

Plants viscid-hairy; corolla irregular, red-purple; leaves opposite, lanceolate; hypanthium cylindrical. Syn.: *C. petiolata* (L.) Koehne, a preoccupied name
REFERENCES: Riddell 1834:118 (wet prairies); Sullivant 1840:14; Selby & Craig 1890:10; Cooperrider 1995:173 (illus. p. 172).
HERBARIUM RECORDS: 1840—Cols., Sullivant; Oct 1890—Central College, Bogue (CLM, OS).

THYMELAEACEAE, Mezereum Family

Shrubs; leaves alternate; flowers perigynous, bisporangiate; sepals present, sometimes minute; corolla none; stamens 8; carpels united; fruit a drupe.

1. DIRCA L. Leatherwood

Shrub with tough bark and flexible branches; leaves short-petioled, blades obovate, entire; flowers in small axillary clusters, appearing before the leaves; hypanthium tubular-funnelform, yellow, margin (sepals scarcely evident) wavy or shallowly toothed; style and stamens exerted; locule and ovule 1.

1. *Dirca palustris* L.

Leatherwood

Plants woody, tree-like shrub; branches flexible; leaves alternate, obovate, entire; flowers yellow, appearing before the leaves; fruit a greenish to reddish drupe.

REFERENCES: Riddell 1834:118; Selby 1891a:111a; Cooperrider 1995:165 (illus. p. 164).

HERBARIUM RECORD: 9 May 1891—Big Darby, Selby.

NOTE: Sullivant 1840:24 and Selby & Craig 1890:15 reported on plants collected in adjacent counties. See Braun 1961:273.

ONAGRACEAE, Evening-primrose Family

Herbs; leaves alternate or opposite, simple; flowers epigynous, perfect, epigynous hypanthium present or absent; corolla regular or rarely somewhat zygomorphic; sepals and petals usually 4 (2-6); petals separate or rarely none; stamens usually 8 (2-8); carpels usually 4 (2-6), united, locules as many or rarely 1; style 1, sometimes short; stigma 1 or with lobes as many as carpels; fruit a capsule or nutlike.

Clarkia pulchella Pursh (Farewell-to-spring) was reported by Selby 1891a:111a (found at Sellsville), Selby 1891b:75 (circus grounds), and Cooperrider 1995:175. This adventive herb has pink-lavender 3-lobed petals (6 Jul 1891—Sellsville, Selby).

a Sepals, petals, and stamens 2. **5. CIRCAEA**

a' Sepals and petals 4 to 6 or rarely none.

b Epigynous hypanthium very short or absent.

c Petals purple, red-purple, pink, or white; calyx and short hypanthium, when present, deciduous; seeds with tufts of hairs. **2. EPILOBIUM**

c' Petals yellow or greenish or none; calyx persistent in fruit; seeds without tufts of hairs. **1. LUDWIGIA**

b' Epigynous hypanthium elongate, slender.

d Petals usually yellow, if pink or white then 2-4 cm long; fruit prismatic, cylindrical, or clavate; flower regular. **3. OENOTHERA**

d' Petals white or pink, slender, less than 1 cm long; fruit fusiform, indehiscent; flower somewhat irregular.

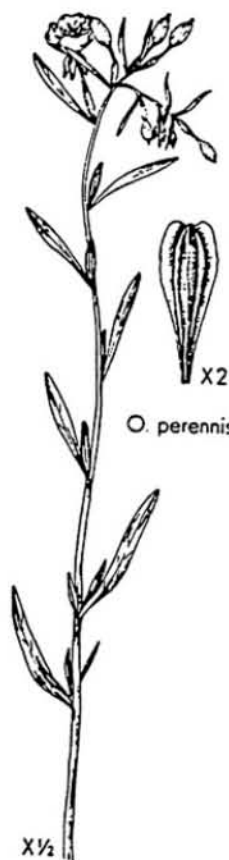
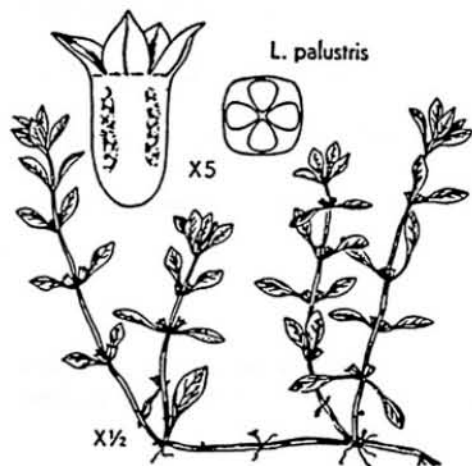
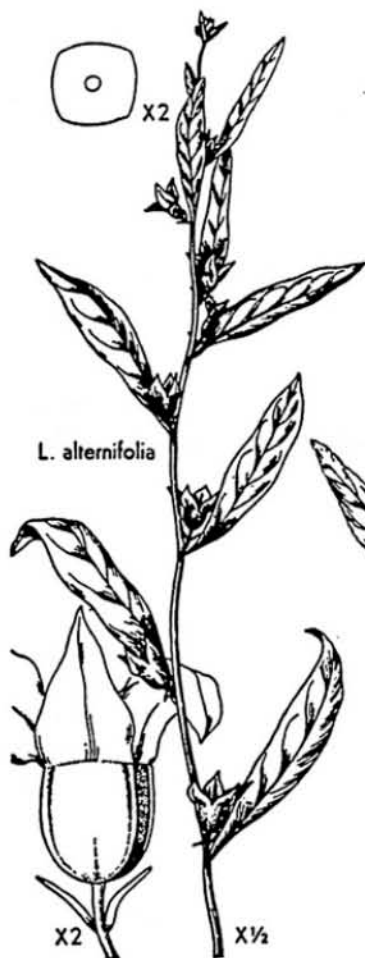
4. GAURA

1. LUDWIGIA L. False Loosestrife

Of wet soil or water; stems erect or prostrate; flowers solitary, sessile or short-stalked, in upper axils; perianth regular; sepals, petals, and stamens 4, or petals none, sepals persistent in fruit; carpels 4; ovary often square in cross section; bractlets usually present on ovary or below; length of capsule less than twice width.

a Leaves alternate; flowers stalked or sessile. **1. L. alternifolia**

LUDWIGIA
EPILOBIUM
OENOTHERA



- a' Leaves opposite; flowers sessile; ovary with 4 green longitudinal bands on the sides; petals none; stems floating or prostrate, often rooting at nodes. **2. *L. palustris***

1. *Ludwigia alternifolia* L.

Seedbox

Stems erect; leaves alternate, lanceolate to linear-lanceolate; sepals, petals and stamens 4; petals yellow, about as long as sepals; capsules about as long as wide, 5-6 mm long, sharply winged-angled.

REFERENCES: Riddell 1834:117 (wet prairies); Cooperrider 1995:178 (illus. p. 177).

HERBARIUM RECORDS: Sep 1890—near Cols., *E. V. Wilcox*; 1 Aug 1990—Hoover Dam Park, open woody area W of Cabbage Rd., S of Walnut St., Blendon Twp., *Lowden 4498*.

NOTE: Sullivant 1840:9 (*Isnardia alternifolia* DC.) and Selby & Craig 1890:10 reported on plants collected in adjacent counties.

2. *Ludwigia palustris* (L.) Elliott var. *palustris*

Water-purslane

Stems creeping, ascending or partially submersed; leaves petiolate, opposite; petals none; fruits cylindrical, 3-4 mm long, solitary and sessile in leaf axils. Syn.: *Isnardia palustris* L.

REFERENCES: Riddell 1834:117 (marshes); Sullivant 1840:9; Craig 1890:80 (common in the swamps and low ground around the island, especially ... in what is called the lower lagoon); Selby & Craig 1890:10; Cooperrider 1995:179 (illus. p. 177).

HERBARIUM RECORDS: 1840—Cols., *Sullivant*; 9 Jul 1892—Franklin Co. & Cols., *Bogue*; 6 Aug 1897—Hamilton Twp., *W. Kellerman*; 7 Sep 1899—Worthington, *Selby*; Summer 1988—along Big Darby Creek between I-70 and Little Darby Creek, Galloway Quad., *Delong*; 23 Sep 1991—E bank of Scioto R., just N of I-270, Hamilton Twp., SW Cols. Quad., *McCormac 4350*; 13 Oct 1991—W bank of Olentangy R., mudflat just N of Lane Ave. Bridge, S of Fawcett Center, *Lowden 4878*; 10 Aug 1992—Pickerington Ponds, wetland wildlife area, just S of Wright Rd. & E of Bowen Rd., Madison Twp., *Lowden 5032*.

2. EPILOBIUM L. Willow-herb

Leaves alternate or opposite, blades entire or dentate; flowers solitary or in terminal racemes; epigynous hypanthium short or absent; sepals 4; petals 4, purple to pink or white; corolla regular or slightly zygomorphic; stamens 8; carpels 4; style short; stigma entire or 4-cleft; capsule linear, dehiscent; seeds comate.

- a Stem without decurrent lines from leaf-bases; blades entire or undulate, margins revolute. **1. *E. strictum***

- a' Stem with decurrent lines from leaf-bases; blades denticulate or serrulate, margins not revolute.

- b Coma red-brown at maturity; blades lanceolate, tapering to base, grayish; seeds without short neck below coma. **3. *E. coloratum***

- b' Coma whitish at maturity; blades lanceolate to ovate, rounded at base; seeds with short neck below coma. **2. *E. ciliatum***

1. †*Epilobium strictum* Muhl.

Northeastern Willow-herb

Principal leaves opposite, linear to linear-lanceolate, lateral veins obvious; stems terete, covered with short, spreading hairs; petals pink.

REFERENCES: Riddell 1834:117 (*Epilobium lineare*, wet prairies, & [†]*Epilobium palustre*, bed or small rivulets); Riddell 1835:17 (*Epilobium lineare*, two miles S of Cols., wet prairies); Sullivant 1840:9, 57 (*Epilobium molle* Torr.?, a variable plant, not improbable that ... *Epilobium strictum*, *E. lineare*, *E. molle*, etc., are only forms of one and the same species, Prof. Hooker ... refers most of them to [†]*E. palustre* ..., our plant appears to agree with *E. molle*); Selby & Craig 1890:10.

HERBARIUM RECORD: 1840—Cols., *Sullivant*.

NOTE: Not mapped for Franklin Co. by Cooperrider 1995:182 (illus. p. 181).

2. *Epilobium ciliatum* Raf.

Northern Willow-herb, American Willow-herb

Stems somewhat 4-angled with decurrent ridges; leaves lanceolate to narrowly ovate, reaching approx. 5 cm long, sessile or narrowed at base to a short winged petiole; petals purple; seed with white coma. Syn.: *E. adenocaulon* Hausskn., *E. glandulosum* Lehm. var. *adenocaulon* (Hausskn.) Fernald

REFERENCE: Cooperrider 1995:183 (illus. p. 185).

HERBARIUM RECORDS: Sep 1892—Cols., *Werner* (CLM, OS); 23 Aug 1982—Blendon Woods, *Owens*; 20 Oct 1990—moist, weedy ground in nursery between Olentangy R. & Olentangy River Rd., N of Union Cemetery, NW Cols. Quad., *Cusick 29307*; 30 Sep 1991—N side of Rodebaugh Rd., 3/4 mi. E of Reynoldsburg, open areas of wetland, New Albany Rd., sect. 6, Truro Twp., Reynoldsburg Quad., *McCormac 4405*; 22 Aug 1992—1832 W. Henderson Rd., just W of Reed Rd., weed in flowerbed at Bob Evans Restaurant, Perry Twp., *Lowden 5034*.

3. *Epilobium coloratum* Biehler

Herb Willow, Purple-leaved Willow-herb

Some stems with hairs running in line down the stem; leaves long-lanceolate, more than 5 cm long, often blotched with red or purple; petioles distinct; petals white-pink; seed with brown coma. Syn.: *E. coloratum* Muhl.

REFERENCES: Riddell 1836:4 (Worthington; rivulet beds, wet meadows); Sullivant 1840:9; Craig 1890:80 (rather common about the lower lagoon and along the brook near the lake, 17 Aug 1882, 30 Jul 1887); Selby & Craig 1890:10; Cooperrider 1995:183 (illus. p. 185).

HERBARIUM RECORDS: Jul 1888—Cols., Craig; 3 Aug 1890—Broad St. Pike, Selby; 27 Aug 1890—Cols., Werner (CLM, OS); 31 Aug 1890—Cols., Selby (WOOS); 8 Sep 1892—Cols., Werner (CLM); 2 Oct 1892—Cols., Werner; 6 Aug 1897—Hamilton Twp., W. Kellerman; 28 Aug 1989—Little Darby Creek just W of jct. with Big Darby Creek & S of Gardner Rd., Battelle Metro Park, Pleasant Twp., Lowden 4302; 9 Aug 1990—S side of Berger Rd., 1 mi. E of Richardson Rd., Madison Twp., Lowden 4547; 7 Sep 1991—Antrim Park, ditch at entrance underpass, Sharon Twp., Lowden 4795.

3. OENOTHERA L. Evening-primrose

Leaves of first year often in rosettes; blades linear to lanceolate; flowers solitary in axils or in terminal racemes; epigynous hypanthium long and slender, deciduous in fruit; sepals 4, at first connate, later more or less separate and reflexed; corolla regular; petals 4, usually large; stamens 8; carpels 4; style elongate; stigma entire or 4-lobed or -cleft.

a Petals pink or white, 3 cm long or more; capsule broadened toward tip. 3. *O. speciosa*

a' Petals yellow.

b Capsule cylindrical or somewhat wider toward base, sometimes ridged but not winged; stamens equal.

c Stem erect, often tall; flowers in often elongate terminal raceme, bracts smaller than foliage leaves; blades entire to repand-dentate. 1. *O. biennis*

c' Stem decumbent to erect; flowers few, in axils of leaves scarcely smaller than foliage leaves; blades sinuate to pinnatifid. 2. *O. laciniata*

b' Capsule clavate to oblong, often angled or broadly winged; stamens of 2 lengths.

d Inflorescence nodding in bud, erect in flower; petals less than 1 cm long; anthers less than 3 mm long; hairs of stem below inflorescence appressed or curved or short. 5. *O. perennis*

d' Inflorescence erect in bud; petals usually longer. 4. *O. fruticosa*

1. *Oenothera biennis* L.

Common Evening-primrose

Stems erect; leaf-blades entire to slightly dentate; petals yellow; capsules cylindrical, somewhat wider at base and ridged but not winged.

REFERENCES: Riddell 1834:117 (dry prairies); Sullivant 1840:9; Craig 1890:53, 80 (#148 *Oenothera biennis*, sparingly in cultivated fields near the river, on the island and elsewhere, 8 Aug 1882, 19 Jun 1887, 29 Jul 1888, University Farm Oct 1887; *Oenothera biennis* var. *muricata* Lindl., this var. was found by Mr. Green in the summer of 1882); Selby & Craig 1890:10; Cooperrider 1995:186 (illus. p. 187).

HERBARIUM RECORDS: Jul 1888—Cols., Craig; 27 Jul 1891—near Cols., E. V. Wilcox; 29 Aug 1892—Cols., Bogue; 23 Aug 1899—Scioto R., Selby; 3 Oct 1965—W bank of Olentangy R., ½ mi. S of Henderson Rd. on Rt. 315, Anderson (KE); 31 Jul 1982—Blendon Woods, Owens; 11 Aug 1989—Rt. 33 ½ mi. S of the Henderson Rd. jct. along the Scioto R., Perry Twp., Lowden 4260; 10 Jul 1990—jct. of Lazelle Rd. with Flint Rd., along RR tracks, Sharon Twp., Lowden 4439; 22 Jul 1992—The Quarry in front of Riverside Green entrance, off Rt. 33, E side of Scioto R., ½ mi. S of Rt. 161, Perry Twp., Lowden 4999.

NOTE: *Oenothera parviflora* referred to by Riddell 1834:117 (dry prairies) probably belongs under this complex species.

2. **Oenothera laciniata* Hill

Cutleaf Evening-primrose

Adventive (native of Ohio)

Stem decumbent to erect; blades sinuate to pinnatifid.

REFERENCE: Cooperrider 1995:186 (illus. p. 187).

HERBARIUM RECORD: 18 Jun 1989—N. High St. & Henderson Rd., weedy flowerbed by Beechwood P.O., NE Cols. Quad., Cusick 28210 (KE).

3. *†*Oenothera speciosa* Nutt.

White Evening-primrose

Adventive (native of S U.S.)

Flowers white-pink, showy, to 6 cm across; leaves dentate to lobed toward base.

REFERENCES: Jones 1943:99; Cooperrider 1995:190.

HERBARIUM RECORDS: 1906—Cols., Hambleton; 25 Jul 1929—accidental, OSU campus, Cols., Blaydes; 30 May 1977—alley near Neil Ave. & Third Ave., Cols., W. Carr 272.

4. †*Oenothera fruticosa* L. var. *fruticosa*

Sun-drops

Stems erect, upper internodes with short ascending hairs; leaves linear-lanceolate, about 4-5 cm long, pubescent; flowers large, showy; petals yellow, more than 14 mm long; stigma longer than anthers; capsules clavate, widest above the middle, winged. Syn.: *O. linearis* Michx., *O. longipedicellata* (Small) B.L.Rob.

OENOTHERA
GAURA
CIRCAEA
CORNUS



REFERENCES: Riddell 1834:117 (dry prairies); Riddell 1835:17 (near Cols., dry prairies); Sullivant 1840:9; Selby & Craig 1890:10.

HERBARIUM RECORDS: 1840—Cols., *Sullivant*; 28 Jun 1990—Hover Dam Park, open woody area W of Cabbage Rd. & ½ mi. S of Walnut St., Blendon Twp., *Lowden 4424*.

NOTE: Not mapped by Cooperrider 1995:188 (illus. p. 189).

5. *Oenothera perennis* L.

Small Sundrops

Quite similar to *Oenothera fruticosa* but differing in having shorter petals (less than 1 cm long; in this specimen approx. 6 mm long), and inflorescence usually nodding before anthesis.

REFERENCE: Cooperrider 1995:188 (illus. p. 189).

HERBARIUM RECORD: Oct 1896—Cols., *Weiseman*.

4. GAURA L.

Rosette blades oblanceolate; cauline blades lanceolate, tapering at both ends, denticulate; epigynous hypanthium elongate; sepals and petals 4, rarely 3; sepals reflexed; petals narrow, turned to one side of flower, white becoming pink; stamens 8; carpels 4; ovary becoming 1-loculed; fruit fusiform, 4-sided, 1-4-seeded, hard and indehiscent.

1. *Gaura biennis* L.

Gaura

Stems with spreading hairs; petals white to pinkish red, less than 1 cm long; leaf blades lanceolate, tapering at both ends.

REFERENCES: Riddell 1834:117 (*Gaura mollis*, dry prairies); Sullivant 1840:9; Craig 1890:80 (not rare, may be found on the dike N of the island and along the river bank, 8 Aug 1882, 29 Jul 1888); Selby & Craig 1890:10; Cooperrider 1995:191 (illus. p. 189).

HERBARIUM RECORDS: 14 Aug 1839—Duncan's Plains, *J. Paddock Collection* (ILL); 27 Jul 1891—near Cols., *E. V. Wilcox*; 11 Aug 1895—Cols., *W. Kellerman*; 20 Aug 1899—Scioto R., *Selby*; 4 Aug 1974—old field along Olentangy R. near intersection of Rt. 315 & W. North Broadway, *Roberts 4412*; 4 Aug 1982—Blendon Woods, *Owens*; 11 Aug 1989—along Scioto R., *Trabue-Murphy Landing*, just S of Fishinger Rd. bridge, Perry Twp., *Lowden 4283*.

NOTE: Riddell's *Gaura mollis* (= *G. parviflora* Dougl.) was most likely misapplied.

5. CIRCAEA L. Enchanter's-nightshade

Leaves opposite, dentate, ovate or oblong, base rounded, truncate, or subcordate; flowers small, in terminal and lateral racemes, epigynous hypanthium short; sepals 2, reflexed; petals 2, white, notched or 2-lobed; stamens and carpels 2; style elongate; fruit bristly, obovoid, indehiscent.

a Fruit longitudinally-ridged, 2-loculed, 3.5-6 mm wide, incl. hairs; stigma shallowly 2-lobed; rhizome slender.

1. *C. lutetiana*

a' Fruit not ridged, 1-loculed, 1-3 mm thick, incl. hairs, 1-seeded; stigma 2-cleft; rhizome thickened. 2. *C. alpina*

1. *Circaea lutetiana* L. var. *canadensis* L.

Common Enchanter's Night-shade

Herbs, stems erect, firm; sepals, petals & stamens 2; petals white, 2-lobed; floral disc present; fruits with many stout hooked bristles, more than 4.0 mm wide (incl. bristles). Syn.: *C. quadrisulcata* of authors

REFERENCES: Riddell 1834:117 (dense & shady woods); Sullivant 1840:9; Craig 1890:80 (found with *Circaea alpina* but is not so common; it grows in damp places near the river); Selby & Craig 1890:10; Cooperrider 1995:191 (illus. p. 192).

HERBARIUM RECORDS: 27 Jun 1890—Cols., *E. V. Wilcox*; 27 Jun 1890—University woods, Cols., *Oh. Agr. Exp. Station*; 30 Jun 1890—near Cols., *E. Green*; 20 Jul 1890—Glovers Woods, near Scioto R., *Selby*; 20 Jul 1890—Scioto R., *Selby*; 24 Jul 1890—Cols., *Hine*; 4 Jul 1972—Alton-Darby Creek Rd. & Cole Rd., woodlot, *D. Keil 9332*; 5 Jul 1982—Blendon Woods, common along woodland trails, *Owens*; 9 Jul 1982—Scenic Nature Preserve, Highbanks Metro Park (Franklin & Delaware Cos.), *G. Moore 210*; 29 Jun 1986—Highbanks Metro Park (Delaware Co.), closed forest, Shale Creek Woods, *Witsberger 922* (OWU).

2. *Circaea alpina* L.

Small Enchanter's-nightshade

REFERENCES: Riddell 1834:117 (doubt to correctness in the Natural System; dense & shady woods); Riddell 1835:18 (Worthington, dense & shady woods); Craig 1890:80 (common in the E part of the woods near the fence, 9 Jul 1882); Cooperrider 1995:193 (illus. p. 192).

NOTE: No specimens seen from Franklin Co. Kellerman & Werner 1893:225 considered that Craig's #152 *Circaea alpina* "should be referred to *C. lutetiana* ... as is shown by the herbarium specimens an examination of the plants in the locality named." Boufford (1982) recorded Franklin Co.

CORNACEAE, Dogwood Family (incl. Nyssaceae)