



94 PLUMBAGINACEAE ¹

Alan M Gray ²

Perennial, or rarely annual, herbs or small shrubs. Leaves, exstipulate, alternate or confined to a basal rosette, simple, entire or shallowly lobed. Inflorescence a terminal raceme, panicle or cymose head. Flowers bisexual, actinomorphic; receptacle hypogynous. Calyx of 5 sepals, fused at the base into a 5- or 10-ribbed tube, the upper portion often dilated and pleated, the lobes usually scarious or sometimes showy and petaloid, persistent. Corolla with petals shortly fused at the base or with a long basal tube. Stamens 5, opposite the petals, free or epipetalous; anthers versatile. Ovary superior, unilocular; ovules 1, basal; styles 5, free, or joined at the base and free above. Fruit an achene or variously dehiscent capsule, usually enclosed within the persistent calyx. Fruiting spikes falling as a unit at maturity. Seed solitary.

A widespread family of about 27 genera and 840 species, found chiefly in the Mediterranean and Central Asian regions. In Australia there are 3 genera and about 10 species. Many species are commonly plants of littoral or inland saline marsh habitats. Plumbaginaceae are placed in the Caryophyllales near Polygonaceae (worldwide), Frankeniaceae (worldwide) and Tamaricaceae (Eurasia, Africa).

The family contains some species of minor horticultural merit, including Thrift or Sea Pink (*Armeria* spp.), Perennial Sea-lavender or Statice (*Limonium sinuatum*) and the scandent shrub, Cape Leadwort (*Plumbago auriculata* Lam.).

Key references: Curtis (1967); Walsh (1996).

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

1 LIMONIUM

Limonium Mill., *Gard. Dict. Abr.*, ed. 4 (1754).

Perennial, or rarely annual herbs. Leaves usually in a radical rosette, often senescent by time of flowering. Inflorescence a corymbose panicle with secund, terminal spikes of 1–5 flowered spikelets, each subtended by 3 bracts, terminating the inflorescence branches. Calyx funnel-shaped, base 5–10 ribbed, upper portion 5-lobed and sometimes with small teeth between the lobes; the lobes scarious and usually brightly coloured, persistent. Corolla with petals mostly fused, or fused into a short tube at the base only, lobes shorter than, or exceeding the calyx, often soon withering and often persistent. Stamens epipetalous, at the base of the corolla. Styles filiform, free or united at the base.

A cosmopolitan genus of 350 species; in Australia 9 species, 2 native; 1 species native and another possibly introduced in Tasmania. Gray and Duretto (2011) reduced the Tasmanian endemic, *L. baudinii*, to a variety of *L. australe*.

¹ This work can be cited as: Gray AM (2011) 60 Plumbaginaceae, **version 2013:1**. In MF Duretto (Ed.) *Flora of Tasmania Online*. 5 pp. (Tasmanian Herbarium, Tasmanian Museum & Art Gallery: Hobart). www.tmag.tas.gov.au/floratasmania

² Tasmanian Herbarium, Tasmanian Museum & Art Gallery, Private Bag 4, Hobart, Tasmania 7001.

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|----|---|----------------------|
| 1. | Leaf margins entire; inflorescence branches terete or angular, not winged | 1 L. australe |
| 1: | Leaf margins lobed or sinuate inflorescence branches winged | 2 L. sinuatum |

1 Limonium australe (R.Br.) Kuntze, Revis. Gen. Pl. 2: 395 (1891)*Yellow Sea-lavender*

Taxantheme australis R.Br., *Prodr. Fl. Nov. Holl.* 426 (1810); *Statice australis* (R.Br.) Spreng., *Syst. Veg.* 1: 959 (1824); *Toxanthes australis* (R.Br.) Ross, *Hobart Town Almanack* 110 (1835).

Illustrations: Curtis, *The Student's Flora of Tasmania* 3: 466, fig. 106 A-B (1967); Walsh, *Fl. Victoria* 3: 299, fig. 59g-h (1996); Harden, *Fl. New South Wales* 1 (rev. edn.): 375, (2001); Whiting *et al.*, *Tasmania's Natural Flora*, 254 (2004); Richardson *et al.*, *Weeds of the South-East, An Identification Guide for Australia* 338 (2006). Glabrous perennial herbs with an erect, thick, woody rootstock. Leaves in a compact basal rosette, sub-erect; lamina 5–10(–15) cm long, 8–25 mm wide, oblanceolate to spatulate, base narrowed into a long petiole, sometimes widened and auriculate at the base, texture rather thin, concolorous, margins entire or sometimes ± undulate, apex rounded, shortly apiculate. Inflorescence an erect, much-branched, corymbose panicle, 10–45 cm high, stems green, terete or angular, not winged; spikelets sub-sessile, 2–3(–5)- flowered, aggregated in the distal 1–5 cm of the numerous ultimate branches; flowers together subtended by 3 small, purplish ovate bracts, the outer and centre bracts 2–4 cm long, the inner bract 6–8 mm long, all of which are entire, with broad, scarious margins. Calyx whitish to pink, scarious, 6–8 mm long, tube 4–6 mm long, persistent and enlarging, distally at anthesis, 5-ridged, each ridge with a row of short, sub-erect hairs, or glabrous; lobes acute, c. 1 mm long, apex prolonged into a short point. Corolla bright yellow, translucent, shortly fused at the base, slightly longer than the calyx, lobes ± spreading. Capsule 5-angled, circumsiss at the base. Seed c. 1 mm long, flattened, fusiform. Flowering & fruiting Dec.-Jun.

Tas., (KIN, FLI, TNS, TSE); also NSW, Vic. An uncommon though sometimes locally common species found on the seaward side of coastal saline marshes, on stabilized shell and shingle ridges, in the north and the south-east of the state, from sea-level to c. 5 m alt. Listed as *Rare* under *The Tasmanian Threatened Species Protection Act*, 1995.

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| 1. | Calyx ridges with a row of short, sub-erect hairs | 1a var. australe |
| 1: | Calyx ridges glabrous | 1b var. baudinii |

1a Limonium australe (R.Br.) Kuntze var. **australe***Yellow Sea-lavender*

Calyx ridges with a row of short, sub-erect hairs. Flowering & fruiting Dec.-Jun.

Tas. (KIN, FLI, TNS, TSE); also NSW, Vic. Uncommon, and known from the north coast and from a few collections along the River Derwent.

1b Limonium australe var. **baudinii** (Lincz.) A.M.Gray, *Kanunnah* 4: 117–118 (2011) *Baudin's Sea-Lavender*

Limonium baudinii Lincz., *Nov. Syst. Pl. Vasc. (Leningr.)* 23: 107 (1986).

Illustration: Wapstra *et al.*, *Tasmanian Plant Names Unravalled* 218 (2010), as *L. baudinii*.

Calyx ridges glabrous. Flowering & fruiting Dec.-Jun.

Tas. (TSE), endemic. Apparently confined to the Triabunna area, East Coast, although there is a collection made in 1893 from Port Arthur (Tasman Peninsula). Gray and Duretto (2011) indicate that the Victorian records of this taxon are probably erroneous. This taxon is listed as *Vulnerable* under the *Tasmanian Threatened Species Protection Act 1995*.

2 * *Limonium sinuatum* (L.) Mill., *Gard. Dict.* ed. 8, no. 6 (1768)

Perennial Sea-lavender, Statice

Statice sinuata L., *Sp. Pl.* 1: 276 (1753).

Illustrations: Walsh, *Fl. Victoria* 3: 299, fig. 59a-b (1996); Harden, *Fl. New South Wales* 1 (rev. ed.): 375, (2001); Richardson *et al.*, *Weeds of the South-East, an Identification Guide for Australia* 339 (2006).

Densely to sparsely hispid perennial herbs with an erect, woody rootstock. Leaves in a series of rosettes at the base, sub-erect; lamina 3–20 cm long, 5–45 mm wide, broadly obovate-spathulate, sinuate, 3–8-lobed in the distal 2/3, base narrowed into a long petiole, slightly widened at the base, texture thin, concolorous, apex sub-acute, prolonged into a fine hair. Inflorescence a dense corymb, 10–60 cm high with 1–several branches, terminating in several secund spikes, branches 3-winged from near the base, with 3 linear lobes, c. 1–5 cm long, 2–7 mm wide, at each node; spikes ascending to erect, 5–12 mm long, each subtended by a broadly 3-winged branch, 5–45 mm long; spikelets usually 2-flowered, c. 3–10 per spike; outer and centre bracts sub-equal, 4–7 mm long, lanceolate, apex narrowly acuminate, inner bract green, 5–7 mm long, firm, with 2–3 ascending spines. Calyx bright blue to purple, occasionally pale mauve to white, scarious, tube c. 7 mm long, distal portion c. 6–8 mm diam., apex ± crenulate. Corolla pink or yellowish, equal to or slightly longer than the calyx, lobes obscure, sub-erect. Capsule circumsciss just below the apex. Seed 3–4 mm long, fusiform. Flowering & fruiting Dec.–Feb.

Tas. (FLI); also naturalized in NSW, Vic.; native in the Mediterranean region. In Tasmania the species has been collected from Flinders Island where it was escaping from cultivation and spreading along roadsides. Occasionally planted as a garden ornamental and persisting, especially in older gardens; popular in the florist trade due to the “everlasting” nature of the cut flowers.

REFERENCES

ALA (Atlas of Living Australia) www.ala.org.au

APC (Australian Plant Census) <http://www.chah.gov.au/apc/about-APC.html>

APNI (Australian Plant Name Index) <http://www.anbg.gov.au/cgi-bin/apni>

AVH (Australia's Virtual Herbarium) (Council of Heads of Australasian Herbaria) <http://avh.ala.org.au/>

Curtis WM (1967) Plumbaginaceae. *The Student's Flora of Tasmania* **3** 465–466.

Gray AM, Duretto MF (2011) *Limonium australe* var. *baudinii* (Lincz.) A.M.Gray, a new combination in Plumbaginaceae. *Kanunnah* **4** 117–118.

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

NVA (Natural Values Atlas) (Department of Primary Industries and Water: Hobart) <http://www.dpiw.tas.gov.au/inter.nsf/WebPages/LJEM-6TV6TV?open>

Walsh NG (1996) Plumbaginaceae. *Flora of Victoria* **3** 296–299.

NOTE: Web addresses can and do change: a list of current web addresses will be maintained on the *Flora of Tasmania Online* website [www.tmag.tas.gov.au/floratasmania].

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