

4. *Thalictrum dasycarpum* Fisch. & Avé-Lall.

Purple Meadow Rue

Leaves with 2 or 3 entire lobes, seldom with a few additional teeth, glabrous or merely puberulent beneath, not glandular; anthers 1.5-3.5 mm long, apiculate; filaments slightly enlarged above.

REFERENCES: Riddell 1834:116 (*Thalictrum corynellum*); Craig 1890:63 (*Thalictrum purpurascens* L., this occurs on the S side of the dike and in the woods NW of the island); Selby & Craig 1890:7 (*Thalictrum purpurascens* L.).

HERBARIUM RECORDS: 25 Jun 1892—Cols., *Bogue*; 22 Aug 1899—S Cols., *Selby*; 10 Jun 1919—Cols., *J. H. Schaffner*; Summer 1938—OSU Botanical Garden, *C. Jones*; 16 Jun 1938—OSU Botany Garden, *J. H. Schaffner*; 17 Jun 1939—Franklin Co., roadside, *Fullerton*; 24 May 1986—Worthington, trail E of Olentangy R., about 50 m S of grassy field just S of Rt. 161, *Hollander 051*; 25 May 1988—W side of Olentangy R., floodplain, abundant, ¼ mi. N of Lane Ave., Cols., abundant, *Kelly 30*.

14. HYDRASTIS L. Golden Seal

Herb with yellow rhizome; leaves 3, 1 basal, 2 near summit of stem, alternate, rounded, cordate at base, palmately 5-7-lobed, lobes serrate or incised; flowers solitary, terminal; calyx regular, of 3 greenish-white early-deciduous sepals; petals none; stamens several to many; carpels several to many, 2-ovuled; fruit an aggregate of dark-red 1-2 seeded berries.

1. *Hydrastis canadensis* L.

Golden Seal, Yellow-root, Turmeric Root

Herb with yellow rhizome; leaves 3, 1 basal, 2 near summit of stem, alternate, palmately parted; flowers solitary, terminal; calyx regular, of 3 greenish-white early-deciduous sepals; petals none; stamens usually many; fruit an aggregate of dark-red berries.

REFERENCES: Riddell 1834:116 (dense and shady woods); Sullivant 1840:5; Craig 1890:64 (rare, one or two specimens were found in the woods this spring. I have looked carefully for it other place without success, 1 May 1882, 11 May 1883, 10 May 1884, 19 May 1885, 14 May 1887, 5 May 1888, 24 May 1889); Selby & Craig 1890:7.

HERBARIUM RECORDS: 1840—Cols., *Sullivant*; 1 & 10 May 1882—Neils Run, *W. Green*; May 1888—Cols., *Craig*; 5 May 1888—woods about Cols., *Selby*; 16 May 1891—Cols., *Werner* (CLM); 29 Apr 1892—Worthington, *Werner*; 29 Apr 1892—Cols., *Werner* (CLM); 5 May 1892—Cols., *Werner*; 10 May 1892—near Cols., *E. M. Wilcox*; Jun 1892—Cols., *Werner* (CLM, OS); 2 Jun 1892—Cols., *Werner* (CLM); 27 Apr 1894—Cols., *W. Kellerman*; 4 May 1895—Georgesville, *Osburn*; 18 May 1904—Franklin Co., *Spease*; 16 May 1909—Big Darby, *L. Foster*; 1925—Westerville, woods, head of Sleepy Hollow, *Camp*; 10 Jun 1980—mesic woods along Brookside Trail, 0.2 mi. S of parking lot, Blendon Wood Metro Park, Blendon Twp., NE Cols. Quad., *Cusick 20115*; 6 May 1982—Highbanks Metro Park (Franklin & Delaware Cos.), ravine, infrequent, *W. Reed 257*; 6 May 1982—Highbanks Metro Park (Franklin & Delaware Cos.), floodplain & beech-maple habitat, infrequent, *G. Moore 258 & 259*; 8 May 1982—Blendon Woods, spreading, intersection of Brookside & Cherry Ridge trails, *Owens*; 16 Jul 1986—Highbanks Metro Park (Delaware Co.), woods, *Watts 326*; 9 May 1988—Highbanks Metro Park (Delaware Co.), mound bluff woods, *Watts 416* (OS, OWU); 3 Jun 1992—Gahanna Woods State Nature Preserve, common in beech-maple woods, SW corner of Havens Corner Rd. & Taylor Station Rd., Jefferson Twp., Reynoldsburg Quad., *McCormac 4656*.

BERBERIDACEAE, Barberry Family

Herbs and shrubs; leaves alternate, sometimes basal; flowers hypogynous, bisporangiate; perianth (or each of its whorls) regular; sepals 4-6 or more, often early deciduous; petals 6-9, separate, sometimes glandlike; except in *Podophyllum*, stamens as many as petals and opposite them and anthers opening by uplifted lids; ovary 1-loculed, placenta 1, parietal, or ovules basal; fruit a berry or capsule.

The evergreen shrub *Mahonia* is cultivated as a garden ornamental.

a Herbs.

b Leaves all basal, leaflets 2; flowers on leafless scapes. **2. JEFFERSONIA**

b' Flowering stem with 2 palmately divided leaves. **1. PODOPHYLLUM** (See b'.)

b'' Leaves 2, ternately compound or decomposed. **3. CAULOPHYLLUM**

a' Shrubs; flowers yellow.

c Leaves pinnately compound. **MAHONIA** Nutt.

c' Leaves simple; branches with spines. **4. BERBERIS**

1. PODOPHYLLUM L. May-apple

Flowering stem with 2 leaves deeply palmately parted; flowerless plants with one peltate, radially parted, leaf; flowers solitary, waxy white, 3-5 cm wide; sepals 6, early deciduous; petals 6-9; stamens more than petals, often twice as many; stigma sessile, large and thick; fruit a fleshy berry 4-5 cm long.

1. *Podophyllum peltatum* L.

May-apple, Mandrake

Flowering stem with 2 leaves deeply palmately parted; flowerless plants with one peltate radially parted leaf; flowers solitary, waxy white (pink); fruit a large ovoid, fleshy, many-seeded berry; seeds and herbage poisonous. Open woods.

REFERENCES: Riddell 1834:117; Sullivant 1840:6; Craig 1890:65 (not very common, in the W part of the woods, also along the river in the SW corner of the farm in rich moist soil, and on the river bank E of the island, the plants bloom freely but produce scarcely any fruit, 14 May 1882, 11 May 1883, 10 May 1884, 22 May 1885, 15 May 1887, 10 May 1888); Selby & Craig 1890:7.

HERBARIUM RECORDS: 1834—Worthington, *J. Paddock Collection* (ILL); 1840—Cols., *Sullivant*; May 1884—OSU Grove, Cols., *H. Smith* (CINC); May 1888—Cols., *Craig*; May 1891—Cols., *Selby* (OS, WOOS); 20 May 1892—near Cols., *E. M. Wilcox*; 13 May 1893—N of OSU, Olentangy R., *Odebrecht* (CLM); 1896—Cols., *E. M. Wilcox*; 30 May 1896—Reservoir Park, *M. Wright*; 31 May 1896—Cols., *E. M. Wilcox*; 16 May 1909—Flint, *Pike*; 22 May 1911—3/4 mi. N of Westerville, woods, *Hanawalt*; 15 May 1923—Westerville, rich woods, *L. Snyder*; 21 May 1924—Westerville, woodlands, *Greenwald*; 4 May 1986—1 mi. NW of jct. of Kenny Rd. & W. Lane Ave., woodland, *Yang 115*; 22 May 1988—Highbanks Metro Park (Delaware Co.), mixed woods, *Morawetz 66* (OS, OWU); 8 May 1989—Overbrook Drive Ravine, just E of N. High St., Cols., Clinton Twp., *Lowden 4018*; 19 May 1990—just S of the Plain/Jefferson Twps. line, where Blacklick Creek intersects with Morse Rd., Jefferson Twp., *Lowden 4318*.

2. *JEFFERSONIA* Barton Twinleaf

Glabrous; leaves all basal, immature at anthesis, long-petioled, with 2 half-ovate leaflets; flowers 2-3 cm wide; perianth early deciduous; sepals 4; petals 8, white; stigma 2-lobed; capsule obovoid, half-circumscissile, the top a lid; seeds many, in several rows on placenta, ariled.

1. *Jeffersonia diphylla* (L.) Pers.

Twinleaf

Plants glabrous, roots coarse; leaves all basal, immature at anthesis, long-petioled, with 2 half-ovate leaflets; perianth early deciduous; sepals 4; petals 8, white; capsule obovoid, half-circumscissile, the top a lid; seeds many.

REFERENCES: Riddell 1834:117 (dense & shady woods); Sullivant 1840:6; Selby & Craig 1890:7.

HERBARIUM RECORDS: 1840—Cols., *Sullivant*; 8 May 1882—Cols., *Devol*; 28 Apr 1888—Insane Asylum Grounds, *Selby*; May 1888—Sullivant Hill, Cols., *Craig*; 20 Apr 1889—Sullivant Hill, Cols., *Craig*; May 1890—Cols., *Selby* (OS, WOOS); 23 Apr 1925—Westerville, open moist slopes, *Camp*; 12 Apr [yr.?]—Clinton Twp., *Geil*; 14 Apr 1967—E bank of Scioto R., approx. 1/4 mi. S of Dublin, common on broken limestone rocky slope, Perry Twp., *Stuckey 3423*; 18 Apr 1970—E Edge of Scioto R., 1/2 mi. S of the Dublin bridge, *Boone 19*; 19 Apr 1970—Scioto R., 1/2 mi. S of Dublin, E side along River Rd. in floodplain & on hillside, *Roberts 143*; 23 Apr 1983—Spring Hollow, *Owens*; 10 Apr 1988—Highbanks Metro Park (Delaware Co.), wooded ravine, *Higgins 26* (OS, OWU); 20 Apr 1991—SE corner of jct. of Rt. 665 & Graessle Rd., mesic wooded slopes, common, Pleasant Twp., Harrisburg Quad., *McCormac 3468*; 13 Apr 1992—Camp Mary Orton (Godman Guild), N of Worthington & W of Rt. 23, woods near Olentangy R., W of caretaker's house, Sharon Twp., *Lowden 4998*; 24 Apr 1992—Sharon Woods Metro Park, in woods S of Spring Hollow Education Center, Sharon Twp., *Lowden 4925*; 14 May 1992—N of dead end of Harrisburg Georgesville Rd., Battelle Darby Creek Metro Park, Pleasant Twp., *Lowden 4951*; 18 Apr 1996—W side of Griggs Reservoir, 0.7 mi. S of Fishinger Rd. bridge, wooded slope, NW Cols. Quad., *Cusick 32921*.

3. *CAULOPHYLLUM* Michx. Blue Cohosh

Glabrous, with thick rhizome; stem simple; leaves 2, sessile, ternate, the lower large, decomposed, a smaller one subtending the short raceme; flower 1 cm wide or less, yellow, green, or purple; sepals 6, bracts 3 or 4; petals 6, glandlike, smaller than sepals; stamens 6; ovary soon bursting, the 2 drupelike blue seeds, maturing uncovered.

1. *Caulophyllum thalictroides* (L.) Michx. var. *thalictroides*

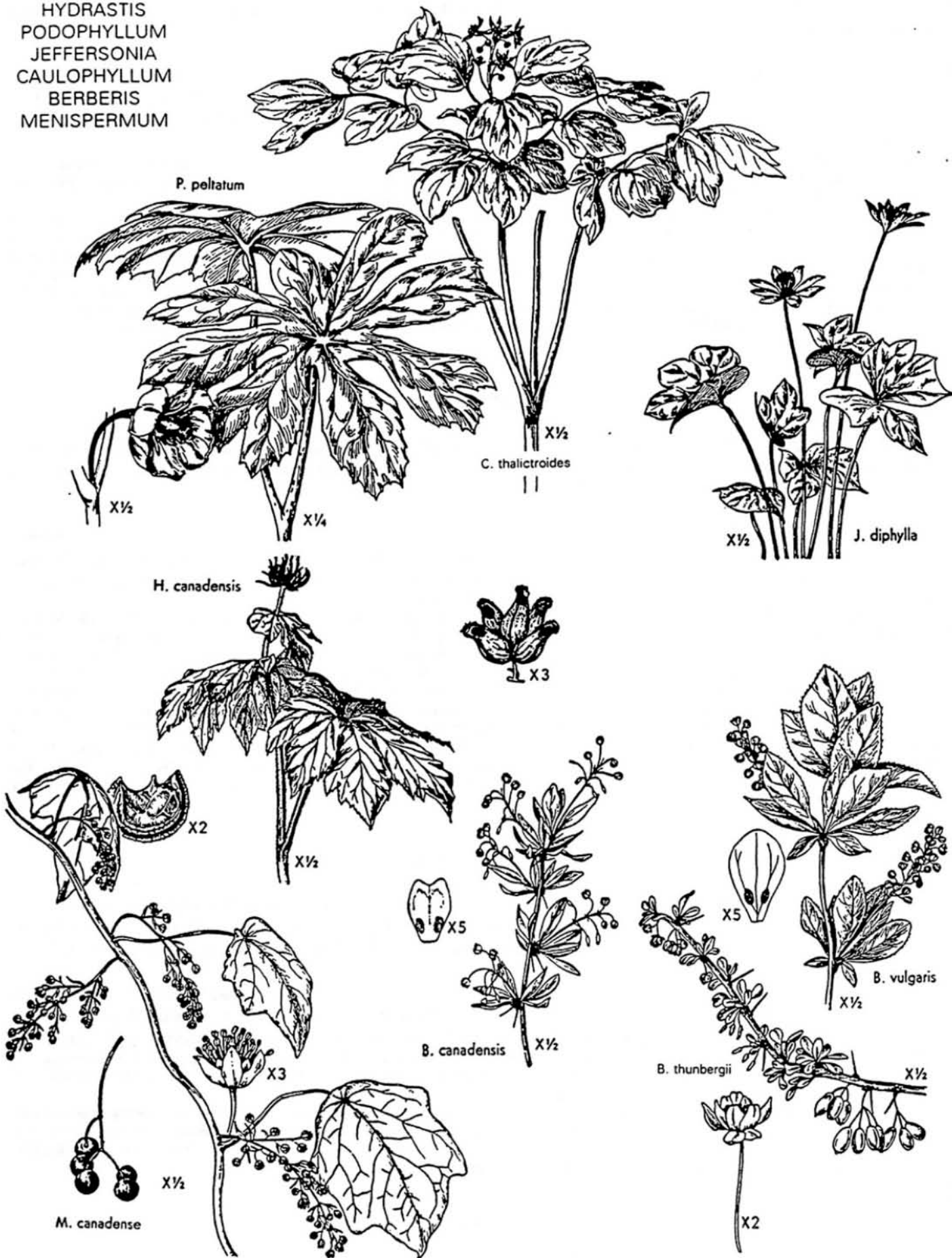
Blue Cohosh, Pappoose Root

Plants erect, glaucous when young; leaves 2, ternately compound or decomposed; flowers in a short raceme; sepals 6, 4-5 mm long, petaloid, yellow, purple or green, subtended by 3 or 4 bracts; petals 6, smaller than sepals, gland-like.

REFERENCES: Riddell 1834:117 (*Leontice thalictroides* L.); Sullivant 1840:9 (*Leontice thalictroides* L.); Craig 1890:65 (I found, last summer, several specimens of this rare plant along the river W of the Catalpa Grove, this spring I found a fine large specimen in the woods not far from Woodruff Ave., 1 May 1882); Selby & Craig 1890:7.

HERBARIUM RECORDS: 1840—Cols., *Sullivant*; May 1891—Central College, Cols., *Selby* (OS, WOOS); 7 May 1892—Georgesville, *Detmers*; Jun 1892—Georgesville, *E. M. Wilcox*; 24 May 1927—Westerville, *G. Hedges*; 15 Apr 1992—Camp Mary Orton (Godman Guild), N of Worthington, W of Rt. 23, woods near Flint Ravine & the Olentangy R., Sharon Twp., *Lowden 4906*; 20 Apr 1992—Camp Mary Orton (Godman Guild), N of Worthington, W of Rt. 23, woods near Flint Ravine & the Olentangy R., Sharon Twp. *Lowden 4920*.

HYDRASTIS
PODOPHYLLUM
JEFFERSONIA
CAULOPHYLLUM
BERBERIS
MENISPERMUM



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