

#### 4. BERBERIS L. Barberry

Shrubs; foliage leaves on very short stems in axils of simple or 3-branched spines; sepals 6, petaloid, subtended by some bracts; petals 6, yellow, each with 2 glands at base; stamens 6; fruit a berry, 1-few-seeded.

The very variable *Berberis vulgaris* (Common Barberry; see Braun 1961:141) is included in the key below.

- a Leaf-blades entire; flowers in small umbels or solitary; spines unbranched or lateral branches short.  
1. *B. thunbergii*  
a' Leaf-blades toothed; flowers in many-flowered racemes, elongate; petals entire; spines often branched.  
*B. vulgaris* L., Common B.

##### 1. \**Berberis thunbergii* DC.

Japanese Barberry

Locally naturalized-cultivated (native of Japan)

Shrub, spines usually simple; leaf-blades entire, obovate to spatulate; flowers in small umbels or solitary.

HERBARIUM RECORDS: 8 Oct 1955—Cleveland Ave., ¼ mi. S of Rt. 161, Blendon Twp., *E. Herrick*; 17 Jul 1971—W of Olentangy River Rd., approx. ½ mi. N of Henderson Rd., *Roberts 1339*; 1 May 1980—E bank of Olentangy R., 0.3 km N of Dodridge St. bridge, at mouth of Glen Echo Ravine, SE corner NW Cols. Quad., *W. Carr 2661*; 8 Apr 1986—W. Patterson Ave. close to Tuttle Park entrance, Cols., *Cooperband 21*; 22 Apr 1987—Highbanks Metro Park (Delaware Co.), floodplain secondary woods fencerow, *Morawetz*; 7 May 1988—5823 N. High St., Worthington, 1¼ mi. S of Rt. 161 & Rt. 23 intersection, cult., *M. Hoffman 58*; 8 May 1989—Overbrook Drive Ravine, just E of N. High St., Cols., Clinton Twp., *Lowden 4020*.

NOTE: See Braun 1961:141.

### MENISPERMACEAE, Moonseed Family

#### 1. MENISPERMUM L. Moonseed

Slender twining woody vine; leaves alternate, simple, blades broadly ovate to orbicular, cordate or truncate at base, entire to palmately-lobed, peltate, petiole attached near base of blade; dioecious; flowers minute, greenish, in axillary panicles; sepals 4-8; petals 6-8; stamens 12-24; carpels 2-4, separate; fruit an aggregate of drupes.

##### 1. *Menispermum canadense* L.

Moonseed Vine, Moonseed

Twining vine or climber, half-woody; leaves peltate near the margins; blades entire to palmately-lobed, cordate or truncate at base; flowers minute, greenish, in axillary panicles; fruits bluish-black, poisonous. Moist woods & thickets. Fruits poisonous.

REFERENCES: Riddell 1834:117 (bottomland); Sullivant 1840:25; Craig 1890:64 (common along the river, S of the road, climbing upon trees and shrubs, it also grows along the brook near the barn and about the island on the river bank, but more sparingly than in the above locality, 4 Jun 1882, 5 Jun 1883, 6 Jun 1884, 26 May 1885, 29 May 1887, 18 Jun 1888); Selby & Craig 1890:7; Braun 1961:141 (illus. p. 140).

HERBARIUM RECORDS: Jun 1888—Cols., *Craig*; 6 Oct 1902—Cols., *Sanders*; Oct 1911—Westerville, woods, *Hanawalt*; [ca. 1982]—Blendon Woods, common, *Owens*; 26 May 1982—OSU, Kenny Rd., end of the Waterman farm complex, growing on fence at the far S end of the farm among grape vines, Cols., *D. Wilson 56*; 5 Jun 1987—Tuttle Park, E bank of the Olentangy R., between the Lane Ave. & Dodridge St. bridges, mesic woods on floodplain, *T. Lammers 6108*; Jul 1987—Highbanks Metro Park (Delaware Co.), woodlands & along streams, *Kosko 73* (OS, OWU); 25 May 1991—W bank of Scioto R., S of Greenlawn Ave. bridge, woody thicket area, Lou Berliner Park, Franklin Twp., *Lowden 4638*.

### PAPAVERACEAE, Poppy Family

Herbs, sometimes with milky juice; leaves alternate or basal, rarely opposite; flowers hypogynous, bisporangiate; sepals 2 or 3, minute or early deciduous; corolla regular (or each whorl regular); petals 4 to many or rarely none, separate; stamens several to many; carpels 2 to many, united, stigmas as many; ovary 1-loculed or occasionally 2-loculed as result of a false septum; placentae parietal; ovules several to many; fruit a capsule.

Two species persisting after cultivation are *Argemone mexicana* L. (Mexican Poppy of tropical America), an annual having spiny foliage, usually blotched with paler green, flowers yellow or cream, closely subtended by upper leaves (15 Oct 1900—Fisher's Mills, *S. Weber*); and *Eschscholzia californica* Cham. (California Poppy), with leaves ternately

dissected into linear segments; flowers yellow to orange, long-peduncled; receptacle expanded below the corolla into a collar-like rim (6 Jun 1925—Franklin Co., spontaneous after cultivation & seeding abundantly, *J. H. Schaffner*; 18 Jun 1926—Franklin Co., *J. H. Schaffner*; 21 May 1986—E. Northwood Ave., private garden, Cols., coll.?).

- a Flowers scapose, solitary; petals white; leaf one, basal. **2. SANGUINARIA**
- a' Stem leafy; petals usually red, yellow, or cream-color, or none.
  - b Petals none; flowers in elongate terminal panicles. **1. MACLEAYA**
  - b' Petals present; flowers solitary or in umbels.
    - c Stigmas and placentae 4 to many; capsule opening by pores or slits near the summit; petals of various colors. **5. PAPAVER**
    - c' Stigmas and placentae 2-4; capsule opening by longitudinal slits; petals yellow.
    - d Ovary hairy; stigmas and placentae 2-4; fruit ellipsoid. **3. STYLOPHORUM**
    - d' Ovary glabrous; stigmas and placentae 2; fruit linear. **4. CHELIDONIUM**

### 1. MACLEAYA R.Br. Plume Poppy

Leaves palmately lobed, glaucous beneath, petioled; flowers in elongate terminal panicles; sepals 2, cream-color; petals none; stamens many; carpels 2, united; stigma sessile; capsule oblanceolate, 2-loculed.

- 1. \**Macleaya cordata* (Willd.) R.Br. Plume Poppy, Bocconia  
Cultivated (introduced from E Asia)

Tall perennial herb; leaves pinnately lobed; panicles large; 2 sepals fall when flower opens, petals none.  
HERBARIUM RECORDS: 19 Jul 1930—OSU, Bot. Garden, *Hicks*; 4 Aug 1933—OSU, *Hicks*.

### 2. SANGUINARIA L. Bloodroot

Low herb with stout rhizome; juice red; leaf 1, blade somewhat palmately lobed, circular; flower scapose, solitary, 2-5 cm wide; sepals 2, separate, early deciduous; petals white, early deciduous, 8-12 or fewer or more; stamens many; style short; carpels, stigmas, and placentae 2; capsule fusiform.

- 1. *Sanguinaria canadensis* L. Bloodroot

Low herb, stout rhizome, juice red; leaf 1, basal; blade circular, somewhat palmately lobed; flower scapose, solitary; sepals 2; petals white, usually 8-12; stamens many; carpels 2, capsule fusiform.

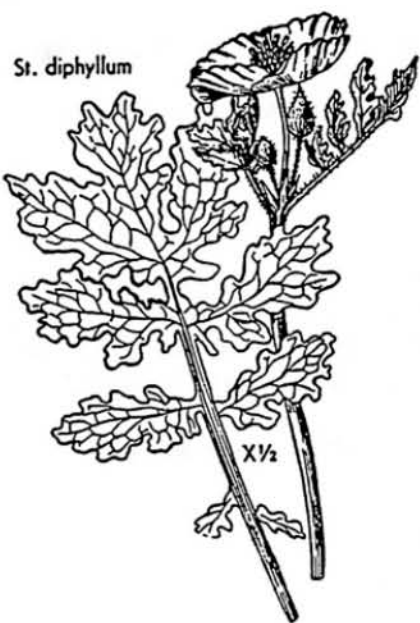
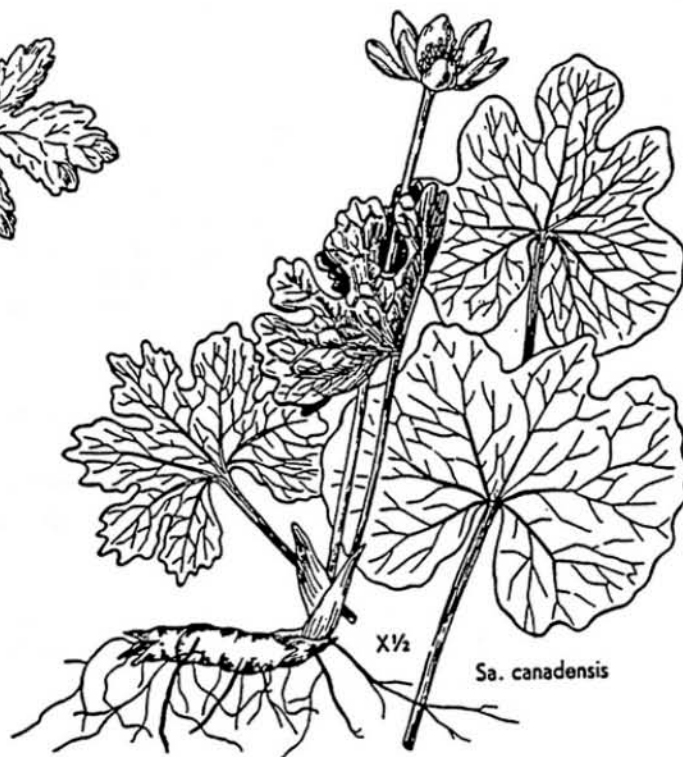
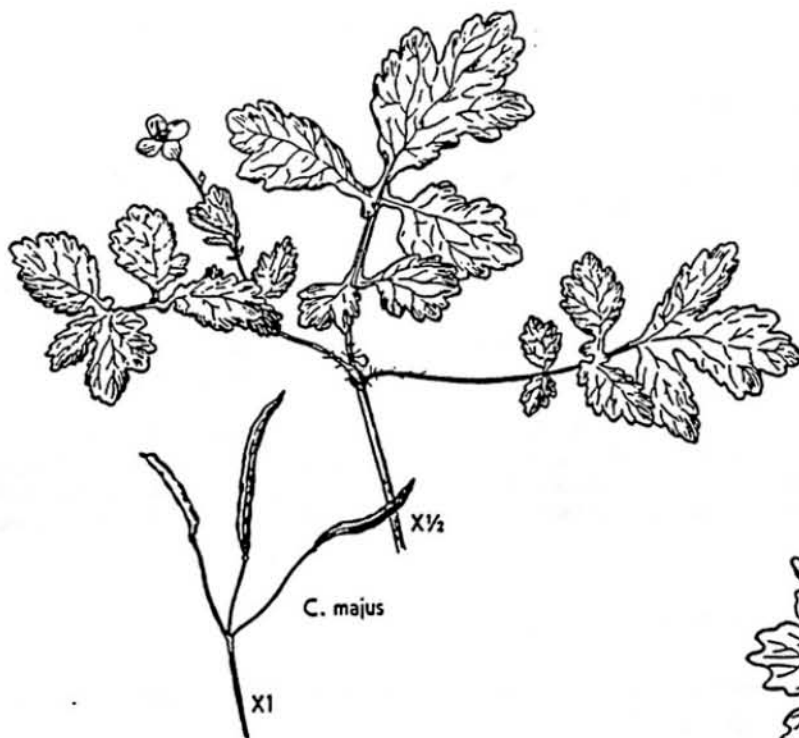
REFERENCES: Riddell 1834:116; Sullivant 1840:6; Craig 1890:65 (abundant on the hillside of the botanical bldg. but not found elsewhere, 14 Apr 1882, 10 Apr 1883, 17 Apr 1884, 23 Apr 1885, 13 Apr 1886, 8 Apr 1887, 7 Apr 1888, 28 Mar 1888); Selby & Craig 1890:7.  
HERBARIUM RECORDS: 1840—Cols., *Sullivant*; 20 Apr 1884—Neils Run, Cols., *H. Smith* (CINC); Apr 1888—SW of Sellsville, Cols., *Craig*; Spring 1889—Cols., *Craig*; Apr 1890—Cols., *Selby*; 11 Apr 1892—Scioto R., Cols., *Bogue*; 27 Apr 1892—near Cols., *E. M. Wilcox*; 1893—Cols., *Werner* (CLM); 15 May 1893—Georgesville, *Kerr*; Spring 1898—Cols., *J. H. Schaffner*; 20 Apr 1899—Blendon, *Helfrich*; 16 May 1909—Flint, *Pike*; 9 Apr 1925—Westerville, dense beech forest, *Camp*; 1 Apr 1967—½ mi. S of Dublin, E bank of Scioto R., Perry Twp., *Stuckey 3347*; 8 Apr 1970—Scioto R. floodplain, between river & old limestone quarry, approx. 1 mi. S of Dublin on Rt. 33, abundant, Washington Twp., *Roberts 109*; 11 Apr 1970—Flint Ravine, near Camp Mary Orton, approx. 2 mi. N of Worthington along Rt. 23, Sharon Twp., T2N R18W, *Haynes 3256*; 26 Apr 1970—Clintonville, occasional along stream in Whetstone Park, *W. Owen 096*; 11 Apr 1981—1 mi. E of Seldom Seen Rd., *Gardner 002*; 17 Apr 1982—S of Kenny Rd. & Lane, Cols., *Pacheco 11*; 22 Apr 1982—Highbanks Metro Park (Franklin & Delaware Cos.), ravine slope, *G. Moore 222*; 23 Apr 1982—Blendon Woods, fairly common, *Owens*; 30 Mar 1986—Highbanks Metro Park (Delaware Co.), forest on floodplain of Olentangy R. & mound bottom area, *Witsberger 867* (OS, OWU); 25 Apr 1991—Overbrook Dr. between Canyon Dr. & Lenappe Dr., Cols., *Gara 21*; 9 Apr 1992—Overbrook Drive Ravine, just E of N. High St. & S of E. Cooke Rd., woody area, Cols., Clinton Twp., *Lowden 4895*.

### 3. STYLOPHORUM Nutt.

Rhizome stout; leaves pinnatifid, several basal, 2 cauline, opposite; flowers about 5 cm wide; sepals 2, pubescent; petals 4, deep yellow; stamens many; carpels 2-4; capsule ellipsoid, pubescent.

- 1. *Stylophorum diphyllum* (Michx.) Nutt. Celandine Poppy, Wood-poppy  
Rhizome stout; leaves pinnatifid, several basal, 2 cauline opposite; flowers 3-5 cm wide; sepals 2, pubescent; petals 4, deep yellow; stamens many; carpels 2-4; capsule ellipsoid, pubescent.

SANGUINARIA  
STYLOPHORUM  
CHELIDONIUM  
PAPAVER  
ARGEMONE



HERBARIUM RECORDS: 1834—Cols., *J. Paddock Collection* (ILL); 1840—Cols., *Sullivant*; May 1891—Big Darby, *Werner*; 21 Apr 1935—Franklin Co., *Strohmeier*; 27 Apr 1969—88 E. Chittenden Ave., old fence row between two parking lots, approx. ½ blk. E of the OSU Law Bldg., Cols., *W. Wentz 064*.

NOTE: *Sullivant* 1840:6 (*Meconopsis diphylla* DC.) and *Selby & Craig* 1890:7 reported on plants collected in adjacent counties.

#### 4. CHELIDONIUM L. Celandine

Leaves glaucous beneath, pinnatifid, alternate; flowers pediceled, several in peduncled umbels; sepals 2; petals 4, yellow, about 1 cm long; stamens many; carpels 2; capsule linear-cylindric.

##### 1. \**Chelidonium majus* L.

Celandine

Naturalized (Eurasian)

Herb with saffron-colored juice; leaves glaucous beneath, pinnatifid, alternate; flowers pediceled, approx. 1.5-2.0 cm wide, several in peduncled umbels; sepals 2; petals 4, yellow; stamens many; carpels 2; capsule linear-cylindric.

REFERENCES: Riddell 1834:116 (naturalized); *Selby & Craig* 1890:7 (introduced).

HERBARIUM RECORDS: 1890—Central College, *Selby*; May 1890—Central College, *Selby*; 28 May 1896—Cols., *W. Kellerman*; 12 May 1977—OSU, South Campus, waste area along alley, Cols., *W. Carr*; 13 Jul 1982—Highbanks Metro Park (Franklin & Delaware Cos.), floodplain, *G. Moore 221*; 31 May 1986—Highbanks Metro Park (Delaware Co.), floodplain, river trail, *Morawetz*; 12 May 1988—Worthington, bike path ½ mi. N of Rt. 161, 1 mi. W of Rt. 23, abundant, *M. Hoffman 62*; 3 May 1991—E bank of the Scioto R., just W of Rt. 257 & N of Rt. 161, along limestone cliffs, Perry Twp., *Lowden 4600*.

#### 5. PAPAVER L. Poppy

Sepals 2; petals usually 4; stamens many; carpels 4 to many; stigmas in a sessile crown with rays as many as carpels; capsule many-seeded, dehiscent near the top with slits or pores.

##### 1. \**Papaver rhoeas* L.

Corn Poppy

Cultivated to Adventive (native of Eurasia and N Africa)

Cauline leaves pinnatifid, not clasping; blade segments lanceolate, incised and toothed; flowers bright orange-red, drying purple; capsule subglobose.

HERBARIUM RECORD: 23 May 1989—Overbrook Drive Ravine, just E of N. High St. & S of E. Cooke Rd., Cols., Clinton Twp., *Lowden 4084*.

### FUMARIACEAE, Fumitory Family

Herbs; leaves alternate or all basal, usually decomposed or dissected; flowers hypogynous, bisporangiate, bracted, in racemes; sepals 2, sometimes early deciduous, minute; petals 4, one or both of the 2 outer ones spurred, the 2 inner narrow below, wider and somewhat connivent above; stamens 6, in 2 sets of 3 each, in each set filaments united, anther of middle one 2-loculed, of the outer ones 1-loculed; carpels 2, style 1, ovary 1-loculed; placentae 2, parietal.

a Corolla isobilateral; both outer petals spurred or saccate at base; plant not climbing; leaves all basal; racemes scapose. 1. DICENTRA

a' Corolla zygomorphic; only 1 outer petal spurred.

b Sepals not toothed; ovary and capsule elongate; seeds several. 2. CORYDALIS

b' Sepals toothed; ovary and indehiscent fruit subglobose; seed 1. 3. FUMARIA

#### 1. DICENTRA Bernh. Bleeding-heart

Delicate, somewhat fleshy, herbs; leaves dissected, all basal in our species; corolla about 2 cm long, white or tinged with pink; capsule linear.

a Spurs of corolla long, divergent, tapering to base; underground stems white or pink granulate bulbs.

1. *D. cucullaria*

a' Spurs of corolla short, rounded; flowers fragrant; underground stems yellow pea-shaped tubers. 2. *D. canadensis*