

Turnera diffusa Willd. ex Schult.

Standardized Common Name: Damiana

Family: Turneraceae

Parts in commerce: Leaves

Identification:

- Oblong to narrowly obovate or narrowly ovate
- 0.5–4(–5) cm long
- Base tapering, with or without a distinct short (<7 mm) petiole
- Apex obtuse
- Margins revolute and bearing a few, often somewhat rounded teeth
- Venation pinnate; secondary veins parallel, leaving midrib at 45–60° angle and running towards notches between teeth, usually splitting before the notch
- Secondary veins sunken on upper surface, prominent on lower surface
- Upper surface olive to dark or pale green, sometimes discolored, glabrous to pubescent
- Lower surface paler, frequently grayish to whitish, nearly glabrous to pubescent; pubescence quite variable, sometimes present only over veins, sometimes dense

- Glandular hairs on lower surface yellowish or whitish, stalkless
- Odor aromatic
- Taste aromatic, pleasant

Adulterants: *Isocoma veneta* (Kunth) E. Greene, formerly known as *Aplopappus* or *Haplopappus discoideus* DC., a member of the aster family, was frequently reported as an adulterant in the past. Its leaves differ from those of *T. diffusa* in several features:

- Teeth fewer, mostly toward apex, sharply pointed
- Margins not revolute
- Apex acute
- Tapering basal portion of leaf proportionately longer, to over half the length of the blade
- Glandular dots black
- Secondary veins inconspicuous
- Odor and taste resinous or balsam-like

It has been stated in at least one pharmacognostic text that Damiana leaves are 10–25 cm long; this measurement (if not a misprint) must have been derived from leaves of some other species, as leaves of *T. diffusa* never approach 10 cm in length.

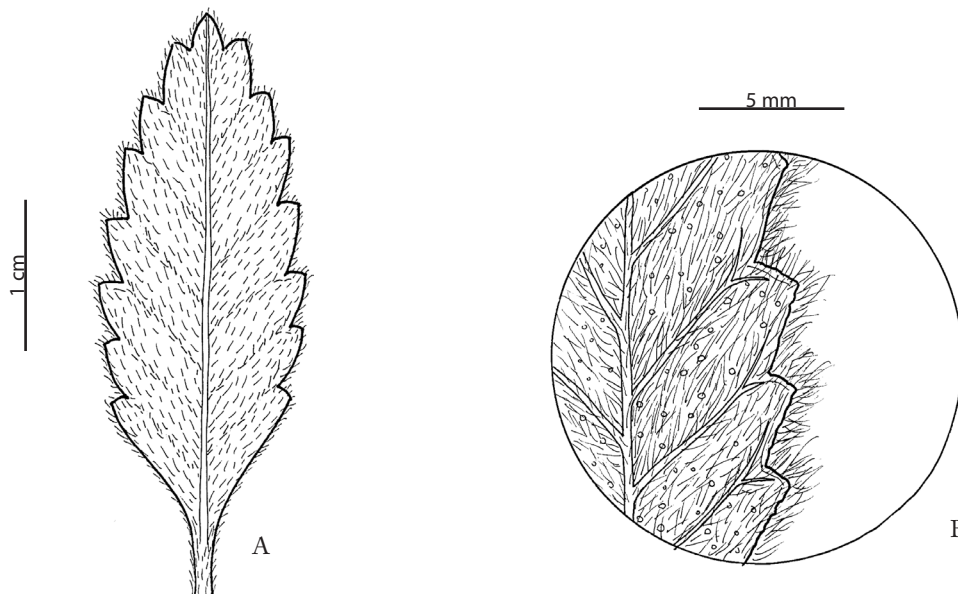


Figure 79: a–b, *Turnera diffusa* leaf and close-up of lower surface.

Taxonomy: The genus includes about 100 species, almost all native to the New World, which are divided into 9 series. *Turnera diffusa* belongs to Ser. *Microphyllae* Urb., which is characterized by small leaves with stipules fused to the petiole, a pleasant smell produced by glandular hairs, a lack of extrafloral nectaries, and a suite of reproductive characters (e.g., sessile axillary flowers and warty fruits). Two varieties of *T. diffusa* are recognized: the commoner var. *diffusa* is widely dispersed from Texas and southern California through Central America and the Caribbean, with disjunct populations in eastern Brazil, whereas var. *aphrodisiaca* (Ward) Urb. is confined to Central America, Cuba and Haiti. Frequently encountered synonyms include *T. aphrodisiaca* Ward and *T. microphylla* Desv.

Description: Shrub or subshrub to 2 m high, erect to sprawling. Stems frequently branching, reddish brown to yellowish, with prominent leaf scars. Leaves alternate or clustered, sessile or short-petiolate, stipulate with stipules <1 mm long; blade (2–)5–38(–50) mm long, (1–)2–15(–19) mm broad, narrowly obovate or oblong to narrowly ovate; base cuneate to attenuate or spatulate; apex obtuse; margins crenate and revolute; venation pinnate, prominent beneath; upper surface olive to dark green, lower surface paler; pubescence variable especially on lower surface, from nearly glabrous to densely pubescent and glandular. Flowers axillary, solitary, subsessile, subtended by 2

bracts; bracts 2.5–7 mm long, variable in shape, entire or weakly toothed, sometimes pubescent and bearing glands. Calyx 3–8 mm long, tubular with 5 long, 3-nerved teeth, pubescent on both surfaces. Petals yellow or rarely whitish, 4–7(–9) mm long, obovate, the base narrowed and sometimes pubescent. Stamens 5, with filaments somewhat flattened near base; stamens longer than styles in some flowers, shorter in others. Ovary unilocular; styles 3, pubescent or glabrous. Fruit a capsule, 2.5–4.5 mm long, ovoid, 3-valved, warty and pubescent above with glandular hairs; seeds curved, dark, bearing small angular pits in longitudinal rows.

References:

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