

Tanacetum parthenium (L.) Sch. Bip.

Standardized Common Name: Feverfew

Other Common Names: Bachelor's Buttons, Featherfew, Featherfoil

Family: Asteraceae (Compositae)

Taxonomy: *Tanacetum* includes about 150 species, with a center of diversity in Eurasia. *Tanacetum parthenium* belongs to Sect. *Pyrethrum*. It is one of 14 European species, and is naturalized in North America. Some taxonomists have combined *Tanacetum* with *Chrysanthemum*, so that much recent herbal literature uses the name *Chrysanthemum parthenium* (L.) Bernh., although the separation of the two genera is generally preferred today.

Description: Perennial herb. Stems erect, branching, slightly quadrangular, 0.3–1 m high. Leaves basal and alternate, petiolate, 2–5(–10) cm long, 1–2-pinnatisect with (3–)5–7(–9) primary segments, yellowish green; each primary leaf segment oblong-elliptical to ovate, crenate to pinnatisect or nearly entire; apices obtuse; both surfaces soft-pubescent. Inflorescence a corymb of 5–30 heads (capitula). Capitula borne on long peduncles, 1–2.5 cm in diameter; involucre bracts (phyllaries) in 3 ranks, lanceolate to oblong, soft-pubescent; receptacle convex. Ray florets female, ligulate, white, 2.5–8(–9) mm long, oblong, in a single whorl or multiple whorls in doubled varieties or rarely absent; disk florets numerous, small, tubular with 5 teeth, hermaphroditic, yellow, in a few ornamental varieties white or absent. Fruit an achene, 1.2–1.5 mm long, 5–8-ribbed; pappus a lobed corona ca. 0.2 mm long.

Parts in Commerce: Whole herb or leaves alone

Identification:

Stem and leaves

- Stems branching, finely ridged to somewhat quadrangular, pubescent, <5 mm in diameter in upper parts of plant
- Leaves 2–5(–10) cm long, pinnately divided into (3–)5–7(–9) major segments, sinuses between lobes extending almost to midrib
- Major leaf segments ovate, shallowly pinnately lobed or crenate-margined; ultimate lobes ovate, somewhat forward-pointing, with obtuse or rounded apices
- Leaves petiolate; petioles flattened on upper side, convex below
- Venation pinnate, midrib prominent on underside of leaf
- Leaf pale or yellowish-green, occasionally dark green

- Both sides of leaf bearing short, soft, pale, straight nonglandular hairs and small glandular hairs that appear as yellowish dots under high magnification
- Odor strongly aromatic, camphoraceous
- Taste bitter, acrid

Flowers

- Heads 5–20(–30) per corymb, not solitary, 1–2.5 cm in diameter
- Involucre hemispherical, 5–9 mm in diameter, of 3 rows of bracts; bracts downy-pubescent, with pale membranous margins and green midrib

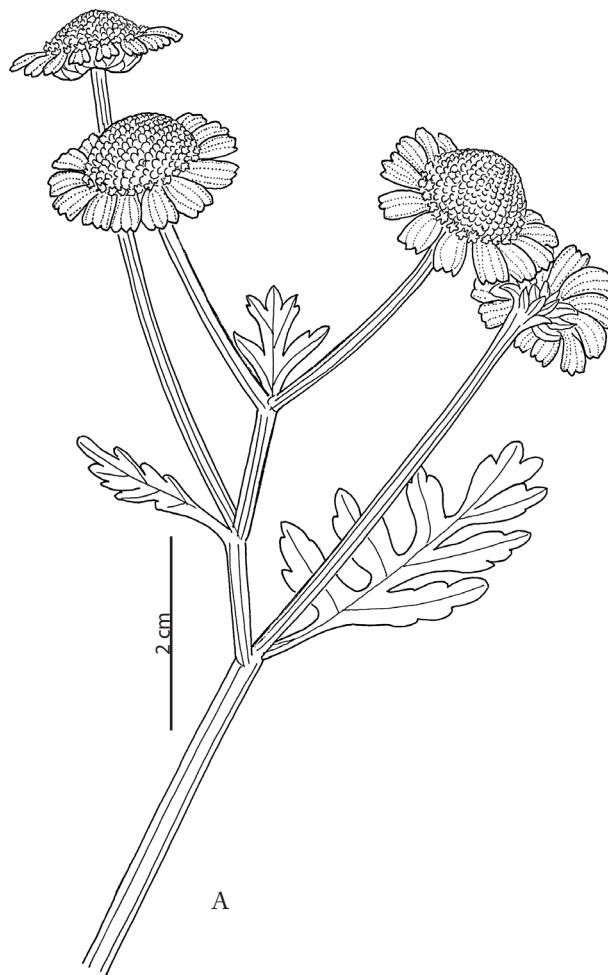


Figure 73: a, *Tanacetum parthenium* heads.

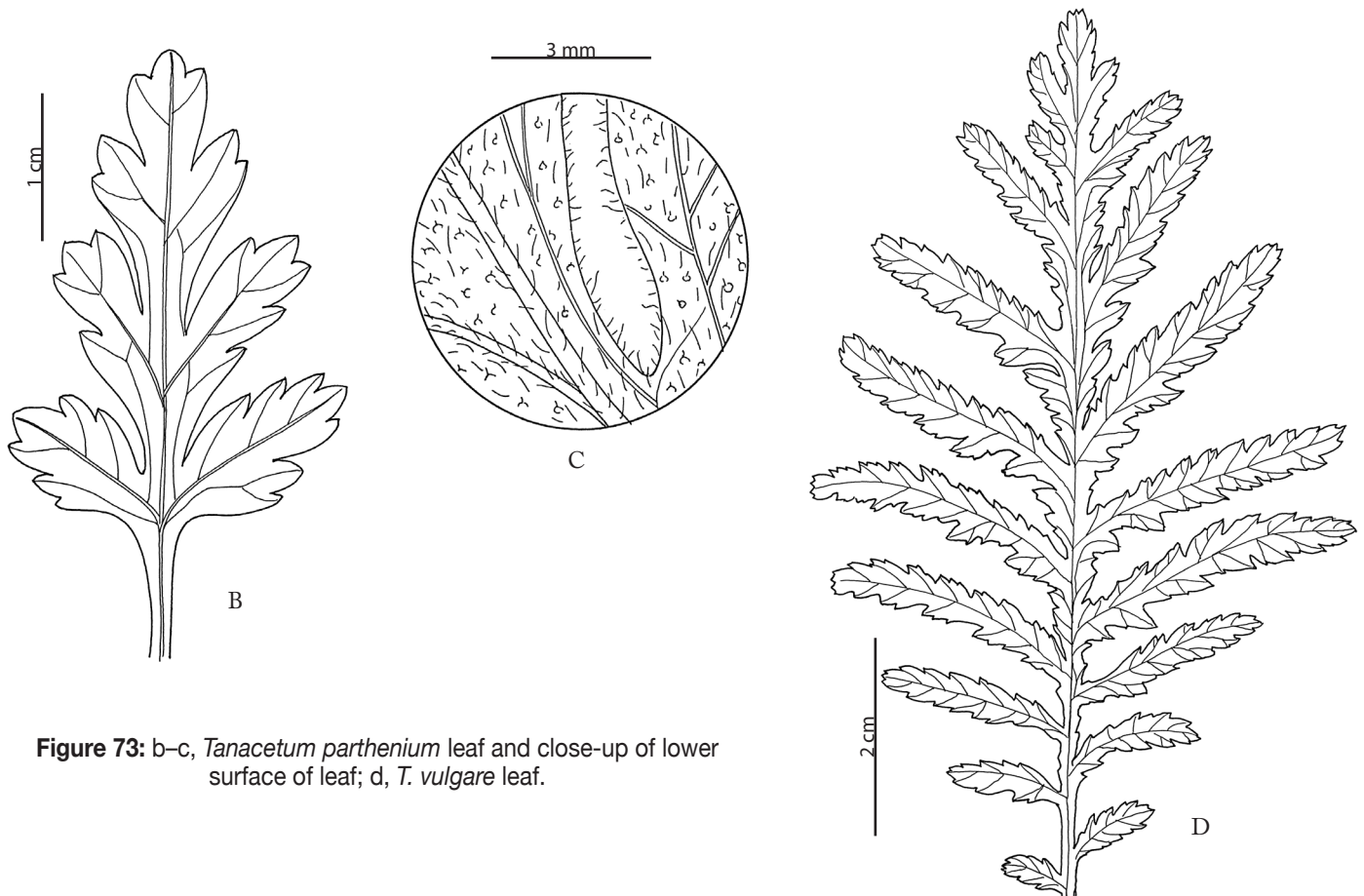


Figure 73: b-c, *Tanacetum parthenium* leaf and close-up of lower surface of leaf; d, *T. vulgare* leaf.

- Receptacle somewhat convex, not conical; may bear small bumps but not long hairs nor chaffy bracts
- Ray florets white, female, ligulate, in single row (except in doubled ornamental varieties, which are not usually used medicinally); ligules 2.5–8(–9) mm long, oblong to obovate, with slightly notched apices
- Disk florets small, numerous, yellow, hermaphroditic, tubular, 5-lobed
- Pappus reduced to an irregular ring, <0.2 mm high, at apex of ovary

Adulterants: *Tanacetum vulgare* L. (Tansy), which belongs to Sect. *Tanacetum*, has been reported as an adulterant. Parthenolide, a compound which is often treated as a chemical marker for *T. parthenium*, may be found in *T. vulgare* among other species. The heads of *T. vulgare* are quite distinct, as the outermost florets are yellow, more or less tubular, and sometimes hermaphroditic. Its leaves are fernlike, with main divisions more numerous and lanceolate, bearing numerous regular forward-pointing shallow lobes. Some chamomile species also look similar.

References:

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