

Ricinus communis L. Shrub, branched near base or treelike, erect to ascending, 70–600 cm tall; monoecious; shoots large-leaved and thick-stemmed, glabrous, young growth initially rhubarb-red and glossy or gray-glaucous, with extrafloral nectaries (young leaf teeth) secreting clear-amber fluid. **Stems:** cylindric, typically > 20 mm diameter, with conspicuous, ringlike stipular scars extending from top edge of crescent-shaped leaf scars, internodes 15–270 mm long, rose-red becoming brown with red + axial and linear lenticels, eventually having dull light brown bark with light gray patches; internodes solid, pith > 15 mm diameter, colorless with rose-colored pith bundles; old stems woody and difficult to break. **Leaves:** helically alternate, palmately lobed with (7–)8–11 lobes, long-petiolate, with stipules; stipules 2, fused and 3/4-sheathing stem, ovate, 9–24 mm long, light green or pinkish, entire, parallel-veined, deciduous; petiole ascending to descending, 100–500 mm long by elongating as leaf ages, appearing rose-red but having fine green, brown, and rose stripes, hollow, with extrafloral nectaries, the nectaries near the petiole base ± club-shaped or truncate (including a basal nectary sometimes becoming at midpetiole due to continuous elongation of petiole), the 1 or 2 nectaries nearest the blade round to disclike, cuplike, or 2-lobed; blade umbrellalike (peltate) with petiole attachment closer to leaf base, ± round in outline, 100–500 mm, lobes ovate to elliptic, lobe > basal portion, coarsely serrate on margins, palmately veined from base and lobes pinnately veined, principal veins conspicuously raised on lower surface, upper surface dark green with satin finish, lower surface lighter green. **Inflorescence:** panicle of unisexual flowers, terminal, 100–300 mm long, with numerous lateral clusters of flowers, in lower portion having several–12-flowered lateral clusters of staminate flowers, in upper portion having clusters of staminate + pistillate flowers, the uppermost ones with fewer pistillate flowers; bract subtending peduncle and branchlet papery, lanceolate, persistent; main axis thick, erect, having 2 extrafloral nectaries at side of base of bract and at each lateral cluster of flowers; bractlet + 2 stipules subtending pedicel, ± ovate to lanceolate, ca. 2.5 mm long, papery, persistent; pedicel deciduous 1 mm above base at abscission constriction, for staminate flowers curved, 7–10 mm long, for pistillate flowers typically straight and much shorter at anthesis but elongating in fruit. **Staminate flower:** radial, 11–15 mm across, at anthesis nodding to spreading, in bud wide top-shaped to heart-shaped, green and glossy or glaucous; **perianth (calyx)** 3–5-lobed, with lobes arising from rimlike base; lobes equal or unequal, ovate, 5–7 mm long, cupped to reflexed; **stamens** many, clustered and treelike, each cluster of ± 20 stamens, free, 4–8 mm long, with several branchlets; filaments greenish white; anthers dorsifixed, dithecal, sacs spreading and subspheroid, 0.3 mm long, cream to yellow, longitudinally dehiscent; pollen pale yellow. **Pistillate flower:** radial, 5–7 mm across and long, in bud narrowly ovate-conic; **perianth (calyx)** 3–5-lobed; lobes ascending, typically unequal, lanceolate, 3–4 mm long, green with reddish tips; **pistil** 1; ovary superior, broadly ovoid, 3 × 3.5–5 mm, covered with green to purplish red, appressed to ascending, spinelike projections (prickles), conspicuously glaucous, tips of young prickles needlelike and colorless, 3-chambered, each chamber with 1 ovule; styles 3, 3–4 mm long, 2-branched above midpoint, ± 1 mm diameter at base, yellow-green aging orange-red, densely scaly-papillate throughout, the branches tapered, 1.3–2 mm long, with papillate hairs on margins of scales and terminal portions papillate. **Fruit:** capsule, septicial afterwards loculicidal, spinescent, 3-lobed, to 25 mm diameter (incl. sharp prickles), reddish turning brown, each chamber 2-valved with 1 seed, dehiscent back and

front, with hard, straight to radiating, upcurved prickles; inner wall rounded and smooth, separating from spiny outer wall. **Seed:** with a fleshy appendage at tip (caruncle), compressed ovoid-spheroid, 9–23 mm long, ± shiny, brown and tan mottled, smooth; caruncle 3–5.5 mm long, yellowish white. January–December.

Naturalized. Woody perennial common in disturbed sites throughout the range, often forming dense stands. Castor bean, *Ricinus communis*, is a very invasive, large-leaved species that should be removed whenever it appears and before it becomes dominant, because it is not useful to native animals. It has a close biologic relationship with ants, which receive rewards from the numerous types of extrafloral nectaries on shoots and inflorescences. Its brown, mottled seeds may be lethal to humans if enough are chewed, because seeds contain the nitrogen-containing ricin.

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