

## SURIANACEAE Arnott

### \* Suriana Family

James S. Pringle

**Shrubs or trees.** Leaves alternate, simple [pinnately compound]; stipules absent [deciduous, small]; sessile [petiolate]; blade margins entire. **Inflorescences** terminal or axillary, cymes or flowers solitary in axils [caulophyllous], irregular, bracteate. **Flowers** bisexual [some staminate only]; epicalyces absent; hypanthium absent or weakly developed and inconspicuous; sepals 5, proximally connate [distinct]; petals 5 [absent], distinct; intrastaminal nectary-disc absent [present]; stamens 10, in 2 whorls of 5, distinct, free, inner whorl sometimes staminodial or vestigial; pistils (4 or) 5[1--3], distinct; ovary 1-locular; placentation basal-marginal; styles 1 per pistil, basally [ventrally] inserted; stigmas 1; ovules 2[--5] per pistil, all but 1 abortive, basal, collateral, integument 1. **Fruits** drupelets [or nutlets]. **Seed** 1, reniform, embryo campylopterus [anotropous], curved, cotyledons 2, equal-sized, chlorophyllous.

Genera 5, species 8 (1 in the flora): Florida, Mexico, West Indies, Bermuda, Central America, South America, Asia, Africa, Indian Ocean Islands, Pacific Islands, Australia; tropical and subtropical coasts.

The generic count includes *Recchia* Moçônio & Sessé ex de Candolle, retained in Simaroubaceae by A. Cronquist (1981) but placed in Surianaceae by other authors, and *Stylobasium* Desfontaines, sometimes placed in a separate family. The other genera are *Cadellia* F. Mueller and *Guilfoylia* F. Mueller. *Recchia* has one Mexican species; the others are Australian.

A. Cronquist (1981) placed Surianaceae within Rosales. Formerly, this family, or at least the genus *Suriana*, was often included in the Simaroubaceae of the Rurales (J. Hutchinson 1964--1967, vol. 1; A. L. Takhtajan 1987). R. F. Thorne (1992b) allied Surianaceae closely with Fabaceae and Connaraceae. A phylogenetic analysis of molecular data by E. S. Fernando et al. (1993) supported the monophyly of Surianaceae (in the sense of Cronquist) and provided the first evidence for a close relationship to Fabaceae and Polygalaceae. Based on this, and evidence from other studies (P. A. Gadek et al. 1996; T. Kajita et al. 2001; F. Claxton et al. 2005), Surianaceae has been moved to Fabales (e.g., Angiosperm Phylogeny Group 2003).

SELECTED REFERENCES Fernando, E. S., P. A. Gadek, D. M. Crayn, and C. J. Quinn. 1993. Rosid affinities of the Surianaceae: Molecular evidence. *Molec. Phylogen. Evol.* 2: 344--350. Fernando, E. S. and C. J. Quinn. 1992. Pericarp anatomy and systematics of the Simaroubaceae sensu lato. *Austral. J. Bot.* 40: 263--350. Gutzwiller, M.-A. 1961. Die phylogenetische Stellung von *Suriana maritima* L. *Bot. Jahrb. Syst.* 81: 1--49. Heo, K. and H. Tobe. 1994. Embryology and relationships of *Suriana maritima* L. (Surianaceae). *J. Pl. Res.* 107: 29--37. Wilson, P. 1911. Surianaceae. In: N. L. Britton et al., eds. 1905+. *North American Flora*.... 47+ vols. New York. Vol. 25: 225.

1. **SURIANA** Linnaeus, *Sp. Pl.* 1: 284. 1753; *Gen. Pl.* ed. 5, 107. 1754 \* [For Joseph D. Surian, d. 1691, French physician who collected plants in the West Indies]

**Shrubs** (occasionally trees); young stems, leaf surfaces, pedicels, and calyces densely puberulent, some hairs on herbage glandular; older stems with exfoliating bark. **Leaves** mostly crowded toward ends of twigs (older ones soon falling); blade narrowly oblanceolate, +/- fleshy, base tapering, apex obtuse to acute. **Inflorescences** usually scarcely exerted beyond leaves. **Flowers:** sepals persistent, narrowly ovate, apex short-acuminate; petals mostly fallen by midday, spreading, yellow, elliptic-obovate, base tapering to claw, apex rounded, erose-dentate; stamens: outer whorl fertile, filaments proximally pilose, inner whorl sterile, less than 1/2 as long as fertile, pilose throughout; anthers rudimentary or none; pistils short-stipitate, pilose; style slender, glabrous, much longer than ovaries. **Fruits** brown, round, becoming dry, achenelike.

Species 1: Florida, Mexico, West Indies, Bermuda, Central America, South America, Asia, Africa, Indian Ocean Islands, Pacific Islands, Australia.

1. **Suriana maritima** Linnaeus, *Sp. Pl.* 1: 284. 1753 \* Bay-cedar, guitar F

**Shrubs** 0.7--3(--8) m, sometimes trees in sheltered sites, densely branched. **Leaves** 10--40 x 1--5(--7) mm. **Inflorescences** 1--23-flowered. **Flowers:** calyces 6--10 mm; petals +/- 4 mm. **Fruits** 4--6 mm diam.

Flowering year-round. Sandy and coral-rock ocean shores, from just above high-water line to low dunes and hammocks; 0--10 m; Fla.; Mexico; West Indies; Bermuda; Central America; n South America; se Asia; e Africa; Indian Ocean Islands; Pacific Islands; n Australia.

Although *Suriana maritima* is widely distributed in the tropics, in the flora area it is native only to coastal Florida, west to the Dry Tortugas and north to Brevard and Pinellas counties, where much of its habitat has been eliminated by development.

A proportionately large air space within the drupelets enables them to float for long periods, thereby being dispersed by ocean currents. Because of its tolerance of salt and resistance to wind, *Suriana maritima* is valued as a landscape plant and for erosion control. In some parts of its range, the wood has a limited use for making small articles. Preparations from the leaves and bark have been used for medicinal purposes, including the treatment of fevers and intestinal problems (D. W. Nellis 1994).