



Flora of South Australia

5th Edition | Edited by Jürgen Kellermann

JUGLANDACEAE

C.J. Brodie

Deciduous (in S.A.), rarely evergreen, monoecious (in S.A.), rarely dioecious, shrubs or trees, often aromatic; buds naked or scaly, terminal buds present; leaves alternate, rarely opposite or spirally arranged, trifoliate, pinnate to imparipinnate with 5–31 leaflets (reduced to one in some cultivars), exstipulate; leaflet margins entire or serrate; leaf scars large; leaves, buds, flowers and fruits often with fascicled or glandular hairs and commonly resin dotted with peltate glandular scales. **Flowers** bracteate, unisexual; staminate or pistillate flowers in elongate drooping, rarely erect, catkins or spikes, sometimes combined into panicle with the central spike wholly or partly pistillate and lateral branches staminate; male catkins forming on previous year's growth; female catkins in smaller, erect or long pendulous spikes on new growth; perianth often reduced or absent, 4-lobed; male flowers: stamens 3–100+, free, in two or more series, filaments short, anthers 2-locular; female flowers: ovary inferior with 2 fused carpals forming a single locule, style 1 (rarely absent) with 2–4 stigmatic branches. **Fruit** a nut enclosed in an adherent, thin or thick, fibrous, indehiscent or dehiscent husk or with a thin, dry skin, or a thin-skinned nutlet with 2–3 wings.

8 genera and 61 species naturally occurring in the temperate and subtropical regions of the N hemisphere with extensions reaching the tropics of Asia and America. No taxa are native in Australia.

The 3 genera *Carya* Nutt. (hickory), *Juglans* (walnut) and *Pterocarya* Kunth (wingnut) are grown as horticultural trees in temperate Australia; *P. stenoptera* C.DC. (Chinese wingnut) is used as rootstock for walnut. *Juglans* is the only genus in the family to have naturalised in Australia.

Reference: Manning (1978).

1. JUGLANS L.

Sp. Pl. 2: 997 (1753).

(Classical Latin name most likely derived from *jovis glans* the nut of the Roman god Jupiter of mythology.)

Deciduous, monoecious trees or large shrubs; twigs with septate pith, buds with scales and sessile; leaves alternate, odd-pinnate, aromatic, exstipulate; leaflets toothed or entire, terminal leaflet rarely reduced in size, glandular dotted below. **Flowers** unisexual; staminate catkins lateral, solitary on old wood in the axils of leaf scars, sessile, dropping; pistillate spikes, few flowered, terminal racemes on new leafy growth. **Fruit** solitary or in racemes; nut in a fleshy indehiscent or eventually bilobed husk. **Walnuts.**

21 species world wide from SE Europe extending into E Asia and Japan, from N and S America, West Indies. *Juglans regia* L. is recorded as naturalised in S.A., N.S.W. & Vic.

A second taxon, *Juglans nigra* L. is grown as an ornamental tree in Australia. Several collections of what is thought to be

¹ This work can be cited as: Brodie, C.J. (2011). Juglandaceae (version 1). In: Kellermann, J. (ed.), *Flora of South Australia* (ed. 5). 2 pp. (State Herbarium of South Australia: Adelaide). www.flora.sa.gov.au/ed5

² State Herbarium of South Australia, DENR Science Resource Centre, PO Box. 2732, Kent Town, SA 5071, Australia.

© Department of Environment and Natural Resources, Government of South Australia. ISBN 978-1-922027-13-9 (PDF).
Publication date: 26 Oct. 2011.



Government
of South Australia

Department of Environment
and Natural Resources

J. nigra were made in 2011 (from SE, Brodie 2166, and NL, Brodie 2340). However, as this is vegetative material without flowers and fruits, confirmation is required.

Reference: Davis (1982), Spencer (1997), Tutin et al. (1964), Walters et al. (1989).

1. Leaflets 7–9, entire 1. **J. regia**
1: Leaflets 11–19, serrate **J. nigra**

1. ***Juglans regia** L., *Sp. Pl.* 2: 997 (1753). — **Illustr.:** R.D.Spencer, *Hort. Fl. S.E. Austral.* 2: 136 (1997).

Tree to 30 m, bark grey, smooth eventually becoming fissured, leaves odd-pinnate, leaflets (5–) 7–9 (–11), elliptic to obovate or oblong-oval, entire (in S.A.) or with a few teeth, 6–23 cm long, glabrous except for hair-tufts in the axils of the main and lateral veins beneath. **Flowers** unisexual male catkins drooping, female flowers on new growth. **Fruit** 3.5–5 cm long, subglobose, green gland dotted, glabrous, husk containing a wrinkled ovoid to ellipsoid nut. **Common walnut, English walnut, Persian walnut.**

S.A.: *SL, *NL; *N.S.W; *Vic. *Juglans regia* is recorded as naturalised in the Adelaide Hills (SL region). Large planted trees are commonly found in or close to towns or by roadsides. Limited and localised recruitment of seedlings has only been seen by creek lines and not on dry areas like roadsides. Some seedlings observed reached up to 4 m in height. *J. regia* is also naturalised in the Northern Lofty region in Wirrabara Forest in the Southern Flinders Ranges. Recorded as naturalised in N.S.W. and sparingly naturalised in Vic. Flowers: Spring.

Leaflet margins are reported in the literature as toothed, but all material seen and collected in S.A. has entire leaflets.

Grown for edible fruits and timber. Long cultivated in S.A. for its nuts and as an ornamental tree.

References

- Davis, P.H. (ed.) (1982). *Flora of Turkey and the East Aegean Islands*, vol. 7. (University Press: Edinburgh)
- Manning, W.E. (1978). The classification within the Juglandaceae. *Ann. Missouri Bot. Gard.* 65: 1058–1087
- Spencer, R. (ed.) (1997). *Horticultural flora of south-eastern Australia*, vol. 2. (University of New South Wales Press: Sydney)
- Tutin, T.G., Heywood, V.H., Burges, N.A., Valentine, D.H., Walters, S.M. & Webb, D.A. (1964). *Flora Europaea*, vol. 1. (Cambridge University Press: Cambridge)
- Walters, S.M., Alexander, A.B., Brickell, C.D., Cullen, J., Green, P.S., Heywood, V.H., Matthews, V.A., Robson, N.K.B., Yeo, P.F. & Knees, S.G. (1989). *The European garden flora*, vol. 3. (Cambridge University Press: Cambridge)