

Epilobium ciliatum Raf. subsp. *ciliatum*, NORTHERN WILLOW HERB, AMERICAN WILLOW HERB. Perennial herb, ± rhizomatous, fibrous-rooted, rosetted, 1–several-stemmed at base, with ascending branches throughout, erect, 20–190 cm tall; shoots often with persistent basal rosette + cauline leaves, sometimes cauline leaves appearing clustered on short axillary shoots, glabrous to glabrate. **Stems:** cylindric, to 15 mm diameter, the lower internodes with ridges descending from leaves, green but becoming purplish red, typically glabrous below and sparsely puberulent with ascending hairs above; periderm on main axis peeling in tough strips. **Leaves:** opposite decussate (basal nodes and at the lower nodes on axillary shoots) and helically alternate, simple, short-petiolate to sessile, without stipules; petiole (0–)1–4 mm long, of larger cauline leaves narrowly winged, the wings decurrent on stem, sometimes with several hairs near stem; blade lanceolate, in range 10–85 × to 15 mm, rounded to broadly tapered at base, shallowly short-serrate or short-dentate on margins, acute at tip, conspicuously pinnately veined with midrib sunken on upper surface and principal veins raised on lower surface, glabrous or with scattered hairs. **Inflorescence:** leafy raceme, many-flowered, with each flower axillary to a sessile, leaflike bractlet; bractlet glabrate to sparsely puberulent with ascending, short, soft hairs and often inconspicuous glandular hairs; pedicel at anthesis < 10 mm long increasing 2× in fruit. **Flower:** bisexual, radial, 4–7 mm across, erect even in bud; hypanthium above ovary, short funnel-shaped, 0.5–1.8 mm long, green, with ascending, short, soft hairs, internally glossy and having a ring of short white hairs below filaments, **nectary** at hypanthium base surrounding style base; **sepals** 4, suberect to ascending, lanceolate to triangular, 2–3(–4) mm long, green but becoming reddish on margins or at tip, acute to acuminate at tip, with midrib continuous from hypanthium, densely puberulent; **petals** 4, typically narrowly heart-shaped, 2–5.3 mm × 1.5–3 mm, white to pink with principal veins radiating from base, when pigmented often with darker veins, the notch at tip to 1.2 mm deep; **stamens** 8 in 2 sets, arising from hypanthium rim, dimorphic; filaments 2–3.5 mm long (opposite sepals) and ± 1 mm long (opposite petals), white or light pink; anthers dorsifixed, dithecal, ± 0.7 mm long, creamy white, of long stamens often touching stigma, longitudinally dehiscent; pollen in permanently united tetrads (visible at 20×), cream-white, held in a mass by minute threads (viscin threads); **pistil** 1; ovary inferior, 4-sided, straight, 15–20 × 0.7 mm, green, in ×-section squarish with 4 shallow vertical grooves, with ascending, short, soft hairs, 4-chambered, each chamber packed with a single stack of many ovules; style thicker than filaments, ± 2 mm long or reaching same height as outer filaments; stigma club-shaped, ± 1 mm long, at same level as outer anthers. **Fruit:** capsule, 4-valved, many-seeded, linear, 30–60 × 1.2–1.5 mm, in ×-section squarish, rounded on angles, shallowly grooved and pubescent on faces, dehiscent along 4 lines from tip, the valves becoming recurved. **Seed:** ± oblanceoloid, 0.8–1.1 × 0.4–0.5 mm, yellowish brown to moderate brown, with ± 20 stripes of minute bumps on outer (dorsal) side, at tip with a clump of ± 30 erect capillary hairs 3–7 mm long, the seed hairs whitish and deciduous. January–December.

Native. A weedy perennial herb commonly found throughout the range, typically in wet places and depressions or where supplemental water is available. *Epilobium ciliatum* is very widespread in North America, and has been introduced elsewhere because light-weight, airborne seeds enable this species to become widely disseminated. This species is

self-compatible and may have anthers of the long stamens touching the stigmas, thus ensuring a high percentage of seed set.

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