

Filipendula ulmaria (L.) Maxim.

Standardized Common Name: Meadowsweet

Other Common Name: Queen-of-the-Meadow

Family: Rosaceae

Parts in Commerce: Aboveground parts at flowering (especially leaves and flowers) or flowers alone

Identification:

Leaves

- Stems longitudinally striated or ridged, at least the larger stems hollow
- Leaves pinnately compound, stipulate
- 2–5 pairs of lateral leaflets, widely separated on rachis, with tiny irregularly shaped mini-leaflets borne on the rachis between the pairs of leaflets
- Lateral leaflets ovate, 2–7(–9) cm long, unlobed or occasionally with shallow serrate lobes; venation pinnate
- Lateral leaflet bases rounded to cuneate, often somewhat asymmetrical, sessile on rachis
- Terminal leaflet deeply 3–5-lobed, usually larger than lateral leaflets (3–12 cm long, breadth often equal to or exceeding length)
- Terminal leaflet with basal palmate veins to lobes; secondary venation pinnate; first pair of lateral veins surrounded by blade tissue, not running along lower leaf margin
- Leaflet apices broadly to narrowly acute, rarely acuminate
- Leaflet margins more or less biserrate
- Upper surface of leaves dark green, glabrous
- Lower surface of leaves pubescent with curly white hairs, usually densely pubescent and appearing whitish (subsp. *denudata* is sparsely pubescent with straight hairs especially along veins)

Flowers

- Flowers usually 4–7.5 mm in diameter
- Pedicels and outer surface of sepals more or less softly pubescent
- Petals 5, 2–3(–5) mm long, white to cream or yellowish white, narrowed at base
- Stamens numerous
- Carpels separate, 5–12
- Achenes, if present, twisted and glabrous, not >4 mm long

Adulterants: Wichtl suggests that confusion with *Sambucus nigra* L. (European Elder, cf.) can occur when flow-

ers alone are used. The flowers of *S. nigra* are of similar color and size, but have fused petals, a single inferior ovary rather than separate carpels, and only five stamens, which are fused basally to the corolla.

The second European species of *Filipendula*, *F. vulgaris* Moench, has leaves with more numerous (7+ pairs) and smaller (<2 cm long) leaflets. Its flowers normally have 6 petals, which are >5 mm long and have purple-tinged lower surfaces. The most similar North American species is *F. rubra* (Hill) Robins., which has pink petals; the leaves are not woolly-pubescent, the lateral leaflets are conspicuously lobed, and the terminal leaflet has 7 or more lobes. In both of these, and in several of the Asian species, the basal portions of the first pair of lateral veins in the terminal leaflet are not surrounded by leaf tissue, but run along the lower margin of the leaf.

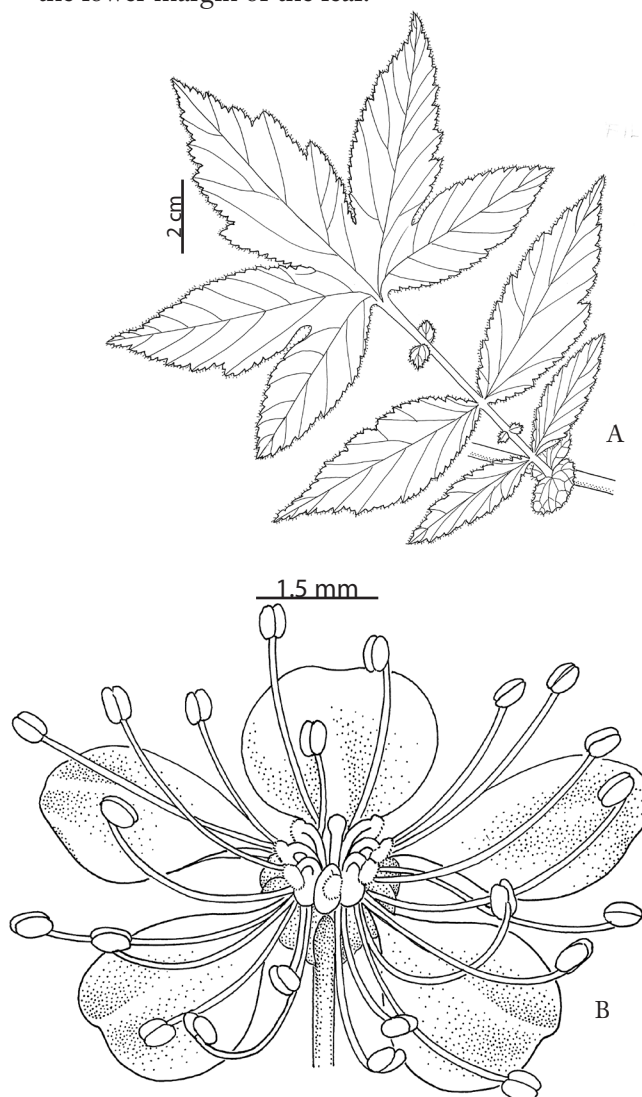


Figure 27: a–b, *Filipendula ulmaria* leaf and flower.

Taxonomy: There are about fifteen species in *Filipendula*, mostly Asian. *F. ulmaria* is one of two European species and is naturalized in North America, where there are also two native species. The basionym is *Spiraea ulmaria* L. A number of synonyms and subspecific names have been generated by the variability of the leaf shape and pubescence. Two subspecies are recognized in the most recent treatment: subsp. *ulmaria* is the typical and most widespread form, whereas subsp. *denudata* (J. & C. Presl) Hayek includes a broad spectrum of plants with reduced leaf pubescence.

Description: Perennial herb to 2 m tall; stems branched or unbranched, often reddish. Leaves alternate, stipulate, pinnately compound with up to 5 pairs of lateral leaflets widely separated on rachis, with pairs of tiny irregularly shaped leaflets borne between them; lateral leaflets 2–8 cm long, ovate to ovate-oblong, unlobed or with shallow serrate lobes; terminal leaflet 3–12 cm long, 3–5-lobed. Leaflet apices broadly to narrowly acute or acuminate; bases of lateral leaflets rounded to cuneate, bases of terminal leaflets cordate; margins more or less biserrate; lower surface white woolly-pubescent or green and sparsely pubes-

cent. Inflorescence paniculiform, many-flowered, lax, variable in shape. Pedicels pubescent; sepals 5, reflexed, pubescent; petals 5 (rarely 6), whitish or yellowish white, 2–5 mm long, basally narrowed; stamens numerous, longer than petals; carpels 5–8(–12), separate, glabrous. Fruits achenes, 2–3(–3.5) mm long, twisted, glabrous.

References:

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