

The type collection consists of four separate rosettes borne on a stout rhizome or tap root with no signs of connection or branching. A stem 25mm long, completely sheathed by the bases of all leaves, has developed on one specimen.

Saussurea pinnatiphylla differs from all other acaulous/subacaulous Himalayan species by the complete separation of most of its leaf segments and by its pinnately lobed phyllaries. In the other Himalayan species the leaf segments are connected at least by a very narrow herbaceous strip and the phyllaries are all simple apart from the outermost ones of *S. eriostemon* Wall. ex C.B. Clarke, which are sometimes apically 3–5-toothed. The new species shows most superficial resemblance to *S. eriostemon*, *S. pachyneura* Franch. and perhaps *S. colpodes* Y.L. Chen & S.Y. Liang, but the first also differs by its leaf undersurface being subglabrous to crisped pilose on the veins or rarely sparsely araneous and *S. pachyneura* differs by the exceptionally long hairs (mostly 2–4mm) on the bristles of its inner pappus and by the scabrid outer pappus elements.

Tanacetum L. (Anthemideae)

Tanacetum tatsienense (Bureau & Franch.) K. Bremer & Humphries var. ***tanacetopsis*** (W.W.Sm.) Grierson, **comb. nov.**

Basionym: *Chrysanthemum jugorum* W.W.Sm. var. *tanacetopsis* W.W.Sm., Notes Roy. Bot. Gard. Edinburgh 10: 173 (1918). Type: China, Yunnan, Kari Pass, Mekong-Yangtze divide, lat. 27°40'N, 13–14,000ft, vii 1914, *Forrest* 12897 (E).

Syn.: *C. tatsienense* Bureau & Franch. var. *tanacetopsis* (W.W.Sm.) Marq. & Shaw, J. Linn. Soc., Bot. 68: 190 (1929).

Youngia Cass. (Lactuceae)

Youngia silhetensis (DC.) Babc. & Stebb. subsp. ***bhutanica*** Grierson & Springate, **subsp. nov.** Fig. 3e–h.

Formis khasianis magnifoliis polycephalis subspeciei typicae similis sed foliis sessilibus et plerumque undulato-dentatis usque lobulatis, raro subintegris et inflorescentis humilioribus differt.

Type: Bhutan, South: Samdrup Jongkhar District [Deothang district], between Narfang and Wamrung, 1600m, on open cliff faces in some frequency, rosette herb, flower heads yellow, 1 v 1988, *Wood* 6268 (holo. E, iso. E).

Perennial herb, 15–25cm, from short stout rootstock. *Leaves* oblanceolate, sessile, 8.5–25 × 2–4.5cm, acuminate, attenuate at base, remotely denticulate and usually weakly undulate to coarsely dentate, often cut into broad triangular lobes in lower half, ± glabrous above, sparsely pubescent on veins and more densely so on midrib beneath, densely brown araneous at base. *Flowering stems* leafless, branched above, rarely with 1 branch from axil of reduced leaf near base, usually several together forming a single ± corymbose inflorescence of up to 150 capitula, the largest stem on each rosette bearing 15–60 capitula. *Involucre* 2–3mm diam., biseriate; outer

phyllaries ovate, 0.7–4 × 0.5–0.7mm, inner phyllaries 10–13, linear-lanceolate, 6–7.2 × 0.8–1.1mm. *Flowers* 15–19. *Corollas* yellow, glabrous; tube 2.8–5mm long; ligule 7.5–9.5mm long. *Achenes* (immature) linear-lanceolate, 4mm long, puberulous near apex, ribs ± alternately broad and narrow; pappus brittle, yellowish, barbellate, 5mm long.

Additional specimens: [BHUTAN. South/Central: Samchi, Phuntsholing or Ha district] Torsa [river], 3,000–4,000ft, iv 1905, *Searight* 88 (E).

Subspecies *bhutanica* differs considerably in habit from the type of *Y. silhetensis*, but the capitula, flowers and fruit are very similar, including the pappus characters noted by Clarke (1876) and subsequent authors as being more typical of *Hieracium* than *Youngia*. Apart from the two collections of subsp. *bhutanica* cited above, I have only seen one collection of *Y. silhetensis* attributed to Himalaya (although others have been recorded from Kameng District of Arunachal Pradesh by Biswas (1940, under *Crepis*) and Panigrahi and Kar (1966, under *Crepis*). This was from Griffith's herbarium ('Sikkim', s. lect., E.I.C. distribution no. 3368, K) and bears subentire leaves to 30 × 4cm, as long as the longest flowering stem, which seem to have once borne up to 30 capitula or more. It resembles subsp. *bhutanica* more closely than any other specimen seen, but differs by leaves that taper to a very narrowly winged petiole, 5–6cm long, and bear coarser hairs on their undersurface. However, it shows more similarity to several collections from Meghalaya by Griffith, Hooker and Thomson and Clarke and its distribution number was also used for a collection from Burma. In consequence, its origin has been disputed by Clarke (1876) and later writers. The Meghalayan specimens differ from subsp. *bhutanica* by their subentire petiolate leaves no more than two-thirds as long as the inflorescence and by the smaller number of capitula (up to c.25) on each flowering stem in their narrower inflorescences. They are provisionally referred to subsp. *silhetensis* here. The origin and status of the 'Sikkim' collection from Griffith's herbarium remains uncertain. The remaining specimens seen of *Y. silhetensis* have much smaller leaves and fewer capitula than the Meghalayan plants and resemble the type of the species.

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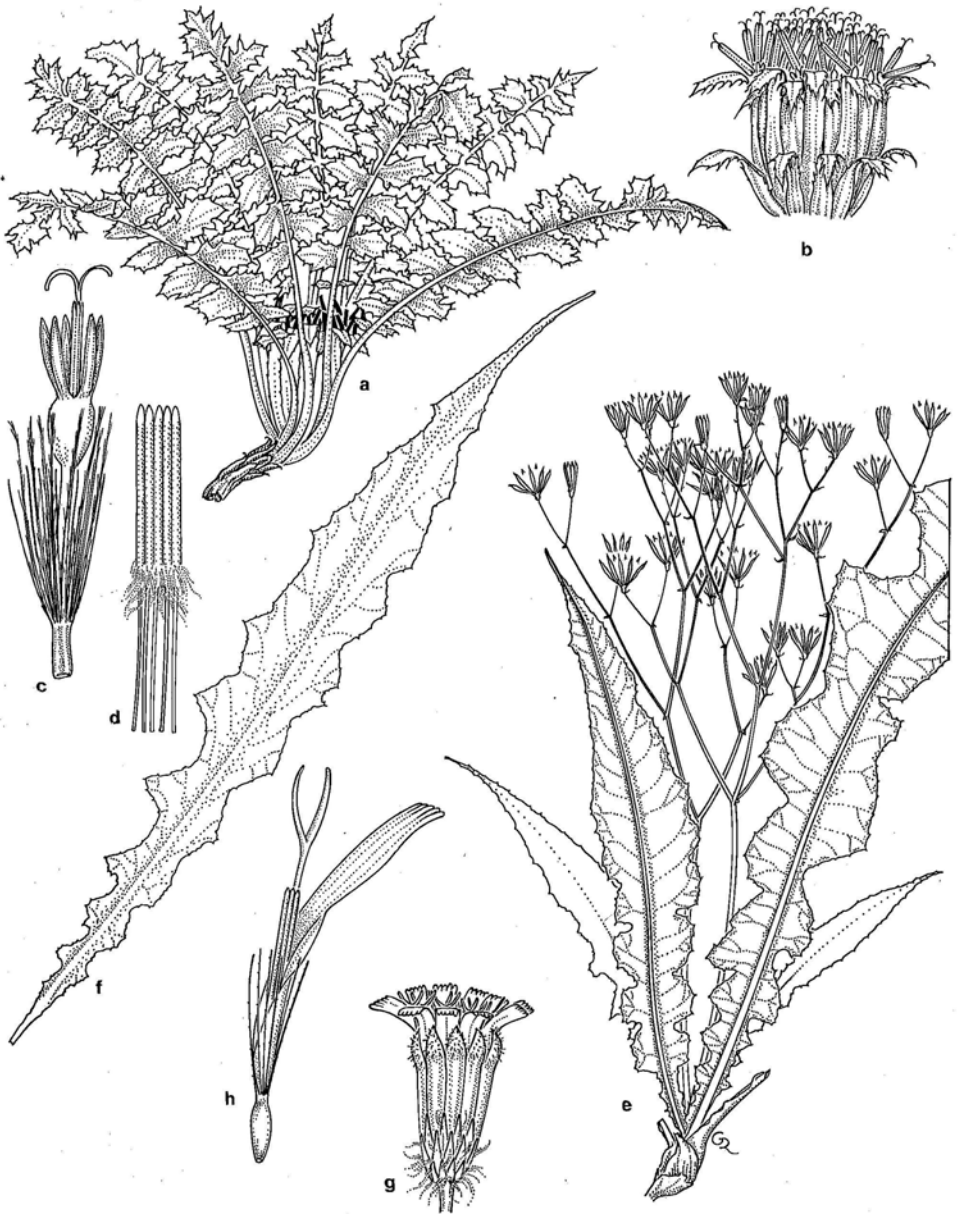


FIG. 3. *Saussurea pinnatifylla* Grierson & Springate: a, flowering plant ($\times \frac{2}{3}$); b, capitulum ($\times 1$); c, flower ($\times 2$); d, dissected ring of stamens ($\times 3$). *Youngia silhetensis* (C.B. Clarke) Babc. & Stebb. subsp. *bhutanica* Grierson & Springate: e, habit ($\times \frac{2}{3}$); f, leaf, ($\times \frac{2}{3}$); g, capitulum ($\times 3$); h, flower ($\times 4$). a-d from Ludlow, Sherriff & Hicks 17172 (E, BM); e, g, h from Wood 6268 (E); f from Searight 88 (E: sheet 'A'). Drawn by Glenn Rodrigues.