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113 OLEACEAE [1]

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Trees, shrubs or climbing plants, evergreen or deciduous. Leaves opposite or rarely alternate, exstipulate; lamina simple or pinnate, entire or serrate. Inflorescences axillary or terminal panicles or cymes, rarely flower solitary. Flowers actinomorphic, bisexual or unisexual and the plants dioecious, sometimes heterostylous, (0)4–5-merous. Sepals usually small valvate or united into a tube; lobes rounded or triangular. Petals free or joined, or variously united in pairs by the insertion of the stamens at their bases, the tube sometimes very short. Stamens usually 2, epipetalous or connecting the bases of the petals, rarely 4 alternating with the petals; anthers dehiscing by longitudinal slits. Ovary superior, 2-locular with 2 ovules in each loculus; stigma 2-lobed or capitate. Fruit a drupe, berry or samara; seed usually 1, with or without endosperm.

A family of about 24 genera and 600 species; cosmopolitan but mainly in eastern and south-eastern Asia. In Australia there are about 7 genera (2 naturalized) and 30 species; 3 genera and 3 species (2 naturalized) in Tasmania. Oleaceae are placed in the Lamiales.

The family is of considerable economic and horticultural importance. Numerous cultivars of the Olive (*Olea europaea* L.) are widely cultivated in temperate countries throughout the world for the edible fruits which are usually preserved or pressed for the oil. *The Macarthur Olive*, an Olive tree planted by Governor John Macarthur in Sydney in 1805, is believed to be the oldest surviving exotic tree in Australia (Beale 2007). Other members of the family of considerable horticultural merit include the Lilac (*Syringa vulgaris* L.), Ash (*Fraxinus* L.), Golden Bell (*Forsythia* Vahl.), White Scented Jasmine (*Jasminum officinale* L.), Yellow Jasmine (*J. nudiflorum* Lindl.) and Privet (*Ligustrum* L.). Privet was formerly a popular hedge plant and sometimes escapes from cultivation and becomes established as a weed (Muyt 2001; Spencer 2002). The fruit of some *Ligustrum* species are poisonous and contact with flowering plants (pollen) may cause allergic reactions in some people (Hardin 1992; Muyt 2002; Spencer 2002). Some species of *Fraxinus* yield valuable timber.

Synonymy: Fraxinaceae, Jasminaceae, Ligustraceae.

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

1.	Leaves compound, imparipinnate	1 Fraxinus
1:	Leaves simple	2
2.	Leaves densely peltate-scaly on the abaxial surface, scattered peltate-scaly on the adaxial surface; flowers in axillary racemes	Olea +
2:	Leaves glabrous, or puberulous when young; flowers in terminal panicles or axillary racemes	3
3.	Flowers in axillary racemes; corolla lobes united in pairs only at the very base by the insertion of the filaments	2 Notelaea
3:	Flowers in terminal racemes or panicles; corolla lobes united at the base into a small tube	3 Ligustrum

1 This work can be cited as: Gray AM (2009). Oleaceae, **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/oleaceae/**

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

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+ Various cultivars of the Olive (*Olea europaea* L.) are grown extensively in southern Australia as an orchard species. It is also occasionally grown as an ornamental. Outside Tasmania it has escaped cultivation, become naturalized in some areas, and is now a serious weed problem (see Richardson *et al*. 2006).

1 * FRAXINUS

Fraxinus L., *Sp. Pl.* 2: 1057 (1753).

Trees, usually deciduous, often dioecious. Leaves opposite, petiolate, imparipinnate, rarely trifoliolate or simple; leaflets serrate, glabrous. Inflorescences axillary or terminal many-flowered panicles, often appearing before or with the new leaves. Flowers bisexual or unisexual, small, pedicellate. Calyx absent (Tas.) or small, campanulate with 4 small lobes. Corolla absent (Tas.) or with 2–6 small petals, united at the base in pairs. Stamens 2; anthers linear-elliptic. Ovary flask-shaped; style terminal, short, with two elongate stigmatic lobes. Fruit a 1-winged, single-seeded samara.

A genus of about 70 species from the Northern Hemisphere, especially temperate Asia and North America; 3 species naturalized in Australia.

The Claret Ash (*F. angustifolia* Vahl. subsp. *oxycarpa* (Willd.) Franco & Rocho Afonso 'Raywood'), with its brilliant shades of purple foliage in autumn, and the spectacular European Golden Ash (*F. excelsior* L. 'aurea') are widely cultivated. *Fraxinus excelsior* has become naturalized in Victoria. (Richardson *et al*. 2006).

1 * Fraxinus angustifolia Vahl, *Enum. Pl. [Vahl]* 1: 52 (1804), *nom. cons.*, subsp. **angustifolia** *Desert Ash*

Fraxinus rotundifolia Mill., *Gard. Dict*., edn 8, *Fraxinus* no 2. (1768).

Illustrations: Green, *Fl. S. Austral*. 2: 1036, fig. 510A (1986), as *F. rotundifolia* subsp. *rotundifolia*; Jeanes, *Fl. Victoria* 4: 481, fig. 94a (1999); Muyt, *Bush Invaders of South-East Australia* 238 (2001); Spencer, *Horticultural Flora of South-Eastern Australia* 4: 226 (2002); Richardson *et al.*, *Weeds of the South-East, an Identification Guide for Australia* 318 (2006).

Deciduous trees to 20+ m tall; bark greyish, smooth, becoming shallowly fissured and scaly with age. Dormant buds dark brown, glabrous; young shoots and leaves glabrous. Leaves c. 14–20 cm long; leaflets 5–7(–13), narrowly lanceolate to elliptic, 5–9 cm long, 0.7–2(–3) cm wide, margins serrate, base acute or cuneate, apex acute-acuminate. Inflorescences axillary, paniculate, many-flowered and appearing before the leaves. Perianth absent. Samara elliptic, slightly twisted, 3–4 cm long, winged. Flowering Aug.-Oct.; fruiting Feb.-Apr.

Tas. (TSE); also naturalized in SA, NSW?, Vic.; native in SW Asia and the Mediterranean region. Cultivated in parks, gardens and as street trees; locally naturalized at Risdon Vale Creek, Risdon Vale. Flowering specimens are rarely collected however the species flowers in spring to early summer before the appearance of the leaves.

2 NOTELAEA

Notelaea Vent., *Choix Pl.* 5, t. 25 (1803).

Small evergreen trees or much branched shrubs. Leaves opposite, petiolate, simple, glabrous, or puberulous when very young, margins entire or finely crenate, venation obscure or reticulate. Inflorescences in axillary racemes or sometimes paniculate; bracts caducous. Flowers bisexual, creamy-yellow. Calyx of 4 short, triangular lobes. Petals 4, joined in pairs at the bases by the filaments of the stamens, the pairs free or joined at the extreme base only, induplicate-valvate, or imbricate in bud. Stamens 2. Ovary flask-shaped, 2-locular with 2 ovules in each locule; style short; stigma 2-lobed. Fruit a thinly fleshy drupe, ellipsoid to spherical, white, pink, red or purplish-black. Seed enclosed within a hard, woody endocarp.

A genus of 9 species endemic in Australia.

1 Notelaea ligustrina Vent., *Choix Pl.* 5: subt. 25 (1804) *Native Olive, Mock Olive*

Nestegis ligustrina (Vent.) L.A.S.Johnson, *Fl. Hawaiiensis* 300 (1958).

Illustrations: Curtis, *The Student's Flora of Tasmania* 3: 469, fig. 108 (1967); Costermans, *Native Trees and Shrubs of South-Eastern Australia,* rev. edn 263: (1986); Hardin, *Fl. New South Wales* 3: 447 (1992), as *Nestegis ligustrina*; Jeanes, *Fl. Victoria* 4: 481, fig. 94c (1999); Cameron, *A Guide to Flowers and Plants of Tasmania,* 3rd edn, 55, pl. 111 (2000); Corrick & Fuhrer, *Wildflowers of Victoria* 163, fig. 571 (2000); Simmons *et al.*, *A Guide to Flowers & Plants of Tasmania*, 4th edn, 56 (2008).

A much branched, evergreen shrub or small tree, 3–10(–15) m high; branches glabrous, or puberulous when young. Leaves opposite to sub-opposite, shortly petiolate, petiole often purplish; lamina lanceolate to elliptical-lanceolate, 2–5(–8) cm long, 0.5–2.0 cm wide, glabrous, discolorous, abaxial surface minutely glandular, base narrowed, apex obtuse. Inflorescences 1–3 in each axil, 2–5 cm long, many-flowered axillary racemes or corymbose panicles; pedicels 2–7 mm long; flowers in groups of 3–8. Calyx 0.5–2.0 mm long with 4 prominent, triangular lobes. Petals 4, 1.5–4.0 mm long, slightly imbricate in bud, joined in pairs by the bases of the 2 opposite stamens. Anthers exserted, dehiscence extrorse, longitudinal. Ovary 2-locular; style short; stigma 2 or 4 lobed. Fruit a drupe, ovoid-spherical, whitish, pink or dark purple, 5–8(–10) mm diam., thinly fleshy, inedible. Flowering & fruiting Aug.-May.

Tas. (all regions except MIS); also NSW, Vic. A widespread and locally common component of damp forests and shrubberies, from sea level to c. 1000 m alt., usually on rocky slopes, on hill-sides, in gullies and adjacent to creek banks. Flowering and fruiting, sometimes simultaneously, nearly all year; however, flowering is often erratic and some plants may not flower every year.

3 * LIGUSTRUM

Ligustrum L., *Sp. Pl.* 1: 7 (1753).

Much branched shrubs, or small trees to 5 m high; semi-evergreen or deciduous. Leaves opposite, petiolate, simple, with entire margins. Inflorescences axillary, rarely terminal. Flowers hermaphrodite. Calyx small, campanulate, with 4 small, blunt triangular lobes. Corolla shortly tubular with 4 short lobes about as long as the corolla tube, valvate. Stamens 2, inserted near the top of the corolla tube; anthers ellipsoid, enclosed or exserted. Ovary ovoid, 2-locular, with 2 ovules in each locule ; style terminal; stigma 2-lobed. Fruit a berry with 1 to 2 seeds.

A genus of about 50 species, from the Mediterranean region through Europe and Asia; 4 species (1 native) in Australia.

1 * Ligustrum vulgare L., *Sp. Pl.* 7(1753) *Privet*

Illustrations: Green, *Fl. S. Austral.* 2: 1036, fig. 510C (1986); Hardin, *Fl. New South Wales* 3: 472–473 (1992); Jeanes, *Fl. Victoria* 4: 481, fig. 94g (1999); Spencer, *Horticultural Flora of South-Eastern Australia* 4: 235 (2002); Richardson *et al.*, *Weeds of the South-East, an Identification Guide for Australia* 320 (2006).

A much branched shrub, to c. 5 m high; evergreen or sometimes semi-deciduous; branches with white lenticels, very young branches puberulent. Leaves opposite, petiolate, glabrous; lamina elliptic to broad lanceolate, 2.5–6.0 cm long, 8–20 mm wide, glabrous, concolorous, margins narrowly recurved, entire, apex acute-acuminate. Inflorescences terminal, a dense, pyramidal panicles; pedicels 1–2 mm long. Flowers white, strongly scented or slightly foetid. Calyx cupular with small, irregular, triangular lobes. Corolla 4–5 mm long, tube about as long as the lobes, lobes rather thick and reflexed at anthesis. Stamens 2, c. 2–3 mm long; anthers exserted beyond the lobes. Fruit a fleshy berry, black, lustrous, usually 2-seeded, c. 5–6 mm diam., poisonous. Flowering Dec.-Jan.; fruiting May-Oct.

Tas. (BEL, FUR, TCH, TSE, TWE); also naturalized in SA, NSW, Vic.; native in the Mediterranean region. Once widely grown as a hedge plant as it responds well to clipping and shaping. It often suckers profusely and

spreads by bird-dispersed seeds, or establishes from dumped garden-refuse and can become locally established.

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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