

FUMARIACEAE FUMITORY FAMILY

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Annual or short-lived perennial herbs. LEAVES exstipulate, cauline or basal, alternate, dissected, glabrous. INFLORESCENCES racemes or panicles. FLOWERS perfect, zygomorphic, hypogynous; sepals 2, deciduous; petals 4, the outer 2 larger with saccate or spurred bases, the inner 2 narrower and converging over the stigma and anthers, keeled or not on back; stamens 6, in 2 groups of 3, opposite outer petals; middle anther of each set 2-celled, the outer anthers 1-celled; filaments united; pistil 2-carpellate; style 1, persistent or deciduous; stigma bilobed. FRUIT a 1-locular nutlet or capsule. SEEDS 1-many, black, shiny, round to round-reniform. —19 genera; ca. 400 spp, mostly N. Temp. A few species of *Corydalis* and *Dicentra* are ornamentals. *Fumaria officinalis* is an agricultural weed.

- 1. Flowers yellow to cream colored; fruit a many seeded, elongated capsule, dehiscent *Corydalis*
- 1' Flowers purple or cream with purple tips; fruit a 1-seeded, spherical nutlet, indehiscent *Fumaria*

Corydalis DC. *Corydalis*

Erect or prostrate herbs. STEMS simple or branching from taproots. LEAVES once or twice compound. INFLORESCENCES terminal or axillary racemes or panicles. FLOWERS showy; sepals elliptic, attached at base, attenuate, yellow to white; petals yellow when fresh, drying yellow to cream, with or without purplish discoloration; style persistent. FRUITS cylindrical, capsules constricted between seeds. SEEDS few to many, black, with aril. —Ca. 100 spp., 1 in AZ. Temperate N. Amer., Eurasia, Africa. (Greek: *Korydallis* = Crested Lark). Stern. K. R. 1997. *Corydalis*. Pp. 348-355 in N. R. Morin (ed.), *Flora of North America*, vol. 3, Oxford University Press, New York.

Corydalis aurea Willd. (golden) Golden Corydalis. —LEAVES glaucous. INFLORESCENCES 8-20 flowered, included or exceeding the leaves. FLOWERS erect in bud, then spreading; pedicels 1-5 mm long; sepals 1-3 mm long; petals 14-18 mm long, yellow, the spurs 4-9 mm long; stamens ca. 5 mm long. FRUITS 12-24 mm long, usually curved, erect, spreading or pendant. SEEDS ca. 1 mm long, with or without marginal ring. —2 subsp. in AZ; AK to n. Mex., e to New England.

- 1. Fruit spreading or pendant, slender; seed without marginal ring; inflorescences not exceeding leaves subsp. *aurea*
- 1' Fruit erect, stout; seed with marginal ring; inflorescences exceeding leaves subsp. *occidentalis*

Subsp. *aurea* —INFLORESCENCES not exceeding leaves. FLOWERS 13-16 mm long; spurs 4-5 mm long. FRUITS spreading or pendant, 18-24 mm long. SEEDS without marginal ring. —Riparian areas and moist soil: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Maricopa, Mohave, Pima, Santa Cruz, Yavapai cos.; 750-2200 m (2400-7200 ft); Mar-Aug; Widely distributed throughout n and w US and n Mex.

Subsp. occidentalis (A.Gray) G. B. Ownbey. (of the west). INFLORESCENCES exceeding leaves. FLOWERS 14-18 mm long; spurs 5-9 mm long. FRUITS erect, 12-20 mm long. SEEDS with marginal ring. —Loose, often sandy dry soil: Apache, Cochise, Coconino, Gila, Graham, Greenlee, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai cos.: 750-1150 m (2500-3800 ft) Apr-Jun; CO, KS, MO, NE, NM, NV, OK, SD, TX, UT, WY.

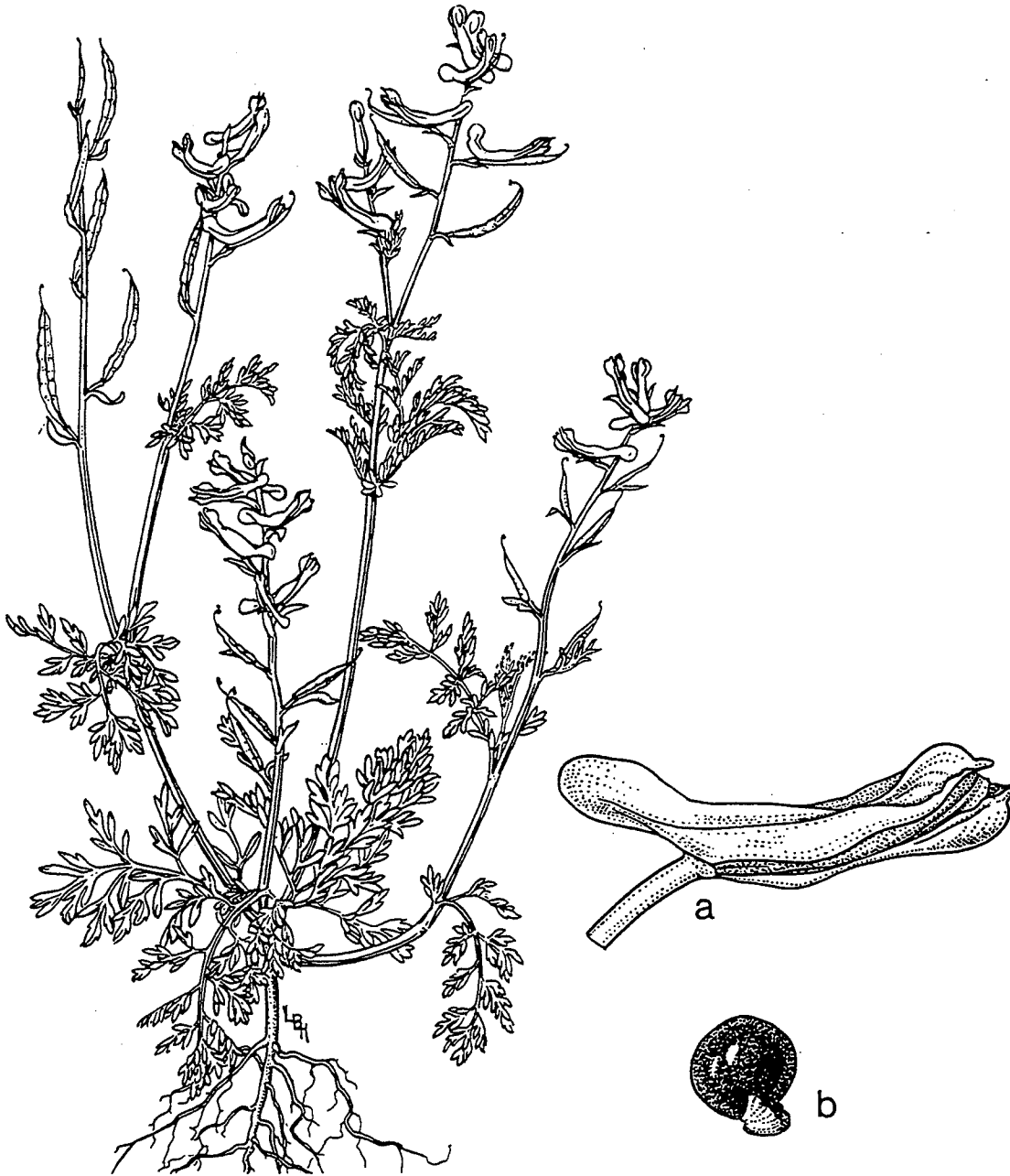
Fumaria L. Fumitory

Annual herbs from taproots, erect or sprawling, diffusely branched. LEAVES 2-3 times compound. INFLORESCENCES racemes. FLOWERS inconspicuous; sepals round attached near base, mucronate, whitish; petals purple or cream with purple tips; style deciduous. FRUITS globose, smooth, indehiscent. SEEDS 1, brown, without aril. —Ca. 40 spp., Eurasian, adventive in U.S. (Latin: *fumus* = smoke possibly from odor of roots when fresh). Boufford, D. E. 1997. *Fumaria*. Pp. 356-357 in N. R. Morin (ed.), *Flora of North America*, vol. 3, Oxford University Press, New York.

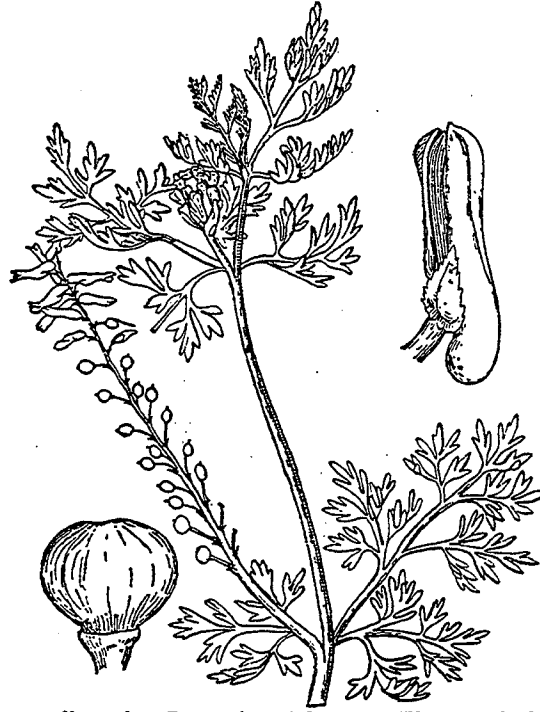
1. Petals 5-7 mm long, purple, all dark purple-tipped; fruit retuse ***F. officinalis***
 1' Petals 3-4 mm long, cream, the inner ones purple-tipped; fruit obtuse to apiculate
 ***F. parviflora***

Fumaria officinalis L. (used in medicine). Fumitory. —LEAVES coarsely dissected. FLOWERS 8-12 mm long; sepals ca. 3 mm long; petals 5-7 mm long; stamens ca. 4 mm long. —Grasslands, potentially weedy species of disturbed sites: 1 collection in Santa Cruz co.; 1100 m (3300 ft); sporadic in U.S.; native of Eurasia.

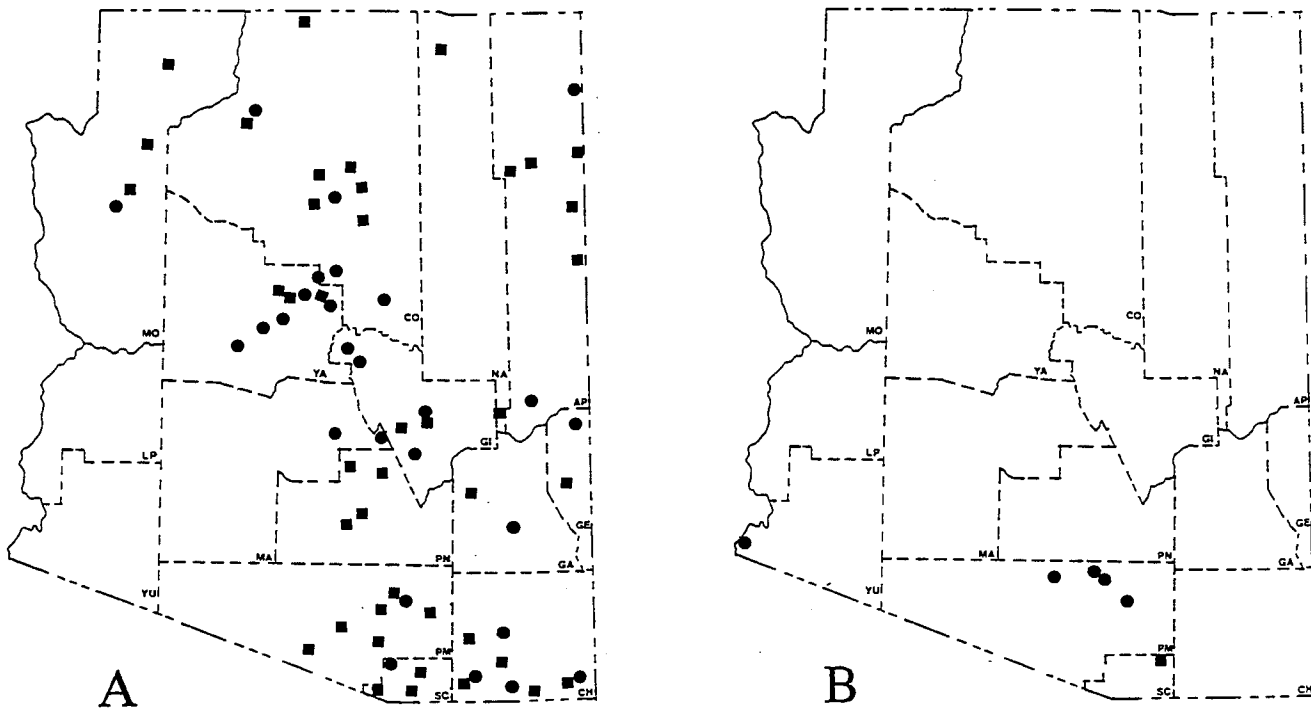
Fumaria parviflora Lam. (small flower). —LEAVES finely dissected. FLOWERS ca. 5 mm long; sepals ca. 1 mm long; petals 3-4 mm long; stamens ca. 3 mm long. —Deserts: Pima, Yuma cos.; 500-1000 m (1700-3200 ft); native of Eurasia.



Fumariaceae. Fig. 1. *Coydalis aurea*. Entire plant in flower. A, Flower. B, Seed. Reproduced with permission from *Arizona Weeds* by Kittie F. Parker (1972), University of Arizona Press, Tucson. Drawn by Lucretia Breazeale Hamilton.



Fumariaceae. Fig. 2. *Fumaria officinalis*. Reproduced from *An Illustrated Flora of the Northern United States and Canada* by N. L. Britton and A. Brown (1913). Habit $\times 0.75$, fruit and flower enlarged.



Fumariaceae. Fig. 3. Distribution of: A, *Coydalis aurea* var. *aurea* (dots) and *C. aurea* var. *occidentalis* (squares); B, *Fumaria officinalis* (square) and *F. parviflora* (dots).