideae. Rosaceae falls into the order Rosales, and is closely related to Ulmaceae, the elm family. Rosales fall into the Eusorids I subclade in the Rosid clade. Rosids are core eudicots (9).

Interesting Quotation or Other Interesting Factoid not inserted above:

-Known to hybridize with *R. inermis* (5).

-The seeds need scarification but not cold-treatment. Many cultivars exist for gardeners (5).

Literature and websites used:

- 1) The PLANTS Database: USDA, NRCS, 1991-2007.
<http://plants.usda.gov/java/profile?symbol=RULA>
- 2) Radford, A.E., H.E. Ahles, and C.R. Bell. 1968. *Manual of the Vascular Flora of the Carolinas*. Chapel Hill, North Carolina, USA: The University of North Carolina Press.
- 3) Brown, R.W. 1956. *The Composition of Scientific Words*. Washington, D.C., USA: Smithsonian Institution Press.
- 4) Fernald, M. L. 1950. *Gray's Manual of Botany*, 8th ed. New York, USA: American Book Company.
- 5) USFS Fire Effects Information System. Last modified: September 7, 2007.
- 6) Iverson, L.R., D. Ketzner, and J. Karnes. 1999 – 2007. Illinois Plant Information Network: Illinois Natural History Survey and USDA Forest Service.
<http://www.fs.fed.us/ne/delaware/ilpin/ilpin.html>.
- 7) The International Plant Names Index. <http://www.ipni.org/index.html>
- 8) Plants For A Future. <http://www.pfaf.org/database/plants.php?Rubus+laciniatus>
- 9) Stevens, P.F. Angiosperm Phylogeny Website. Version 7, May 2006.
<http://www.mobot.org/MOBOT/research/APweb>
- 10) Heywood, V.H. 1993. *Flowering Plants of the World*. London: B.T. Batsford

Image Credits (all used with permission):

- (1, 3) Images of leaf and fruit are courtesy Steve Dewey, Utah State University (<http://www.ipmimages.org/browse/detail.cfm?imgnum=1459070>).
- (2) The image of the flower is courtesy of David G. Smith, Delaware Wildflowers (www.delawarewildflowers.org).

PRIMARY AUTHOR: ReBecca J. Sunday

For additional information on Michigan Plant Diversity web pages please contact Robyn J. Burnham via email: rburnham@umich.edu