

Galium aparine L.

Standardized Common Name: Cleavers

Other Common Names: Bedstraw, Clivers, Goosegrass

Family: Rubiaceae

Parts in Commerce: Whole herb

Identification:

Stems

- Quadrangular in cross-section
- Bearing tiny backward-pointing prickles, usually pubescent at nodes

Leaves

- Mostly 8 per whorl, sometimes 6–10, not 4
- Margins with tiny backward-pointing prickles
- Oblanceolate, mostly 2.5–5(–8) mm broad, mostly 3–6(–7) cm long at maturity
- One main vein from base, not three
- Upper surfaces sparsely hairy with small stiff hairs, not glabrous
- Apex acute or apiculate, not obtuse nor awned
- Taste bitter
- Stamens 4

Flowers

- Flowers borne on pedicels
- Corolla (1–)1.5–2(–3.5) mm in diameter, disk-shaped, not cup-shaped or funnellform
- Corolla white
- Corolla lobes 4, acute but not apiculate

Fruits

- With pale hooked bristles, very rarely smooth (smooth fruits usually belong to *G. spurium*), never pubescent with straight hairs
- Ovate, rounded but not spherical
- Not >5 mm long; usually <3 mm long in *G. aparine* in the strict sense
- Pedicels spreading apart after flowers mature, bent just below fruit but not bent back along their entire length

The following table presents characters that are said usually to distinguish among *G. aparine*, *G. spurium*, and *Galium spurium* f. *vallantii* (DC.) R. J. Moore, but natural variation appears to be more complex and less easily defined. This may indicate that these different forms would be better interpreted as belonging to a single species complex than as being distinct species.

	<i>G. aparine</i> in the strict sense	<i>G. spurium</i>	<i>G. spurium</i> f. <i>vallantii</i>
Flower diameter	usually 1.5–2 mm	1–1.5 mm	1–1.5 mm
Flower color	white	greenish-yellow	greenish-yellow
Fruit size	3–5 mm	1.5–3 mm	1.5–3 mm
Fruit pubescence	hooked spines; rarely smooth	smooth	hooked spines
Maximum leaf size	6(–7) cm X 8 mm	4 cm X 4 mm	4 cm X 4 mm

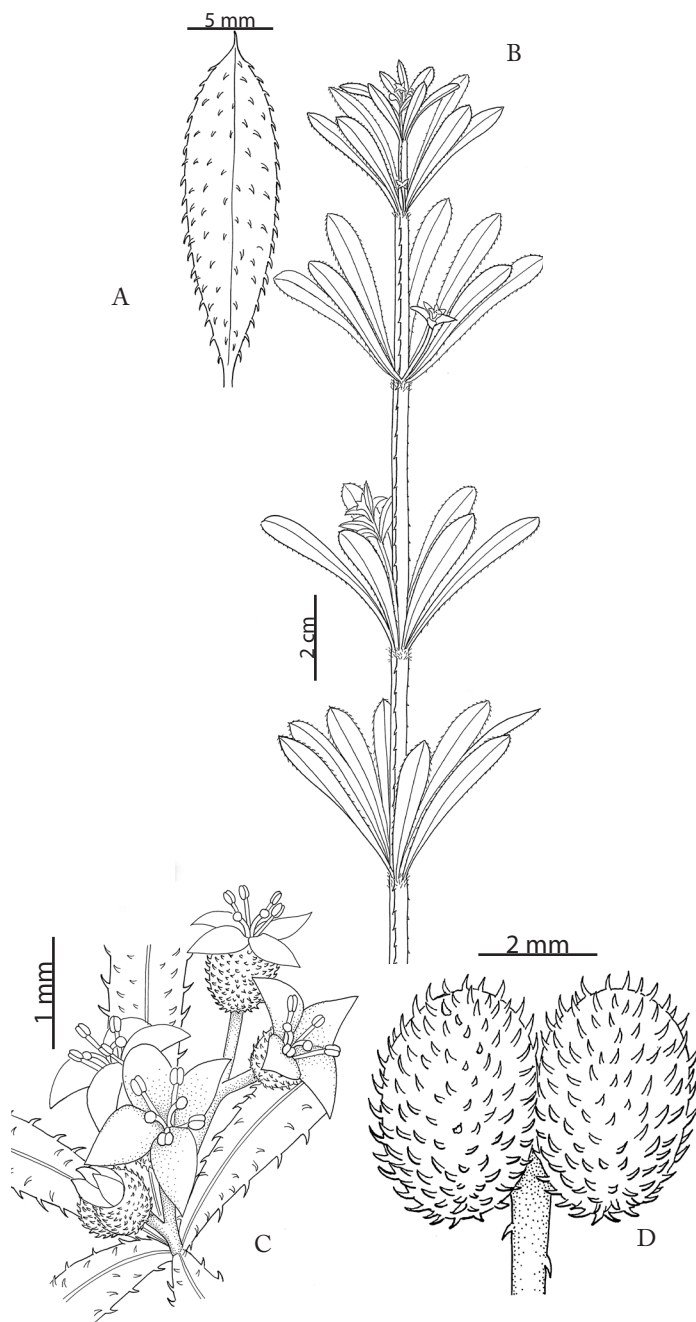


Figure 29: a–d, *Galium aparine* leaf, habit, flowers, and fruit.

Adulterants: Adulteration is not reported to be a problem. Of the several other species having commercial value, *G. verum* L. (Lady's Bedstraw) and *G. odoratum* (L.) Scop. (Sweet Woodruff) are most similar to *G. aparine*, as the leaves have a single main vein and are usually borne in whorls of at least 8. They can, however, be distinguished by a number of features:

	<i>G. verum</i>	<i>G. odoratum</i>
Stem shape in cross-section	Round with 4 faint ridges	Quadrangular, sturdy
Stem pubescence	Finely pubescent; without thick waxy coating or downward-pointing prickles	Almost hairless except at nodes; without prickles
Leaf size	1.5–4 cm long, <3 mm broad	1.5–5 cm long, 4–14 mm broad
Leaf margins	More or less revolute	With minute hairs pointing toward apex (not base) of leaf
Leaf surfaces	Upper surface shiny, turning dark when dried; lower surface hairier	Sometimes with tiny stiff hairs on midrib, otherwise nearly glabrous
Leaf apex	Acute or perhaps mucronulate	With sharp membranous point
Inflorescence	Short-branched, many-flowered panicle	Lax panicle with reduced bracts
Corolla size and shape	Disk-shaped, 2–3.5 mm in diameter	Funnelform, at least 4 mm in diameter
Corolla color	Yellow	White
Fruit	Ovoid, <1.5 mm long, hairless or occasionally pubescent	Ovoid, 2–3 mm long, with strong hooked bristles

Taxonomy: *Galium* includes about 300 species, mostly Eurasian but distributed nearly worldwide. *Galium aparine*, which belongs to Sect. *Kolgyda*, is a variable weed with a broad range. *Galium spurium* L., another widespread weed, is sometimes lumped into *G. aparine*, and there is considerable morphological overlap between the two. A third very similar plant, formerly called *Galium vaillantii* DC., resembles *G. spurium* except in having seeds with hooked bristles, like *G. aparine*. It is usually lumped into *G. aparine*, or into *G. spurium* if the latter is treated as a separate species, as *G. spurium* f. *vaillantii* (DC.) R. J. Moore. It is in fact more common than the naked-seeded form of *G. spurium*, and except for flower color is difficult to separate from *G. aparine*.

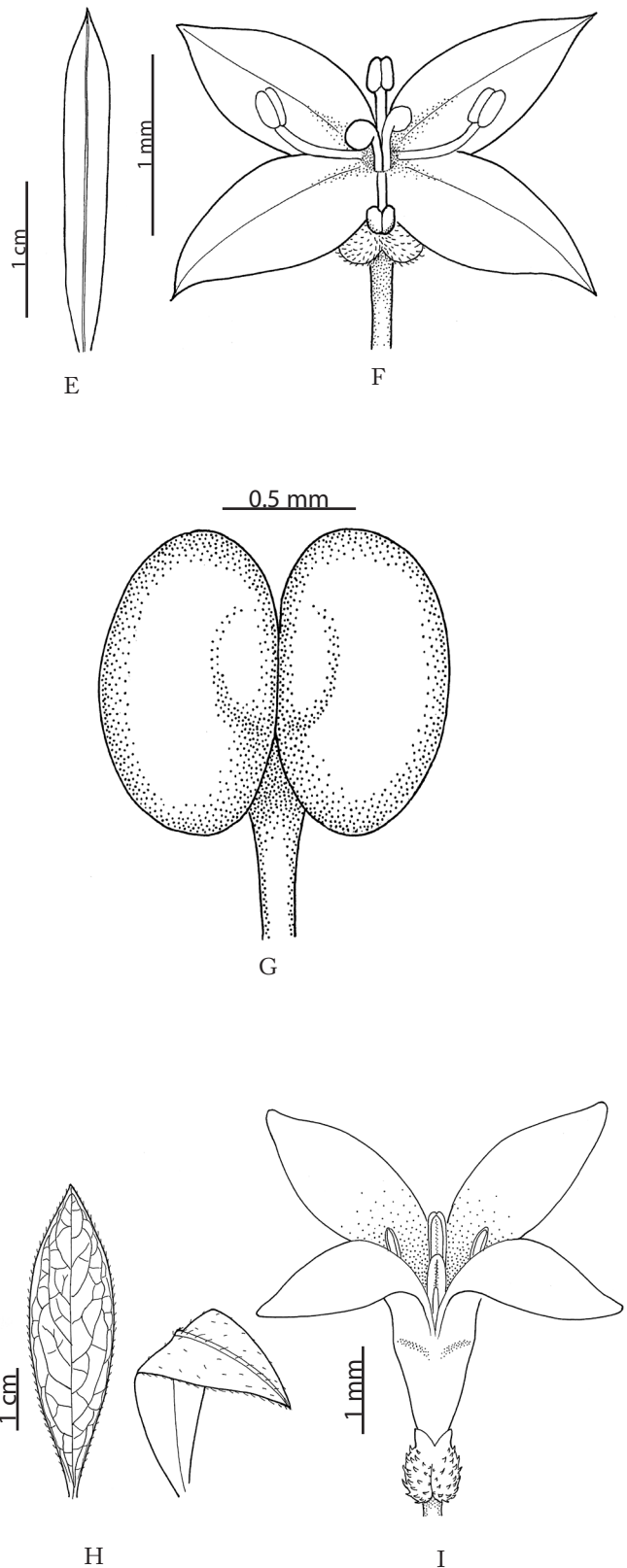


Figure 29: e–g, *G. verum* leaf, flower, and fruit; h–i, *G. odoratum* leaf and flower.



Figure 29: j, *G. odoratum* fruit.

Description: Annual herb. Stems (10–)80–180 cm long, scrambling, branching at nodes, quadrangular with central hollow, dark green to brown; ridges bearing stiff retrorse bristles, pubescent especially at nodes. Leaves in whorls of (6–)8(–10), oblanceolate, (1–)3–6(–7) cm long, 2.5–5(–8) mm broad, with 1 visible vein; apex cuspidate; margins somewhat revolute; margins and often midvein beneath with tiny reverse-pointing prickles; upper surface bearing small bristles with hooked ends. Inflorescences cymose, bracteate, (1–)3–5(–7)-flowered; flowers pedicellate. Flowers (1–)1.5–2(–3.5) mm broad, whitish; sepals absent; corolla rotate; petals 4, with acute apices, sometimes pu-

bescent; stamens 4. Fruit a schizocarp of 2 mericarps, separating at maturity, ovoid, (2–)3–4(–5) mm long, often purplish-tinged, with dense white hooked bristles, very rarely glabrous.

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