



## 81 \* PASSIFLORACEAE <sup>1</sup>

Dennis I Morris <sup>† 2</sup>

Herbaceous or woody vines, climbing by simple branch-opposed tendrils, less often erect shrubs or trees (not in Australia). Leaves alternate; stipule usually small and deciduous; petioles often glandular; lamina entire or lobed. Inflorescence a cyme or raceme, or flowers solitary; flowers usually subtended by 3 small or large and involucre bracts. Flowers bisexual or rarely unisexual, actinomorphic, perigynous with a saucer-shaped or elongated hypanthium, commonly with an elongated androgynophore or rarely the ovary sessile or subsessile. Sepals (3–)5(–8), often petaloid, free or connate below, persistent. Petals as many as and alternate with the sepals, free or connate at the base; corona usually present on the hypanthium, composed of one or more rings of filaments or scales. Stamens (4)5(–many), alternate with the petals; filaments free or fused, often inserted on the androgynophore; anthers dithecal, versatile. Carpels united; ovary superior, unilocular, placentae parietal; styles free or connate at the base; stigmas clavate or discord. Fruit (in Tas.) a berry, indehiscent. Seeds 1-many, surrounded by membranous aril.

A family of about 10–16 genera and 600 species that are widespread in tropical and warm-temperate regions, especially tropical America and Africa. 2 genera and 13 species (2 endemic, 9 naturalized) in Australia. The Passifloraceae are placed in the very large order Malpighiales. They are closely related to the families Turneraceae (C & S America, Africa) and Malpighiaceae (Peru, Chile) and these two families are sometimes included in the Passifloraceae (Shore *et al.* 1994; APG II 2003; Stevens 2007). These three families are in a group of families that include the Salicaceae and Violaceae (see Stevens 2007 & references cited therein).

Key reference: Satterthwait (1982).

External resources: accepted names with synonymy & distribution in Australia (APC); author & publication abbreviations (IPNI); mapping (AVH, NVA); nomenclature (APNI, IPNI).

## 1 \* PASSIFLORA

*Passiflora* L., *Sp. Pl.* 2: 955 (1753).

Herbaceous or ± woody climbers. Leaves usually lobed, margins entire or toothed, petioles with or without nectary glands. Flowers usually bisexual, often showy; hypanthium saucer-shaped, campanulate or cylindrical. Sepals 5, mostly free, fleshy or membranous. Petals 5; corona variously developed. Stamens 5(–8); filaments usually fused with the gynophore. Carpels 3–5; styles 3–4(5); stigmas capitate, orbicular or reniform. Berry globose to ovate, containing mucilaginous pulp.

A genus of about 400 species, the majority occurring in the Americas, the remainder from Indo-Australia and the western Pacific. 12 species (2 endemic, 9 naturalized) in Australia.

Several ornamental and fruiting species (eg. *P. edulis* Sims, Passionfruit) are grown in Tasmanian gardens but have not, as yet, become truly naturalized.

1 This work can be cited as: Morris DI (2009). Passifloraceae, **version 2019:1**. In MF de Salas (Ed.) *Flora of Tasmania Online*. 3 pp. (Tasmanian Herbarium, Tasmanian Museum and Art Gallery: Hobart). <https://flora.tmag.tas.gov.au/treatments/passifloraceae/>

2 Tasmanian Herbarium, Tasmanian Museum & Art Gallery, PO Box 5058, UTAS LPO, Sandy Bay, TAS 7005, Australia.

1. Petals red, 0.8–1.5 cm long; outer corona segments c. 8 mm long; petioles without glands; hypanthium saucer-shaped 1 *P. cinnabarina*  
 1: Petals pink, 4.5–5.0 cm long; corona a ring of scales; petioles with glands; hypanthium elongated 2 *P. tarminiana*

**1 \* *Passiflora cinnabarina*** Lindl., *Gard. Chron.* 23: 724 (1855)

*Red Passionflower*

*Illustrations*: Satterthwait, *Fl. Australia* 8: 151, fig. 34b; 155, fig. 35g (1982); Entwisle, *Fl. Victoria* 3: 378, fig. 78a (1996); Corrick & Fuhrer, *Wildflowers of Victoria* 173, fig. 608 (2000); Harden, *Fl. New South Wales* 1, rev. edn: 434 (2000).

Vine, climbing by axillary tendrils, glabrous. Leaves: stipules linear, c. 5 mm long; petioles shorter than the lamina, eglandular; lamina 5–8 cm long, 5–7 cm wide, 3-lobed, the lateral lobes sometimes with secondary lobing, obtuse to acute, adaxial surface shining, dark green, venation impressed, abaxial surface paler, dull green, venation raised. Flowers solitary; peduncles with 3 ± distant linear bracts; hypanthium saucer-shaped. Sepals green outside, red inside, c. 3 cm long. Petals red, 8–15 mm long; outer ring of corona composed of yellow linear filaments c. 8 mm long, inner ring whitish-green, membranous fringed white. Androgynophore with stamens fused for c. 2.5 cm, free part of the filament c. 1.5 cm long, gynophore extending c. 5 mm beyond the fused portion of the filaments. Ovary globular; styles 3, c. 8 mm long; stigmas capitate. Fruit greenish-grey, ellipsoid to spheroid, 2.0–3.5 cm long, 2.0–2.5 cm wide. Flowering Sep.-Feb.; fruiting Jan.-Feb.

Tas. (FUR, TNM, TYE); native to NSW, Vic. Known from a few localities near Launceston, Mayfield Bay and Binalong Bay. Satterthwaite (1982) lists this species as native to Tasmania but the absence of early records of a fairly noticeable plant suggests that it is an introduction. The species is widely used in horticulture world-wide.

**2 \* *Passiflora tarminiana*** Coppins & V.E.Barney, *Novon* 11: 9 (2001)

*Banana Passionfruit*

*Passiflora mollissima* sensu D.R.Satterthwait, *Fl. Australia* 8: 154 (1982); A.M.Buchanan, *A Census of Tasmanian Plants* 3rd edn: 37 (1999), *non* (Kunth) L.H.Bailey (1916).

*Illustrations* [as *P. mollissima*]: Satterthwait, *Fl. Australia* 8: 151, fig. 34d (1982); Entwisle, *Fl. Victoria* 3: 378, fig. 78b (1996); Harden, *Fl. New South Wales* 1, rev. edn: 373, pl. 22; 434 (2000); Whiting *et al.*, *Tasmania's Natural Flora* 366 (2004); Richardson *et al.*, *Weeds of the South-East, an Identification Guide for Australia* 333 (2006).

Climbing vine; stems cylindrical, ribbed, indumentum dense of short white or yellowish crisped hairs. Leaves: stipules acicular, auriculate 4–7 mm long, including the aristate apex, early deciduous; petioles 1.5–4.0 cm long, pubescent, with 1–4 pairs of glands; lamina 7–16 cm wide, trilobed, lobes ovate acute to acuminate, margins serrate; adaxial surface glabrescent, abaxial surface pubescent, veins ferruginous. Flowers solitary, pendent; peduncles 4–12 cm long, pubescent; bracts 3.0–4.5 cm long, united for  $\frac{1}{2}$  to  $\frac{2}{3}$  of their length, lobes ovate, entire, acuminate, veined; hypanthium 5.5–8.0 cm long, green externally, whitish within. Sepals and petals pink, opening perpendicular, becoming reflexed. Sepals 4.5–5.0 cm long with a short subterminal awn. Petals equalling or slightly shorter than the sepals; corona a ring of scales, white, purple at the base. Androgynophore 7–10 cm long, free part of the filaments c. 2 cm long; anthers c. 1 cm, yellow. Ovary fusiform, green, pubescent. Fruit yellow to orange, oblong, 6–7 cm long, 3.0–3.5 cm wide. Flowering Oct.-Mar.; fruiting Feb.-Mar.

Tas. (FUR, KIN, TSE); also naturalized in Qld, NSW, Vic.; native of South America. Originally grown in gardens for its sweet aromatic fruit. Established in a variety of situations and collections have been made in the Hobart, Bridport, Burnie, Tasman Peninsula and Woolnorth areas. Recorded for King Island by Woolnorth *et al.* (2002).

## REFERENCES

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APNI (Australian Plant Name Index) <https://biodiversity.org.au/nsl/services/apni>

AVH (Australia's Virtual Herbarium) (Council of Heads of Australasian Herbaria) <http://avh.chah.org.au/>

IPNI (International Plant Name Index) <http://www.ipni.org> or <http://www.us.ipni.org>

NVA (Natural Values Atlas) (Department of Primary Industries and Water: Hobart)

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**NOTE:** Web addresses can and do change: a list of current web addresses is maintained in the web version of this treatment on the *Flora of Tasmania Online* website at <https://flora.tmag.tas.gov.au>

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