

# Flora of the Darwin Region

## VOLUME 1

P.S. Short & I.D. Cowie (eds)



VIOLACEAE

P.S. Short

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# VIOLACEAE

*P.S. Short*

*Herbs* or shrubs. *Leaves* simple, alternate or sometimes opposite, entire or sometimes toothed or lobed; stipules usually present. *Flowers* bisexual, weakly to strongly zygomorphic, solitary and axillary or in cymose or racemose inflorescences. *Calyx* of 5, imbricate, persistent sepals. *Petals* 5, free, equal or unequal and the lowermost commonly spurred. *Stamens* 5, alternating with the petals; filaments very short; anthers free or in contact around the ovary, dithecal, introrse, dehiscent by longitudinal slits, often with nectaries. *Gynoecium* of (2) 3 (5) carpels united to form a compound, superior, unilocular ovary; placentation parietal; style solitary, simple and with a terminal stigma. *Fruit* commonly a loculicidal capsule or a berry. *Seeds* often arillate, with abundant endosperm.

Cosmopolitan family mainly found in tropical and subtropical regions but with *Viola* in temperate areas. Depending on the authority it contains *c.* 16–25 genera and perhaps 800–900 species, with nearly half of the species belonging to *Viola*. In Australia represented by three genera and *c.* 26 species but within the N.T. only represented by *Hybanthus*.

Taxonomic references: Cronquist (1981); Adams & George (1982); Grey-Wilson (1986); Sothers (2004).

## HYBANTHUS Jacq.

*Herbs* or shrubs. *Leaves* alternate, clustered or opposite, sessile or petiolate, the lamina entire or dentate; stipules absent or present. *Flowers* solitary in leaf axils, their pedicels jointed at about the middle, with a pair of *c.* opposite bracteoles. *Sepals* free, subequal. *Petals* unequal, the lowermost petal manifestly spurred and prominently clawed, the claw exceeding the calyx and terminating in a broad lip, the remaining petals slightly exceeding the calyx. *Stamens* free or somewhat cohering, lower 2 filaments with basal nectaries; anther appendages absent or present. *Ovary* subglobose, with 3–15 ovules. *Fruit* a loculicidal capsule splitting in three at dehiscence.

Genus of *c.* 150 species, with ten in Australia and two, *H. aurantiacus* and *H. enneaspermus* in the N.T., but only the latter in the D.R.

*Hybanthus aurantiacus*, which occurs below *c.* 15° S, is a small shrub with orange flowers – Pl. 1 (*Stuckey* 368); *H. enneaspermus* has blue or mauve flowers.

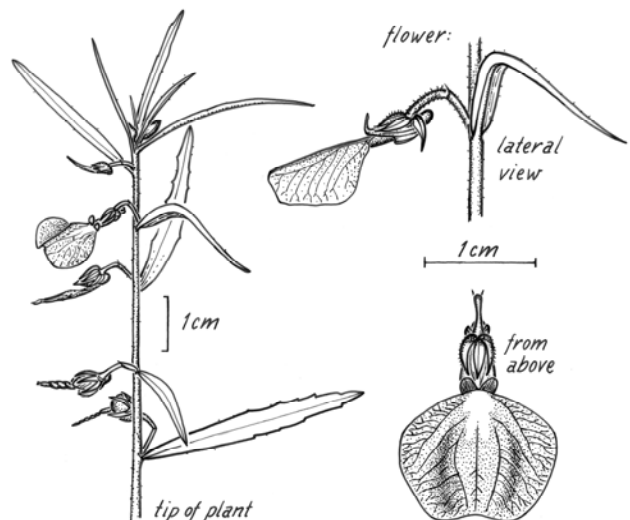
Taxonomic references: Bennett (1972); George (1982); Grey-Wilson (1986).

### **H. enneaspermus** (L.) F. Muell.

*H. enneaspermus* subsp. *enneaspermus*

Usually annual *herb* to *c.* 60 cm tall, perhaps sometimes longer-lived; stem glabrous or with scattered hairs. *Leaves* alternate, subsessile, linear or linear-oblongate, 10–70 mm long, 0.5–5.5 mm wide, glabrous or with scattered hairs and may be somewhat scabrid, margins entire or sometimes barely toothed, revolute; stipules linear or linear-triangular, 1–3 (4) mm long, whitish, margins hyaline, terminating in an orange gland. *Flowers* solitary. *Pedicels* 5–10 mm long, bracteoles 0.5–2.2 mm long, pale whitish, *Sepals* lanceolate, 3–4 mm long, acute, keeled, mostly green but purplish at base and with transparent, sometimes whitish margins, glabrous or keel subscabrid. *Petals* bluish or mauve; lowermost petal broadly spatulate, 8–19 mm long, 6–14 mm wide; upper

*Hybanthus enneaspermus*



**Fig. 1**

petals pale whitish, shorter than laterals, tips slightly curved and midvein often purplish; lateral petals 2, with *c.* 4 purplish-blue stripes otherwise pale white except for purplish, curved, erect apices. *Stamens* free or variously united, particularly by their terminal, brownish, transparent connectives; anthers 0.8–1.3 mm long, with the 3 uppermost ones dorsally glabrous or almost so, the 2 lowermost dorsally with long hairs; filaments of 2 lowermost stamens each with an elongate, apically hairy spur. *Style* somewhat sigmoid, whitish. *Capsule* 4–9 mm long. *Seeds* 5–12, ovoid-ellipsoid, 1.9–2.5 mm long, ribbed, 1.1–1.35 mm diam., with many longitudinal ribs, pale cream. *Flowering & fruiting*: throughout the year.

Fig. 1 (unvouchered); Pl. 2 (*Cowie 12390*).

A highly variable and widespread species ranging from Africa east to Australia (W.A., N.T., Qld, N.S.W.). Grows in sandy to clay soils, from coastal dunes to inland woodlands and sandstone outcrops.

Intraspecific taxa have been previously recognised for this species but following the Australian Plant Census (2006–) no infraspecific taxa are recognised.

In fresh flowers the two upper petals are sometimes initially fused, only splitting as the ovary matures. The gland-tipped stipules are distinctive and make for ready identification of sterile specimens.

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Pl. 1 *Hybanthus aurantiacus* (Photo: B.M. Stuckey)



Pl. 2 *Hybanthus enneaspermus* (Photo: I.D. Cowie)