

*Grindelia camporum* Greene, COMMON GUMPLANT, GREAT VALLEY GUMPLANT. Perennial herb, rosetted, several-stemmed from woody caudex, unbranched below canopy to having ascending branches from main axis at each node, ascending to erect, in range 25–130 cm tall; shoots with ascending basal and cauline leaves, scabrous or not, in range short-hairy to essentially glabrous + with glandular hairs sunken in pits, slightly glandular-sticky or not sticky when fresh but often becoming very gummy and highly resinous when dried over heat (= pits filled with resin or surface covered with resin), strongly aromatic ( $\pm$  camphor). **Stems:** many-ridged (lower stem), to 9 mm diameter, with 3 principal ridges descending from each leaf, when young pale light green turning tannish brown and aging light tan- or white-varnished, in range  $\pm$  tomentose to glabrous. **Leaves:** helically alternate, simple, petiolate (basal leaves) and sessile and clasping (upper cauline leaves), 15–225 mm long, without stipules; petiole flattened and narrowly winged base to blade, to 80 mm long, indistinct from blade, with midrib and parallel lateral veins raised on lower surface; blade oblanceolate to oblong or elliptic (basal leaves), 15–45 mm wide, and ovate to oblong or lanceolate (cauline leaves), 4–20 mm wide, tough, long-tapered at base (petiolate leaves) or with 2 basal lobes (resembling auricles) extending slightly beyond and often cupped around stem and persistent (upper cauline leaves), serrate on margins or instead entire to low-dentate below midblade and serrate above midblade with hard point on each tooth, acute to obtuse at tip, pinnately veined with midrib raised on lower surface, when hairy = canescent, gland-dotted and with network of minute minor veins. **Inflorescence:** heads, solitary or in terminal, open, leafy, often flat-topped, cymelike arrays, heads radiate, 28–45 mm across, of 20–39(–45) pistillate ray flowers in several overlapping series and many bisexual disc flowers, bracteate, short-hairy or glabrous and gland-dotted, sometimes with copious and often milky resin (especially covering unopened disc flowers); peduncle resembling leafy shoot with several-10+ helically alternate bracts, very tough, bracts approaching involucre lanceolate and clasping or narrowly lanceolate to linear without clasping base, bracts subtending involucre phyllarylike and becoming reflexed; **involucre**  $\pm$  hemispheric (broadly urn-shaped in bud), 12–19 mm diameter, phyllaries many in 4–8 graded series, linear to linear-lanceolate, green, exposed phyllaries short-hairy or glabrous and conspicuously gland-dotted, gummy and sticking together, most phyllaries strongly recurved at tip often turning brownish or reddish, the tip curved 180° or coiled nearly 360° (often becoming reflexed after anthesis), the innermost series flat, oblong-oblanceolate and < other series, thin, with membranous margins and glabrous; receptacle flat to convex, without bractlets (paleae), pitted with ovaries separated by a narrow, crownlike ring, the crown 0.2–0.4 mm long and short-toothed. **Ray flower:** pistillate, bilateral, 3–4 mm across; **calyx (pappus)** of 1–2 awns (if 1 on inner side), straight-linear and somewhat flattened front-to-back, 3–3.5 mm long, ca. 0.2 mm wide at base, whitish, entire, shallowly U-shaped in  $\times$ -section; **corolla** unlobed, glabrous and often coated with resin; tube curved-cylindric (slightly angled), 4–5.5 mm long, greenish; limb elliptic to oval or oblong, 9–14  $\times$  3–4 mm, bright yellow with faint parallel veins; **stamens** absent; **pistil** 1; ovary inferior, commonly with 4 lateral angles, compressed wedge-shaped, ca. 1.5 mm long, white, glabrous, 1-chambered with 1 ovule; style slightly exerted from tube, 4–5 mm long, yellow, 2-branched, the branches 0.7–1 mm long, minutely papillate on margins. **Disc flower:** bisexual, radial, 1 mm across;

**calyx (pappus)** of 2–3(–6) awns, awns straight-linear and somewhat flattened front-to-back, 3–5 mm long, ca. 0.2 mm wide at base, whitish, entire, shallowly U-shaped in  $\times$ -section; **corolla** 5(–6)-lobed (–9-lobed rarely where 2 flowers fused), 6–7.5 mm long; tube cylindric, 1 mm long,  $\pm$  colorless, thick-walled; throat same diameter as tube, yellow, glabrous; lobes ascending, triangular, ca. 0.8 mm long, bright yellow; **stamens** 5–6 (= corolla lobes), fused to top of corolla tube; filaments  $\pm$  1.5 mm long, yellow; anthers fused into cylinder surrounding style, basifixed, dithecal, ca. 2.5 mm long (including appendage at tip), appendages erect, narrowly triangular,  $\pm$  0.7 mm long, pale yellow, longitudinally dehiscent; pollen yellow; **pistil** 1; ovary inferior, compressed-obovoid with 2 edges, 1.2–1.4 mm long, flatter than in ray flower, white, glabrous, 1-chambered with 1 ovule; style exerted after anthers, 4–5.5 mm long, yellow, 2-branched, the branches erect and appressed, equal, oblong, 1.5–1.8 mm long, yellow, stigmatic and short-hairy above midpoint. **Fruits:** cypselae,  $\pm$  dimorphic, with white base, typically lacking pappus when mature, glabrous, not resinous; of ray flowers  $\pm$  3–4-angled club-shaped, ca. 4  $\times$  1–1.3 mm, brown; of disc flowers compressed-obovoid, 4.5–6  $\times$  2–2.5 mm, mostly straw-colored. Mid-May–late October (mid-December).

Native. Perennial herb growing in clay of undisturbed to disturbed grassland throughout the range, but especially abundant at SMMNRA Paramount Ranch. *Grindelia camporum* formerly was also called forms of *G. hirsutula*, *G. robusta*, or *G. bracteosa*, but most populations from across western North America have been collapsed into one species without recognizing varieties or subspecies, and *G. hirsutula* is still recognized but has been narrowly redefined. Gumplant is an unusual species that flowers locally throughout the summer drought, even in the driest years, while other herbs of the community are straw-colored and dormant. After summer mowing, it even has the capacity to flower again in early fall. Although the plant may be slightly sticky in nature, its heads are always conspicuously covered with resin, so much so that the ray and disc flowers appear glued together and varnished; that resinous substance was once commercially extracted as a medicine, call grindelia, for certain maladies.

B. A. Prigge & A. C. Gibson