

SANTALACEAE

Small trees, shrubs, perennial herbs or epiphytic climbers; hemiparasitic on roots or branches. Stipules absent. Leaves opposite or alternate, rarely whorled, simple, entire. Inflorescence various. Flowers actinomorphic. Perianth 1-whorled; tepals 3-5, valvate. Stamens as many as tepals and opposite to them. Ovary inferior or superior, 1-5-locular; ovules 1 per locule; disc usually present. Stigma lobed. Fruit mostly a fleshy drupe. Seed 1.

About 30 genera and 400 species in tropical and temperate regions of the world; in Australia 10 genera. In the NT, 4 genera, all in the DR. [Hewson & George, 1984]

1.	Aerial stem parasite; vine	Dendromyza
1.	Root parasites; shrubs or small trees	2
2.	Leaves opposite	Santalum
2.	Leaves alternate	3
3.	Leaves filiform	Anthobolus
3.	Leaves ovate, elliptic or obovate	Exocarpos

ANTHOBOLUS R.Br.

An Australian endemic genus of 3 species; 2 occur in the NT but only 1 in the DR.

A. filifolius R.Br.

Glabrous, dioecious, evergreen shrub to 3 m. Leaves alternate, sessile, filiform, mucronate, 10-60 mm long. Male flowers in axillary, 3-5-flowered umbels or racemes; peduncle 4-10 mm long; bracts minute, caducous; pedicels 1-4 mm long; tepals 3-4, yellow or greenish brown, ovate, obtuse, 1-2 mm long. Female flowers in axillary 1-3-flowered umbels or in 3-4-flowered racemes;

peduncle 2-25 mm long; bracts ovate, caducous; pedicels to 19 mm long; tepals 3-5, yellow, oblong-ovate, 1.5-2 mm long; ovary superior; stigma sessile. Fruit orange to red, ellipsoid, 5.5-9 mm long. Flowering and fruiting: throughout the year. Fig. 62

NT and Qld; rare in the DR where known only from Litchfield NP. Generally in near-coastal localities in open woodland on sandy soils.

DENDROMYZA Danser

A genus of 5 species from New Guinea, Solomon Islands and northern Australia. Only 1 species in the NT.

D. reinwardtiana (Blume ex Korth.) Danser

Stem-parasitic, glabrous, dioecious vine or scrambling shrub. Branchlets either twining with haustoria and scale leaves or leafy and non-twining. Normal leaves alternate, elliptic to obovate, rounded, 20-100 mm long, 3-9 longitudinal primary veins, abruptly attenuate at base into short petiole. Flowers clustered in axils and along branchlets, shortly pedicellate or sessile, subtended by bracts forming an involucre.

Tepals 4-5, green, triangular, c. 1 mm long; disc thick. Male flowers \pm globose on narrowed receptacle; staminal filaments short, thick. Female flowers c. 2 mm long; ovary inferior, 1-locular; style short; stigmas 5, erect. Fruit pink, ovoid, 6-8 mm long, narrowed at apex and crowned by tepals. Seed pyriform, 5-ribbed. Flowering and fruiting: Jan - Sept. Fig. 62

From Sumatra, Luzon to Papua New Guinea. In

Australia known from Cape York and the NT. In the DR known only from 2 sites on Melville Is. in perennially wet vine forest. Parasitic on *Calophyllum*

soulattri Burman f. and *Syzygium eucalyptoides* (F.Muell.) B.Hyland subsp. *bleeseri* (O.Schwarz) B.Hyland.

EXOCARPOS Labill.

A genus of c. 26 species; from Malesia to Australia, New Zealand, Hawaii and New Caledonia. Two species in the NT; only 1 occurs in the DR.

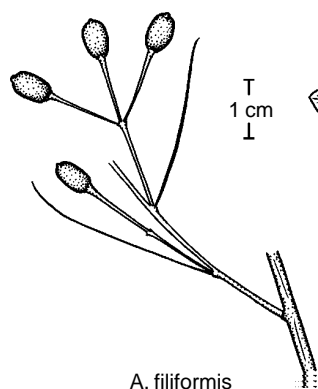
E. latifolius R.Br.

Root parasitic, evergreen shrub or small tree to 10 m; bark black, deeply furrowed; root suckering. Glabrous to densely pubescent with minute stellate hairs on all parts. Leaves alternate; petioles 2-8 mm long; blades elliptic, obovate or ovate, rounded to acute, 18-110 mm long, 8-62 mm wide, L/B 1.4-2.3; 3-9 longitudinal primary nerves. Inflorescence a filiform spike, often clustered or branched, to 40 mm long. Flowers bisexual, 5-merous, minute, greenish. Disc

lobes alternating with stamens. Ovary superior; stigma sessile. Fruiting receptacle swollen below drupe, succulent, maturing yellow or red, obovoid, 5-8 mm long; drupe coriaceous, ellipsoid, 5-10 mm long. Flowering and fruiting: throughout year. Fig. 62

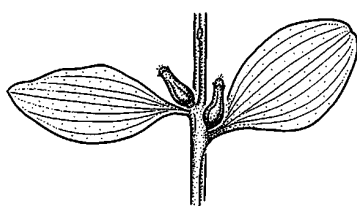
Widespread across northern Australia, also in Malesia and the Philippines. Common in the DR in vine thickets and open forest on a variety of soil types. There is variation in indumentum and leaf size. The fleshy receptacle is edible (Smith & Wightman, 1990).

Anthobolus



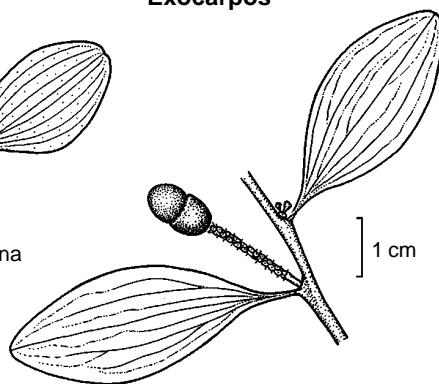
A. filiformis

Dendromyza



D. reinwardtiana

Exocarpos



E. latifolius

Fig. 62

SANTALUM L.

Root-parasitic, glabrous, evergreen shrubs or small trees. Leaves opposite or whorled. Flowers bisexual, in terminal or axillary panicles or racemes, rarely umbelliform; bracts caducous. Tepals 4, usually with hair tufts at base behind stamens. Prominent or slightly developed fleshy lobes alternating with stamens. Ovary inferior; ovules 2-4; style short; stigma small. Fruit dark purple to black, with apical collar.

A genus of c. 25 species from Malesia, Polynesia, Hawaii, Juan Fernandez to Australia. Six species recorded for Australia; 3 in the NT and 2 in the DR.

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| 1. Leaves ovate, rarely narrower, discolorous; lateral veins evident;
flowers dark red or green, c. 4 mm long | <i>S. album</i> |
| 1. Leaves lanceolate to narrowly elliptic, rarely wider, concolorous;
lateral veins obscure; flowers white to cream, 6-8 mm long | <i>S. lanceolatum</i> |

S. album L.

Shrub or small tree to 7 m. Bark dark and fissured. Juvenile leaves in whorls of 3. Petioles 9-15 mm long. Leaf blades discolorous, ovate to elliptic, 40-90 mm long, 18-44 mm wide, L/B 1.5-2.1, tertiary venation reticulate. Inflorescence of small terminal or axillary racemes, panicles or umbelliform, few-flowered, to 25 mm long; pedicels c. 1 mm long. Hypanthium c. 2 mm long. Tepals usually dark red or green, c. 2 mm long. Fruit ellipsoid or globular, 8-10 mm long. Flowering: Dec - July; fruiting: Apr - Sept. Fig. 63 Sandalwood

Occurs from India to Hawaii; in Australia restricted to coastal localities between Melville Is. and Groote Eylandt. In the DR known from Darwin and Melville Is. Found in monsoon vine thicket on coastal sand dunes and laterite. This species is the basis for the Sandalwood trade from India through SE Asia.

S. lanceolatum R.Br.

Shrub or small tree to 7 m, usually glaucous. Bark becoming fissured, grey. Petioles 3-10 mm long. Leaf blades concolorous or slightly discolorous, narrowly elliptic or narrowly lanceolate to lanceolate, 31-117 mm long, 8-27 mm wide, L/B 2-7.6; tertiary venation obscure. Inflorescence of axillary or terminal panicles or racemes, to 50 mm long; pedicels c. 12 mm long. Hypanthium 2.5-3 mm long. Tepals pale green or cream to white, 3-4 mm long. Fruit ellipsoid, 9-17 mm long. Flowering: throughout the year; fruiting: sporadically. Fig. 63 Sandalwood

Widespread in tropical and subtropical Australia; common in the DR. In a wide variety of habitats. The fruit is edible and larger stems are occasionally harvested for sandalwood. The inner bark and leaves are used traditionally as medicine (Abor. Comm. NT, 1988).

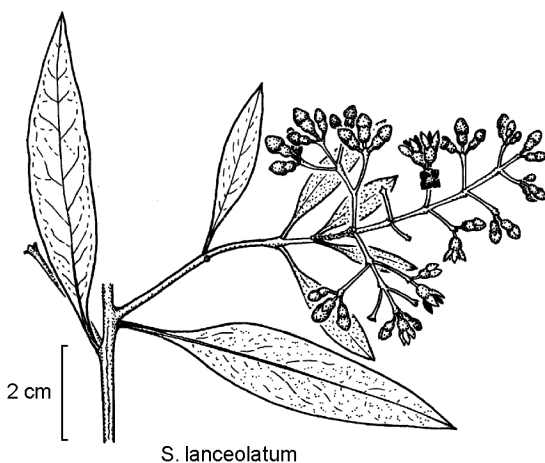
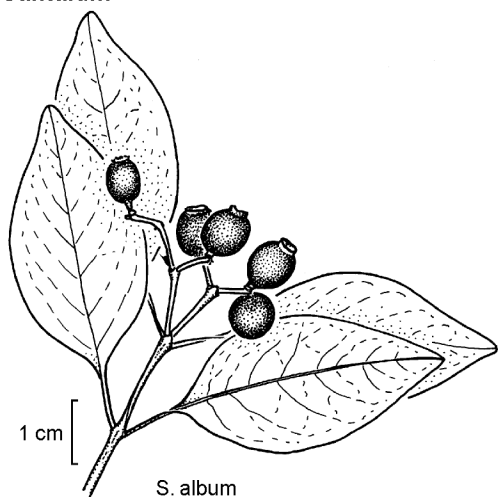
Santalum

Fig. 63