

Flowers hermaphrodite or males by the abortion of the ovary. Perianth free, divided to the broad base into 5 rarely 4 segments, slightly concave at the end. Stamens inserted near their base; anther-cells distinct, adnate to a very short broad filament and either nearly parallel and turned inwards, or divergent and marginal opening longitudinally. Ovary free, thick fleshy and somewhat conical, reduced in the male flowers to a flat disk. Stigma sessile, rather small, entire or obscurely lobed. Drupe or nut ovoid or nearly globular, resting on the enlarged usually succulent pedicel, the epicarp thin and not readily detached from the crustaceous or hard endocarp, the perianth-lobes either persistent round the base of the fruit or deciduous leaving the enlarged apex of the pedicel truncate. Seed erect, with a very thin testa; albumen copious; embryo minute near the apex, slightly divided at the lower end into 2 minute cotyledons.—Trees or shrubs. Leaves alternate or rarely opposite, often reduced to minute scales or very deciduous, rarely enlarged and persistent. Flowers minute, in small axillary spikes sometimes reduced to sessile clusters, each flower sessile or nearly so, in a notch of the rhachis or in the axil of a minute scale-like bract, one only or rarely 2 or 3 in the spike fertile with the pedicel rapidly enlarged, the others falling off without any enlargement of the semi-abortive ovary.

Of the eight Australian species one extends over the Eastern Archipelago, the others are endemic. The genus has also one species from New Zealand, one from Norfolk Island, one from the Sandwich Islands, and apparently one from Madagascar. Some of

the leafless species closely resemble some species of *Leptomeria*, but are at once distinguished by the free ovary. Some species with the fruiting pedicel very succulent are known to the colonists by the name of "native Cherry."

Spikes cylindrical, mostly shortly pedunculate.

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| Leaves ovate, flat, 1 to 2 in. long . . . . .  | 1. <i>E. latifolia</i> .      |
| Leaves numerous, linear, 8 to 10 lines long . . . . .  | 2. <i>E. odorata</i> .        |
| Leaves reduced to minute tooth-like spreading persistent scales . . . . .  | 3. <i>E. cupressiformis</i> . |
| Leaves linear-subulate, 1 to 2 lines long and deciduous, or rarely rather longer and persistent . . . . .  | 4. <i>E. spartea</i> .        |
| Spikes very short and scarcely pedunculate, the rhachis pubescent. Branches stout, often spinescent. Leaves reduced to minute ovate deciduous scales . . . . . | 5. <i>E. aphylla</i> .        |
| Spikes reduced to sessile clusters of 2 or few flowers.  |                               |
| Tall erect shrub, with flattened leafless branches . . . . .   | 6. <i>E. homaloclada</i> .    |
| Tall erect shrub, with slender angular branches. Leaves minute, subulate, very deciduous . . . . .   | 7. <i>E. stricta</i> .        |
| Procumbent much branched shrub, with terete rigid branches. Leaves reduced to minute alternate tooth-like persistent scales . . . . .                          | 8. <i>E. humifusa</i> .       |
| Prostrate much branched dwarf shrub. Leaves reduced to minute tooth-like scales mostly opposite . . . . .  | 9. <i>E. nana</i> .           |

1. ***E. latifolia***, *R. Br. Prod.* 356. A small tree, the young parts slightly hoary with a minute stellate or almost scaly pubescence. Leaves alternate, petiolate, from broadly ovate to oval-oblong, very obtuse, coriaceous, with several more or less distinct nerves diverging from the base, 1 to 2 in. long. Spikes rather slender, mostly about  $\frac{1}{2}$  in. long, shortly pedunculate, solitary or several in a short raceme in the upper axils. Flowers 5-merous or rarely 4-merous, not closely packed. Fruit ovoid, 3 to 4 lines long, on a thickly turbinate truncate pedicel of above 2 lines.—*A. DC. Prod.* xiv. 688; *E. miniata*, Zipp. and *E. luzoniensis*, Presl; *A. DC. l.c.*; *E. ovata*, Schnitzl. *Iconogr.* ii. t. 108\*\*\*.

**N. Australia.** Islands of the Gulf of Carpentaria, *R. Brown, Henne*; islands and mainland, N. Coast, *A. Cunningham*; Point Pearce and Upper Victoria river, *F. Mueller*; Port Darwin, *Schultz, n.* 358.

**Queensland.** Keppel bay and Shoal bay, *R. Brown*; Wide bay, *Bidwill*; Burdekin river, *F. Mueller*; Port Denison, *Fitzalan*; Rockingham bay and Rockhampton, *Dallachy*; Bowen river, *Bowman*; Kennedy district, *Daintree* (with leaves  $2\frac{1}{2}$  in. long and broad).

**N. S. Wales.** Tweed river, *Guilfoyle*.

The species is generally dispersed over the Eastern Archipelago to the Philippine islands.

2. SANTALUM, Linn.

SANTALACEAE

Flowers hermaphrodite. Perianth-tube adnate at the base, the free portion campanulate or ovoid, lined with the disk which is entirely adnate but produced between each two stamens into a spatulate or ovate triangular scale, the lobes 4 or rarely 5, with a tuft of hairs inside behind each stamen. Stamens inserted at the base of the lobes, the filaments usually longer than the intervening scales; anthers 2-celled, the cells parallel turned inwards and opening in longitudinal slits. Ovary semi-inferior, with an erect placenta with 2 or 3 adnate ovules free only at the lower extremity, the placenta produced above them into a long point. Style elongated, with a small 2- or 3-lobed stigma. Fruit a globular drupe, the epicarp fleshy but not thick, marked above the middle or on the summit with a circular scar left by the deciduous perianth-lobes, the endocarp hard and usually rugose.— Trees or shrubs. Leaves opposite or rarely alternate, petiolate, entire, coriaceous or somewhat fleshy, the midrib only or when old a few lateral pinnate veins conspicuous. Flowers rather larger than in the other genera, in small axillary or terminal trichotomous panicles usually shorter than the leaves and sometimes almost reduced to simple racemes. Bracts very small and scale-like, falling off long before the flowers open.

Besides the Australian species which appear to be endemic, there are a few nearly allied ones in East India, the Eastern Archipelago, and the N. and S. Pacific islands. The species require a careful revision from complete specimens; many of those in herbaria, especially the Australian ones, are very doubtful, from the absence of flowers or of fruits, or of both.

Flowers several in the panicle. Perianth 3 lines long or more.

Fruit  $\frac{1}{2}$  to  $\frac{3}{4}$  in. diam., marked with the scar of the perianth-lobes considerably below the summit . . . . . 1. *S. lanceolatum*.

Flowers few (rarely above 3) on the peduncles. Perianth rarely 2 lines long. Fruit 3 to 4 lines diameter, the terminal scar enclosing a small area.

Leaves ovate, usually broad and rather acute . . . . . 2. *S. ovatum*.  
Leaves oblong or lanceolate, obtuse . . . . . 3. *S. obtusifolium*.

1. **S. lanceolatum**, *R. Br. Prod.* 356. An erect shrub from 2 or 3 to 15 ft. high, or sometimes a small tree, with pendulous or spreading branches. Leaves mostly oblong or lanceolate, rather acute and shortly tapering into a petiole of 2 or 3 lines, the limb usually  $1\frac{1}{2}$  to  $2\frac{1}{2}$  in. long but occasionally varying much in size and breadth, rarely obtuse, the lateral veins often conspicuous on old leaves. Flowers rather large, in trichotomous panicles in the upper axils or at the ends of the branches, rarely exceeding the leaves. Perianth 3 to  $3\frac{1}{2}$  lines long, the adnate turbinate base very short, the lobes about as long as the campanulate free portion. Anthers oblong, rather large, on short filaments alternating with broad thick obtuse or spatulate scales or glands. Drupe obovoid-globular,  $\frac{1}{2}$  to  $\frac{3}{4}$  in. diameter, the circular scar of the limb considerably below the summit.—*A. DC. Prod.* xiv. 682; *F. Muell. Fragm.* i. 85; *S. oblongatum*, *R. Br. Prod.* 355, *A. DC. l.c.* 683.

**N. Australia.** Islands of the Gulf of Carpentaria, *R. Brown*; Upper Victoria river, *F. Mueller*; Port Darwin, *Schultz. n.* 517.

**Queensland.** Endeavour river, *Banks and Solander, A. Cunningham*; Port Denison, *Fitzalan, Dallachy*; Rockhampton, *Thozet*, and others; Balandool river, *Looker*; Nercool Creek, *Bowman*; Armadillo, *Barton*.

**N. S. Wales.** Gwydir river, *Leichhardt*.

*S. venosum*, *R. Br. Prod.* 355; *A. DC. Prod.* xiv. 683, from Arnhem bay, *R. Brown*, does not appear to be specifically distinct from the broad-leaved forms of *S. angustifolium*.

Var *angustifolium*. Leaves narrow, often with a fine incurved point.

**N. S. Wales.** From the Darling river to Cooper's Creek, *Dallachy and Goodwin, Neilson*; New England, *C. Stuart*