

2. **T. Wattii**, Hook. f.; crown woolly, leaves runcinate-pinnatifid glabrous, scapes numerous pubescent above, heads broadly campanulate glabrous, outer invol. bracts few suberect or recurved, achenes white compressed acutely ribbed, ribs sparingly echinate, beak stout shorter than the body, base conical.

WESTERN HIMALAYA; Pangl, at Silundi, alt. 13,000 ft., *Watt.*

Habit of a large specimen of *T. officinale*. Heads broad, 1 in. diam. without the ligules. Invol. bracts black when dry, inner $\frac{3}{8}$ in. long, hardly clawed at the tip. Achenes not quite ripe, $\frac{1}{4}$ in. long, silvery white; pappus $\frac{1}{4}$ in.—I have seen but one specimen of this remarkable species.

113. **CHONDRILLA**, Linn.

Perennial herbs. Stem usually branched from the base; branches slender, cylindrical, rigid or virgate. Leaves, radical pinnatifid, cauline often entire. Heads terminal, homogamous; fl. all ligulate, yellow. Involucre cylindrical; bracts ∞ -seriate, outer usually very small, inner linear; receptacle flat, naked. Achenes oblong, subterete, many-ribbed, toothed, or with a toothed ring below the beak, beak long and slender or short and stout; pappus hairs very slender, white, many-seriate, persistent or deciduous separately.—DISTRIB. Species about 15, European and Oriental.

1. **C. graminea**, M. Bieb.; Ledeb. Fl. Ross. ii. 809; Ic. t. 177; quite glabrous, branches many from the base very slender, cauline leaves filiform, heads $\frac{1}{2}$ in. about 8-fl. hoary, invol. cylindrical, outer bracts minute, inner narrow with white membranous margins, achenes slender obscurely toothed or quite smooth below the very slender beak which about equals the body. DC. Prodr. vii. 142.

WESTERN TIBET; Karakoram mts., alt. 8–11,000 ft., *Clarke*.—DISTRIB. Siberia.

Stems 2–3 ft. from a woody stock, dichotomously branched. Leaves, radical not seen, cauline 2–3 by $\frac{1}{16}$ in., flexuous, quite entire. Heads subcorymbose, peduncled. Achenes $\frac{1}{2}$ in. long, ribbed, sometimes quite smooth where contracted into the beak; pappus as long as the achenes, persistent, silvery.

VAR. *kashmiriana*; leaves rather broader.—S. Kashmir at Ramoo, alt. 6000 ft., *Clarke*.

2. **C. setulosa**, *Clarke mss.*; quite glabrous, much branched from the base, branches very slender, cauline leaves linear very narrow, margins naked with here and there a minute spine, heads $\frac{1}{2}$ in. about 8-fl. hoary, involucre cylindrical, outer bracts minute, inner narrow with a stout spinulose midrib thickening in fruit, achenes slender strongly toothed below the very slender beak which about equals the body.

BALTIKISTAN; at Shigar, alt. 8000 ft., *Clarke*.

Habit of *C. graminea*, differing in the spinules on the midrib of the invol. bracts, and the muricate and toothed achenes.

DOUBTFUL SPECIES.

C. sp. ?; much dichotomously branched, branches stout, leaves 1–2 in. linear-oblong obtuse obscurely denticulate, heads $\frac{1}{2}$ in. base corky in fruit, invol. bracts with a thickened midrib which is here and there spinous.—Western Tibet, Shayuk valley, alt. 8–10,000 ft., *Thomson*. This may be a var. of *C. setulosa*, but there are no ripe achenes; it also closely resembles *C. juncea*, L.

114. **LACTUCA**, Linn.

Glabrous or hispid milky herbs. Leaves radical and alternate, entire toothed pinnatifid or pinnate, cauline often stem-clasping and auricled. Heads sessile or peduncled, paniced corymbose racemose or subspicate, homogamous, yellow purple or blue; fl. all ligulate. Involucre usually narrow; bracts few- (rarely many-) seriate, thinly herbaceous, margins often membranous, fruiting unchanged

or drooping many-fl. and peduncles hispid with black glandular hairs, outer invol. bracts few linear or subulate, inner 12–15 linear-oblong acute, achenes slender slightly compressed rather longer than the white pappus narrowed gradually into pale slender beak. *Dubyæa hispida*, DC. *Prodr.* vii. 247; *Wall. Cat.* 3253. *Hieracium heteranthum*, *Wall. Cat.* 3253. *H. hispidum*, *Don Prodr.* 165.

CENTRAL HIMALAYA; from Kumaon, alt. 9000 ft., to Sikkim, alt. 11–14,000 ft.

Root fusiform. Stem 6–18 in. Leaves 3–6 by 1–2 in., more or less hispid on both surfaces. Heads broadly campanulate, black when dry; peduncles curved, stout. Achenes $\frac{1}{2}$ in. long, nearly black except the pale beak, ribbed; pappus more persistent than in the two preceding sections.

SECT. VIII. Herbs with radical long-petioled leaves, and one or more corymbosely branched erect flowering stems. Heads small, numerous, erect; peduncles slender, ebracteate; outer invol. bracts minute, inner all equal, linear, green; ligules yellow. Achenes small, smooth; pappus silvery or yellowish. (*IXERIS*, *Cass.*)

20. *L. sagittarioides*, *Clarke Comp. Ind.* 265; biennial?, glabrous, leaves all radical long-petioled sagittate acute or obtuse entire or denticulate, flowering stems erect naked corymbosely branched above, heads $\frac{1}{2}$ in. long, achenes as long as the white pappus elliptic-lanceolate gradually narrowed into the slender white beak. *L. sagittata*, *Herb. Ind. Or. H. f. & T.* *Chondrilla sagittata*, *Wall. Cat.* 3270.

WESTERN AND CENTRAL HIMALAYA; from Dharmasala to Nipal, alt. 5–6000 ft.—
DISTRIB. Upper Birma.

Leaves 2–3 in. long and as broad, lateral lobes horizontal or depressed, sometimes obsolete when the leaf is lanceolate, more rarely in pairs on each side; petiole 6–10 in., with a coriaceous entire wing that narrows downwards. Flowering stems 6–18 in., slender, sometimes sparsely hairy above, bracts at the forks minute. Heads erect; outer invol. bracts very small, inner 6–10, linear-oblong; ligules yellow. Achenes $\frac{1}{10}$ in. including the beak, which is much shorter than the body.

21. *L. polycephala*, *Benth. in Gen. Pl.* ii. 526; annual, glabrous, slender, radical leaves petioled very long narrow linear or lanceolate flaccid entire sinuate-toothed or pinnatifid base narrowed, cauline sessile oblong or lanceolate base sagittate auricles acute, flowering stems simple or branched, heads $\frac{1}{2}$ – $\frac{1}{4}$ in. diam. many-fl. in dichotomous or subumbellate corymbs or panicles, achenes as long as the silvery pappus elliptic-lanceolate strongly ribbed narrowed into a short slender brown beak. *Clarke Comp. Ind.* 272. *Ixeris polycephala*, *Cass.*; and *I. fontinalis*, DC. *Prodr.* vii. 151. *Chondrilla fontinalis*, *Wall. Cat.* 3268. *C. tenuis*, *Ham.*, and *longifolia*, *Ham. in Wall. Cat.* 3274.

NORTHERN INDIA; in wet places from Kashmir and the Gangetic plain to Sikkim, the Khasia mts., Bengal, Assam, and Birma, ascending the Himalaya to 6000 ft.—
DISTRIB. Afghanistan.

A flaccid annual, 6–18 in., with long membranous leaves 3–10 by $\frac{1}{4}$ – $\frac{3}{8}$, rarely pinnatifid, when the lobes are usually few, slender and horizontal; cauline often broader than the radical, finely acuminate, with sometimes forked auricles. Heads 10–20-fl., erect; outer invol. bracts minute; inner 6–10, linear-oblong, green; ligules yellow. Achenes $\frac{1}{8}$ in., red-brown, hardly compressed, smooth, with about 10 very strong smooth ribs.—The subumbellate character of the inflorescence is very exceptional in the genus.

22. *L. gracilis*, DC. *Prodr.* vii. 140; glabrous, slender, radical leaves very long linear or linear-lanceolate acuminate quite entire rarely toothed or ciliate, cauline sessile base often ciliate not auricled, flowering stems slender simple or forked, heads $\frac{1}{2}$ – $\frac{1}{4}$ in. long few-fl. narrow in open often excessively branched corymbs, achenes about equalling the dirty white pappus compressed

narrowly elliptic-lanceolate narrowed into a brown beak $\frac{1}{2}$ — $\frac{1}{4}$ as long as the body. *Clarke Comp. Ind.* 271. *Chondrilla* (*Crepis*?) *gracilis*, *Wall. Cat.* 3267.

NIPAL, *Wallich*. KHASIA Mts., alt. 3-5000 ft., *De Silva, &c.* BHOTAN, *Griffith*.

A flaccid annual? *Leaves* 4-6 by $\frac{1}{2}$ — $\frac{1}{2}$ in., erect, usually quite entire. *Flowering stems* 6-18 in., few solitary or many from the root. *Heads* 3-8-fl., erect; outer invol. bracts minute, inner 4-8 linear; ligules yellow. *Achenes* $\frac{1}{2}$ in. including the slender beak, pale red, much compressed, many-ribbed; pappus deciduous, more scanty, brittle, and coarser than in *L. sagittarioides* and *polycephala*.—The small heads, pappus, and cauline leaves simple at the base, at once distinguish this from *L. polycephala*, than which this has usually far more heads. It appears closely allied to a Java plant of Horsfield's named by Miquel *Aracium levigatum*, which is the *Prenanthes levigata* of Blume (not of Wallich), and *Lactuca levigata*, DC.

VAR. *khassiana*, *Clarke mss.*; heads $\frac{1}{2}$ in. long, achenes $\frac{1}{2}$ in. beak shorter.—Khasia mts., alt. 3-5000 ft., *J. D. H. & T. T.*

DOUBTFUL SPECIES.

L. BENTHAMII, *Clarke Comp. Ind.* 273, from Kashmir (Kavang and Karnag, alt. 12-15,000 ft., *Stoliczka*) is unknown to me. *Clarke* describes it as a glaucous herb, with dichotomous scapes 4-6 in. high, spatulate oblong entire or obscurely toothed 3-nerved leaves, cylindrical heads with many purple flowers, 8 equal oblong inner invol. bracts, small outer, and a 1-seriate dirty-white pappus.—It is not Bentham's new species of *Chorisma*, which is *Crepis gracilipes* (p. 396).

115. PRENANTHES, Linn.

Glabrous or hispid milky herbs, often tall and slender, sometimes subscaudent. *Leaves* alternate, usually petioled, sagittate or cordate, pinnatifid or lyrate, membranous, petiole often winged, upper narrow sessile or stem-clasping. *Heads* small (slender pendulous and few-fl. in the Indian species), loosely paniced or racemed, of various colours, homogamous; fl. all ligulate. *Involucre* cylindrical; inner bracts long and narrow, 1-2-seriate, equal, thinly herbaceous, unchanged after flowering, outer few small; receptacle flat, naked. *Achenes* narrowly oblong or contracted at both ends, slightly compressed or 3-5-angled, usually ribbed, tip with a pappiferous disk; pappus hairs 2-3-seriate, simple, slender or rigid, separately deciduous.—DISTRIB. Species about 16, N. temperate regions.

The Indian species referred here to *Prenanthes* by Bentham (in *Gen. Plant.*) and *Clarke* (*Comp. Ind.*) are identical in habit with Section V. of *Lactuca*, from which they are distinguishable only by the achene less suddenly contracted at the tip, and less flattened. *L. rapunculoides* (p. 407) is perhaps a *Prenanthes*.

1. **P. Khasiana**, *Clarke Comp. Ind.* 273; slender, erect, glabrous or sparsely hairy, leaves long-peduncled, radical deltoid base cordate lower pinnate, lateral pinnules petioled terminal simple or 3-lobed, panicle elongate branches very slender, heads narrow pendulous cylindrical glabrous, flowers 1-4 blueish purple, achenes contracted slightly above and below, pappus brown brittle.

KHASIA Mts., alt. 5-6000 ft., *Griffith, &c.*

Stem 1-4 ft. *Leaves* membranous, ciliate-toothed, lower 8-10 by 3-4 in.; pinnules 2-3 pair, alternate, oblong or ovate-cordate, base equal or very oblique, acute and apiculate; terminal lobe ovate or deltoid, base cordate or hastate; upper pinnatifid; petiole of the radical leaves very slender, 4-8 in., of cauline shorter. *Panicles* 1-2 ft., strict; branches erect, ultimate and peduncles filiform with few small bracts. *Heads* $\frac{1}{2}$ — $\frac{2}{3}$ in. long; outer invol. bracts minute, inner 3-4 linear obtuse. *Achenes* very narrow, $\frac{1}{2}$ in., compressed, truncate, brown, ribbed, equalling the scanty pappus.—Habit of *Lactuca graciliflora*.

2. **P. Brunoniana**, *Wall. Cat.* 3278; erect, subhispid or glabrous, leaves polymorphous simple lobed pinnatifid or pinnate ovate or cordate or deltoid or