

late. *Involucre* suburceolate or campanulate; inner bracts 1-seriate, subequal; outer ∞ -seriate, herbaceous, narrow, or the outermost broad and foliaceous; receptacle flat. *Anther-bases* sagittate, acute or shortly setaceous. *Style-arms* slender. *Achenes* narrow, incurved, subterete compressed or angled, glabrous, 5-10-ribbed, ribs transversely rugose, beak short or long, all similar or the outer with a shorter beak and no pappus; pappus copious, of 1 series of soft feathery hairs, or of fewer rigid hairs dilated at the base, with sometimes a few outer short hairs.—**DISTRIB.** Species about 24, Europe, N. Africa, N. Asia and one cosmopolitan.

P. hieracioides, Linn.; Boiss. *Fl. Orient.* iii. 734; tall, corymbosely branched, radical leaves sinuate-toothed, cauline cordate $\frac{1}{2}$ -amplexicaul, peduncles not thickened in fruit, achenes narrowly ellipsoid shortly beaked compressed, all with feathery deciduous pappus. DC. *Prodr.* vii. 128; Clarke *Comp. Ind.* 251. *P. hieracioides*, var. *indica*, Wight *Ic. t.* 1143. *P. hamulosa*, Wall. *Cat.* 3255; DC. *l. c.* 129. *P. strigosa*, Wall. *Cat.* 3256.

TEMPERATE HIMALAYA; from Murree to Bhotan, alt. 6-8000 ft., ascending to 10,000 ft. in Sikkim. KHASIA MTS.; alt. 4-6000 ft. NILGHERY MTS.; alt. 5-8000 ft.—**DISTRIB.** N. Asia to Japan, W. Asia, Europe, N. Africa.

A coarse herb, 1-4 ft.; hairs straight or hooked. *Leaves* 2-5 in. *Heads* $\frac{1}{2}$ - $\frac{2}{3}$ in. long; invol. bracts glabrous or hispid. *Achenes* $\frac{1}{2}$ in., narrowed at both ends, slightly curved, brown; pappus very white, $\frac{1}{4}$ in.

108. CREPIS, Linn.

Annual or perennial glabrous or hairy herbs, hairs never stellate. *Leaves* radical or alternate, cauline often stem-clasping, entire toothed or pinnatifid. *Heads* peduncled, solitary fascicled or corymbose, yellow or red, homogamous; fl. all ligulate. *Involucre* cylindric or campanulate; invol. bracts either ∞ -seriate and regularly imbricate, or the outer small or very much shorter than the linear 1-seriate inner; base or midrib thickened after flowering or not; receptacle flat, rarely concave, naked or shortly fimbriate. *Achenes* more or less fusiform or oblong, rarely short and cylindric, often slender, glabrous or scaberulous, 10-20-ribbed, tip narrowed or beaked; pappus short or long, usually copious, hairs usually silvery, simple and soft, rarely brownish and stiff or brittle.—**DISTRIB.** Species 130, chiefly in N. temp. region of the old world, none in S. temperate.

It is impossible to draw a line between this genus and *Lactuca*, *Hieracium*, *Launæa* or even *Prenanthes*. As a rule the Indian species here included have terete or only slightly compressed achenes, narrowed from above the middle to the tip in all but the last section; and they are truly beaked in section *Barkhausia* alone.

SECT. I. Barkhausia. Inner or all the achenes with long slender beaks; pappus soft.

1. **C. foetida**, Linn.; Boiss. *Fl. Orient.* iii. 851; hispid, lower leaves lyrate-pinnatifid or sinuate-toothed, cauline cordate base $\frac{1}{2}$ -amplexicaul, heads drooping in bud, invol. bracts hispid and glandular, outer hardened and keeled at the base, outer achenes shorter than the bracts acute, inner long-beaked scabrid striate. Clarke *Comp. Ind.* 252. *C. Kotschyana*, Clarke *l. c.* not of Boissier. *Barkhausia foetida*, DC. *Prodr.* vii. 158.

The PUNJAB and WESTERN HIMALAYA; from Kashmir to Kumaon, in fields, alt. 6-8000 ft.—**DISTRIB.** Westward to the Atlantic.

Annual; branches suberect or spreading from the root, 6-18 in., stout, corymbosely branched. *Leaves* 2-6 in. *Heads*, flowering $\frac{1}{2}$ in., fruiting $\frac{3}{4}$ in., and as broad; invol. bracts hispid. *Outer achenes* $\frac{1}{2}$ in., curved, pale, dorsally thickened; inner $\frac{1}{2}$ - $\frac{1}{3}$ in.;

SIKKIM HIMALAYA; Lachen, alt. 9-10,000 ft., *J. D. H.* KHASIA MTS.; alt. 4-5000 ft., *Wallich*, &c. CEYLON; central province, alt. 5000 ft., *Walker*, &c.

Radical leaves 5-10 by $\frac{1}{2}$ -1 $\frac{1}{2}$ in., cauline in Khasian and Sikkim specimens 2-3 in., petioled or narrowed at the base. *Stem* 1-3 ft., very slender, rarely divided. *Heads* few and small for the size of the plant. *Achenes* $\frac{1}{2}$ in., red-brown.—I find no material difference between the achenes of this and *L. japonica* which would warrant separating them generically; the name *fuscipappa* is hardly merited, the pappus being not at all brown, but of an inky grey or nearly white.

8. **C. acaulis**, *Hook. f.*; perennial, dwarf, quite glabrous, radical leaves very narrowly obovate-spathulate linear or lanceolate obtuse or acute quite entire or sinuate-toothed or subpinnatifid, flowering stem shorter or longer than the leaves, heads few 1 in. long 10-12-fl., peduncle bracteolate, outer invol. bracts very small, inner linear, achenes ellipsoid narrowed at both ends subcompressed strongly ribbed shorter than the soft silvery pappus. *Microhynchus glabra*, *Wight Ic.* t. 1145. *M. acaulis*, *Kurz in Journ. As. Soc.* 1877, ii. 208. *Lactuca glabra*, *DC. in Wight Contrib.* 26; *Prodr.* 135; *Clarke Comp. Ind.* 272. *L. rigida*, *DC. l. c.* *Youngia acaulis*, *DC. Prodr.* vii. 193. *Prenanthes acaulis*, *Roxb. Fl. Ind.* iii. 403. *P. glabra*, *Heyne*, and *P. rigida*, *Ham. in Wall. Cat.* 3264, 3263. *Prenanthes* sp. *Griff. Notul.* iv. 251; *Ic. Pl. Asiat.* t. 469. *Sonchus Metzianus*, *Schultz-Bip. in Plant. Hohenack.* n. 522 and 1359.

SUBTROPICAL HIMALAYA; from JAMU to BHOTAN. LOWER GANGETIC PLAIN; Maldah, Dinagopore, &c., CENTRAL INDIA. WESTERN PENINSULA; CANARA and Nilgherry Mts.; common, *Hohenacker*. BIRMA, common, *Kurz*.

Root woody, straight, cylindric, sometimes a foot or more long and $\frac{1}{2}$ in. diam. *Leaves* chiefly radical, 2-12 by $\frac{1}{2}$ -1 in., nerves faint spreading. *Flowering stems* 3-10 in., sometimes very numerous, simple or dichotomously branched. *Achenes* $\frac{1}{2}$ in., hardly beaked, with about 6 very thick smooth ribs and more slender intermediate ones.

9. **C. Stoliczka**, *Clarke Comp. Ind.* 255; perennial?, stemless, hirsutely pubescent, leaves all radical long-petioled narrowly obovate-spathulate sinuate-toothed or lyrate-pinnatifid, flowering stem erect naked sparingly corymbosely branched and glandular above, heads $\frac{1}{2}$ in. long cylindric puberulous, outer invol. bracts minute, inner linear obtuse not thickened in fruit, achenes very narrowly fusiform not beaked finely ribbed rather longer than the soft white pappus.

WESTERN HIMALAYA; Kashmir, Tilail, alt. 12,000 ft., *Clarke*; Lahul, alt. 9500-13,000 ft., *Stoliczka*. WESTERN TIBET; Karakoram, alt. 14,000 ft., *Clarke*.

Leaves very few and narrow, 2-5 in. long, obtuse, pubescent on both surfaces. *Flowering stems* 6-12 in., rather stout but soft, often copiously glandular above; peduncles usually short, naked, with a subulate bract at the base; invol. bracts 8-10, green, with fainter margins. *Achenes* $\frac{1}{2}$ in., very slender, distinctly narrowed upwards from the middle, red-brown; pappus persistent but easily removed.—*Clarke* compares this with *C. præmorsa*, *Froel.*, and *C. multicaulis*, *Ledeb.*; and he further suggests that it may be *Barkhausia Roylei*, *DC.* (*Prodr.* vii. 157), but it has not the beaked achenes of that genus, nor are the leaves sessile.

*** *Flowering stem* 0, or very short; heads few, subsessile amongst the leaves.

10. **C. gracilipes**, *Hook. f.*; perennial, dwarf, glabrous, leaves all radical elongate obovate or spathulate sinuate-lobed or pinnatifid lobes obtuse entire, heads $\frac{1}{2}$ in. long solitary on short slender 1-bracteate scapes, outer invol. bracts very small, inner linear subacute, achenes (unripe) much shorter than the soft silvery pappus. *Lactuca*, Sect. *Chorisma*, sp. inéd., *Benth. in Gen. Pl.* ii. 526.

SIKKIM HIMALAYA; alpine region, *J. D. H.*

Root-stock long, creeping, sometimes divided. *Leaves* $\frac{1}{2}$ – $1\frac{1}{2}$ in., rather succulent, tip broad rounded or acute. *Scapes* or *peduncles* shorter than the leaves, pubescent or glabrate. *Heads* quite glabrous, 20–30-fl.; inner invol. bracts 10–12, green, or the overlapped edges pale. Closely allied to *C. depressa*.

11. **C. depressa**, *Hook. f. & Thoms.*; perennial, stemless, puberulous, leaves rosulate very stoutly petioled ovate or rounded obscurely toothed or sinuate-toothed 5-nerved from near the base, heads crowded amongst the radical leaves $\frac{1}{2}$ in. long-peduncled bracteolate, invol. bracts strap-shaped obtuse or subacute nearly glabrous, achenes very slender fusiform beaked ribbed quite smooth shorter than the white smooth pappus. *C. glomerata*, *Clarke Comp. Ind. 255*, *excl. syn.*

SIKKIM HIMALAYA; near the Tibetan frontier, alt. 15–17,000 ft., *J. D. H.*

Root as thick as the little finger and crown woody. *Leaves* 1–2 in. long, rather fleshy, base rounded; petiole as long or shorter, very thick. *Heads* very numerous, invol. bracts green, inner with scarious margins, base rather thickened in fruit, glabrous or with a few hispid hairs. *Achenes* $\frac{1}{4}$ in., dark brown with a pale beak; pappus $\frac{1}{3}$ – $\frac{1}{2}$ in.

SECT. IV. **Hieracioides**. *Heads* rather broad, paniced or racemose; outer invol. bracts very short, inner linear 1-seriate. *Achenes* small, slender, narrowed at both ends; pappus hairs brownish, rigid, brittle.

12. **C. silhetensis**, *Hook. f.*; quite glabrous, radical leaves persistent linear-lanceolate finely acuminate narrowed into a short petiole quite entire or obscurely toothed, flowering stem sparingly dichotomously branched, branches slender erect, heads numerous paniced $\frac{1}{2}$ in. diam., peduncles slender, outer invol. bracts very small, inner linear subacute, achenes slender glabrous narrowed upwards ribbed about equalling the brown rigid pappus. *Hieracium silhetense*, *DC. Prodr. vii. 218*; *Clarke Comp. Ind. in Journ. Linn. Soc. xiv. 411, 257*. *Prenanthes*? *Candolleana*, *Wall. Cat. 3280, in part*. *Conyza foliolosa*, *Wall. Cat. 3281, in part*.

KHASIA MTS., alt. 4–6000 ft., common. BIRMA and TENASSERIM, *Kurz.*

Perennial; rootstock stout, woody. *Leaves* 6–12 by $\frac{1}{4}$ – $1\frac{1}{4}$ in., very much narrowed at both ends. *Flowering stems* often twice as long as the leaves, slender, with small leaves at the forks. *Heads* yellow, paniced, peduncles with usually a small bract. *Achenes* $\frac{1}{10}$ in., pale brown; pappus rather scanty.—A very anomalous plant, with the habit, absence of stellate hairs, and the achenes of *Crepis*, but with the brittle brown pappus of *Hieracium*.

13. **C. racemifera**, *Hook. f.*; perennial, glabrous or puberulous above, stem strict simple or branches erect, leaves scattered petioled ovate or ovate-lanceolate sinuate-toothed, petiole winged, heads in unilateral racemes, achenes much shorter than the pappus. *Crepis*, No. 6, *Herb. Ind. Or. H. f. & T.*

SIKKIM HIMALAYA; towards the Tibetan frontier, alt. 8–14,000 ft., *J. D. H.*

Stem 6–18 in., very slender, from a small perennial rootstock. *Leaves* few, 1–2 $\frac{1}{2}$ in., acute, membranous, lower and middle cauline long-petioled, petiole not auricled at the base, upper sessile. *Racemes* strict, nearly leafless, with minute bracts at the base of the peduncles, which are erect, curved at the top, and usually 1–2-bracteolate; heads campanulate, $\frac{3}{4}$ – $\frac{1}{2}$ in. diam., horizontal or drooping; outer invol. bracts very small, inner 6–10 linear acute glabrous, all green, blackish when dry; ligules yellow. *Achenes* quite immature, apparently short and not beaked; pappus not exceeding the involucre, pale brown, brittle.—A very remarkable species, whose affinity is doubtful, but I think very near *H. silhetensis*, though differing in habit and inflorescence.

SECT. V. **Glomerata**. *Heads* very numerous and densely crowded, sessile or shortly peduncled on the dilated top of a simple villous club-shaped stem.