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Astartea DC.

ALA (https://bie.ala.org.au/species/https://id.biodiversity.org.au/taxon/apni/51289591) NSL [legitimate] (https://biodiversity.org.au/nsl/services/apni-format/display/106202)

Options

— Candolle, A.P. de in Candolle, A.P. de (ed.) (1828), Myrtaceae. *Prodromus Systematis Naturalis Regni Vegetabilis* 3: 210

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Nomenclature

Candolle, A.P. de in Candolle, A.P. de (ed.) (1828), Myrtaceae. *Prodromus Systematis Naturalis Regni Vegetabilis* 3: 210 ()

Etymology

After the goddess Astarte, for whom the myrtles were sacred.

Description

Dwarf shrubs to small trees, glabrous. Leaves opposite or rarely ternate, often densely clustered at nodes; petiole often poorly defined; blade narrowly obovate to long-linear in outline, about as thick as wide, entire, concolorous. Peduncles usually solitary and 1-flowered, rarely with 2–4 flowers per axil, often borne at sufficient consecutive nodes to show a progression from flower buds in the uppermost nodes to fruits in the lowest ones. Pedicels usually shorter than the peduncles. Flowers actinomorphic in most taxa but somewhat zygomorphic where the ovary is functionally 1-locular and the style off-set. Hypanthium obconic to cup-shaped or broadly so, adnate to ovary for most of its length. Sepals 5, much shorter than the petals, sometimes horned. Petals 5, widely spreading in flower, deciduous in fruit, broadly obovate to circular, 0.4–6 mm long, white to deep pink; antipetalous colleters often present, minute. Staminodes absent or up to 10, at the margins of stamen fascicles or opposite petals, longer than the stamens. Stamens inflexed in bud, 3–60, when very few then antisepalous and all or mostly widely spaced, when more numerous then all or mostly in antisepalous fascicles and rarely also with one opposite some or all of the petals, much shorter than the petals, those closest to petals longest. Anthers ± basifixed; thecae free, ± parallel, longitudinally

dehiscent; connective gland free, dorsal-subterminal. Ovary inferior, 1–3-locular; ovary summit dotted with oil glands, usually green at first and becoming deep red; placentas axile, almost sessile; ovules 1–23 per loculus. Style with its base inset into a cylindrical cavity in the ovary summit; stigma often peltate. Fruits either dehiscent, c. ½ inferior and many-seeded or indehiscent, ± inferior and few-seeded. Seeds irregularly ovoid to reniform, 0.6–1.3 mm long, thin-walled or moderately thick-walled smooth in most species, shallowly reticulate-pitted or colliculate in a few species; inner surface usually with a large, low protrusion in the distal part (above the hilum) that may function as an elaiosome.

Diagnostic Features

Stamens 3–60, when very few then antisepalous and all or mostly widely spaced, when more numerous then in antisepalous fascicles and rarely also with one opposite some petals, much shorter than the petals. Anthers ± basifixed; thecae free, ± parallel, longitudinally dehiscent; connective gland free, dorsal-subterminal. Seeds 0.6–1.3 mm long, thin-walled or moderately thick-walled, usually with a large, low protrusion distally.

Chromosome Numbers

n = 11 is presumed to be characteristic of the genus as in its close relative *Hypocalymma* (Endl.) Endl., but only one species has been scored: *A. muricata*, which is tetraploid with *n* = 22.

Biostatus

Native.

Distribution

A genus of c. 24 species restricted to the far southwest of Western Australia.

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Habitat

Occurring in damp habitats associated with depressions, watercourses and rock formations including granite outcrops.

Ecology

Astartea is specialised for damp habitats and has small seeds. It is a host for *Callococcus* (Hemiptera), which produces large, white, shell-like scales on the stems. Many species reproduce after fires from a lignotuber. Open insect-pollination is highly successful for seed set, with most species flowering during summer when few other plants are in flower. One species with exceptionally small flowers is apparently specialised to attract the smallest of insect pollinators. Myrmecochorous dispersal of seeds is common but a few species have indehiscent fruits.

Nomenclature and Typification

Astartea DC., *Prodromus Systematis Naturalis Regni Vegetabilis* 3: 210 (1828); *Baeckea* sect. *Astartea* (DC.) Nied. in A. Engler & K. Prantl, *Die Naturlichen Pflanzenfamilien* III, 7: 99 (1893). Type: *Astartea fascicularis* (Labill.) DC.

Taxonomic Notes

Astartea is closely related to *Cyathostemon* Turcz. and *Hypocalymma* (Endl.) Endl. Most species have a 2- or 3-valvate capsule with the style base central and deeply inset, but a few species have a functionally 1-locular, indehiscent fruit with the style base off-centre and only slightly inset. The hypanthium is often somewhat 5-ribbed.

Illustrations

J.J.H. de Labillardiere, *Novae Hollandiae Plantarum Specimen* 2(17): t. 170 (1806), as *Melaleuca fascicularis*, https://www.biodiversitylibrary.org/page/40882118 (https://www.biodiversitylibrary.org/page/40882118); B.L. Rye in N.G. Marchant *et al.*, *Flora of the Perth Region* 1: 381, fig. 140 (1987); B.L. Rye, *Nuytsia* 23: 193, fig. 1, https://www.biodiversitylibrary.org/page/60008803 (https://www.biodiversitylibrary.org/page/60008803); 194, fig. 2, https://www.biodiversitylibrary.org/page/60008804 (https://www.biodiversitylibrary.org/page/60008804); 195, fig. 3, https://www.biodiversitylibrary.org/page/60008805 (https://www.biodiversitylibrary.org/page/60008805); 199, fig. 4 (2013), https://www.biodiversitylibrary.org/page/60008809 (https://www.biodiversitylibrary.org/page/60008809).

Excluded or Uncertain Names

Astartea fascicularis var. *brachyphylla* Domin, *Věstník Královské české společnosti náuk. Třída mathematicko-přírodovědecká* 2: 83–84 (1923). Type: sand plains about Warrungup [Mt Trio, Stirling Range], W.A., *A.A. Dorrien-Smith*; holo: K?, *n.v.*

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Leptospermum dubium Spreng., *Systema Vegetabilium* Edn. 17, 2: 492 (1825). Type: “Nov. Holl.”; holo: B *n.v.*, destroyed in WWII.

Astartea sp. Lake Muir (B.L. Rye 230128 & R.W. Hearn), *A.* sp. Porongurup (G.J. Keighery 12320) and *A.* sp. southern ranges (T.E.H. Aplin 2108) remain informally recognised in Western Australia (Western Australian Herbarium 1998–). Additional research is required to resolve their taxonomic status.

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Taxonomy

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- Kingdom: Plantae ()
- Phylum: Charophyta
- Class: Equisetopsida
- Subclass: Magnoliidae
- Superorder: Rosanae ()
- Order: Myrtales ()
- Family: Myrtaceae (/opus/foa/profile/Myrtaceae) ()
- Genus: Astartea (/opus/foa/profile/Astartea) ()

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Australian Plant Image Index

Astartea glomerulosa by Thiele, K.R., 20/11/2011 (© Thiele, K.R.)

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