

Tinospora smilacina Benth.

Family:

Menispermaceae

Bentham, G. (1861) *Journal of the Proceedings of the Linnean Society, Botany* 5 20: 52. Type: Queensland, Plains of Brisban in Eastern Australia, 29 Aug. 1856, D. Moore, s.n. Holo: K.

Common name:

Snake Vine; Snakevine; Tinospora Vine; Vine, Tinospora; Vine, Snake

Stem

Vine stem diameters to 7 cm recorded.

Leaves

Leaf blades about 4-5-12 x 4-11 cm, petioles about 2.5-9 cm long, sometimes longer than the leaf blade. Five veins, including the midrib, radiate from the base of the leaf blade. Domatia (shallow depressions or foveoles) present only at the base of the leaf blade.

Flowers

Male flowers: Sepals six, in two whorls of three. Outer sepals about 0.5 mm long, much smaller than the inner sepals which are about 3-5 mm long. Petals six, gland-like, about 2 mm long, much smaller than the sepals in the inner whorl, petals half enveloping the staminal filaments. Stamens six, about 5-7 mm long. Pollen yellow. Female flowers: Flowers about 4-6 mm diam. Sepals six, in two whorls of three, outer sepals about 2 mm long, inner sepals petaloid, about 4.5 mm long. Petals six, obovate, about 1-2 mm long. Staminodes three to six, opposite the petals, about 1.6 mm long. Ovaries three, borne on a column in the centre of the flower. Each ovary about 1.5-2 mm long, stigma sessile, wig-like. Ovules 1 per ovary.

Fruit

Fruits globular to ellipsoid, about 6-10 x 6-9 mm, style remnants persistent at the apex of the fruit. Surface of the 'seed' (endocarp) coarsely rugose. Seeds about 6-7 x 4-5 mm. Cotyledons flat, spreading, about 4 x 1.5 mm. Radicle about 1.5-0.5 mm.

Seedlings

Cotyledons ovate, blades about 32-43 x 14-25 mm, apex acute or obtuse, base truncate, petioles about 7-8 mm long. Cotyledons glabrous, 3-veined. First leaves cordate, about 6-7 x 4-5 cm, apex acuminate, base cordate, petioles about 4-6 cm long. Venation distinctive with the midrib and 4 lateral veins radiating from the base. At the tenth leaf stage: leaf blade cordate, apex acuminate, base cordate. Petiole at least half as long as the leaf blade. Taproot thick and carrot-like (*Daucus carota*). Seed germination time 18 to 321 days.

Distribution and Ecology

Endemic to Australia, occurs in WA, NT, CYP, NEQ, CEQ and southwards as far as north-eastern New South Wales. Altitudinal range from near sea level to 650 m. Grows in beach forest, monsoon forest, gallery forest, lowland and upland rain forest as well as open woodland.

Natural History & Notes

This species may have medicinal properties. (<http://www.publish.csiro.au/journals/ajc/recent/toc/v51n12.html>)

This plant used medicinally by Aborigines. Cribb (1981).

Synonyms

***Tinospora smilacina* var. *typica* Domin**, *Bibliotheca Botanica* 89(4): 667(1928). ***Tinospora walcottii* Benth.**, *Flora Australiensis* 1: 56(1863), Type: Western Australia, Nichol Bay, P. Walcott, s.n. Holo: K. Iso: MEL. ***Tinospora berneyi* F.M.Bailey**, *Queensland Agricultural Journal* 18(2): 76(1907), Type: Qld, Wyangarie.[corr. F.M. Bailey, (1907) to Spring Valley, Hughenden.] Sept. 1905, F.L. Bernay. Syn: BRI, K; Mar. 1906, F. L. Bernay. Syn: BRI. ***Tinospora smilacina* var. *berneyi* (Bailey) Domin**, *Bibliotheca Botanica* 89(4): 667(1925).

RFK Code

2176



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Female flowers. © CSIRO



Female flowers. © CSIRO



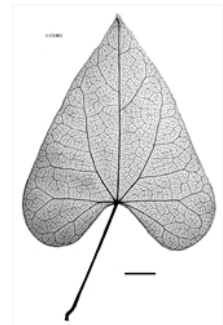
Male flowers. © CSIRO



Leaves and fruits. © CSIRO



Leaves and male flowers. © CSIRO



Scale bar 10mm. © CSIRO



10th leaf stage. © CSIRO



Cotyledon and 1st leaf stage, epigeal germination. © CSIRO



Vine stem bark and vine stem transverse section. © CSIRO



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