



134 * DIPSACACEAE ¹

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Annual, biennial or perennial herbs, rarely shrubs. Leaves opposite or whorled, exstipulate, bases joined by a ridge of the lamina across the node, simple, margins entire, toothed or pinnatifid. Inflorescence a cymose head or capitulum, rarely an interrupted spike, subtended by leaf-like involucre bracts. Flowers zygomorphic, bisexual or functionally female, each usually with an epicalyx and subtended by a receptacle bract. Calyx cupular, entire or with numerous small lobes, persistent. Corolla funnel-shaped, unequally 4–5-lobed or distinctly 2-lipped. Stamens 2–4, epipetalous and alternating with the petals; anthers 2-celled, dehiscing by longitudinal slits. Carpels 2; ovary inferior, with a single locule; style slender; stigma simple or 2-lobed. Fruit a dry, indehiscent cypsela, enclosed within persistent epicalyx. Seed: endosperm present.

Dipsacaceae are found in Eurasia and Africa with one genus extending to New Guinea. The family contains 11 genera and about 290 species, with 2 genera and 4 species naturalized in Australia. Dipsacaceae are placed in the Dipsacales near Valerianaceae (Asia, Europe, Africa, Americas) and Morinaceae (Balkans to China). Though superficially similar to Asteraceae, Dipsacaceae can be distinguished by the free, exserted stamens and fruit that is enclosed within the epicalyx.

Synonymy: Scabiosacaceae.

Key references: Curtis (1963), Jeanes (1992).

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

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| 1. | Plants spiny, thistle-like; leaves simple, margins entire or lobed to dentate; lobes of florets not prominent | 1 Dipsacus |
| 1: | Plants not spiny; leaves lobed, dentate, or pinnatisect; lobes of the outer florets prominent | 2 Scabiosa |

1 * DIPSACUS

Dipsacus L., *Sp. Pl.* 1: 97 (1753).

Robust biennial herbs; stems shortly prickly. Leaves opposite, sessile; lamina simple, entire or lobed to dentate, midrib prickly. Inflorescence a globose, ovoid or cylindrical head; involucre bracts in 1 or 2 rows, erect to spreading, sometimes incurved, linear to narrowly lanceolate, spine-tipped, persistent. Receptacle: bract-scales obovate with broad, hyaline margins, spreading, the distal portion narrowed abruptly into a long, ciliate spine; epicalyx 4-angled, forming a tube, united with the ovary below, cupular above. Calyx entire or obscurely 4-lobed or toothed, ciliate, persistent in fruit but eventually deciduous. Corolla lobes 4, subequal. Stamens 4, joined to the corolla just below the orifice of the tube; anthers exserted, free, versatile. Stigma with 1 of 2 lobes developed, the receptive surface oblique. Fruit a 4-angled cypsela.

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

A genus of about 15 species, native to Europe and western Asia; 2 species naturalized in Australia. The genus is of minor historic/commercial value (see discussion under *D. fullonum*).

1 * *Dipsacus fullonum* L., *Sp. Pl.* 1: 97 (1753), subsp. *fullonum*

Wild Teasel

Dipsacus sylvestris Huds., *Fl. Angl. (Hudson)* 1: 49 (1762).

Illustrations: Curtis, *The Student's Flora of Tasmania* 2: 279, fig. 73a-c (1963); Toelken, *Fl. S. Austral.*, 2nd edn, 4: 1366, fig. 621a (1986); Retter, *Fl. New South Wales* 3: 449 (1992); Jeanes, *Fl. Victoria* 4: 651, fig. 127a (1999); Richardson *et al.*, *Weeds of the South-East, an Identification Guide for Australia* 241 (2006).

A stout, erect herb to c. 2 m high, sparingly erect-branched; stems prominently longitudinally ridged. Leaves basal and cauline, 10–20(–50) cm long, 3–6(–9) cm wide, oblong to lanceolate, bases ± fused, both surfaces glabrous apart from short prickles mainly on the abaxial surface. Flower heads terminal, globose in flower, becoming ovoid as the fruit matures, 2–8 cm long, 2–4 cm diam.; involucre bracts unequal, 3–12 cm long, linear, mostly longer than the head, rigid and incurved. Receptacle bracts broadly ovate at the base, apex acute to acuminate, usually longer than the flowers, with a flexible, straight or slightly recurved, apical spine. Corolla purplish or pale lilac to white, lobes c. 1 mm long. Cypselas narrow-obcuneate, 2–3 mm long, appressed-hairy. Flowering & fruiting Oct.–May.

Tas. (BEL, TCH, TNM, TNS, TSE); also naturalized in SA, NSW, Vic., New Zealand; native to Europe and W Asia. A locally abundant weed of roadsides, old pastures, riversides and waste places, usually forming small colonies, from sea level to c. 250 m alt.

The dried fruiting heads of *D. fullonum* subsp. *sativus* (Garsault) Thell. (Fuller's Teasel) were formerly used for fulling, 'teasing' or raising the nap on woollen cloth, a process now performed by metal combs. The subspecies differs from the typical variety in having the receptacle bracts about the same length as the flowers, with their apical spine rigid and recurved. This subspecies may still persist in the vicinity of now derelict woollen mills in the north of the state.

2 * SCABIOSA

Scabiosa L., *Sp. Pl.* 1: 98 (1753).

Annual, biennial or perennial herbs, sometimes ± woody at the base; not spiny. Leaves opposite, sessile or petioled; lamina simple, entire (not in Tas.), dentate or lobed to pinnatisect. Inflorescence compressed sub-globose to ovoid conical; involucre bracts, in 1–3 rows, each with a broad base and long, acuminate tip, spreading and becoming reflexed, not spiny, persistent. Receptacle bracts linear to linear-lanceolate; epicalyx cylindrical, ribbed, with a cupular corona. Calyx lobes 5, bristle-like, covered with fine hairs and stalked glands, persistent in fruit. Corolla with 5 unequal lobes in the marginal florets, prominent; lobes unequal and shorter in the central florets. Stamens 4, filaments joined to corolla well below the orifice; anthers exerted, free, versatile. Stigma 2-lobed. Fruit an ellipsoid cypselas.

A genus of c. 100 species, native in Europe, W Asia and Africa; 2 species naturalized in Australia. A number of species have been cultivated as garden specimens, some of which have escaped and become naturalized along roadsides and in waste places.

1 * *Scabiosa atropurpurea* L., *Sp. Pl.* 1: 100 (1753)

Sweet Scabious, Pincushion

Illustrations: Toelken, *Fl. S. Austral.*, 2nd edn, 4: 1366, fig. 621a (1986); Retter, *Fl. New South Wales* 3: 450 (1992); Jeanes, *Fl. Victoria* 4: 651, fig. 127a (1999); Richardson *et al.*, *Weeds of the South-East, an Identification Guide for Australia* 241 (2006).

An annual or short-lived perennial herb, 30–90 cm high, stems erect, branching. Leaves basal and cauline; basal leaves petiolate; lamina ovate-lanceolate to oblanceolate-spathulate, 5–12 cm long, 1–3 cm wide, margins coarsely toothed or crenate; cauline leaves becoming sessile and more deeply pinnatifid and lyrate. Flower heads solitary on long, terminal peduncles, subglobose in flower, but becoming ovoid or oblong in fruit, 1–3 cm long, c. 1–3 cm diam.; involucre bracts herbaceous, with a broad base and long acuminate apex, spreading but becoming reflexed. Receptacle bracts linear-lanceolate, not pungent. Corolla white through lilac to deep purplish-black, tube 8–20 mm long with 4–5 unequal lobes 1–5 mm long, outer lobes wider and longer than the tube; inner florets usually smaller. Cypselas 1.5–2.5 mm long, narrow ellipsoid, 8-ribbed in the lower part, puberulous. Flowering & fruiting Aug.-Mar.

Tas. (TSE); also naturalized in SA, NSW, Vic.; native to the Mediterranean region. Localized in the south-east of the state; a garden escape persisting along roadsides, in waste places and grassy areas.

REFERENCES

- ALA (Atlas of Living Australia) www.ala.org.au
 APC (Australian Plant Census) www.chah.gov.au/apc/about-APC.html
 APNI (Australian Plant Name Index) www.anbg.gov.au/cgi-bin/apni
 AVH (Australia's Virtual Herbarium) (Council of Heads of Australasian Herbaria) www.avh.rbq.vic.gov.au/avh/
 Curtis WM (1963) Dipsacaceae. *The Student's Flora of Tasmania* **2** 279–281.
 IPNI (International Plant Name Index) www.ipni.org/index.html or www.us.ipni.org/index.html
 Jeanes JA (1999) Dipsacaceae. *Flora of Victoria* **4** 650–651.
 NVA (Natural Values Atlas) (Department of Primary Industries and Water: Hobart) www.dpiw.tas.gov.au/inter.nsf/WebPages/LJEM-6TV6TV?open
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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