

## NUMBERED FORM

1. *CREPIS ATRIPAPPA*, but leaves glabrous. Peduncles of fruiting heads prominently striate; involueral bracts becoming spongy-thickened at base; receptacle faintly areolate, the areolae centrally pitted. *Prains' Collector 333* (Po 10571) Sikkim Himalaya, Lachin.

*Relationship*.—Close to *Crepis fuscipappa* and *C. cineripappa* but very distinct from both in the praemorse rootstock, size and indumentum of leaves, length of corolla-teeth, size of anther-tube and appendages and more attenuate achenes. Less close to other species of *Youngia*.

2. *Crepis cineripappa* sp. nov.

Perennial, 45–85 cm. high, with rhizomate rootstock bearing fleshy fibers; radical leaves 4–8, up to 16 or 22 cm. long and 4.5 cm. wide, semi-erect, obovate or oblanceolate, obtuse or acute, margins very narrowly retrorsely revolute and coarsely sinuate-runcinate or -dentate, terminal and lateral segments papillose-mucronate, tapering gradually into a winged petiole one-fourth to one-half as long as the blade and with broader clasping base, glabrous above, fuscous-tomentulose below especially along the veins, the secondary veins branching and anastomosing at broad angles; cauline leaves 4–7, the lower similar to radical ones or sessile and acuminate, intermediate entire, uppermost linear, bract-like; stem erect, straight, terete, striate, fuscous-tomentose at nodes and base and gland-pubescent above, branched only near top, the short branches bearing 1–5 heads in a small corymbiform cluster, the terminal portion of the aggregate inflorescence a dense few-headed simple or compound paniculate corymb; peduncles 2–12 mm. long, slender, fuscous-tomentose and gland-pubescent with short thick hairs and oblate or ellipsoidal brown glands; heads rather small, erect; involucre cylindrical, 7–8 mm. high, gland-pubescent; outer involueral bracts 5–6, *ca.* 1 mm. long  $\times$  0.5 mm. wide, acute,  $\pm$  scarious; inner bracts 8, lanceolate, obtuse or acute, innermost scarious-margined, ventrally pubescent with short white hyaline appressed hairs, dorsally becoming carinately spongy-thickened, ultimately reflexed; receptacle areolate, with slightly raised fimbriae and central stipe; corolla 8–9 mm. long; ligule 4–5 mm. long  $\times$  1 mm. wide, teeth 0.25 mm. long, triangular; corolla-tube 4 mm. long, narrow, with expanded base, sparsely pubescent with spreading white hyaline hairs; anther-tube dark green, *ca.* 2 mm.  $\times$  1.25 mm. dissected (length/width = 1.6), appendages *ca.* 0.2 mm. long, acuminate; style-branches yellow, 0.7 mm. long; achenes brown, pale near summit, 4.5 mm. long  $\times$  0.6–0.8 mm. wide, fusiform, more attenuate toward summit, with slightly expanded pappus-disk and narrow yellow basal callus surrounding the hollow base, marginal ones dorsoventrally compressed, *ca.* 12-ribbed, with one stronger median rib on ventral face and two stronger ribs on dorsal face, inner ones 4-angled by the stronger ribs; pappus pale inky gray *en masse*, 4–5 mm. long, of one series of fine soft barbellulate bristles, persistent. Foregoing description based on type and cotypes. Flowering May–June; flowers yellow. Stems rarely two from a caudex, ultimately probably branched from below.

China in southeastern Yunnan at elevations of about 1500 m.; Assam and eastern India, 1200–1800 m. Type locality Szemao, Yunnan. Probably to be found at similar elevations in northern Burma.

China: Yunnan, Szemao, *Henry 11997* (NY, US 458770); Yunnan, Meng-tsze, old wood on side of a mountain, *Henry 10680A* (NY, US 458000); Meng-tsze, dry sandstone gully of (Sheentet?) *Henry 13678* (US 459666); Meng-tsze? Sheentet, *Henry* (NY). Assam and eastern India: Shillong (Khasi Hills) 1360 m., *C. B. Clarke 43477C* (Fl); "Khasia" (=Khasi and Jaintia Hills district?) 1200–1800 m. *Hooker f. and Thomson* (G, K) form 1.

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1. *CREPIS PRIMUMIFOLIA* Hook. f. and Thoms. ex C. B. Clarke, *Comp. Ind.*: 257, 1876 without description. Merely a form of this species with radical leaves strongly obovate, obtuse and sinuate-dentate not runcinate. *Hooker f. and Thomson* (G, K) E. India: "Khasia," 1200–1800 m.

*Relationship.*—Close to *Crepis fuscipappa* and *C. atripappa*, but very distinct from both in the rhizomate rootstock, broad leaves, indumentum of stem and heads, elevated areolae of receptacle, size of anther-tube, color of style-branches, color and shape of achenes. Less close to other species of *Youngia*.

### 3. *Crepis elongata* sp. nov.

Perennial, about 65 cm. high, with short oblique rootstock and many fibrous roots; radical leaves up to 13 cm. long and 1.5 cm. wide, numerous, erect, oblanceolate, acute or obtuse, runcinate-pinnatifid, tapering into a winged petiole, hispidulous with short yellowish eglandulose hairs; lowest cauline leaves similar to radical ones, all others much reduced, linear, entire; stems several (9 in type), erect, elongate, 1–2 branched above, hispidulous near base, striate and glabrous above rosette; branches long, fastigiate, cymosely 2–4-headed; peduncles 1–3 cm. long, slender, like involucre canescent-tomentose and densely pubescent with unequal mottled gland-hairs; heads small, erect, ca. 30-flowered; involucre narrowly campanulate; outer involucre bracts 5–6, unequal, longest one-fourth as long as inner ones, lanceolate, acute; inner involucre bracts ca. 12, lanceolate, acute, innermost ones with membranous margins, becoming spongy-thickened dorsally near base, ventrally glabrous and nerved; receptacle naked; corolla 7–8 mm. long; ligule ca. 4 mm. × 0.75 mm., teeth 0.2 mm. long, obtuse, glanduliferous; corolla-tube slender, densely white pubescent with crinkled hairs; anther-tube ca. 2 mm. × 0.8 mm. dissected (length/width = 2.5), appendages 0.6 mm. long, acuminate; style-branches dark brown or black, 0.4 mm. long, slender; achenes rather dark brown, 4–5 mm. long, marginal ones curved, narrowed at the calloused hollow base, gradually attenuate to the small (0.3 mm. diam.) pappus-disk, ca. 10-ribbed, ribs narrow, rounded, smooth; pappus 4–5 mm. long, white, of one series of fine soft barbellulate bristles, persistent. Flowers yellow.