

Eschscholzia Cham. CALIFORNIA POPPY

Eschscholzia californica Cham., CALIFORNIA POPPY. Perennial herb or annual, taprooted, rosetted, several–many-stemmed at base, spreading to erect, in range 15–60 cm tall; shoots with basal leaves and well-developed cauline leaves, glabrous, glaucous (not glaucous); latex clear. **Stems:** 5–8-ridged, to 6 mm diameter, with ridge descending from each cauline leaf, often rose-striped with whitish ridges; hollow. **Leaves:** helically alternate, deeply 2–4× pinnately dissected with paired, subopposite to opposite lateral subdivisions, long-petiolate, without stipules; petiole semicircular to lenticular in \times -section, 35–110 mm long; blade broadly ovate to \pm deltate in outline, to 80 mm long, \ll petiole, with lobes of each subdivision not arising from same point, terminal portion unequally 3-lobed or 3-divided with each subdivision wedge-shaped, ultimate segments narrowly oblong to narrowly oblanceolate, typically to 5(–13) mm \times 0.6–2.9 mm, strawberry pink beneath surface wax especially on tips, obtuse to acute at tip, pinnately veined with principal veins somewhat raised on lower surface, lower surface with blisterlike cells along principal veins and tips. **Inflorescence:** cyme, terminal, 1–several-flowered, bracteate, glabrous, glaucous; bract subtending cyme leaflike and 2–3× dissected but with shorter petiole than leaf; pedicel erect, inconspicuously angled, to 150 mm long, to 1.3 mm diameter, hollow. **Flower:** bisexual, radial, 20–60 mm wide, dish-shaped; bud erect; hypanthiumlike receptacle surrounding ovary base, deep cuplike to broadly funnel-shaped at top with an erect, membranous sheath appressed to ovary and a perpendicularly spreading, thicker rim, 2.5–5 mm long, 1.7–2.8 mm diameter below spreading rim, green, glaucous, inconspicuously low-ribbed, persistent, the rim 3.1–6.4 mm diameter, light green sometimes tinged pinkish and becoming purplish red on edge, the sheath 0.2–0.4 mm long, pale green; **calyx** of 2 fused sepals forming a narrowly ovoid or conic cap abscising as flower opens (calyptrate), 5–16 \times 1.8–4.5 mm, green with purplish veins, glaucous, abscising around base as flower opens, tapered or acuminate and slightly 2-lipped at narrowly rounded tip; **petals** 4, obovate or rhombic to wedge-shaped or broadly fan-shaped, 10–55 \times 6.5–50 mm, orange or bright yellow to golden yellow with orange at base or to midpoint, with many fine veins radiating from base, abscising readily from the ascending, sheathing portion of “hypanthium”; **stamens** 18–40+, \pm free but attached in groups of 3–11 to each petal base and often falling with petals; filaments unequal, 1.8–7.3 mm long (with a single flower), yellow-orange, somewhat flattened front-to-back, arched or bent outward, often with deep purple or blackish band just above midpoint; anthers basifixed, dithecal, 2–9 mm long, orange to orange-yellow, longitudinally and outwardly dehiscent; pollen orange to light orange-yellow; **pistil** 1, 9–14.5 mm long, not exerted above anthers; ovary superior, narrowly ellipsoid, 3–6 \times 1–1.5 mm, sometimes with swollen beak at tip, green, conspicuously glaucous, 10-ribbed (10-veined), 1-chambered with 45–85 ovules attached to outer wall; style appearing absent; stigmas 2 or 4, ascending, linear, if 4 then often dimorphic in opposite pairs, 2.3–8.5 \times 0.4 mm (long stigmas) and 0.5–3 \times 0.25 mm (short stigmas). **Fruit:** capsule, dehiscent by 2 valves from base, many-seeded, linear, 35–90 mm long, 10-ribbed, glaucous, with persistent beak; rim surround fruit base irregularly lobed or split. **Seed:** spheroid to short barrel-shaped, 1.4–1.7 \times 1.4–1.5 mm, grayish brown to olive brown with a dark brown raphe from base to top, ridged and with faces, the ridges narrow and forming a partially netlike pattern, the

faces composed of circular cells depressed in the center; cotyledons 2-lobed, with copious, oily endosperm. Early November–mid-September.

Native. Herb, most often a taprooted perennial, observed commonly throughout the range in wild localities from coastal sand dunes at Point Dume to openings in chaparral, as well as in disturbed sites near roads and homes. Typically *Eschscholzia californica* is glaucous and produces a hemispheric basal rosette of highly dissected leaves and easily seen, shorter cauline leaves in the canopy. Its leaves are characteristically several times pinnately dissected with 3-lobed tips, whereas those of *E. caespitosa* tend to be several times 3-divided. Because California poppy, the state flower, is widely planted, it is difficult to know what petal sizes and color forms are native, but one can find petals short to long, entirely orange or entirely bright yellow but most commonly bright yellow with orange below midpoint, hence a corolla with an orange center. Variability is so widespread that varieties or subspecies are no longer recognized. Stamens typically number greater than 20, so only rarely should this species be confused with *E. caespitosa*, which has fewer stamens, but also in California poppy often there is a blackish to deep purple band on the filament. To identify *E. californica*, traditionally experts have relied on there being a fairly conspicuous rim on the hypanthium, which is easier to see on the developing fruits, but can be exceedingly narrow. The pistil of *E. californica* tends to have a swelling at the top of the beak beneath the stigmas, but there is too much overlap in characteristics of fruits and seeds of the two species to use for positive identification. With great difficulty one can dissect the embryo from a seed to find 2-lobed cotyledons, but the character is best observed on the seedling following germination.

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