

6. Leaves runcinate-pinnatipartite, at least on the lower stem; lobes recurved and unequally tapered, the lobe bases equal to or exceeding the midrib lamina in width; leaf bases \pm broadly auriculate, wider than the midrib lamina; phyllaries in flowering capitula \pm blunt apically, usually not setose outside - - - - - 7. *luxurians*
 - Leaves entire, or if lobed then lobes spreading-falcate, mostly narrower than the midrib lamina; leaf bases not markedly auriculate; phyllaries \pm tapered or blunt apically, often glandular-setose outside - - - - - 7
7. Involucres 10–13(14) mm. long; phyllaries in flowering capitula \pm blunt apically; wool at the base of the involucre whitish or absent; capitula stalks often glandular-setose; leaf bases shortly sagittate; plants mostly weak-stemmed scramblers - - - - - 6. *bipontini*
 - Involucres 13–18 mm. long; phyllaries gently tapered to the apex, at least in the outer 1–2 series; wool at the base of the involucre brownish; capitula stalks eglandular, often tomentose; leaves with large sagittate bases; tall, erect herbs - - - - - 5. *schweinfurthii*
8. Achenes ellipsoid, strongly compressed; marginal ribs broadly wing-like, smooth or rugulose; leaf auricles usually rounded - - - - - 8. *asper*
 - Achenes narrowly obovoid, \pm compressed, ribs all subterete and muricate with retrorse projections; leaf auricles usually \pm triangular-acute - - - - - 9. *oleraceus*

1. ***Sonchus wilmsii*** R.E. Fr. in Acta Hort. Berg. 8: 107, t. 2, fig. 1 (1924). —Boulos in Bot. Not. 127: 422, fig. 3G (1974). —Hilliard, Comp. Natal: 626, fig. 24 G (1977). Type from South Africa (Transvaal).

An erect perennial herb, up to c. 1 m. tall. Stems simple, somewhat woody below, \pm dilated hollow and stout above, glabrous sometimes glaucous, leafy throughout. Leaves sessile, 5–15 \times 2.5–6(8) cm., oblanceolate to panduriform in outline, lanceolate-ovate and smaller towards the stem apex, the basal few leaves smaller and evanescent; cauline leaves variable, runcinate-dentate throughout, or remotely and narrowly-lobed pinnatisect throughout, acute mucronate at the apex, semi-amplexicaul or auriculate-sagittate below, denticulate to sharply and irregularly dentate on the margins, glabrous sometimes glaucous. Capitula 2–7 in a much reduced corymbiform-cymose arrangement, or somewhat aggregated with stalked capitula subtended by subsessile immature capitula, or sometimes the capitula solitary on long branches. Involucres c. 20 \times 12 mm. in fruiting capitula, cylindrical-campanulate to spreading, \pm persistently white-lanate below. Phyllaries imbricate, increasing from c. 4 mm. long on the outside to c. 20 \times 2 mm. on the inside; the outermost narrowly ovate, becoming subcoriaceous with a thickened midrib, the basal portion eventually swollen; the inner phyllaries narrower, lanceolate-lorate, membranous, puberulous or glabrescent. Florets numerous. Corollas yellow, c. 18 mm. long, pubescent about the junction of the tube and ligule; ligule often becoming pinkish outside, 4–5 mm. long, oblong. Achenes pale-brown, c. 4.5 mm. long, narrowly ellipsoid, slightly flattened, glabrous, ribbed; marginal and middle ribs well developed with c. 2 secondary ribs between, the main ribs becoming swollen and rugulose; pappus white copious, 12–14 mm. long, composed of minute barbellate setae and fine down-like hairs.

Mozambique. M: Maputo, Namaacha, 4.xi.1966, *Balsinhas* 1110 (COI).

Also from South Africa (Transvaal and Natal) and Lesotho. Open grassland from sea-level to c. 2000 m., also in disturbed or cultivated ground. A “native vegetable” fide *Borle* 293.

2. ***Sonchus friesii*** L. Boulos in Bot. Not. 120: 456, fig. 1 (1967); 127: 421, figs. 3F, 16 (1974). —Hilliard, Comp. Natal: 626 (1977). Type: Zimbabwe, Inyanga Downs, *Norlindh & Weimarck* 4656 (LD, holotype & isotype).

An erect perennial herb up to 90(120) cm. tall, from a semi-woody taproot. Stems mostly solitary, stout, leafy, hollow, glabrous. Leaves runcinate-dentate or entire (coarsely pinnatilobed-runcinate in Natal), glabrous; basal leaves 6–7 in a rosette, 2–8.5 \times 0.5–2.5 cm., oblanceolate, evanescent; cauline leaves few to many, somewhat crowded on the lower stem, 4–14(18) \times 1–4(10) cm., narrowly oblong-oblanceolate to somewhat panduriform in outline, the uppermost becoming linear-lanceolate, apices obtuse or acuminate, margins coarsely sharply and irregularly-toothed, bases semi-amplexicaul sometimes auriculate-sagittate with narrow lobes up to 1.5 cm. long. Capitula up to 7(40) in lax reduced corymbiform cymes. Involucres c. 15 \times 5–10 mm. in fruiting capitula, \pm broadly cylindrical-campanulate, persistent white-lanate below. Phyllaries imbricate, 3–4 \times 1–2 mm. on the outside, increasing to 12 mm. long on the inside, to c. 15 mm. long in fruiting capitula, lanceolate-lorate, obtuse-acute, membranous, midribs of the outermost often setose becoming thickened towards the base, white- or brownish-lanate, glabrescent towards the apex. Florets numerous. Corollas yellow, c. 12–17 mm. long,

pubescent about the junction of the tube and ligule; ligule often purplish outside, c. 5 mm. long, oblong. Achenes pale-brown, c. 4–5 mm. long, narrowly ellipsoid, slightly flattened glabrous ribbed, the marginal ribs and main rib on each face well developed with c. 2 secondary ribs between, the main rib eventually swollen and rugulose; pappus white, c. 10 mm. long, composed of minutely barbellate setae intermixed with down-like hairs.

Stems stout, usually 5–8 mm. in diam.; leaves mostly runcinate; involucre broadly cylindrical, usually more than 8 mm. in diam.; phyllaries usually setose along the midrib - - var. *friesii*

Stems relatively slender, usually c. 3 mm. in diam.; leaves mostly unlobed; involucre ± narrowly cylindrical, c. 5 mm. in diam. in fruiting capitula; phyllaries not setose on the midrib - - - - - var. *integer*

Var. *friesii*

Zimbabwe. E: Nyanga (Inyanga), c. 3 km. W. of Mt. Inyangani, c. 2100 m., 6.xii.1930, *Fries, Norlindh & Weimarck* 3487 (K; LD).

Also in South Africa (Natal, recorded from coastal and midland areas, along roadsides in secondary grassland and in forest). In montane grassland in the Flora Zambesiaca area.

The Zambian distribution of this species, as indicated by Boulos, and also by Hilliard, loc. cit. was based on the misidentification of *Rogers* 8645 (K); a specimen more correctly assigned to *S. asper* (L.) Hill. *S. friesii* is not known to occur in Zambia.

Var. *integer* G.V. Pope var. nov.* Type: Zimbabwe, Chimanimani, Gungunyana For. Res., *Goldsmith* 81/61 (K, holotype; SRGH).

Zimbabwe. E: Mutare Distr., Tsetsera Mts., Butler North, 1500 m., 20.xi.1957, *Chase* 6766 (K; SRGH). **Malawi.** S: Zomba Plateau, Chitinji, 22.vi.1984, *Tawakali & Nachamba* 263 (MAL).

So far recorded only from the eastern border mountains of Zimbabwe. Montane grassland or scrubland and ground cleared for cultivation.

The specimens *Norlindh & Weimarck* 3753 (LD) and 4526 (LD) from the lower slopes of Mt. Inyangani are intermediate between the two varieties.

3. ***Sonchus integrifolius*** Harv. in Harv. & Sond., F.C. 3: 528 (1865). —R.F. Fr. in Acta Hort. Berg. 8: 108 (1924). —L. Boulos in Bot. Not. 127: 419, figs. 3E, 15 (1974). —Hilliard, Comp. Natal: 627 (1977). Syntypes from South Africa (Natal).

Sonchus delagoensis Thell. in Viert. Nat. Ges. Zürich 66: 252 (1921). Syntypes: Mozambique, Maputo (Delagoa Bay), *Junod* 174 (BR; G, not seen); *Schlechter* 11971 (BM).

An erect glabrous perennial herb up to c. 55 cm. tall, from a semi-woody taproot. Stems usually simple, terete and finely striately-ribbed, leafy throughout but with leaves more crowded in the lower part. Leaves numerous sessile patent-ascending, usually undivided and entire to sinuate-dentate, sometimes with remote spreading (not recurved) lorate lobes up to c. 3.5 × 0.5 cm.; basal leaves c. 10 × 1 cm., narrowly oblanceolate; cauline leaves up to c. 17 × 2 cm., linear-elliptic to narrowly-elliptic becoming lanceolate towards the stem apex, attenuate-acute, margins subentire to denticulate, semi-amplexicaul and sagittate at the base. Capitula few in lax corymbiform cymes, or solitary and terminal on long synflorescence branches, glabrous at least when mature. Involucre up to c. 23 × 12 mm. in fruiting capitula, cylindrical-campanulate later spreading. Phyllaries imbricate, increasing in length towards the inside, becoming thickened below; outermost c. 4 mm. long, ovate to lanceolate, sub-coriaceous; innermost to c. 17 × 3 mm. long, increasing to c. 23 mm. long in fruiting capitula, narrowly lanceolate, membranous, eventually involute and reflexed. Florets numerous. Corollas yellow, 15–18 mm. long, ± pubescent about the junction of tube and ligule; ligule 4–5 mm. long, oblong, reddish outside. Achenes pale-brown, 4–5.5 mm. long, narrowly ellipsoid, slightly laterally compressed, strongly 4-ribbed with c. 2 secondary ribs between, the larger ribs eventually thickened, glabrous; pappus white, c. 12 mm. long, composed of minutely barbellate setae and down-like hairs.

Zimbabwe. C: Marondera, Grasslands Res. Station, 29.i.1954, *Corby* 788 (K; SRGH). E: Mutare, Odzani R. Valley, *Teague* 590 (BOL). **Mozambique.** GI: Inhamissa, on the road from Machongo to Chongoanine, 17.xii.1957, *de Aguiar Macedo* 50 (SRGH).

Also from South Africa (Cape Province, Natal, and the Transvaal) and Lesotho. Open, usually seasonally waterlogged grassland, and in disturbed ground.

* Var. *integer* G.V. Pope var. nov., a varietate typica caulibus pro ratione exilibus plerumque c. 3 mm. diam., foliis pro parte maxima elobatis, involucri ± anguste cylindricis in capitulis fructificantibus c. 5 mm. diam., phyllariis non in costa setosis differt. Typus: Zimbabwe, Chimanimani, Gungunyana For. Res., *Goldsmith* 81/61 (K, holotype; SRGH).