

# Plant Diversity Website

## ***Rosa canina*** Linnaeus

**Common Names:** Dog rose, dog brier, wild rose (5,6,13).

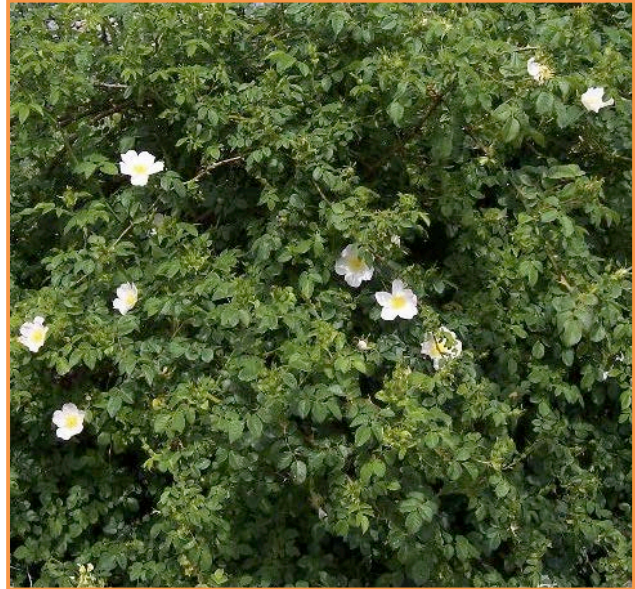
**Etymology:** 'Rosa' is the Latin word for 'rose', and 'canina' in Latin means 'of a dog' or 'mean' (1,3).

**Botanical synonyms:** *Rosa corymbifera* Borkh., *R. dumetorum* Thuill., and *R. ciliatosepala* Blocki (2,6).

**FAMILY:** Rosaceae, the rose family (1)

**Quick Notable Features:**

- Alternate, odd-pinnately compound, serrate leaves
- Conspicuous stipules, fused to petiole
- Showy white/pink flowers with many stamens and pistils in a hypanthium
- Bright red hips with no sepals



**Plant Height:** *R. canina* grows up to 3m tall (10).

**Subspecies/variety recognized (6,7):**

*Rosa canina* var. *dumetorum* (Thuill.) Poir.,  
*Rosa canina* var. *canina* L.,  
*Rosa canina* var. *corymbifera* Rouy,  
*Rosa canina* var. *andegavensis* Arechav.,  
*Rosa canina* var. *evanida* (Christ) P.V.Heath,  
*Rosa canina* var. *frutetorum* (Besser) P.V.Heath,  
*Rosa canina* var. *libertiae* (Dumort.) P.V.Heath,  
*Rosa canina* var. *Montana* (Vill.) P.V.Heath,  
*Rosa canina* var. *sepium* Arechav.,  
*Rosa canina* var. *subcanina* (Christ) P.V.Heath,  
*Rosa canina* subsp. *andegavensis* (Bastard) Vigo,  
*Rosa canina* subsp. *virens* (Wahlenb.) Šmite.



**Most Likely Confused with:** *Rosa eglantheria*, *R. micrantha*, *R. setigera*, *R. multiflora*, and *Rubus* ssp. (1,9).

**Habitat Preference:** The species is found in open, disturbed habitats such as roadsides, old pastures, fields, dry banks, and thickets. *R. canina* requires at least partial sun, and high levels of soil moisture (1,5,9,10).

**Geographic Distribution in Michigan:** The species grows in six counties of the lower peninsula: Benzie, Hillsdale, Kent, Leelanau, Lenawee, and Wayne (2,19).

**Known Elevational Distribution:** In Turkey, *R. canina* grows to 3000m above sea level (13).

**Complete Geographic Distribution:** Native to Europe, *R. canina* is also found in north Africa and southwest Asia. It has escaped from cultivation in the United States (AL, AR, CA, CT, DC, ID, IL, IN, KS, KY, MA, MD, ME, MI, MO, NC, NJ, NY, OH, OR, PA, RI, TN, UT, VA, WA, WI, WV) and Canada (BC, NB, NS, ON, QC) (2,5,10).

**Vegetative Plant Description:** *R. canina* is a tall, fast-growing, deciduous shrub, capable of climbing. The stems are armed with broad-based, hooked thorns, 3-8mm long. The stipules are mostly fused to the petiole, linear, and up to 4mm broad. The leaves are pinnately compound, alternate, usually glabrous, with 5-7 leaflets (1.5-4cm long, 1-2.5cm broad), usually glandless, serrate, acute, and ovate to elliptical (1,8,10,14,15).

**Climbing Mechanism:** *R. canina* climbs using its hooked thorns (16).

**Flower Description:** The terminal, perfect, actinomorphic, aromatic flowers are usually solitary or few, approximately 4-5cm broad. The pedicels, hypanthium, and receptacle are unarmed and glabrous. The five sepals are reflexed, pinnatifid-lobed, deciduous, and less than 3cm long. The 5 petals are white or pink, usually 2-2.5cm long. The globose hypanthium wall is visibly thickened in the region of the 1mm orifice. The disc resembles a nectary, but no nectar has been observed. Each flower has many stamens (1cm long) and many superior pistils. The styles are short, usually glabrous, and distinct (1,8,9,14,17,18).



**Flowering Time:** May-July (1).

**Pollinator:** In addition to being able to self fertilize, insects such as bees, flies, beetles, moths, and butterflies can pollinate *R. canina*, which attracts them with its showy flowers and aroma (10,13,17).

**Fruit Type and Description:** The fruits are hips (a hypanthium enclosing achenes), usually 1.5-2cm long, bright red when mature, and glabrous. The hips overwinter on the plant (9,13,15).



**Seed Description:** The seeds of *R. canina* are asymmetric, yellowish to light brown in color, measuring approximately 2-3mm across its widest point, and 5 mm long, surrounded by hairs. They may take up to 2 years to germinate (2,10).

**Dispersal Syndrome:** Seeds of *R. canina* are dispersed by birds and mammals, which are attracted to the fleshy hip. The plant reproduces vegetatively by layering and cuttings; layering has higher success than cuttings (8,12).

**Distinguished by:** The leaves of *R. canina* are rarely fragrant, while the leaves of *R. eglantheria* are aromatic when crushed, as well as glandular and pubescent. Further, the sepals of *R. eglantheria* are persistent, and the styles are pubescent. In both *R. eglantheria* and *R. micrantha*, the hypanthium wall is not conspicuously thickened in the region of the orifice, as in *R. canina*. *R. micrantha* leaves are glandular, unlike the leaves of *R. canina*, and the base of each leaflet is narrower. The flowers of *R. micrantha* are generally smaller than the flowers of *R. canina*, only measuring about 3cm wide. *R. setigera* and *R. multiflora* are also climbing roses, but in both species the styles are grouped into a distinct pillar with approximately the same length as the stamens. *R. setigera* flowers are usually larger (4-8cm across) than the flowers of *R. canina*, the corolla is pink and the leaves usually have three leaflets. *R. multiflora*'s flower is similar in size and color to *R. canina*, but the inflorescence is a corymb or panicle and *R. multiflora* may have more leaflets (7-9). The hip of *R. multiflora* is red, but smaller (6-9mm long) than the hips of *R. canina*. While species of the genus *Rubus* are also spiny, they bear a flattened hypanthium, the fruit is an aggregate of drupelets rather than enclosed achenes, the sepals are nearly as long as the petals, the leaves are palmately compound, and the stipules free from the petiole (1,9,14).



**Other members of the family in Michigan:** *Rubus* (49), *Crataegus* (42), *Rosa* (17), *Prunus* (16), *Potentilla* (11), *Geum* (9), *Amelanchier* (6), *Spiraea* (6), *Agrimony* (5), *Malus* (4), *Sanguisorba* (3), *Sorbus* (3), *Physocarpus* (2), *Fragaria* (2), *Gillenia* (2), *Photinia* (2), *Argentina* (1), *Aruncus* (1), *Chamaerhodos* (1), *Comarum* (1), *Dalibarda* (1), *Dasiphorda* (1), *Duchesnea* (1), *Filipendula* (1), *Pyrus* (1), *Sibbaldiopsis* (1), *Sorbaria* (1), *Waldsteinia* (1) (source 2).

**Ethnobotanical Uses:** The fruits of *R. canina* are edible and made into syrups, jams, and tea, which can be used as a nutritional supplement. The seeds are rich in vitamin E and can be ground and combined with other foods. A tea can be made from the dried leaves, used instead of coffee. Petals are also edible and may be used to make jams. Petals and hips are used to treat diverse digestive ailments such as gastritis and diarrhea. The hips are also used to treat colds and flu. The seeds are used to expel intestinal worms. A distillation from the plant can be used as astringent lotion for sensitive skin. Mixed with other herbs, *R. canina* water can be used to treat acne, asthenia, cardiopathy, sunstroke, and constipation (5,8,10).

**Phylogenetic Information:** *Rosa* is in the subfamily Rosoideae within the Rosaceae, which is in the order Rosales, a Eudicot clade of the angiosperms. Members of the Rosaceae family can be found worldwide, and the genus *Rosa* is found in north temperate climate zones (4).

**Interesting Quotation or Other Interesting Factoid not inserted above:** In England, the larvae of insects of the genus *Rhodites* produces galls on *R. canina* leaves. The plant was of economic importance in Tunisia, and celebrated yearly with a rose festival (8,11).

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