

Key to genera revised to include *Agalinis*, a species of which was recently (2024) collected in Washington; *Agalinis* genus treatment created along with description of *Agalinis purpurea* var. *pauciflora*.

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OROBANCHACEAE Broomrape Family

Infl bracteate to lfy, racemose to corymbose or ± pan, or the fls occ solitary; fls ♂ or rarely some unisexual; calyx radially or bilaterally symmetric, equally to unequally 2 or 4–5-lobed, or occ cleft on only 1 side; corolla tubular, bilabiate or rarely radially symmetric, 5-lobed (or 2 upper lobes connate); stamens 4, didynamous, epipetalous, anther sacs (1)2, equally or unequally attached; pistil 2–4-carpellate, ovary superior, gen 1-locular; style solitary, with a capitate to disciform or 2–4-lobed stigma; placentae axile or parietal, 2–4, often intruded, or rarely confluent and the caps thus bilocular; fr a 2–4-valved, longitudinally dehiscent caps; seeds gen ∞ and small, with well-developed endosperm; ann to per herbs (ours) or shrubs, hemiparasitic or holoparasitic on roots of diverse angiosperm taxa, with alt to opp, exstip, simple to divided lvs, the lvs occ reduced and scalelike.

Orobanchaceae was recently expanded to include hemiparasitic genera formerly placed in Scrophulariaceae (Bennett & Mathews 2006; Tank et al. 2006).

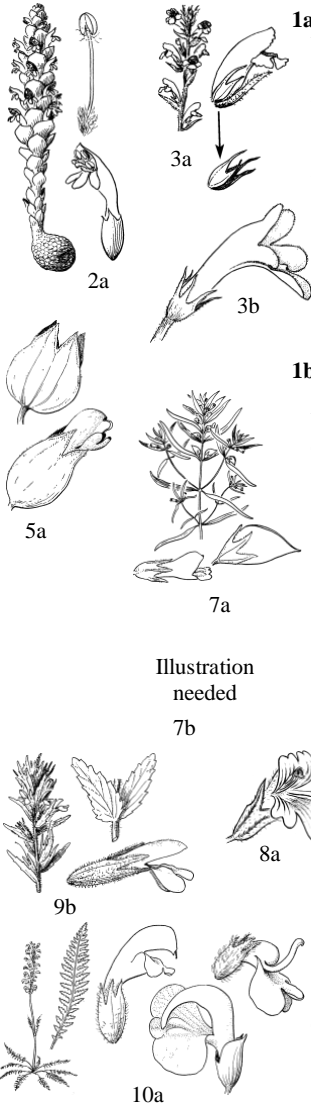
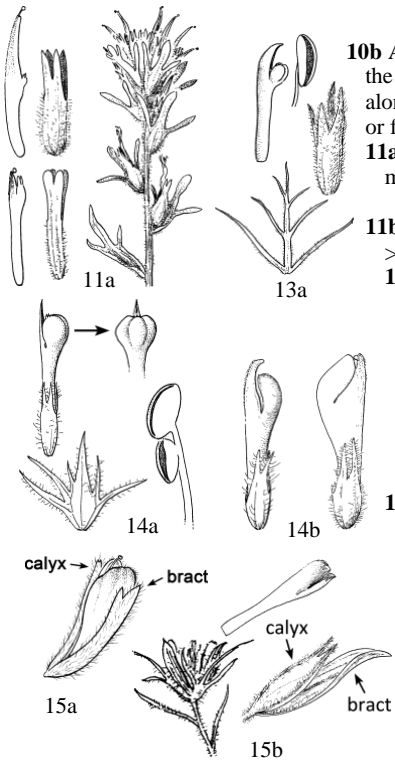


Illustration needed
7b

- 1a** Pls achlorophyllous, non-green, holoparasitic; lvs reduced to small, fleshy scales; pl base with a single, large haustorium; upper corolla lip bilobed and ± flat, or unlobed and ± boat-shaped
- 2a** Pls glab; infl bracts very wide, blunt, with inrolled margins; fls short-ped in a densely spicate, unbr infl; anther sacs blunt, barely or not at all mucronate; upper corolla lip unlobed, ± boat-shaped **Kopsiopsis**
- 2b** Pls glandular-pubescent, at least above; infl bracts narrower and gen more pointed, margins ± plane; infl various; anther sacs pointed and ± mucronate at base; upper corolla lip bilobed, ± flat
- 3a** Calyx divided to the base into 2 lateral segms, these each again cleft into 2 unequal lobes; bractlets absent beneath calyx; infl an elongate, unbr, spicate raceme **Orobanche**
- 3b** Calyx symmetrically cleft into 5 = lobes or teeth; bractlets present or absent beneath calyx; infl various **Aphyllon**
- 1b** Pls with chlorophyll and well-developed, gen green lvs, hemiparasitic; pl base gen with ∞ well-developed roots and small haustoria; upper corolla lip forming a hood or beak (galea) that tends to enclose the anthers (except often in *Euphrasia*)
- 4a** Lvs opp (lfy bracts subtending fls sometimes alt); pls ann
- 5a** Calyx somewhat inflated at anthesis, accrescent and very conspicuously inflated in fr; anthers merely sagittate, the anther sacs merely acutish to rounded at base; seeds flattened, winged; fls yellow **Rhinanthus**
- 5b** Calyx not much, if at all, inflated; anther sacs, or some of them, strongly acuminate-spurred to caudate at base; seeds turgid, wingless; fl color various
- 6a** Lvs entire, though the lfy infl bracts may have 1(2) pair of divergent, slender teeth near their base
- 7a** Corolla tube white, palette yellow; caps asymmetrical, curved, dehiscent only along the convex margin; seeds few, gen 1 or 2 per locule **Melampyrum**
- 7b** Corolla pink-purple throughout; caps symmetrical, globose, dehiscent loculicidally; seeds many per capsule **Agalinis**
- 6b** Lvs evidently serrate throughout, the teeth occ remote; caps symmetrical or nearly so in form and dehiscence; seeds few–∞
- 8a** Upper corolla lip bilobed, weakly if at all hooded; lower lip with notched lobes; fls white to pale violet and 3–8.5 mm **Euphrasia**
- 8b** Upper corolla lip ± hooded, ± unlobed; lower lip with rounded or minutely notched lobes; fls yellow or reddish-pink, 8–20 mm
- 9a** Infl secund; lvs remotely serrate; fls pinkish-red, 8–10 mm; lowl grassy areas; uncommon Eurasian intro; Whatcom Co, WA, and e N Am; red bartsia (*O. vernus* misapplied) **Odontites vulgaris** Moench
- 9b** Infl not secund; lvs closely and prominently serrate; fls yellow, 15–20 mm **Bellardia**
- 4b** Lvs alt, or sometimes nearly all basal; pls ann or per
- 10a** Anther sacs similar in size and position; calyx lobes 2 or (4)5; lvs often basal as well as cauline, the principal ones toothed to pinnately dissected, with gen > 5 teeth or primary segms to a side **Pedicularis**



- 10b** Anther sacs unequally set, 1 medifixed and appearing terminal on the filament, the other (occ reduced or obsolete) attached by its apex and pendulous or lying alongside the upper part of the filament; calyx lobes (1)2 or 4; lvs cauline, entire or few-toothed or few-lobed, seldom with > 5 teeth or lobes to a side
- 11a** Pls per from a stout, often br caudex or creeping rhizome; corolla beak gen much > lower lip, or occ the two nearly =; lower lip scarcely inflated or saclike **Castilleja**
- 11b** Pls ann from a slender taproot; corolla beak gen small, ca = or only slightly > lower lip (except in *Castilleja exilis*); lower lip often inflated or saclike
- 12a** Calyx tubular-camp, not cleft to the base, the 4 lobes subequal or often partly connate in 2 lateral pairs; each fl also subtended by a bract
- 13a** Anther sacs 1 per stamen; lvs with ± filiform segms **Triphysaria**
- 13b** Anther sacs 2 per stamen; lvs various
- 14a** Stigma capitate or 2-lobed; corolla beak nearly straight, the opening at tip directed forward; lower lip gen clearly trisaccate **Castilleja**
- 14b** Stigma unlobed, not expanded; corolla beak curved down at tip, the opening at tip directed downward and forming a narrow hood; lower lip trisaccate or appearing simply saccate **Orthocarpus**
- 12b** Calyx cleft fully to the base along its lower side, resembling a bract covering the upper side of corolla; each fl also subtended by a bract opp the calyx and resembling it
- 15a** Infl bracts all entire or shallowly 3-toothed near tip; lvs entire; bracts and lvs oblong to lanceolate **Chloropyron**
- 15b** Outer (basal) infl bracts deeply 3-7-lobed, inner bracts entire to bifid, resembling the calyx; lvs entire or deeply 3-7-lobed; outer bracts and lvs linear or with linear segms **Cordylanthus**

Agalinis Raf. False Foxglove

Fls ♀, bilaterally symmetrical, bilabiate, bracteate, often showy; sepals fused, lobes 5, radially symmetrical, rarely bilaterally so; petals 5, fused, lower lobes 3, upper 2, pale pink to rose purple or purple, rarely white, throats usually with 2 yellow lines below and red spots within, funnelf to camp; stamens 4, didynamous; filaments glabrate to lanate, staminode absent; ovary 2-locular, placentation axile; stigma linear, rarely 2-lobed; ann, rarely perennial, hemiparasitic herbs with mostly erect sts, opp or subop, rarely alt, sessile lvs with entire (ours), rarely cleft, margins. (Gr *aga-*, very or much, and genus *Linum*, refering to similarity in sts and lvs).

A. purpurea (L.) Pennell. Purple f. Sts 0.7-12 dm, simple or br, erect to arching, quadrangular-ridged to distally winged, glabrate to scab; lvs narrowly linear to linear or linear-lanceolate, 7.5-50 x 0.5-4(-5) mm; infl racemose, 1-2 fls per node, bracts > peds; calyx tube (2-)3-5 mm; corolla pink to rosy pink, 0.9-3.5 cm, throat pilose externally and villous within; proximal and distal anthers parallel to filaments in our plants; style included or exerted, 6.5-21 mm; caps globose, 4-6(-7) mm; pond and lake shores; e and c N Am intro; fully naturalized at Lake Kapowsin in Thurston Co., WA and poss elsewhere in lowl w WA; ours **var. parviflora** (Benth.) B. Boivin

Illustration
needed