



## 135 \* VALERIANACEAE <sup>1</sup>

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Herbs or shrubs, annual or sometimes perennial; often woody at the base; branching often dichotomous. Leaves exstipulate, opposite or in a basal rosette, bases usually sheathing or connate, entire or pinnatifid to pinnately divided. Inflorescence cymose, terminal. Flowers often numerous, actinomorphic or zygomorphic, bisexual; receptacle epigynous. Calyx often poorly developed. Sepals 1–25, united at the base into a short tube, small at anthesis, enlarging in the developing fruit, often plumose, persistent. Petals 5, united into a basal tube, a conspicuous nectariferous spur sometimes present. Stamens 1–4, alternating with the petals; filaments adnate to the corolla tube; anthers bilocular, dehiscing by longitudinal slits. Ovary inferior, 3-locular but only one locule fertile and with a single ovule; style slender; stigma finely 2- or 3-lobed, rarely entire. Fruit a cypsela.

A widespread family of 17 genera and 315 species, occurring chiefly in the Northern Hemisphere but extending to South America, South Africa, and Indonesia; 3 genera naturalized in Australia; in Tasmania 2 genera naturalized. The family is placed in the Dipsacales near Dispsacaceae (Eurasia, Africa) and Morinaceae (Balkans to China).

The Tasmanian representatives of the family are weeds of cultivation; however, the family contains some species of minor pharmaceutical and culinary value. The leaves of some species of *Valerianella* (Corn-salads) are occasionally used as a salad green (chiefly in Europe), and extracts of the herb *Valeriana officinalis* L. (Valerian) are popular as natural remedies for insomnia and nervous anxiety.

Key references: Curtis (1963); Jeanes (1999).

External resources: accepted names with synonymy & distribution in Australia (APC); author & publication abbreviations (IPNI); mapping (ALA, AVH, NVA); nomenclature (APC, APNI, IPNI).

1. Corolla spurred; stamen 1; lobes of calyx plumose

1 *Centranthus*

1: Corolla not spurred; stamens 3; calyx lobes truncate, not plumose

2 *Valerianella*

## 1 \* CENTRANTHUS

*Centranthus* DC., *Fl. Franc.* (DC. & Lamarck), ed. 3, 4: 238 (1805).

Synonymy: *Kentranthus* Neck. *Elem. Bot.* (Necker) 1: 122 (1790), *nom. inval.*

Perennial herbs, stems erect. Leaves entire, dentate or pinnatisect, petiolate but progressively sessile and amplexicaul nearer the inflorescence. Inflorescence a rounded to elongate thyrse, branching openly into a number of dichasia. Flowers, sessile; bracts scale-like. Sepals 10–23, connate, forming a short tube, inrolled at anthesis, expanding and becoming visible only in fruit. Corolla zygomorphic, 5-lobed, floral tube slender, longer than the lobes; abaxial lobe usually larger, the base of which is projected proximally into a long, nectariferous spur. Stamen 1, inserted in the throat of the corolla-tube. Style slender, stigma entire or trifold. Cypsela dry, surmounted by the persistent calyx, obscurely 3-ribbed at the site of the 2 aborted cells.

A genus of c. 12 species from Europe and the Mediterranean; 2 species naturalized in Australia.

1 This work can be cited as: Gray AM (2013). Valerianaceae, **version 2019:1**. In MF de Salas (Ed.) *Flora of Tasmania Online*. 4 pp. (Tasmanian Herbarium, Tasmanian Museum and Art Gallery: Hobart). <https://flora.tmag.tas.gov.au/treatments/valerianaceae/>

2 Tasmanian Herbarium, Tasmanian Museum & Art Gallery, PO Box 5058, UTAS LPO, Sandy Bay, TAS 7005, Australia.

**1 *Centranthus ruber* (L.) DC., *Fl. Franc.* (DC. & Lamarck), ed. 3, 4: 239 (1805), subsp. **ruber*****Red Valerian, Kiss-me-Quick**Valeriana rubra* L., *Sp. Pl.* 1: 31 (1753); *Kentranthus ruber* (L.) Druce, *Fl. Berks.* 268 (1897).*Illustrations:* Curtis, *The Student's Flora of Tasmania* 2: 278, fig. 72a-b (1963); Retter, *Fl. New South Wales* 3: 448–449 (1996); Jeanes, *Fl. Victoria* 4: 649, fig. 126a (1999); Richardson et al., *Weeds of the South-East, an Identification Guide for Australia* 402 (2006).

Glabrous perennial herbs with hollow stems, 20–80 cm high; stems and leaves ± glaucous. Leaves opposite, shortly petiolate, but progressively becoming sessile and amplexicaul below the inflorescence; lamina 5–12 cm long, 4–8 cm wide, broadly-ovate to ovate-lanceolate, entire, or the upper leaves sinuate-dentate, venation clearly visible, apex acute or acuminate. Inflorescence a number of thyrses, rounded to elongate, often divided into numerous cymose partial inflorescences; bracts small, linear or narrow-lanceolate, margins minutely glandular-hairy. Flowers very numerous, slightly sweetly fragrant; protandrous. Calyx inrolled in the flowering stage, expanding outwards and becoming plumose, forming a pappus in the fruiting stage. Corolla white, pink, or dull-crimson; tube 8–12 mm long, very slender; lobes 2–4 mm long, oblong, rounded, spreading, 4 adaxial lobes on the same side as the basal spur closer together than the remaining lobe; spur as long as, or 2x as long as, the ovary. Stamen exerted, inserted in the throat of the corolla tube at the base of the lobe opposite the spur. Style filiform; stigma minute, rounded. Cypsela oblong-ovoid, compressed, 3–4 mm long, one face convex, the other ± concave with 3 prominent longitudinal ridges, surmounted by the plumose pappus, c. 10–12 mm diam. Flowering & fruiting Oct.-May.

Tas. (FUR, TSE); also naturalized WA, SA, Qld, NSW, Vic.; native to SE Europe. A widespread and locally abundant weed along dry roadsides, embankments and waste places, particularly in the south of the state, e.g. in the greater Hobart area; occasionally planted as an ornamental and persisting. Dried plants have a slightly foetid smell.

**2 \* VALERIANELLA***Valerianella* Mill., *Gard, Dict. Abr.*, ed. 4, 3 (1754).

Annual herbs with a short, stout tap root and erect flowering stems. Leaves simple, entire, dentate or pinnatisect, petiolate but becoming sessile and amplexicaul nearer the inflorescence. Inflorescence a cyme, bracteate, usually branching into several compact dichasia. Flowers sessile; bracts scale-like, closely surrounding and holding fruit for a lengthy period. Sepals 1–30, connate, forming a short tube, not obscure and inrolled at anthesis, enlarging in fruit. Corolla ± actinomorphic, 5-lobed, floral tube short, about as long as the lobes, lobes sub-equal. Stamens 3, inserted in the throat of the corolla tube. Style slender; stigma shortly trifid. Cypsela dry, surmounted by the persistent calyx, obscurely ridged at the site of the aborted cells.

A genus of about 200 species, chiefly from the Northern Hemisphere, but also from South America and South Africa; 5 species naturalized in Australia, 3 species in Tasmania, 1 doubtfully naturalized.

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| 1. Fruiting calyx vestigial, < 1/10 as long as fruit, or absent  | 1 <i>V. locusta</i>   |
| 1: Fruiting calyx distinct, c. 1/4 as long or almost as long as rest of fruit  | 2                     |
| 2. Fruiting calyx hispid, shortly cup-shaped-tubular, tube usually with 6 acute lobes, 2/3 as long as rest of fruit and almost as wide | 2 <i>V. eriocarpa</i> |
| 2: Fruiting calyx glabrous or glabrescent, not or only shortly narrow-tubular with 1-5 lobes, c. 1/4 as long as the fruit              | 3 <i>V. rimosa</i>    |

**1 \* *Valerianella locusta* (L.) Laterr., *Fl. Bordel.*, ed. 2. 93 (1821)***Lamb's Lettuce, Corn-salad**Valeriana locusta* L., *Sp. Pl.* 33 (1753); *Valerianella locusta* (L.) Betcke, *Animadv. Bot. Valer.* 10 (1826), *nom. illeg. non* (L.) Laterr. (1821).*Illustrations:* Jeanes, *Fl. Victoria* 4: 649, fig. 126c (1999); Richardson et al., *Weeds of the South-East, an Identification Guide for Australia* 403 (2006).

Herbs, 10–45 cm high; stems decumbent to sub-erect, somewhat brittle, branching dichotomous; branches with short, bristly hairs mostly along the ridges. Rosette leaves petiolate; lamina 2–7 cm long, 0.5–2.0 cm wide, broadly spathulate to obovate, entire or sinuate, glabrous or with scattered hairs along the margins and veins, apex obtuse. Stem leaves almost sessile; lamina 1–6 cm long, (0.2–)0.5–1.0 cm wide, linear-oblong to oblanceolate, entire or sinuate, tenuous, apex obtuse. Inflorescences 1-many corymbose dichasia; flowers numerous; bracts green, spathulate, closely surrounding flowers and fruit. Calyx vestigial, a single minute, acute apical lobe, < 1/10 as long as the fruit, or obscure, glabrous. Corolla pale lilac; corolla tube c. 1 mm long; lobes oblong-lanceolate. Stigmas thread-like. Cypsela sub-spherical, c. 2 mm diam., slightly compressed, shallowly ribbed on both sides, glabrous. Flowering & fruiting Oct.-Dec.

Tas. (TSE); also naturalized Vic.; native to Europe. A rare weed of waste places; local in suburban Hobart, probably elsewhere in weedy places but overlooked. Dried plant with a rather foetid smell.

**2 \* Valerianella eriocarpa** Desv., *J. Bot.* (Desvaux) 2 : 314, t.11, fig. 2 (1809)

*Italian Corn-salad*

*Illustration:* Jeanes, *Fl. Victoria* 4: 649, fig. 126b (1999).

Herbs, 10–35 cm high; stems sub-erect, somewhat brittle; branching ± dichotomous, branches with short bristly hairs. Rosette leaves petiolate; lamina 2–15 cm long, 1–3 cm wide, oblanceolate-spathulate, entire or sinuate, glabrous except for scattered hairs along the margins and veins, apex obtuse. Stem leaves sessile, often with amplexicaul basal lobes; lamina 2–9 cm long, (0.2–)0.5–2.0 cm wide, oblong to oblanceolate, entire or sinuate, tenuous, apex often coarsely dentate in leaves nearer the inflorescence. Inflorescences 1-many corymbose dichasia; flowers numerous; bracts green, linear-lanceolate, closely surrounding flowers and fruit. Calyx shortly cup-shaped to tubular, c. 1 mm long, usually with 1–6 acute lobes, enlarging in fruit, hispid. Corolla blue or white; corolla tube funnel-shaped, c. 1 mm long; lobes oblong-lanceolate. Stigmas thread-like. Cypsela oblong, c. 1 mm long, slightly compressed, ribbed on one side, hispid, the hairs hooked or spreading; surmounted by the acutely pointed, ± lobed calyx. Flowering & fruiting Oct.-Dec.

Tas. (FUR, TNM, TSE); also naturalized in SA, Vic.; native to S Europe. Local in grassy areas and waste places; in widely separated localities in the south-east, Midlands area, north, and on Flinders and Prime Seal Islands. Dried plant material has a rather foetid smell.

**3 \* Valerianella rimosa** Bast., *J. Bot. Agric.* 3: 20 (1814)

*Broadfruit Corn-salad*

Herbs, 10–35 cm high; stems sub-erect, somewhat brittle; branching ± dichotomous, branches with a very sparse indumentum of short bristly hairs. Rosette leaves petiolate; lamina 2–10(–15) cm long, 1–3 cm wide, oblanceolate-spathulate, entire or sinuate, glabrous except for scattered hairs along the margins and veins, apex obtuse. Stem leaves sessile, often with amplexicaul basal lobes; lamina 2–10 cm long, (0.2–)0.5–2.0 cm wide, oblong to oblanceolate, entire or sinuate, tenuous, apex obtuse. Inflorescences 1-many corymbose dichasia; flowers numerous; bracts green, linear-lanceolate, closely surrounding flowers and fruit. Calyx glabrous or glabrescent, not or only shortly tubular, with 1–5 lobes, c. 1/4 as long as the fruit, enlarging in fruit. Corolla blue or white; corolla tube funnel-shaped, c. 1 mm long; lobes oblong-lanceolate. Stigmas thread-like. Cypsela oblong, c. 1 mm long, slightly compressed, ribbed on one side, glabrous, surmounted by the acutely pointed, ± lobed calyx. Flowering & fruiting Dec.-Feb.

Tas. (TNS); native to Europe. Localised in the Hagley area in the central north of the state, growing amongst crops of wheat. Known collections date from the 1970's and the species is probably not fully naturalized.

## REFERENCES

ALA (Atlas of Living Australia) <http://www.ala.org.au/>

APC (Australian Plant Census) <https://biodiversity.org.au/nsl/services/apc>

APNI (Australian Plant Name Index) <https://biodiversity.org.au/nsl/services/apni>

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IPNI (International Plant Name Index) <http://www.ipni.org> or <http://www.us.ipni.org>

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<https://www.naturalvaluesatlas.tas.gov.au/>

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**NOTE:** Web addresses can and do change: a list of current web addresses is maintained in the web version of this treatment on the *Flora of Tasmania Online* website at <https://flora.tmag.tas.gov.au>

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