

14. **C. glomerata**, *Dcne. in Jacq. Voy. Bot.* 99, t. 107 (*Prenanthes*), not of *Clarke*; pubescent or villous, stem short soft simple clavate leafy, leaves obovate or linear-oblong entire sinuate-toothed or pinnatifid, heads cylindric, outer invol. bracts 0 or 1-2 filiform, inner 3-6 linear- or broadly oblong obtuse, achenes cylindric-oblong obscurely constricted below the shining white reddish or blue-grey rigid pappus. *C. Hookeriana*, *Clarke Comp. Ind.* 255.

WESTERN TIBET, *Jacquemont*; Lahul, *Captain Hay*; Barji-kang (N. of Kumaon), alt. 14,000 ft., *Strach. & Winterb.* SIKKIM; common near the Tibetan passes, alt. 13-17,000 ft., *J. D. H.*

*Stem* 1-6 in., densely or laxly villous, tapering into a fusiform root a foot long, soft, often  $1\frac{1}{2}$ -2 in. diam. at the truncate top. *Leaves* very variable, 1-5 by  $\frac{1}{4}$ - $\frac{1}{2}$  in., flaccid. *Heads* 50-100, forming a dense hemispheric mass mixed with filiform bracts which arise from the base of the very short peduncle, few-fl.; invol. bracts  $\frac{1}{4}$ - $\frac{1}{2}$  in., variable in breadth, glabrous or villous, margins membranous; ligules yellow. *Achenes*  $\frac{1}{8}$  in., many-ribbed, shining, brown; pappus  $\frac{1}{2}$  in. long, deciduous, hairs very variable in colour.—This is a very singular plant, the analogue of *Saussurea gossypiphora*, which it entirely resembles in habit.

## DOUBTFUL SPECIES.

*CREPIS PORRIFOLIA*, *Don Prodr.* 164; *Barkhausia porrifolia*, *DC. Prodr.* vii. 157; and *BARKHAUSIA ROYLEI*, *DC. l. c.*, are very doubtful plants (see under *Pterotheca Falconeri* and *Crepis Stoliczkaei*).

109. **PHECASIUM**, *Cass.*

Annual or perennial erect hispid herbs. *Radical leaves* lyrate. *Heads* small, yellow, homogamous; fl. all ligulate. *Involucre* cylindric, calyculate, bracts 1-seriate, fruiting with the midrib thickened below; receptacle flat, naked. *Achenes* terete with a broad base, finely striate, narrowed at the tip or beaked; pappus copious, deciduous, or of the outer achenes scanty.—*DISTRIB.* Species 2 or 3, European and Oriental.

1. **P. lampanoides**, *Cass. in Dict. Sc. Nat.* xxxix. 387; annual, hispid or glabrate, leaves rosulate runcinate-pinnatifid, cauline few, base simple or sagittate, flowering stem corymbosely or paniculately branched, heads  $\frac{1}{2}$  in. long, invol. bracts narrowly lanceolate glabrous fruiting rigid, achenes very slender curved subterete pale smooth rather larger than the very soft white pappus. *P. pulchrum*, *Reichb. Ic. Fl. Germ.* t. 1431. *Crepis pulchra*, *Linn.*; *DC. Prodr.* vii. 160; *Boiss. Fl. Orient.* iii. 846. *C. youngiformis*, *Koch in Linnæa*, xkiii. 690. *Chondrilla pulchra*, *Lamk. Encycl.* ii. 77. *Youngia Kochiana*, *Ledeb. Fl. Ross.* ii. 837.

WESTERN HIMALAYA; Kashmir to Lahul, alt. 7-8000 ft., *Clarke, Watt.*—*DISTRIB.* Westwards to the Atlantic.

*Stem* 1 or many from the root, 12-18 in. high. *Leaves* very variable. *Heads* on slender divaricating peduncles; fruiting invol. bracts pale, incurved. *Achenes*  $\frac{1}{2}$  in. long.—This genus would be better reunited with *Crepis* as a section.

110. **PTEROTHECA**, *Cass.*

Annual subscapigerous hispid or glabrous herbs. *Leaves* all radical, toothed or sinuate-pinnatifid. *Heads* subcorymbosely, homogamous, yellow or red, all ligulate. *Involucre* tubular-campanulate; inner bracts 1-2-seriate, equal, narrow, herbaceous, at length concave with the keel thickened, outer few small; receptacle with long hairs or bristles. *Anther-bases* sagittate, auricles acute or setaceous. *Style-arms* slender. *Achenes* slender, all subterete or the outer compressed, 8-10-ribbed, narrowed at both ends, glabrous, strongly 3-ribbed or

winged on the inner face; pappus short, hairs very slender, simple, white, subconnate, deciduous or persistent.—DISTRIB. Species 4 or 5, Mediterranean and W. Asiatic.

1. **P. Falconeri**, *Hook. f.*; hispid or glandular above or glabrate, radical leaves subsessile obovate or elongate-spathulate sinuate-toothed or pinnatifid, flowering stems leafless subcorymbosely branched above, heads  $\frac{1}{2}$  in. long broadly cylindrical hispid or glabrate, outer invol. bracts very small ovate, inner 8–10 linear acute midrib thickened in fruit, achenes very slender straight all terete narrowed above 8–10-ribbed, outer scaberulous, inner smooth longer than the very soft white pappus. *P. bifida*, *Clarke Comp. Ind.*, 256, not of *F. & M.*

WESTERN HIMALAYA; from Kashmir, alt. 3–9000 ft. to Kunawur, *Falconer, &c.*—DISTRIB. Afghanistan.

Annual. Radical leaves 2–8 in., very variable. Flowering stem 6–18 in., slender or stout, corymbosely or paniculately branched above, with minute bracts at the forks or 0; branches spreading, usually with hispid gland-tipped hairs; peduncles naked; recept. hairs very slender, flexuous. Achenes  $\frac{1}{8}$  in., outer sometimes imperfect white and flattened, perfect terete many-ribbed red-brown; pappus  $\frac{1}{10}$  in., hairs all rather persistent.—I advance this species with much hesitation, for though differing in the achenes being all terete and uniformly ribbed from *P. bifida*, I find so much variety in the outer achenes of that plant that I suspect this may prove to be a form of it. *Clarke* refers *De Candolle's Barkhausia porrifolia* and *Roylei* to this, but besides the achenes being in no sense beaked, *B. porrifolia* is founded by *Don* on a plant of *Wallich's* from *Nipal* (where *P. Falconeri* does not occur) which is quite glabrous and glaucous; and with regard to *P. Roylei* the description is not sufficient to identify it; *P. Falconeri* does not occur in *Royle's* Herbarium. The genus should be merged in *Crepis*.

### 111. **HIERACIUM**, *Linn.*

Perennial, leafy, erect or scapigerous herbs, with simple and stellate hairs. Leaves entire or toothed, very rarely pinnatifid. Heads often with black glandular hairs, solitary and long-peduncled or narrowly panicled or corymbose, homogamous, yellow, rarely orange or red; fl. all ligulate. Involucre tubular-campanulate or broad; bracts narrow, herbaceous, inner subequal or not, outer usually smaller, unchanged after flowering; receptacle flat, naked or shortly fimbriate. Achenes oblong-cylindric, 10–15 ribbed, terete or angled, base shortly contracted, top truncate; pappus copious, hairs 1–2-seriate, simple, rigid, fragile, persistent, usually dirty white or brown.—DISTRIB. Species about 150, chiefly Western European, a few Asiatic, N. American, Andean, and S. African.

The Indian *Hieracia* have been referred by *Mr. Baker* to European species, and I have followed his identifications, but described them from the Indian examples. The species seem as variable and difficult to define in the East as in the West, and there are several forms from the Himalaya which do not appear referable to any of the following, but are too imperfect for description. The genus wants careful study in the Himalaya.

1. **H. vulgatum**, *Koch; Boiss. Fl. Orient.* iii. 871; hirsute or glabrate, radical leaves persistent petioled narrowed at both ends coarsely toothed, lower cauline petioled upper sessile, heads many, peduncles straight glandular, invol. cylindric in bud floccose and with gland-tipped hairs, bracts equal alternate subacute. *Reichb. Ic. Fl. Germ.* xix. t. 1526. *H. sylvaticum*, *Lamk.* *H. murorum*, *Clarke Comp. Ind.* 256.

WESTERN HIMALAYA; from Kashmir to Garwhal, alt. 6–10,000 ft.—DISTRIB. N. Asia, Europe, Arctic America.

Stolons 0. Leaves 3–5 in., often spotted with black in Europe. Stem 1–2 ft.,