

Dipsacus fullonum L., WILD TEASEL, COMMON TEASEL, GYPSY COMB, FULLER'S TEASEL. Biennial herb, prickly and with spinescent inflorescence, thick-taprooted, rosetted year 1 and midpoint year 2, 1-stemmed at base, with paired, ascending lateral branches at nodes above midplant, erect, in range 100–250+ cm tall; shoots with basal leaves (year 1) and then year 2 basal leaves withered and with cauline leaves before flowering, prickly, the tan to whitish prickles broad-based, vertically arranged and compressed side-to-side, to 3 mm long, with \pm straight tips, with minute, ephemeral glandular hairs on young growth. **Stems:** low-ridged aging cylindric, to 12+ mm diameter, tough, initially striped green and white but aging tan or pale brown, principal stem internodes 100–200 mm long, prickles radiating and vertically arranged, hairs sometime present at nodes = densely white-villous along margins of ridges or wings fusing leaves; hollow. **Leaves:** opposite decussate, simple, sessile with pair narrowly fused across node (connate-perfoliate), without stipules; blade of basal leaves oblong to oblanceolate, to 500 \times 100 mm, of cauline leaves lanceolate to oblong-lanceolate or oblong-oblanceolate, in range to 300 \times 7–40 mm, with tough midrib, broadly tapered at base, serrate to entire with or without widely spaced short prickles on margins, acuminate at tip, pinnately veined with white midrib conspicuously raised on lower surface also with prickles somewhat curved toward tip along a central ridge, on some blades midrib slightly sunken on upper surface, initially with minute glandular hairs becoming glabrate. **Inflorescence:** heads, dense spike on elongate receptacle, terminal and either solitary on long peduncle or in cymelike array with paired lateral shoots at each node having a terminal head, spinescent, heads at anthesis spheroid, initially 20–30 mm (including radiating spines) aging ovoid or narrowly ovoid to oblong-ovoid or ellipsoid, mostly 70–100 \times 40–45 mm (including radiating spines), with 500+ helically alternate flowers (ca. 25 cm²), flowers sessile, opening base to tip, bracteate, with flowers exposed but exceeded by conspicuous, spine-tipped bractlets producing a 3-dimensional cover of ascending spines; peduncle to 250 mm long, strongly 10-ridged, the ridges tannish and armed with prickles, also with stiff short hairs approaching involucre; receptacle at anthesis narrowly conic and 7 \times 2.5 mm elongating with age; bract or bractlet subtending flower grading from longer outer ones to shorter inner ones, outer bracts 6–10, long-tapered, at anthesis 20–70 mm and widely spreading increasing to 120 mm long and ascending to upcurved or with recurved tip in fruit, with spinose margins and prickles along raised midrib on lower surface, finely pubescent, upper surface whitish, lower surface and margins green, inner bractlets spreading on lower receptacle to ascending on upper receptacle, \pm lanceolate and canoe-shaped half enclosing involucre, 10–20 \times 2.5–4 mm, keeled, whitish at base to green above, ciliate with long and short hairs on margins, acuminate and spined or short-awned at tip; bract subtending each flower, long-tapered linear, at anthesis mostly < 30 mm long and widely spreading increasing in fruit commonly with ca. 12 outer bracts 50–120 mm long and 12+ inner bracts to 35 mm long and ascending to upcurved or with recurved tips (some \geq head), with prickles on margins and lower surface midvein raised and having prickles, surfaces when green also with short hairs; axis with short hairs between bractlets; bractlet (receptacular bracts or paleae) subtending and cupping flower spreading at base of head becoming spreading-ascending above midhead to strongly ascending at top, tightly packed, keeled and canoe-shaped + spine-tipped, typically without prickles but having stiff pubescence and often with rigid short hairs on margins, spine straight (never hooked or recurved) and somewhat awnlike = scabrous with upward-pointing hairs; “involucre” of bracteoles fused forming a tubular

cover of fused to base of ovary for 1–1.5 mm (epicalyx, appearing to be ovary wall), 4-angled and 4-sided, 8-ribbed, inversely conic-tubular, 2–3.2 mm long, 1.3–1.8 mm diameter at orifice, pale green but darker at orifice, dimpled below orifice and between ribs, ribbed internally, with jagged, crownlike margin crisped and free from top of ovary, densely pubescent, internally short-glandular to papillate-glandular. **Flower:** bisexual, \pm radial, 2–2.7 mm across; **calyx (pappus)** basal portion thin and conforming to shape of ovary, upper portion bowl-shaped, $\pm 1 \times 1.5$ –2 mm, \pm fleshy, green, densely velvety-strigose, generally weakly lobed or angled, sometimes 1-notched or with 1 prominent lobe; **corolla** (4–)5(–6)-lobed, pubescent becoming papillate-glandular on lobes; tube-throat 3.5–6 mm long, dull purple to brownish purple; lobes semicircular to oblong and somewhat cupped, 0.6 – 1.7×0.9 – 1.6 mm, greenish to brownish purple with purplish margins, commonly with the lowest lobe larger and more cupped than others; **stamens** 3–5, fused to upper corolla throat at ca. the same level, exerted or partially exerted; filaments commonly unequal, 0.8–2 mm long, whitish at base changing to purplish above midpoint but yellowish at tip; anthers dorsifixed, dithecal, oblong or oblong with cordate base, 0.6 – 1.4×0.5 – 0.8 mm, brilliant yellow-green, longitudinally dehiscent; pollen pale yellow green; **pistil** 1, 5.8–9.3 mm long; ovary inferior, ellipsoid, $\pm 2.3 \times 1$ mm, completely enveloped by calyx, 1-chambered (1 chamber obsolete) with 1 ovule; style 3.5–7 mm long pale yellow or whitish, unequally branched, the stigmatic branches included, unequal, whitish, < 1.2 mm long and < 0.3 mm long, whitish. **Fruits:** cypselae, with or without persistent calyxlike structure, fruit body strongly 4-angled and 4-sided, \pm rectangular prism, 3.1 – 4×1.1 – 1.4 mm, brown, 8-ribbed with 4 well-defined edges, densely short-strigose with upward-pointing hairs, valleys on faces deeply indented near top, at tip with short beak and surrounded by a set of depressions without a short, minutely toothed, fragile crown (involucel) ca. 0.3 mm long; persistent calyx on top of fruit ovoid, to 1 mm long, densely short-hairy.

Naturalized. Biennial herb officially documented in range in fall 2010 at Malibu Creek State Park, although several years earlier also identified at SMMNRA Rancho Sierra Vista, both present in disturbed habitat with standing water. *Dipsacus fullonum*, also known as *D. sylvestris*, is a European species that is thoroughly naturalized and common in vast areas of temperate North America, growing in wet ditches, along roadsides, and in weedy fields and waste areas. Teasel has distinctive, spinescent heads, which are easy to spot during bleak winter months and often used for dry floral arrangements. Shoots, peduncles, and involucre bracts are armed with rough prickles; these are less damaging than are the longer, sharper spines of thistles, with which teasel may be confused. The head of *Dipsacus* is sharply defined by a set of long bracts, and each flower is cupped by a spine-tipped bract that projects above the flowers, creating the distinctive spiny outline of the fruiting structure. Also distinctive is the presence of a bractlet, sometimes termed a bracteole (two bracteoles) or epicalyx or involucel, which mostly conceals each inferior ovary.

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