

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 *lc.* 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.;

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 $\frac{1}{2}$ – $\frac{3}{4}$ 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, $\frac{3}{4}$ – 1 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.