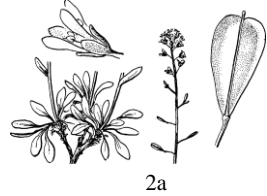


Key revised to include *Noccaea perfoliata*, formerly *Microthlaspi perfoliata*. Al-Shehbaz, I.A. 2014. Harvard Papers in Botany 19(1): 25-51.

**Noccaea** Moench Pennycress

Racemes ebracteate; fr peds widely spreading (ours); petals white, pink, or purple; silicles not stipitate, fully dehiscent, strongly obcompressed, wing-margined or not apically, obcordate to oblong or elliptic, smooth; style conspicuous or not, included to exceeding apical notch; seeds 4–24 per cell, not winged, ovoid, inconspicuously reticulate in lines to smooth; ann, bien to per, glab herbs with simple, entire to dentate, basal and cauline lvs. (For Domenico Nocca, Italian botanist). (*Microthlaspi*, *Thlaspi* in part).



2a

**1a** Style 0.1–0.5 mm; petals 1.5–3.5(–4.5)

**2a** Pls bien or per; mature silicles 5–7 mm, unwinged, rarely, narrowly winged apically, apex obtuse to truncate; sepals 1–1.8(–2.2) mm; st lvs 2–5 cm, ovate or suboblong, entire; sts 1–2 from base, rarely several, unbr or br above, 1–3 dm; sagebr foothills, meadows, dry grassy slopes, or limestone cliffs; mts of c ID to sw MT and nw WY; smallfld p. (*T. p.*) **1 N. parviflora** (A. Nelson) Holub

**2b** Pls ann; mature silicles 4–7(–8) mm, wing 1–2 mm wide at apex, nearly lacking at base, notch 0.5–1.5 mm deep, shallowly V-shaped; sepals 1–1.5(–2); st lvs 2–5 cm, ovate-cordate to oblong, entire to repand; sts unbr or br above, 0.5–4 dm; seeds 1–1.3 mm, yellow-brown; European intro; uncommon with us but estab from se WA to sw ID, more common in e N Am (*M. p.*, *T. p.*)

**2 N. perfoliata** (L.) Al-Shehbaz

**1b** Style 0.8–3(–4) mm; petals 4–11(–13) mm; sepals 1.5–4(–5) mm; open, rocky areas from mont to subalp; n WA to CA, e to RM and TX; Fendler's p., wild candytuft; 2 intergrading subspp.

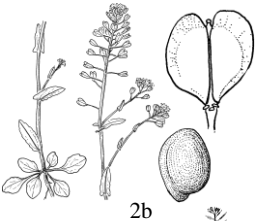
**3 N. fendleri** (A. Gray) Holub

**a1** Basal lvs linear to narrowly oblanceolate, 1–4(–5) mm wide, the base attenuate and narrowed very gradually to the petiole; pls often mat-forming, the sts 3–12 cm; confined to mts of c ID (*T. f.* var. *i.*, *T. i.*)

subsp. **idahoensis** (Payson) Al-Shehbaz & M. Koch

**a2** Basal lvs ovate to oblong or spatulate, (2–)4–9(–16) mm wide, the base cuneate and narrowed more abruptly to the petiole; pls often not mat-forming, the sts 5–30 cm; range of sp. (*T. f.* var. *g.*, *T. g.*); ours nearly identical to European pls called *T. montanum* L.

subsp. **glauca** (A. Nelson) Al-Shehbaz & M. Koch



2b



a1

1b

a2