Helianthus debilis subsp. cucumerifolius (Torrey & A. Gray) Heiser, CUCUMBERLEAF SUNFLOWER. Annual, taprooted with many diverging lateral roots, not rosetted, 1-stemmed at base, with spreading to ascending lateral branches, the lower ones often with slender stems, erect to ascending, in range < 35−90 cm tall; shoots with only widely spaced cauline leaves, conspicuously scabrous, hispid hairs mixed with weak nonglandular hairs and short glandular hairs, the hispid hairs upward-arched with enlarged to conic bases; aromatic when handled and crushed. **Stems:** cylindric, to 8 mm diameter, purple to purple-red mottled at bases of hispid hairs, internodes stiff and straight. **Leaves:** helically alternate, simple, petiolate, without stipules; petiole channeled to hemicylindric, 8.5–80 mm long, the lowermost leaves petiole > blade but most leaves petiole < blade; blade ± deltate to triangular, 28−90 × 20−75 mm, dull green, subtruncate to broadly tapered at base, serrate to low-serrate with callous points on margins, acute at tip, pinnately veined with 3 principal veins at base and midrib and principal veins raised on lower surface, surfaces evenly short-hispid with upward arched hairs. **Inflorescence:** head, solitary on long peduncle, radiate, 36−53 mm across, with 11−14 neuter ray flower and many bisexual disc flowers, bracteate, scabrous with hispid hairs mixed with weak nonglandular hairs and short glandular hairs; peduncle straight, stemlike, at anthesis in range 60−150 mm long, tough; involucre ± hemispheric but base truncate, phyllaries 21−38 in 3−5 series, long-acuminate lanceolate, 10−17 × 1.5−2 mm, fleshy and 3-veined at base, pale green below midblade and dark green above midblade, middle phyllaries ascending to widely spreading; receptacle ± convex, becoming hollow beneath receptacle, with conspicuous bractlet subtending each disc flower (palea), palea 3-lobed, rounded or folded along midline, 6−9 × 2.1−2.4 mm and > corolla throat, colorless below lobes, sinuses 4.5−5 mm from base, lateral lobes acute-triangular, pale rose to purple, puberulent on back, central lobe acuminate and folded, dark purple, the veins mostly puberulent, the purple tissue minutely scabrous. **Ray flower:** neuter, bilateral, 7−10 mm across; calyx (pappus) of 2 scales, awl-shaped, 0.4−0.5 mm, colorless; corolla unlobed; tube cylindric, ca. 1.5 × 0.7 mm, light yellow, thick-walled, several-ribbed on back and puberulent; limb elliptic to ovate, 19−24 × 6.7−10.5 mm, bright yellow, parallel-veined, glabrous with several glandular hairs on lower surface near base; stamens absent; pistil 1; ovary inferior, conspicuously 3-sided flat on outer side, ca. 3 × 0.8 mm, whitish, puberulent; style absent. **Disc flower:** bisexual, radial, ca. 2.5 mm across; calyx (pappus) of (1−)2 scales, flattened and narrowly lanceolate-linear, 1.2−1.5 × 0.25 mm, colorless, with raised midvein, minutely hairy on base, weakly attached; corolla 5-lobed, ca. 5.5 mm long; tube cylindric, 0.7−0.8 × 0.6−0.65 mm, pale yellow, outer surface with short-stalked glandular hairs; throat lower portion bulbous, 1.5 × 0.6 mm, light orangish yellow, upper throat cylindric, 2.3−2.4 × 1 mm, darker; lobes spreading-ascending, triangular, 0.9−1.1 × 0.45−0.5 mm, purplish red, puberulent on lower surface and papillate on upper surface; stamens 5, attached to top of corolla tube; filaments threadlike, 1.5−1.7 mm long, pale orange-yellow; anthers fused into cylinder surrounding style, exserted, basifixed, dithecal, ca. 3 mm long including triangular appendage 0.4 mm long, deep purple, longitudinally dehiscent; pollen yellow-orange; pistil 1; ovary inferior, radially oriented (edge toward center), wedge-shaped, ca. 3 × 1.2 mm, white, notched at
base, appressed short-hairy, 1-chambered with 1 ovule; nectary disc surrounding base of style; style 6.5–7 mm long, 2-branched, below fork ca. 4 ×0.3 mm, white to midpoint, yellowish within column of anthers, and light yellow at fork, the stigmatic branches spreading later recurved, deep purple, short-hairy. **Fruits:** cypsela (achenes), obovoid to oblongoloid truncate at top (obpyramidal), 3–3.7 × 1.1–1.9 mm, shiny black (mottled), notched at base, 2-ridged (edges), truncate at tip, short-villous with ascending hairs.

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