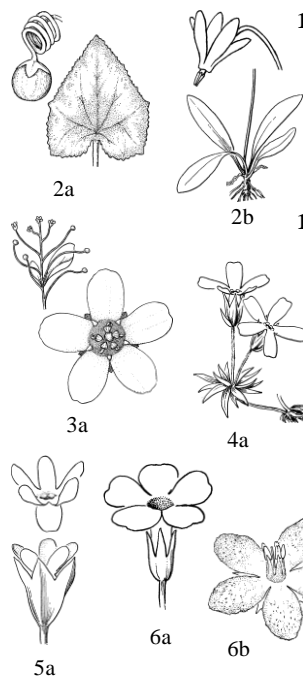


Key to genera and keys to species updated to show *Dodecatheon* synonymized within *Primula*, and *Douglasia* synonymized within *Androsace*, per Mast, A.R., S. Kelso, A.J. Richards, D.J. Lang, D.M.S. Feller, and E. Conti. 2001. Phylogenetic relationships in *Primula* L. and related genera (Primulaceae) based on noncoding chloroplast DNA. International Journal of Plant Science 162:1381–1400.

PRIMULACEAE Primrose Family

Infl umbellate, pan, racemose, verticillate, or fls solitary, often bracteate; fls (4)5(–9)-merous, radially symmetric; calyx shallowly to deeply lobed, persistent; corolla fused, rotate to camp, tubular, or salverf and lobed, rarely absent; stamens as many as corolla lobes and opp them, ± epipetalous; staminodes absent or 5 (*Samolus*); ovary superior or partly inferior (*Samolus*), 1-celled, placentation free-central; style 1, stigma gen capitate; fr caps, valvate or circumscissile; ann or per herbs; lvs simple, mostly entire, alt, opp, or whorled, exstip.

Soldanella montana Willd. and *Hottonia palustris* L. of Europe intro in s BC, neither naturalized in our area. Molecular studies support synonymizing *Douglasia* within *Androsace*, *Dodecatheon* within *Primula*, and *Anagallis*, *Centunculus*, *Glaux*, and *Trientalis* within *Lysimachia*.



- 1a** Fls nodding, petals sharply reflexed and appearing erect; corolla lobes several × length of tube
- 2a** Lvs dark green, gen mottled and veined with white, broadly ovate, angular, cordate; autumn fls borne singly from potato-like tuber; fr ped tightly coiled on ground
Cyclamen
- 2b** Lvs pale to mid-green, never white mottled, lanceolate to ovate and tapered, never angular or cordate; spring to summer fls gen in umbels on scapes, from small caudex; fr ped straight, held erect well above ground (*Dodecatheon*) **Primula**
- 1b** Fls and petals spreading to erect; corolla white, lobes < or > twice length of tube
- 3a** Ovary partly inferior; corolla white, lobes > twice length of tube; fls in terminal racemes (pans); staminodes present **Samolus**
- 3b** Ovary superior; corolla white, yellow, pink, or purple, lobes < twice length of tube; fls terminal, in umbels or solitary; staminodes absent
- 4a** Pls ann or per with cushions of small, narrow, persistent lvs; fls showy, pink to purple; calyx ± keeled on and below lobes, glab or finely stellate, but not pilose (*Douglasia*) **Androsace**
- 4b** Pls ann or per, if per and with cushions of basal lvs then fls white and calyx grayish-pilose, but not stellate, and not keeled along or below lobes
- 5a** Fls white, gen < 5 mm, if 7–9 mm, then the pls grayish-pilose and mat-forming; pls never waxy **Androsace**
- 5b** Fls pink to purple, yellow, or white, > 7 mm; pls never grayish-pilose, never mat-forming, sometimes waxy on new growth
- 6a** Lvs in basal rosettes; fl sts lfless **Primula**
- 6b** Lvs never in basal rosettes, though sometimes clustered or whorled at st apex; fl sts gen lfy, occ lfless **Lysimachia**