



Flora of South Australia

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TAMARICACEAE¹

D.D. Cunningham²

Evergreen trees and shrubs; leaves alternate, simple, entire, ericoid or scale-like, glabrous or papillose, exstipulate. **Flowers** bisexual, regular, very small, solitary or in bracteate spikes or racemes; sepals 4 or 5, free or shortly fused; petals 4 or 5, free, imbricate; stamens 4 to numerous, free or partly fused, inserted on a disk; anthers 2-locular, dehiscing longitudinally; ovary superior, 1-celled; styles 3 or 4, free or shortly fused; ovules numerous, on parietal or basal placentas. **Fruit** a septicidal capsule; seeds with or without endosperm, with numerous long hairs.

5 genera and about 80 species in temperate and warm parts of the world, especially in dry or coastal situations. 1 genus has naturalised in Australia.

Reference: Gaskin (2003).

1. TAMARIX L.

Sp. Pl. 1: 270 (1753).

(Latin *tamarix*, the tamarisk.)

Glabrous or partly papillose trees and shrubs; leaves scale-like, expanded to a more or less amplexicaul base, possessing salt-secreting glands. **Flowers** in spikes or racemes, pink or white; sepals and petals 4 or 5; disk fleshy, 4- or 5-lobed, nectar-secreting; stamens free or shortly fused at the base only; styles 3 or 4, short. **Seeds** lacking endosperm, with a tuft of hairs at the apex. **Tamarisks.**

About 54 species in Europe, North Africa and Asia, especially in soils with a high salt content.

Some are widely grown as ornamentals, 3 species are naturalised in S.A. and in all other states.

Reference: Baum (1978).

- 1. Leaves greyish, ovate-lanceolate, to 2mm, ± keeled, vaginate, concealing branchlets so they appear articulate; flowers 5-merous; sepals entire 1. **T. aphylla**
- 1: Leaves green or greyish, ± triangular, 1.5 – 4 mm, sessile with narrow base, ± amplexicaul; flowers 4 or 5-merous; sepals denticulate
 - 2. Flowers 4-merous; leaves green; bracts diaphanous, often reddish tipped; sepals connate at base; staminal filaments emerging from the ends of and confluent with the disk lobes; young bark brown to purple; inflorescences usually on previous season's growth 2. **T. parviflora**
 - 2: Flowers 5-merous; leaves greyish; bracts herbaceous; sepals not connate at base; staminal filaments emerging from near the margin of the disk but between and beneath the disk lobes; young bark reddish brown; inflorescences usually on current season's growth 3. **T. ramosissima**

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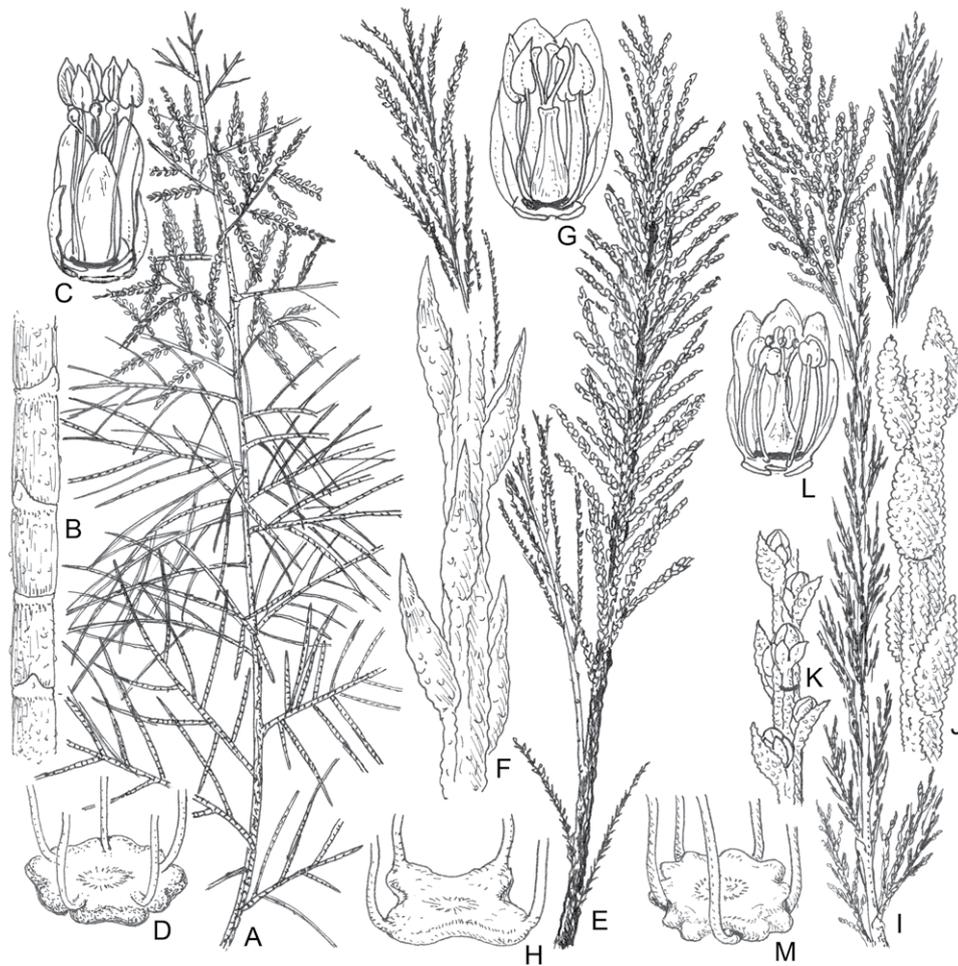


Fig. 1. A–D, *Tamarix aphylla*: A, twig; B, branch with leaves; C, flower; D, disk. **E–H, *T. parviflora*:** E, twig; F, branch with leaves; G, flower; H, disk. **I–M, *T. ramosissima*:** I, branch; J, branch with leaves; K, flowering branch; L, flower; M, disk. *Illustration by G.R.M. Dashorst.*

1. ****Tamarix aphylla*** (L.) H.Karst., *Dent. Fl.* 641 (1882). — *Thuja aphylla* L., *Cent. Pl.* 1 32 (1755). — **Illustr.:** Zohary, *Fl. Palaest.* 2: t. 522 (1972); Baum, *Genus Tamarix* 82, pl. XX (1978).

Glabrous much-branched shrub or tree with a well developed trunk to 12 (–20) m high; young bark reddish-brown to grey; branches slender, pendulous; leaves vaginate, densely imbricate on younger parts, concealing the branchlets so they appear articulate, usually less than 2 mm long, ovate-lanceolate, somewhat keeled with an oblique rim and acute tip, surface whitish due to salt secretions, usually prominently punctate. **Flowers** in spike-like racemes (20–) 30–40 (–60) × 4–5 mm, with a sheath of leaf-like bracts round the base of the calyx; sepals 5, up to 1.5 mm long, broadly elliptic; petals 5, c. 1.5–2 mm long, oblong, white to pinkish, semi-persistent to caducous; disk slightly fleshy, 10-lobed; stamens 5; filaments filiform inserted above and between the ± retuse lobes; styles 3, c. 0.5 mm long. **Capsule** c. 3 mm long, pyriform, trigonous. **Athel pine, athel tamarix, athel tree.** **Fig. 1A–D, Pl. 1.**

S.A.: *NW, *LE, *GT, *FR, *EA, *MU; W.A.; N.T.; Qld.; N.S.W. N Africa, Middle East to E Asia. Grown as an ornamental, but has become locally naturalised. Flowers: autumn, late Mar. to early Jul. in S.A.

Usually deep rooted and spreading, adventitious buds on lateral roots, absorbs, stores and transpires large amounts of water, deposits salt from leaf litter in upper soil layers. Weed of National significance; prohibited plant in N.T.

Used as shade tree, wind-break, sand-dune binder, erosion control. Planted in arid areas and coastal situations as it is very drought and salt tolerant .

2. ***Tamarix parviflora** DC., *Prodr.* 3: 97 (1825). — *T. laxa* Willd. var. *subspicata* Ehrenb., *Linnaea* 2: 254 (1827). *T. aphylla* auct. non (L.) Karsten: Jessop in Jessop & Toelken, *Fl. S. Austral.* 2: 872 (1986), partly. — **Illustr.:** Zohary, *Fl. Palaest.* 2: t. 525 (1972); Baum, *Gen. Tamarix* 140, pl. XLI (1978).

Glabrous shrub or low tree 2–3 (–6) m high, 6 m wide; young bark brown to purple; leaves sessile with a narrow base, 2–2.5 mm long, slightly divergent, oblong, acute to acuminate, base distinctly thickened with a rugose rarely tuberculate surface, upper part thinner and smooth often with reddish band then diaphanous. **Flowers** in spike-like racemes, 15–40 mm × 3–5 mm, white to pinkish-purple, densely flowered; bracts triangular acuminate, blunt, almost completely diaphanous, longer than the pedicels; sepals 4, 1.25–1.5 mm long, ovate-acute, keeled, connate at base, eroded-denticulate, herbaceous or broadly membranous at margin; petals 4, to 2 mm long, parabolic, ovate, erect at first later deflexed, caducous or sub-persistent; disk 4 lobed; stamens 4; filaments emerging from the ends of and confluent with the disk lobes; styles 3 (–4) often with a darker, reddish band towards tip where it divides; inflorescences usually on previous season's growth. **Capsule** c. 4 mm long, trigonous. **Fig. 1E–H.**

S.A.: *FR, *EP, *NL, *MU, ?YP, *SL, ?KI; *W.A. Flowers: Spring, relatively short flowering period Sep.–Nov. in S.A., by which time fruit and seeds have developed.

3. ***Tamarix ramosissima** Ledeb., *Fl. Altaic.* 1: 424 (1829) — *T. aphylla* auct. non (L.) Karsten: Jessop in Jessop & Toelken, *Fl. S. Austral.* 2: 872 (1986), partly. — **Illustr.:** Baum, *Genus Tamarix* 41, pl. VI (1978); *Fl. S. Austral.* 2: 872, Fig. 454B (1986), as *T. aphylla*.

Glabrous grey-green shrub or small tree to c. 6 m high, 5 m wide; branches widely spreading and drooping at the tips; young bark reddish-brown; leaves sessile with narrow base 1.5–4 mm long, c. triangular, lanceolate to acuminate, evenly thick from base to tip with ± smooth scattered punctate surface. **Flowers** in spike-like racemes, 15–110 mm × 3–5 mm, often drooping, dusky pink to purple, rarely white; bracts trullate, acuminate, margins ± denticulate mainly on lower part, longer than pedicels; sepals 5, 0.5–1 mm long, narrowly trullate, not connate at base, irregularly denticulate to erose; petals 5, 1–2.5 mm long, obovate to broadly elliptic-obovate, persistent; disk with 5 emarginate lobes; stamens 5; filaments inserted under the disk near the margin, between the lobes; styles 3 shortly lobed, inflorescences usually on current season's growth. **Capsule** c. 6 mm long, beaked ovoid. **Saltcedar, 5-stamen tamarisk. Fig. 1I–M.**

S.A.: ?LE, ?FR, ?EA, ?EP, ?NL, *MU, *YP, *SL, ?KI, *SE; *W.A.; *N.S.W.; *Vic. E Europe to Central & E Asia. Grown as an ornamental and has become locally naturalised. Flowers: Spring and summer, Sep.–Mar., does not readily set fruit.

References

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Pl. 1. *Tamarix aphylla*: **A**, habit: old tree spreading by suckers on coastal dune; **B**, section of raceme showing spiral arrangement of flowers; **C**, inflorescence; **D**, detail of branchlets; **E**, flowers; **F**, buds. Photos: A, R.K. Sandercock, DENR; B–F, P.J. Lang.