

## PAPAVERACEAE, the Poppy Family

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### PAPAVERACEAE, the Poppy Family

Herbs or shrubs, often with milky or colored sap; lvs mostly alternate, dissected or lobed; fls often large, radially or bilaterally symmetric, perfect, hypogynous; sep usu 2(3), fully or partially enclosing bud, usu caducous; pet  $\geq 4$  (rarely 0), distinct or inner pair connivent, often showy; stamens 6 or numerous; nectaries none or present as spurs at bases of filaments; pistil of 2(–4), seldom (as in *Argemone* and *Papaver*) more numerous carpels, connate to form compound, typically 1-locular ovary; ovules numerous on parietal placentae, but the latter sometimes (as in *Papaver*) deeply intruded as partial partitions, or ovary seldom (as in *Glaucium*) fully partitioned into 2 locules; fr typically a 1-locular capsule, dehiscent by partial or complete abscission of elongate valves usu alternating with placentae, the latter forming persistent replum, or valves sometimes (as in *Argemone* and *Papaver*) reduced and subapical, so that capsule opens by ring of pores, or fr sometimes dry and indehiscent (e.g., in *Fumaria*; capsule 2-locular with deciduous valves in *Glaucium*); seeds with copious endosperm and small, dicotyledonous embryo, often arillate. 44/780, mostly N. Temperate.

Morphologic synapomorphies: perianth 2-merous, sep caducous, carpels connate, frs capsular, placentation parietal.

Two subfamilies, Fumarioideae and Papaveroideae, occur in our area. Authors of recent floristic works often treat both of these taxa as families. Given the placement of a pivotal member of Papaveraceae s.l., the Japanese *Pteridophyllum*, is still uncertain, it is best to treat the family broadly.

Popular in gardens, members of this family sometimes escape cult. Those that have been recorded as rare escapes from within our range, but do not appear to be truly established, include *Hypecoum imberbe* Sm., *H. pendulum* L., and *Platystemon californicus* Benth. Additional waifs are discussed under the appropriate genera.

- 1 Fls bilaterally symmetric; inner pet connivent; sap usu colorless (Fumarioideae).
- 2 Cor with 2 planes of symmetry, 2 outer pet spurred or saccate at base.
  - 3 Lvs all basal; flowering stems leafless..... 6. *Dicentra*
  - 3 Lvs cauline; flowering stems leafy.
    - 4 Pls climbing and often sprawling; cor narrowly ovoid, persistent ..... 1. *Adlumia*
    - 4 Pls erect; cor cordate, withering and dropping ..... 10. *Lamprocapnos*
- 2 Cor with 1 plane of symmetry, 1 outer pet spurred or saccate at base.
  - 5 Fr with persistent style; ovary elongate.
  - 6 Fls yellow throughout or purple, rarely red, pink, or white; infl racemose ..... 5. *Corydalis*

- 6 Fls pale or deep pink with yellow tips; infl cymose..... 3. *Capnoides*
- 5 Fr with deciduous style; ovary subglobose or oblong.
  - 7 Fls dark red-purple or dark red, at least at tips; fr 1-seeded, subglobose, indehiscent ..... 8. *Fumaria*
  - 7 Fls yellow or cream-colored; fr 3–13-seeded, oblong, dehiscent ..... 13. *Pseudofumaria*
- 1 Fls radially symmetric; all pet spreading, or pet absent; sap usu colored or milky (Papaveroideae).
  - 8 Receptacle expanded and with rim flared ..... 7. *Eschscholzia*
  - 8 Receptacle  $\pm$  same diameter as peduncle and with rim unflared.
    - 9 Pet 8(–16); fl solitary on scape; lf 1, basal ..... 14. *Sanguinaria*
    - 9 Pet 4(–6), or absent; cauline lvs present.
      - 10 Pet absent; infl paniculate..... 11. *Macleaya*
      - 10 Pet present; infl umbelliform, cymiform, cymose, or fl solitary.
        - 11 Foliage spiny ..... 2. *Argemone*
        - 11 Foliage not spiny.
          - 12 Fls red, purple, pink, orange, or white..... 12. *Papaver*
          - 12 Fls yellow.
            - 13 Style elongate, ca 1 cm; fr ellipsoid or ovoid, bristly ..... 15. *Stylophorum*
            - 13 Style very short or none; fr linear, smooth.
              - 14 Fls in small, umbel-like infls; pet 1 cm; fr 2–5 cm, 1-locular..... 4. *Chelidonium*
              - 14 Fls solitary; pet 2.5–5 cm; fr 15–30 cm, 2-locular. 9. *Glaucium*

**1. ADLUMIA** DC., nom. conserv. (commem John Adlum, 1759–1836, Am. horticulturist) Biennial herbaceous vines, climbing by upper part of rachis of pinnate-decompound lvs, often sprawling over surrounding vegetation, with colorless sap; fls bilaterally symmetric with 2 planes of symmetry, pearly-pink or white, in axillary panicles, pendulous; sep scale-like; cor narrowly compressed-ovoid, subcordate at base; pet all connate ca 50% their length, outer 2 saccate at base, constricted distally to form ovate appendage, inner narrow, dilated at summit into transversely oval appendage; cor persistent after anthesis with little change of color, becoming spongy, enclosing slender, 2-valved capsule. 2, N. Am. and e. Asia.

**1. *Adlumia fungosa*** (Aiton) Britton, Sterns & Poggenb. (spongy, appl to cor) Alleghenyvine. Acaulescent during the first year, with several ascending, non-prehensile, decompound lvs; climbing the second year to 4 m, with slender, elongate stems and large, delicate, prehensile lvs, their rachis elongate and uppermost lflets greatly reduced;  $2n=32$ . Forests, usu rocky, chiefly in the mts; QC to MB, s. to DE, NC, TN, and IN; intr BC, NS. Jun–Sep. Infreq to rare, local; secure, concern: QC, DE, IN, KY, ME, MD, NH, NJ, OH, RI, WV.

**2. ARGEMONE** L. (ancient name of herb mentioned by Pliny) Prickly Poppy. Coarse herbs with yellow sap and thistle-like foliage; stems, lvs, and sep spiny; infl cymose; fls radially symmetric, with receptacle  $\pm$  same diameter as peduncle and its rim unflared,

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