STUDIES IN SENECIO (COMPOSITAE)

M.E. Lawrence

CSIRO, Division of Horticultural Research, GPO Box 350, Adelaide 5001

Abstract

Senecio odoratus Hornem. var. longifolius var. nov. and S. cunninghamii DC. var. serratus var. nov. are described, and a key to all varieties of these related species provided. S. georgianus DC. var. laevisus J.M. Black and S. minimus Poir. var. picrodoides (Turcz.) R.O. Belcher are recognised at the specific level as S. gawlerensis nom. nov. and S. picrodoides (Turcz.) M.E. Lawrence comb. nov. respectively.

Key to Senecio odoratus, S. cunninghamii and their varieties

1. Venation of leaves not conspicuous, laterals sometimes evident on drying and then not usually darkened; leaves green or becoming glaucous, glabrous or at least the young shoots and often the involucres with a fine white tomentum, leaves with or without small toothed auricules ............................................. S. cunninghamii

2. Cauline leaves less than twice as long as broad.
   3. Cauline leaves 3-7 times longer than broad, rarely approaching 2 or 10 times longer than broad, oblongate with stem-clasping auricles, glaucous (Fig. 1A) ............ var. odoratus
   3. Cauline leaves at least 10 times longer than broad, linear or narrowly lanceolate, with or without minute auricles, dark green above, lighter below (Fig. 1B) .......... var. longifolius

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Senecio odoratus Hornem., Hort. Hafn. 2:809 (1815)

Type: Presumably a specimen grown in botanic garden at Copenhagen from achenes sent from England.

var. longifolius M.E. Lawrence, var. nov.

Suffrutex ad 150 cm altum. Folia anguste lanceolata, saltem 10-plo longiora quam latiora (5-14 x 0.5-1.4 cm), basi agustata vel subpetiolata, cum vel sine auriculis dentatis parvis, margine saepe plana, interdum breviter revoluta, remote denticulata vel subintegra, pagina adaxialiter perviridi, pagina abaxialiter dilutior dilute or dilutior viridi diluta, venis reticularibus conspicuis atrantibus ubi desiccatis. Inflorescentia plerumque paniculata aliquantum laxa, interdum corymbosa.

Type: Ravine des Casoars, 2.i1948, J.B. Cleland (Holotype: AD 97245349, isotype: AD 97410421).

Etymology: Latin longi-, long; -folius, leaved; referring to the leaves much longer than broad.

Subshrub to 150 cm high. Leaves narrowly lanceolate, at least 10 times longer than broad, 5-14 x 0.5-1.4 cm, basally narrowed or subpetiolate, with or without small toothed...
auricles, margins often flat, sometimes shortly revolute, distantly and minutely toothed or subentire, adaxially dark green, abaxially lighter with conspicuous veins that usually darken on drying, glabrous or sparsely arachnoid. Inflorescence usually paniculate and rather lax, sometimes corymbose. (Fig. 1B).

*S. odoratus var. longifolius* is known to occur in South Australia only on the western end of Kangaroo Island in the Ravine des Casoars and in the vicinity of the Rocky River, and on Pearson Island. Flowering occurs from November to March.

*Selected specimens examined* (collections seen: 25)


An uncommon narrow-leafed variety bearing some resemblance in foliage and inflorescence to *S. cunninghamii* var. *cunninghamii* but distinguished from the latter and allied to *S. odoratus* by its prominent reticulate leaf venation and, when present, sparse arachnoid pubescence on the lower leaf surface. Care should be used in interpreting small sprigs of *S. odoratus* only a few cm long, as leaves of the typical variety are frequently reduced and almost linear on axillary shoots towards the inflorescence but larger and oblanceolate or obovate on the older stems.

![Fig. 1. Flowering branches of A, Senecio odoratus var. odoratus (Eichler 15477); B, var. longifolius (Cleland AD 97245349; holotype); C, var. obtusifolius (Lawrence 610); D, S. cunninghamii var. cunninghamii (Cleland AD 97245383); E, var. serratus (Cunningham s.n.; holotype). (All x ½).](image-url)
**Senecio cunninghamii** DC., Prodr. 6:371 (1838), as cunninghami.

*Type: Cunningham* (Holotype: G); Prodromus Herbarium, vi.371 no. 164; a specimen of unknown provenance, which, according to the note attached, was received by Candolle admixed with *Cunninghamia 130*, the type of *S. georgianus*; photo seen.

*S. brachylaenus* DC., Prodr. vii.370 no. 163 (1838).

*Type: Banks of the Lachlan River, Cunningham 142, vi.1817* (Holotype: G-DC; photo seen).

var. *serratus* M.E. Lawrence, var. nov.


*Suffrutes* ad 100 cm altum, saltem paribus juvenilibus et saepe involucris cum tomento tenue albo cristato. *Folia* oblanceolata, serrata, serraturae saepe serrulatae, attenuata vel subpetiolata cum vel sine auriculis parvis denticulatis, tomentosa, demum glabrate. *Phyllaria* 3-4 mm long.


*Etymology:* Latin *serratus*, serrate; referring to the saw-like teeth of the leaf margins.

*Subshrub* to 100 cm high, at least the youngest shoots and often the involucres with a fine white tomentum of crisped hairs. *Leaves* oblanceolate, serrate, the teeth sometimes again shortly toothed, basally narrowed or subpetiolate, with or without small toothed auricles, tomentose, becoming glabrate. *Phyllaries* 3-4 mm long. (Fig. 1E).

*S. cunninghamii* var. *serratus* is confined to central Australia, occurring in southern regions of the Northern Territory, the south-western corner of Queensland, north-western New South Wales, and north-central and north-eastern regions of South Australia. It is most frequent near areas of temporary impeded drainage on sand or clay, and less frequent on hill-sides or open stony plains. Flowering occurs opportunistically throughout the year, with peaks recorded in September and May.

*Selected specimens examined* (collections seen: 122)

**NORTHERN TERRITORY:** Finke River, S. Glen Helen H.S., 4.i.1955, G. Cippendale (AD 95910081); 1 mile N of Alice Springs, 12.xi.1963, R. Swinbourne 774 (AD 9653160).**

**SOUTH AUSTRALIA:** Maree-Dulkaninna track 5 miles from Maree, 23.ix.1956, T.R.N. Lothian L2001 (AD 96224209); Mulgaria H.S. 30°14'S 137°38'E, 13.xii.1964, P. Aitken (AD 96506008); Roadside near Avondale on Talc Road from Lyndhurst, 4.xi.1966, D.E. Symon 4044 (AD 97544259).

**QUEENSLAND:** Wilson River, ix.1922, Dr McGillivray 903 (AD 97630543, no. 1 of 3 specimens, Herb. J.M. Black).

**NEW SOUTH WALES:** Mt Mulyah c. 50 miles NW Louth, vi.1968, E.D. Arnay (CANB 18880); Mt King Station near Tibooburra, 11.x.1971, Perry 5814 (CANB 254469).
Var. serratus differs from var. cunninghamii in both morphology and distribution; var. serratus has serrate leaves, a white tomentum on at least the young shoots, and occurs in central Australia; var. cunninghamii is a glabrous plant with entire leaves that occurs predominantly in the Murray-Darling drainage system. Occasional plants of somewhat intermediate morphology occur in the southern Flinders Ranges and northern Lofty regions of South Australia. They have short revolute entire leaves characteristic of rare collections of var. cunninghamii from Yorke Peninsula, and a white tomentum on the youngest shoots indicative of var. serratus.

**Senecio picridioides** (Turcz.) M.E. Lawrence, comb. nov.


*E. prenanthoides* DC. var. picridioides (Turcz.) Benth., Fl. Austral. 3:658 (1866).


*Erechtites picridioides* Turcz. was treated as a variety of *E. prenanthoides* by Bentham (1866) and as a variety of *Senecio minimus* by Belcher (1956). The treatment is inconsistent when compared with other varieties and species of *Senecio*. The lobed leaves and hispid vestiture of var. *picridioides* are quite different from those of var. *minimus* and the characteristic purple pigmentation of the leaves and stems of var. *picridioides* is approached only by *Arrhenechtites mixta* (A. Rich.) Belcher in the Senecioneae of Australia. The floral morphology of var. *picridioides* and var. *minimus* is similar, but on this ground alone, *S. bipinnatisectus* Belcher and perhaps also *S. biserratus* Belcher should have been treated as varieties of *S. minimus*. *S. minimus* var. *picridioides* is accordingly recognised at the specific level, as it was by Black (1929) in *Erechtites*. He likened it to his *E. prenanthoides*, which, as shown by Belcher (1956), is actually *Senecio biserratus* Belcher. Robertson compounded Black's error by reducing *E. picridioides* to a synonym of her *S. minimus*, which is partly *S. biserratus*, partly *S. picridioides*.

**Senecio gawlerensis** M.E. Lawrence, nom. et stat. nov.

*Type:* 10 miles W. Yardea, E.P., 24.viii.1928, J.B. Cleland (Lectotype selected here: AD 96822076!). Caroona, E.P., s. date, Dr W.L. Cleland (Syntype: AD 96822072!).

*S. georgianus* DC. var. *latifolius* J.M. Black, Fl. S. Austral. 613 (1929).

Black (1929) probably treated material from the Gawler Ranges as a variety of *S. georgianus* because the latter is the only discoid species with a high floret number (35-40) reported to occur in South Australia. The floret number of *S. gawlerensis* (15-20) is higher than in other South Australian discoid species (9-14) but is numerically closer to these than to *S. georgianus*. Furthermore, the leaves of *S. georgianus* are linear or lanceolate, entire or shortly toothed and arachnoid beneath at maturity, while those of *S. gawlerensis* are broad-lanceolate or ovate, deeply toothed or pinnatifid and glabrate at maturity. As the epithet *latifolius* has been used several times at the specific level in *Senecio*, the epithet *gawlerensis* was selected to reflect the restricted distribution of this species in the Gawler Ranges of South Australia. The J.B. Cleland specimen was chosen as lectotype as it has Black's notes and drawings.
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References
