

row, spreading ligulæ and short tubes. *Achenia* linear, quite smooth. *Pappus* pale yellow-brown, of one series of slender, smooth bristles, expanding below and becoming paleaceous. *Receptacle* smooth, glabrous, pitted. This plant is common to Tasmania and South Australia, varying extremely in both countries, sometimes attaining a height of nearly two feet, with leaves as broad as the finger; these vary in amount of lobing, being entire or pin-natifid, with long, narrow, spreading segments an inch long. (Name from *μικρος*, *small*, and *σρεψ*, *a lettuce*.)—PLATE LXVI. Fig. 1, receptacle and portion of involucre; 2, flower; 3, stamen; 4, arms of style; 5, achenia:—*all magnified*.

Gen. XXXV. PICRIS, L.

Capitulum multiflorum; flosculis omnibus ligulatis. *Involucrum* squamæ imbricatæ, exteriores patulæ. *Receptaculum* nudum. *Achenium* sulcatum, jugis apice transverse rugosis. *Pappus* 1-2-serialis; pilis plumosis.—Herbæ erectæ, scaberula v. pilosæ; foliis alternis; capitulis subcorymbosis, flavis.

Tall, erect, leafy herbs, with milky juice, of which one European species also inhabits various parts of India, Australia, Tasmania, and New Zealand, varying considerably, especially in hairiness, in all places, being sometimes nearly smooth, at others very hispid, with stiff, spreading bristles. *Stems* 2-4 feet high. *Radical leaves* petiolate, linear-oblong, blunt, more or less sinuate, toothed and hispid; cauline smaller, sessile, linear, acuminate. *Panicle* loosely branched. *Peduncles* long and slender, often quite smooth. *Pedicels* bracteolate. *Involucres* $\frac{1}{3}$ - $\frac{1}{2}$ inch long, campanulate; *scales* in two to three series, hispid and pubescent; the outer shorter, often recurved; inner long, forming one row, acuminate. *Flowers* all ligulate, yellow; *rays* spreading. *Pappus* of one series of fine white, feathery, soft hairs. *Achenia* contracted above, turgid below, furrowed, the ridges tuberculate.—The other species of this genus are chiefly natives of the South of Europe. (Name from *πικρος*, *bitter*, as is the juice of this and many others of the tribe.)

1. **Picris hieracioides** (Linn. Sp. Pl. 1115); pilus minusve hispido-pilosæ, foliis petiolatis oblongo-lanceolatis sinuatis dentatisve caulinis basi semiamplexicaulibus, capitulis corymbosis, acheniis superne constrictis striatis transverse rugulosis.—*DC. Prodr.* vii. 128. *P. attenuata*, A. Cunn. in *Ann. Nat. Hist.* ii. 125. *P. angustifolia*, *DC. Prodr.* vii. 130; *Sonder in Linnaea*, xxv. 529. *P. barbarorum*, *Lindl. in Ann. Sc. Nat. Ser. 2.* xv. 63. *P. squarrosa*, *Steetz, in Plant. Preiss.* i. 488; *Sonder, l. c.* *P. asperima*, *Lindl. in Bot. Reg.* 1838, No. 108. (*Gunn*, 115.)

HAB. Common in the northern parts of the Island, *Gunn, etc.*—(Fl. Nov., Dec.) (v. v.)

DISTRIB. South-eastern and South-western Australia; New Zealand; Temperate Europe and Asia.

Gen. XXXVI. SONCHUS, L.

Capitulum multiflorum; floribus omnibus hermaphroditis, ligulatis. *Involucrum* squamæ imbricatæ, multi- v. pauci-seriatæ. *Receptaculum* nudum. *Achenia* omnia conformia, compressa v. alata, costata, erostria, levia v. tuberculata. *Pappus* mollis, pluriserialis, pilis tenuissimis albis.—Herbæ pleræque elatæ; caulibus spongiosis fistulosisque; foliis alternis; capitulis flavis purpureisque.

1. **Sonchus asper** (Fuchs, Hist. 674).—*S. fallax*, *Wallroth*; *DC. Prodr.* vii. 185. *S. oleraceus*, γ et δ , *Linn. Sp. Pl.* 1117. *S. oleraceus*, β , *asper*, *DC. Fl. Franc.* 2895.

Var. β . *megalocarpa*; acheniis crassis late alatis compressis disco sulcatis costis 3-5 spongiosis. (*Gunn*, 845.)

HAB. Var. β . *megalocarpa*, common, but only near the sea on the north shore of the Island, *Gunn*.—(Fl. Dec.-Feb.)

The subject of the Southern *Sonchi* allied to the European *S. oleraceus*, *asper* and *arcensis*, is involved in much

obscurity, partly owing to these species having been early imported into all the temperate quarters of the globe and becoming speedily naturalized; partly to their being truly indigenous in some of the south-temperate parts of the globe, to which they have also been imported by man; and most of all to the differences of opinion that exist as to what are species and what varieties amongst them, and which are enhanced greatly in the case of dried specimens. Thus in New Zealand the two forms or species, *Sonchus oleraceus* and *S. asper*, are both native, and the *S. oleraceus* has also been imported from Europe; and it is a curious fact, that the natives who used to eat the wild form of the plant have latterly given up its use, preferring the introduced. It still however remains to be proved whether the wild New Zealand species does not attach itself to cultivated places, and hence may not on some occasions be assumed to be introduced. These are points requiring the greatest care in investigation, and that observations should be made at many remote parts of the Colony. In Tasmania only one native form of *Sonchus* appears, differing from both *S. oleraceus* and *S. asper* in the form, etc., of the achenium, an organ which is so variable in the genus that I hesitate to found a new species upon its Tasmanian modification. The *S. asper* itself, and the European form of *S. oleraceus*, are also found both in South-east and South-west Australia, but whether indigenous or introduced I cannot say. Mr. Mueller distinguishes two at Victoria as *S. oleraceus* and *S. asper*, and says that though I have united these species in the 'New Zealand Flora,' the Victoria specimens are perfectly distinct, and that besides the constant differences in their fruit, they differ in the shape and size of the leaves, and in the internal structure of the stem. These characters are however not so constant as Mr. Mueller supposes, the fruit especially being extremely variable, and presenting many intermediate modifications; whilst the stems and foliage present great diversities of size, form, consistence, and internal structure in very many of the species of Liguliflorous *Compositæ*. If such common plants as *Sonchus asper* and *oleraceus* were really always distinguishable, it must have been proved long ago, and botanists would not have required a century to make up their minds about them; whereas from the days of Linnæus to the present opinions are divided upon the subject. It appears to me to be a matter of little importance whether we call such varying, closely allied forms, species or varieties, so long as they are properly discriminated. Only one other *Sonchus* has been found in Australia, near Port Macquarrie, of which I have seen an indifferent specimen.—The Tasmanian *Sonchus* is a tall, smooth, branching or simple, leafy, succulent, milky herb, with a hollow (?) grooved stem, and subumbellate corymbs of yellow heads; it varies extremely in size and habit, from 6 inches to 2 feet high, and in the form and cutting of the foliage. *Leaves* ovate-oblong or linear-oblong, petiolate or sessile, entire, sinuate and irregularly toothed, or runcinate-pinnatifid, with large or small toothed lobes, sometimes quite linear-elongated and sessile and acuminate, with wavy spinulose margins, in others broadly oblong, deltoid, or fiddle-shaped, with a long winged petiole; *cauline* leaves clasping the stem, with broad auricles. *Involucral scales* in several series. *Heads* yellow, $\frac{2}{3}$ – $1\frac{1}{2}$ inch across, of many ligulate florets. *Receptacle* smooth. *Pappus* of many series of simple, white, soft hairs. *Achenium* oblong, blunt at both ends, compressed, broadly winged, the disc grooved and ribbed. (Name from *σμφος*, *hollow*, in allusion to the hollow stems; *συχχος* in Greek.)

Additional Observations on the Tasmanian Compositæ.

EURYBIA capitellata (DC. Prodr. v. 266).—This is mentioned by Sonder (Linnæa, xxv. 456) as having been found in Tasmania by Stuart. According to De Candolle it differs from *E. axillaris* in the pedicelled capitula.

EURYBIA ciliata (Benth.; see Sonder in Linnæa, xxv. 458).

EURYBIA Gunniana (DC.). Sonder (Linnæa, xxv. 460) has well discussed the question of the value of the double and single pappus of *Olearia* and *Eurybia*, and has further reduced *E. quercifolia*, Cass., and *Olearia phlogopappa*, DC. (*Aster phlogopappus*, Lab.), to *E. Gunniana*; that able author has also reduced *Aster stellulatus*, Lab., to *E. fulvida*, Cass., and suggested its being a variety of *E. Gunniana*.

EURYBIA limifolia is referred by Sonder to Lindley's *E. glutinosa* (Bot. Reg. N. S. xii. Misc. 68), and is said to differ from *E. glutescens* (Sonder, Linnæa, l. c.) in the striated, not angled, branches, narrower, shorter, not sca-