

# *Matricaria chamomilla* L.

**Standardized Common Name:** Chamomile

**Other Common Names:** German Chamomile, Horse Chamomile, Wild Chamomile

**Family:** Asteraceae (Compositae)

**Taxonomy:** As narrowly defined, *Matricaria* includes 7 species of herbs, largely native to Eurasia but widely dispersed and naturalized elsewhere. These species are fairly diverse (for example, some have ray florets, while others lack them). A very closely related genus, *Tripleurospermum*, contains about 38 similar species. A few European taxonomists have treated the name *Matricaria* as applying properly to the species of *Tripleurospermum*, in which case the genus now known as *Matricaria* is renamed *Chamomilla*. However, this view is not well supported nor generally accepted. *Matricaria chamomilla* is a well-defined species yet has complicated nomenclature, with dozens of synonyms of which three are in current use, including *M. chamomilla* L., *M. recutita* L., and *Chamomilla recutita* (L.) Rauschert. The name *M. chamomilla* has priority over *M. recutita*, according to the rules of botanical nomenclature, and its use should be preferred. Other synonyms that may be encountered in older literature include *C. vulgaris* Gray and *M. suaveolens* L.

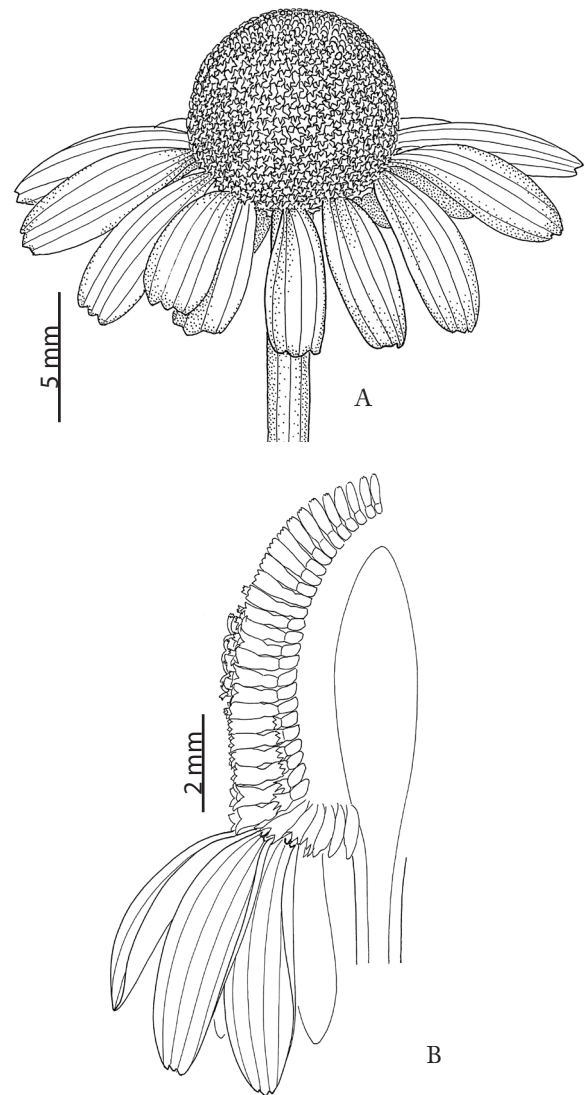
**Description:** Annual herb. Stem erect, freely branching, 10–60 cm high. Leaves alternate, irregularly 2–3-pinnatisect, with thin linear lobes, 4–7 cm long. Inflorescences heads (capitula), numerous, 10–25 mm in diameter; peduncles 3–10 cm long. Involucre hemispherical; receptacular bracts (phyllaries) 20–30, overlapping, oblanceolate, with scarious margins. Receptacle ovoid to conical, hollow, up to 10 mm wide. Ray florets 12–20 (rarely absent), ligulate, female, white, reflexed, 5–9 mm long, 1.5–3 mm broad, with 3 small apical teeth and 4 veins. Disk florets numerous, perfect; corollas yellow to yellow-orange, 5-lobed, tubular with narrow collar, the upper part campanulate, to 1.5 mm long. Achenes <1 mm long, obovoid, curved, truncate at apex, smooth, yellowish to pale gray-brown; dorsal face convex; ventral face with 4–5 ribs, ribs often paler; pappus absent or a toothed auricle.

**Parts in Commerce:** Flowering heads

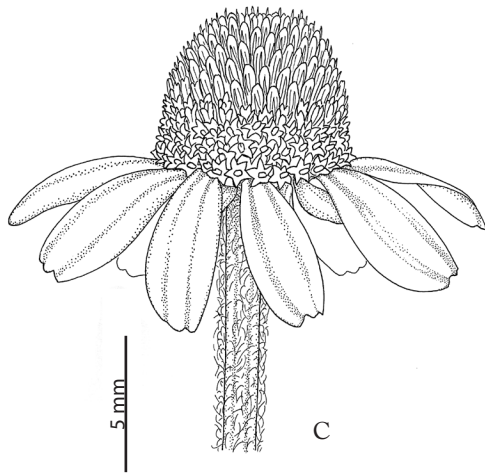
## Identification

- Capitulum not larger than 10–25 mm in diameter
- Receptacle conical, hollow when cut longitudinally
- No scales or bracts (paleae) subtending individual flowers on receptacle

- Phyllaries oblanceolate, with pale dry margins
- Peduncle and receptacle hairless to sparsely pubescent, not densely hairy
- Ray florets whitish, female, strap-shaped, 5–9 mm long, spreading or reflexed
- Disk corolla with 5 small lobes; lobes without orange resin sacs
- Achenes very small and (4–)5-ribbed, not with 3 large widely spaced ribs
- Odor characteristic, pleasant, aromatic, not fetid or odorless
- Taste somewhat bitter



**Figure 44:** a–b, *Matricaria chamomilla* head and cross-section.



**Figure 44: c, *Anthemis cotula* head.**

**Adulterants:** Since chamomile is normally cultivated, confusion with other species is unlikely. It has, in the past, been adulterated with Roman Chamomile (cf. *Chamaemelum nobile* (L.) All.) and with species of *Anthemis*, a similar genus in which *C. nobile* was formerly classified.

These include *A. cotula* L. (Mayweed, also known as dog chamomile or stinking chamomile) and *A. arvensis* L. (corn chamomile); the former occasionally causes allergies. These species can be distinguished by their solid receptacles with chaffy receptacular bracts (paleae) subtending the florets. Other characters listed above help to distinguish *M. recutita* from potentially confused species in such related or similar genera as *Microcephala*, *Tanacetum*, and *Tripleurospermum*.

#### References:

Applequist WL. A reassessment of the nomenclature of *Matricaria* L. and *Tripleurospermum* Sch. Bip. (*Asteraceae*). *Taxon*. 2002;51:757–761.

Bremer K, Humphries CJ. Generic monograph of the Asteraceae—Anthemidae. *Bull Nat Hist Mus London (Bot)*. 1993;23:71–177.

Moore DM, Tutin TG, Walters SM, eds. Compositae. In: Tutin TG, Heywood VH, Burges NA, et al., eds. *Flora Europaea*. Vol. 4. Cambridge: Cambridge University Press; 1976:103–410.

Wichtl M, ed. *Herbal Drugs and Phytopharmaceuticals*, 3<sup>rd</sup> English ed. Stuttgart: medpharm Scientific Publishers and Boca Raton, FL: CRC Press; 2004:369–373.