

LOBELIA
HEDYOTIS



Big Darby Creek between I-70 & Little Darby Creek, *DeLong*; 18 Sep 1989—Highbanks Metro Park (Delaware Co.), along Olentangy R., 3/4 mi. S of Powell Rd., *Watts 504* (OWU); 10 Sep 1991—E bank of Big Darby Creek, just off Rt. 40, Prairie Twp., *Lowden 4815*.

6. *Lobelia cardinalis* L.

Cardinal-flower

Stem erect, tall; leaves lanceolate to elliptic-lanceolate; flowers more than 3 cm long, showy; corolla zygomorphic, bright red (rarely white). Incl. *L. cardinalis* L. forma *alba* (Eaton) St. John

REFERENCES: Riddell 1834:154 (dense and shady woods, marshes); Sullivant 1840:28; Selby & Craig 1890:12; Cooperrider 1995:579 (illus. p. 577).
HERBARIUM RECORDS: 1840—Cols., *Sullivant*; Aug 1890—Taylor's Woods, *Selby*; 8 Aug 1890—Headley's Woods, Cols., *Selby* (OS, WOOS);
Aug 1896—Georgesville, *W. & Mrs. Kellerman*; 7 Sep 1899—Worthington, *Selby*.

NOTE: The white flowered form is based on Selby's specimen collected at Taylor's Woods.

RUBIACEAE, Madder Family

Herbs and shrubs; leaves entire, opposite or whorled and bases connected by stipules, or whorled without apparent stipules; flowers epigynous, bisporangiate; calyx minute or none or of usually 4 sepals; corolla rotate, funnelform, or salverform, regular, lobes usually 4; stamens as many as corolla lobes, inserted on corolla tube; carpels 2 (or 4), united; locules as many; ovules 1-several in each locule; style 1 or sometimes cleft; stigmas 2 or rarely 1 or 4; fruit separating into 1-seeded indehiscent carpels, or sometimes a berry or a capsule.

a Upright shrubs or small trees; flowers in spherical heads; leaves opposite or in whorls of 3. 3. **CEPHALANTHUS**

a' Herbs, upright to prostrate.

b Prostrate evergreen with small round-ovate petioled opposite leaves; flowers in pairs, ovaries united; stigmas 4; fruit a berry. 2. **MITCHELLA**

b' More or less upright, not evergreen; ovaries single; stigmas 1 or 2.

c Leaves apparently whorled; small cymose flowers terminating the branches or axillary; sepals minute or absent; corolla rotate, tube very short; ovary inferior. 4. **GALIUM**

c' Leaves opposite; flowers terminal and solitary or in terminal cymose clusters; sepals lance-linear to ovate; corolla salverform or funnelform; ovary half inferior. 1. **HEDYOTIS**

1. **HEDYOTIS** L.

Small herbs, usually tufted; leaves opposite, bases connected by stipules; flowers small, partly epigynous, often dimorphic or trimorphic as to relative length of stamens and style, solitary or in terminal cymes; sepals 4, erect; corolla 4-lobed, blue, purple, or white; capsule 2-loculed, dehiscent across the top, few- to several-seeded. (*Houstonia* L.)

a Peduncles 1-flowered, filiform; corolla salverform, pale blue or violet-blue with yellow eye; fruit wider than long; stem-leaves few. 4. *H. caerulea*

a' Flowers in cymes; corolla funnelform.

b Leaves 3-5 nerved, rounded to subcordate at base. 2. *H. purpurea*

b' Leaves 1-nerved.

c Basal leaves many at anthesis, ciliate; stipules rounded at summit, not fringed or toothed. 1. *H. canadensis*

c' Basal leaves not present at anthesis or not ciliate; stipules often fringed or toothed. 3. *H. longifolia*

1. *Hedyotis canadensis* (Willd.) Fosberg

Canadian Bluets

Stems glabrous or sometimes with a few diverging hairs; basal leaves present at anthesis, ciliate; cauline leaves linear to lanceolate; blades less than 1 cm wide, with one main vein; flower and fruiting pedicels longer than 2 mm; corolla whitish to purple. Syn.: *Houstonia canadensis* Willd.

REFERENCES: Riddell 1834:156 (*Houstonia ciliolata*, rocky situations); Riddell 1835:68 (*Houstonia ciliolata* Torr., Worthington, rocky situations & slaty ravines); Selby & Craig 1890:10 (*Houstonia purpurea* L. var. *ciliolata* A.Gray); Cooperrider 1995:535 (illus. p. 534).

HERBARIUM RECORDS: May 1889—E of Alum Creek, *Gould*; 17 May 1890—Central College, Cols., *Selby* (OS, WOOS); 9 May 1891—Big Darby, *Selby*; Jul 1891—Cols., *Selby*; 7 May 1892—Georgesville, *Detmers*; 7 May 1892—Franklin Co., *Werner*; 7 May 1892—Georgesville, *Werner*; 14 May 1892—Georgesville, *E. M. Wilcox*; 17 May 1892—Georgesville, *E. M. Wilcox*; 4 May 1895—Georgesville, *Osburn*; 22 May 1899—Big Darby, *Selby*; 15 May 1901—Worthington, *Mead*; 15 May 1920—Flint Creek, N of Cols., open woods and fields, *Braun*; 26 May 1924—Westerville, *M. Long*; 18 Aug 1929—Big Darby, S of National Rd., *Gordon & Chapman*; 10 May 1970—Camp Johnson, 8 mi. N of OSU on N. High, *Boone 134*; 2 Jun 1980—Central College Rd., N side 1/2 mi. E of Sunbury Rd., Blendon Twp., NE 1/4 NE Cols. Quad., *W. Carr 2869* (KE); 24 Jun 1982—Highbanks Metro Park (Franklin & Delaware Cos.), blufftop, *G. Moore 286*; 18 May 1983—Battelle-Darby, *Owens*; 23 May 1986—Highbanks Metro Park

(Delaware Co.), dry bluffs, *Watts 309* (OWU); 9 May 1988—Highbanks Metro Park (Delaware Co.), bluffs at overlook observation deck, *Watts 423*; 23 May 1990—Central College Rd., ½ mi. E of Big Walnut Creek, in front of Hoover Dam Park, hilly woody area, Blendon Twp., *Lowden 4336*; 23 May 1990—entrance way to Hoover Dam Park off Cabbage Rd., Blendon Twp., *Lowden 4341*; 1 Aug 1990—E side of Hoover Dam Park, woods just W of Cabbage Rd. & S of Walnut St., Blendon Twp., *Lowden 4491*; 14 May 1992—Cedar Ridge, Battelle-Darby Creek Metro Park, Pleasant Twp., *Lowden 4940*.

2. †*Hedyotis purpurea* (L.) Torr. & A. Gray Large Summer Bluets

Stems with few to many diverging hairs; leaves lanceolate to ovate, blades 0.7-1.0 cm wide, with 3-5 main veins, rounded at base; flower and fruiting pedicels longer than 2 mm; corolla purplish-white. Syn.: †*Houstonia purpurea* L.

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

NOTE: *Sullivant 1840:29* (*Hedyotis purpurea* Hook.) and Selby & Craig 1890:10 reported on plants collected in adjacent counties. Not mapped for Franklin Co. by Cooperrider 1995:533 (illus. p. 534).

3. *Hedyotis longifolia* (Gaertn.) Hook. Long-leaved Summer Bluets

Stems spiculate; basal leaves absent at anthesis; cauline leaves linear to lanceolate; blades less than 1 cm wide, with one main vein; flower and fruiting pedicels longer than 2 mm; corolla purplish-white. Syn.: *Houstonia longifolia* Gaertn. var. *compacta* Terrell, *Houstonia purpurea* var. *longifolia* (Gaertn.) A. Gray

REFERENCES: Riddell 1834:156 (rocky situations); Cooperrider 1995:533 (illus. p. 534).

HERBARIUM RECORDS: 1840—Cols., *Sullivant*; 14 May 1892—Georgesville, *E. M. Wilcox*.

NOTE: *Sullivant 1840:29* (*Hedyotis longifolia* Hook.) and Selby & Craig 1890:10 (*Houstonia purpurea* L. var. *longifolia* A. Gray) reported on plants collected in adjacent counties.

4. *Hedyotis caerulea* (L.) Hook. Bluets

Stems in clusters; leaves mostly in basal tufts, spatulate, obovate or oblanceolate, upper ones linear and opposite; flowers solitary on long peduncles; corolla pale blue to purple with yellow center. Syn.: *Houstonia caerulea* L.

REFERENCES: Riddell 1834:156 (rocky situations); Cooperrider 1995:533 (illus. p. 534).

HERBARIUM RECORDS: 189—Cols., *Selby*; May 1890—Central College, near Cols., *Selby* (OS, WOOS); 14 May 1892—Georgesville, *E. M. Wilcox*; 17 May 1892—Georgesville, *E. M. Wilcox*; 3 May 1911—Westerville, grassy fields, *Hanawalt*; 5 May 1922—3 mi. E of Westerville, Big Walnut bluffs, *Camp*; 13 May 1923—Westerville, dry open soil, *Steele*; 25 Apr 1970—SE area of Hoover Reservoir, frequent on dry open hillsides, *Boone 39*; 30 Apr 1990—Highbanks Metro Park (Delaware Co.), SE of ranger station, bare ground, *Watts 513* (OS, OWU); 23 May 1990—Central College Rd., ½ mi. E of Big Walnut Creek, hilly woody area, in front of Hoover Dam Park, Blendon Twp., *Lowden 4337*; 23 May 1990—along entrance way to Hoover Dam Park, off Cabbage Rd., Blendon Twp., *Lowden 4340*; 18 Apr 1991—woods just W of Cabbage Rd. in Hoover Dam Park, Blendon Twp., *Lowden 4586*.

NOTE: *Sullivant 1840:29* and Selby & Craig 1890:10 reported on plants collected in adjacent counties.

2. MITCHELLA L.

Small evergreen herb with prostrate stem; leaves round-ovate, opposite, short-petioled, entire, stipules minute; flowers usually terminal, fragrant, each peduncle bearing 2 flowers with ovaries united, dimorphic as to relative length of stamens and styles; corolla white or pink, funnellform, lobes pubescent on upper side; each ovary of 4 carpels, stigmas, and locules, 1 style; fruit an 8-seeded scarlet berry.

1. *Mitchella repens* L. Partridge Berry

Herbaceous, trailing; leaves opposite, evergreen, orbicular to somewhat ovate; flowers in pairs at tip of a single peduncle; corolla white, tinged with red; ovaries of pair flowers forming a single red berry.

REFERENCES: Riddell 1834:156 (rocky situations); Selby & Craig 1890:10.

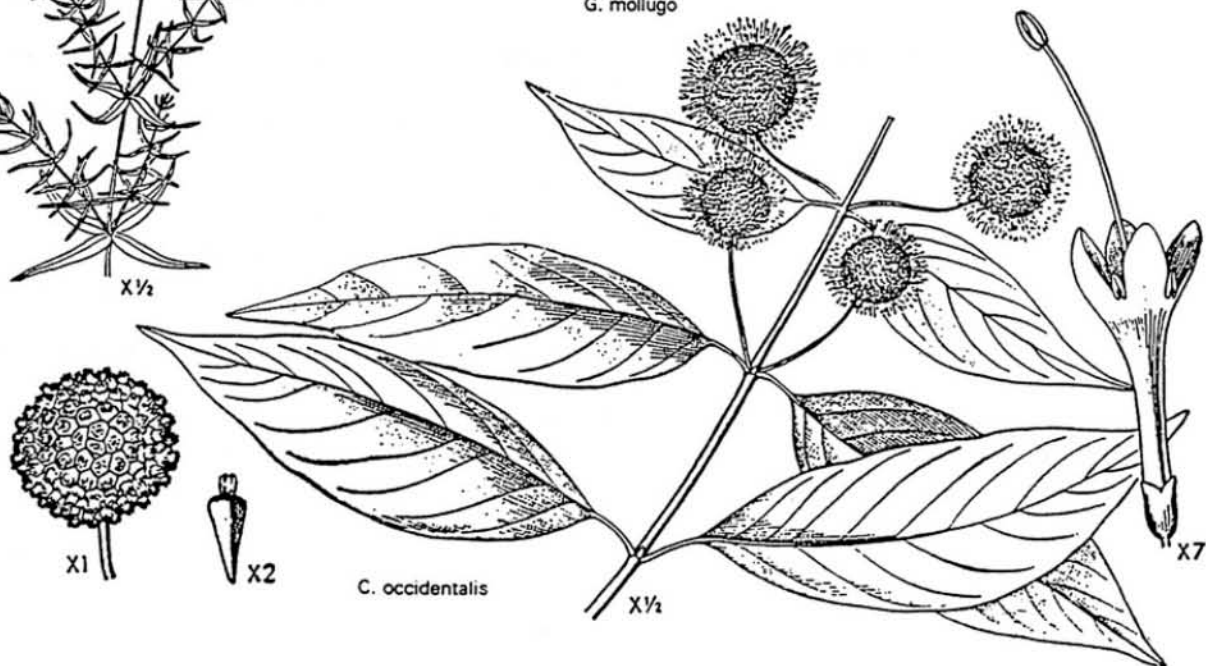
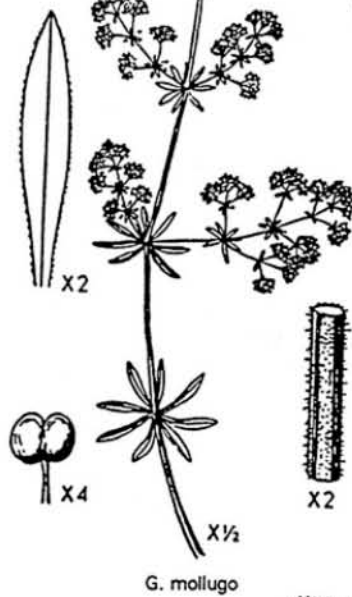
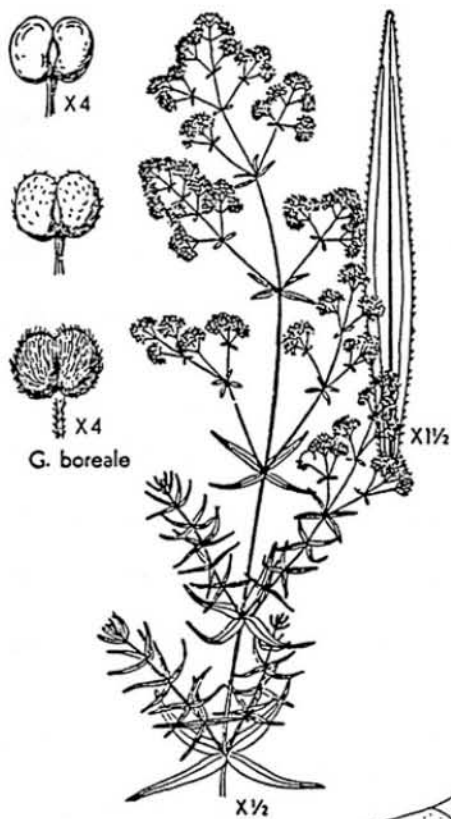
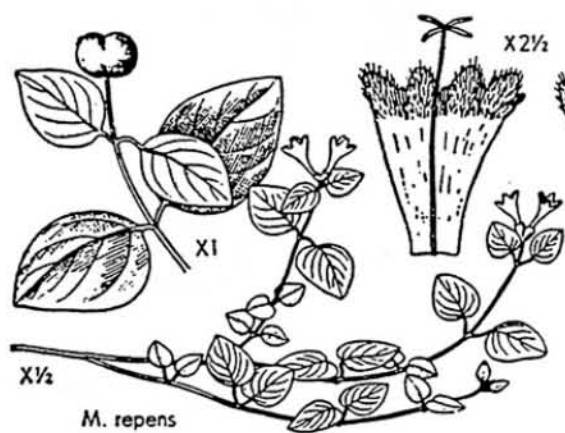
HERBARIUM RECORDS: 30 May [ca. 1920s]—Taylor's Woods, rocks & dry hill tops, *Kahler*; May 1921—hill-land at Rocky Fork, Westerville, dry woods, *J. Wilson*; 10 May 1982—Highbanks Metro Park (Franklin & Delaware Cos.), ravine slope, *G. Moore 287*; 12 Jun 1993—Flint Ravine bluff, Camp Mary Orton, W of Rt. 23, N of Worthington, Sharon Twp., *Lowden 5078*.

NOTE: Not mapped for Franklin Co. by Braun 1961:318 (illus. p. 316) or Cooperrider 1995:531 (illus. p. 530).

3. CEPHALANTHUS L.

Shrub or small tree; leaves opposite or in whorls of 3, petioled, ovate- or lance-oblong, entire, tapering at tip and base, stipules connecting the bases; flowers small, in spherical peduncled clusters terminal or from upper axils; corolla white, funnellform, 4-lobed; style filiform, long-exsert; fruit obconic, angled, splitting into indehiscent carpels.

HEDYOTIS
MITCHELLA
CEPHALANTHUS
GALIUM



1. *Cephalanthus occidentalis* L.

Buttonbush

Woody shrub; leaves opposite or in whorls of 3, petiolate; blades ovate to elliptic; flowers in dense globose pedunculate heads; corolla cream-white; styles long-exserted.

REFERENCES: Riddell 1834:156 (wet prairies); Sullivan 1840:28; Selby & Craig 1890:10; Kellerman & Werner 1893:229 (E margin of lagoon, Aug 1890); Braun 1961:318 (illus. p. 316); Tyrrell 1987a:29; Tyrrell 1987b:15; Cooperrider 1995:531 (illus. p. 527).

HERBARIUM RECORDS: 10 Aug 1882—swamp SW of Cols., *W. Green*; 7 Aug 1890—Rocky Fork R., *Selby*; 11 Sep 1971—W of OSU campus along banks of Olentangy R. near Tower Dorms and Battelle, uncommon, Cols., *Roberts 2051*; 3 Aug 1990—Hoover Dam Park, in cove along E bank of reservoir N of W entrance off Cabbage Rd., Blendon Twp., *Lowden 4501*; 9 Aug 1990—S side of Berger Rd., 1 mi. E of Richardson Rd., Madison Twp., *Lowden 4554*; 10 Jun 1991—Boyer Park at end of Park St., E of Rt. 3, Westerville, Blendon Twp., *Lowden 4680*; 23 Jun 1991—E bank of Scioto R., S of Lane Rd., Perry Twp., *Lowden 4725*.

4. GALIUM L. Bedstraw

Herbs with 4-angled stems; leaves whorled; flowers small, in axillary or terminal small or diffuse cymes, these sometimes in panicles; calyx minute or none; petals 4 or 3, slightly united at base; carpels indehiscent in fruit, subglobose, smooth or bristly.

- a Leaves with 3-5 longitudinal nerves, at least at base (lateral pair may be obscure), in whorls of 4; fruit usually bristly or pubescent.
 - b Corolla white; leaves linear or linear-lanceolate; flowers in compact many-flowered panicle; fruit hairy or glabrous. 1. *G. boreale*
 - b' Corolla greenish-white, yellowish, or purple; leaves oval, elliptic, or lanceolate; inflorescence few-flowered or loosely flowered.
 - c Corolla-lobes acute, usually hairy on lower side; leaves obtuse, elliptic, hairy on nerves beneath. 8. *G. circaezans*
 - c' Corolla-lobes acuminate, glabrous, often purple with age; upper leaves lanceolate, acute. 9. *G. lanceolatum*
- a' Leaves with 1 longitudinal nerve, in whorls usually of 5-8, but sometimes of 4; corolla white; fruit smooth or bristly; plants often leaning on other plants.
 - d Fruit bristly; leaves with cuspidate tips.
 - e Stem retrorsely hispid on angles; leaves linear-oblongate, in whorls of 6-8, marginal cilia reflexed or divergent; annual. 11. *G. aparine*
 - e' Stem glabrous or sparingly hispid; leaves elliptic, in whorls of 6 on main stem, marginal cilia ascending; perennial; fragrant in drying. 10. *G. triflorum*
 - d' Fruit smooth or granular, not bristly.
 - f Leaves with acute or cuspidate tips, in whorls of 6 or more on main stem; corolla mostly 4-lobed.
 - g Leaf- and stem-margins and lower surface of midveins retrorse-scabrous; leaves narrowly oblanceolate; flowers in short cymes. 3. *G. asprellum*
 - g' Leaf-margins, if scabrous, not retrorse-scabrous; stem smooth, pubescent, or sparsely retrorse-scabrous; panicle diffuse.
 - h Leaves mostly in whorls of 8 on main stem, of 6 on branches; stem glabrous to finely pubescent; roadsides and fields. 2. *G. mollugo*
 - h' Leaves in whorls of 6 on main stem, of 4 on branches; stem minutely retrorsely scabrous; plants shining; woods. 4. *G. concinnum*
 - f' Leaves with blunt tips; corolla 3- or 4-lobed.
 - i Corolla lobes mostly 3, obtuse; young internodes of stem retrorsely scabrous, stems much branched and matted; leaves usually scabrous on margins and midvein beneath.
 - j Leaves of main axis in whorls of 4-6, oblanceolate or narrowly elliptic; peduncles 1-, 2-, or 3-flowered (often 3-), peduncles and pedicels smooth and straight. 7. *G. tinctorium*
 - j' Leaves of main axis in whorls of 4, linear or linear-spatulate; peduncles mostly 1-flowered (or 3-), peduncles and pedicels slender, arcuate, and often scabrous. 6. *G. trifidum*
 - i' Corolla lobes mostly 4, acute; leaves of main axis in whorls of 4 or 5 (mostly 4); stem mostly glabrous, nodes pubescent; leaves elliptic-oblong or lanceolate, margin ciliate with fine spreading hairs; fruit about 3 mm wide. 5. *G. obtusum*

1. *Galium boreale* L.

Northern Bedstraw

REFERENCES: Sullivant 1840:29; Selby & Craig 1890:10.

NOTE: No specimens seen from Franklin Co. Not mapped for Franklin Co. by Cooperrider 1995:522 (illus. p. 523).

2. **Galium mollugo* L.
Naturalized (Eurasian)

White Bedstraw

Leaves acute, in whorls of 8 on main stem, of 6 on branches; panicles diffuse.

REFERENCE: Cooperrider 1995:522 (illus. p. 523).

HERBARIUM RECORDS: 11 Jun 1964—Rt. 3 roadside, 1½ mi. N of Rt. 161, Blendon Twp., *E. Herrick* (KE, OS); 23 Aug 1982—Blendon Woods, *Owens*.

3. *Galium asprellum* Michx.

Rough Bedstraw

REFERENCES: Riddell 1834:156 (wet prairies; & *Galium micranthum*, open woods); Sullivant 1840:29; Craig 1890:82 (common in woods, 9 Aug 1882, 12 Jun 1887); Selby & Craig 1890:10.

NOTE: No specimens seen from Franklin Co. Maybe there has been some confusion in the earlier literature of this species with *Galium concinnum* (Lapham's specimen of this species was originally labeled *G. asprellum*). Not mapped for Franklin Co. by Cooperrider 1995:528 (illus. p. 527).

4. *Galium concinnum* Torr. & A.Gray

Shining Bedstraw

Stems reclining to erect, minutely retrorsely scabrous on angles, if not then glabrous; leaves shiny, in whorls of 6 along main stem; blades linear to elliptic, deflexed at maturity, tips cuspidate or mucronate; flowers white, many 4-lobed; fruits glabrous.

REFERENCES: Craig 1890:82 (sparingly in the woods and on the island); Selby & Craig 1890:10; Cooperrider 1995:526 (illus. p. 527).

HERBARIUM RECORDS: [ca. 1834]—Cols., *Lapham* (CINC); 6 Jul 1883—N Cols., *Devol*; 8 Jul 1891—Franklin Co., *Selby* (OS, WOOS); Jun 1892—Cols., *Werner* (CLM); 27 Jun 1892—Wyandotte Grove, *Selby*; 8 Jul 1892—Cols., *W. Kellerman*; 30 May 1896—Cols., *McCall*; 30 May 1896—Reservoir Park, *M. Wright*; 4 Jul 1972—Alton-Darby Creek Rd. & Cole Rd., edge of woods, *D. Keil 9338*; 3 Jun 1982—Blendon Woods, *Owens*; 8 Jun 1986—Highbanks Metro Park (Delaware Co.), closed forest, *Witsberger 918* (OWU); 21 Jun 1987—Highbanks Metro Park (Delaware Co.), woods, *Witsberger 949*; 10 Jul 1989—Highbanks Metro Park (Delaware Co.), blufftop woods directly N of Franklin/Delaware Co. line, *Watts 483* (OS, OWU); 10 Jun 1990—along both sides of McOwen Rd., where McOwen Rd. meets Dixon Rd. at the Franklin/Licking Co. Line, woody swampy area, Jefferson Twp., *Lowden 4381*; 2 Jun 1991—Hoover Dam Park, W of Cabbage Rd., Blendon Twp., *Lowden 4648*; 25 Jul 1992—Slate Run Wood Ct., off Henderson Rd., ½ mi. E of Sawmill Rd., Perry Twp., *Lowden 5007*.

NOTE: See note under *Galium asprellum*.

5. *Galium obtusum* Bigelow var. *obtusum*

Stiff Marsh Bedstraw

Stems erect to reclining, glabrous; nodes pubescent; leaves spreading to ascending, in whorls of 4 or 5, mostly 4; blades linear to lanceolate or oblanceolate, margins finally toothed, apex rounded; corolla purplish, 4-lobed; fruits glabrous.

REFERENCES: Riddell 1834:156 (marshes); Sullivant 1840:29; Cooperrider 1995:526 (illus. p. 525).

HERBARIUM RECORDS: 20 Apr 1890—near Cols., *Selby* (WOOS); 20 Jun 1924—Franklin Co., along RR, *R. Crane* (OWU); 4 Jun 1931—1 mi. SW of Westerville, *Hicks*; 10 Jun 1990—both sides of McOwen Rd., where McOwen Rd. meets Dixon Rd. at the Franklin/Licking Co. Line, woody swampy area, Jefferson Twp., *Lowden 4376*.

6. *Galium trifidum* L.

Small Bedstraw

Peduncles and pedicels scabrous and arched.

REFERENCES: Selby & Craig 1890:10 (#324 & 325); Kellerman & Werner 1893:229 (hillside S of Botanical Bldg., 4 Aug 1890).

HERBARIUM RECORD: 5 Sep 1891—Cols., *Werner* (CLM).

NOTE: Not mapped for Franklin Co. by Cooperrider 1995:524 (illus. p. 525).

7. *Galium tinctorium* L.

Wild Madder

Stems erect to reclining, scabrous; leaves in whorls of 4-6; blades linear to oblanceolate, margins finely toothed, apex rounded; corolla white, 3-lobed; fruits roughened or glabrous, without hairs or bristles, usually borne in groups of 3 at the tip of a straight peduncle.

REFERENCES: Riddell 1834:156 (dense and shady woods); Sullivant 1840:29; Cooperrider 1995:524 (illus. p. 525).

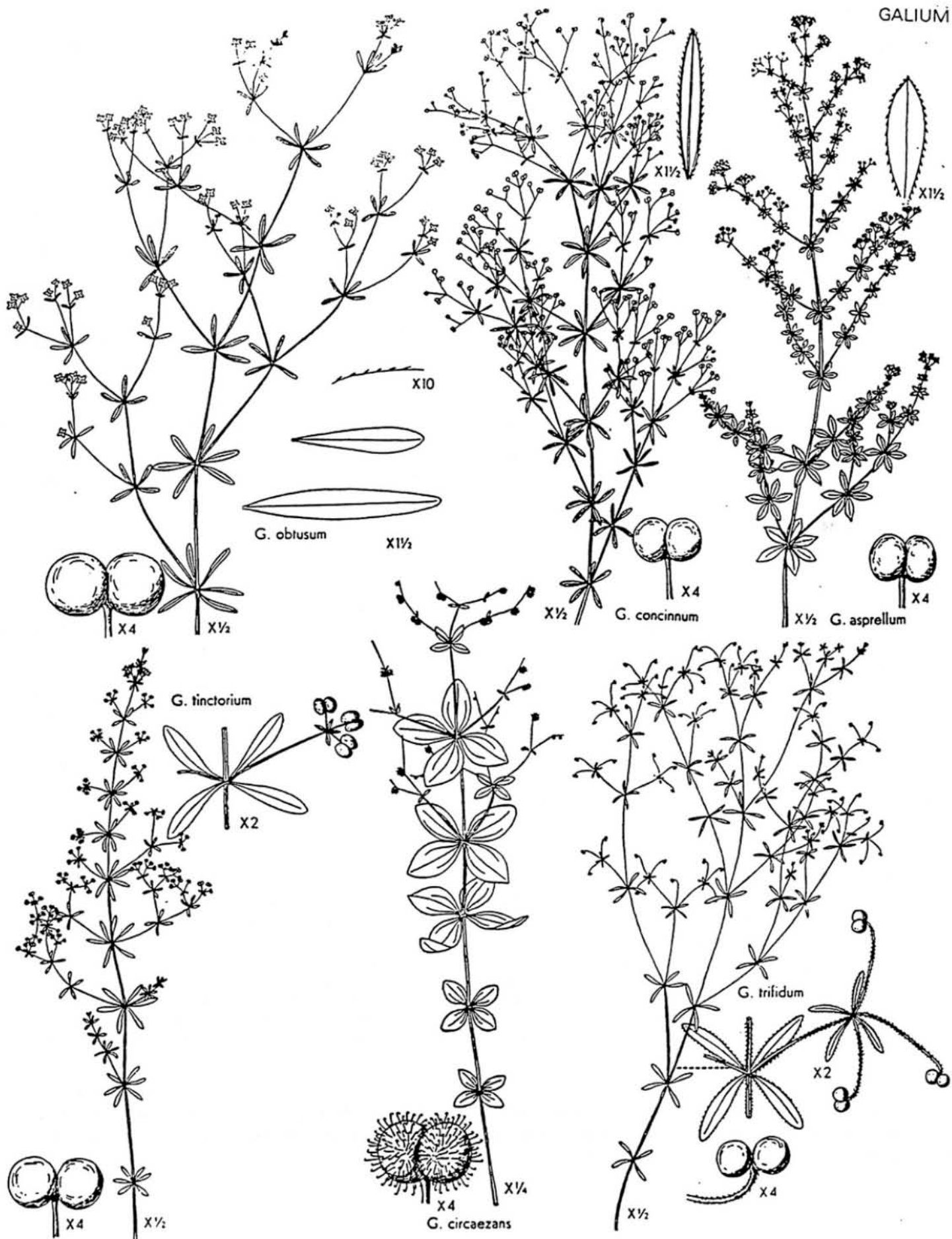
HERBARIUM RECORDS: 6 Aug 1897—Hamilton Twp., *W. Kellerman*; 7 Sep 1930—bog at Baumgartner's Pond, Jackson Twp., *Gordon & Chapman*; 6 Nov 1984—Gahanna Woods State Nature Preserve, swamp in SW corner of preserve (V), *Tyrrell*; 16 Jul 1989—Highbanks Metro Park (Delaware Co.), pond bank-oldfield, *Morawetz 98* (OS, OWU); 7 Jun 1991—Boyer Park, at end of Park St., E of Rt. 3, Westerville, Blendon Twp., *Lowden 4673*; 30 Sep 1991—N side of Rodebaugh Rd., 3/4 mi. E of Reynoldsburg, New Albany Rd., open areas of small wetland, sect. 6, Truro Twp., Reynoldsburg Quad., *McCormac 4408*.

8. *Galium circaezans* Michx.

Wild Liquorice

Stems erect, glabrous or pubescent; leaves in whorls of 4, pubescent; blades ovate-lanceolate to elliptic, having 3 main visible veins, the widest near the middle, apex acute to obtuse; corolla greenish-white; fruits covered with bristles, sessile or on pedicels to 1.5 mm long.

GALIUM



REFERENCES: Riddell 1834:156 (dense and shady woods); Sullivant 1840:29; Craig 1890:82 (rather common in the woods); Selby & Craig 1890:10; Cooperrider 1995:520 (illus. p. 521).

HERBARIUM RECORDS: 1834 & 1839—Worthington, *J. Paddock Collection* (ILL); Summer 1888—OSU woods, Cols., *Craig*; 1 Jul 1891—Georgesville, *Werner* (CLM); 8 Jul 1891—Franklin Co., *Selby*; 27 Jun 1892—Scioto R., *Selby*; 28 Jun 1892—Cols., *Bogue*; Jul 1892—Georgesville, *Werner* (CLM); 7 Sep 1899—Worthington, *Selby*; 11 Jun 1964—S side of Rt. 161 at E side of Alum Creek, woods, Blendon Twp., *E. Herrick* (KE, OS); 28 May 1982—Blendon Woods, *Owens*; 8 Jun 1986—Highbanks Metro Park (Delaware Co.), closed forest, *Witsberger*; 29 May 1991—Hoover Dam Park, W of Cubbage Rd., Blendon Twp., *Lowden 4639*.

9. *Galium lanceolatum* Torr.

Lance-leaved Bedstraw

Similar to *Galium circaezans* except for leaves lanceolate, widest at base, apex acute to acuminate; corolla purple.

REFERENCE: Cooperrider 1995:520 (illus. p. 523).

HERBARIUM RECORD: 1834—Worthington, *J. Paddock Collection* (ILL).

10. *Galium triflorum* Michx.

Fragrant Bedstraw, Sweet-scented Bedstraw

Stems erect to reclining, with few retrorse bristles or glabrous; leaves in whorls of 6, elliptic or oblanceolate, tips cuspidate, margins with bristles ascending; corolla white, 4-lobed; fruits covered with bristles.

REFERENCES: Riddell 1834:156 (slaty ravines); Sullivant 1840:29; Craig 1890:82 (occasionally found in the woods, 8 Jun 1884); Selby & Craig 1890:10; Cooperrider 1995:519 (illus. p. 521).

HERBARIUM RECORDS: 1892—Cols., *E. M. Wilcox*; 7 Sep 1899—Worthington, *Selby*; 14 Dec 1947—N Clintonville, swamp forest, *Beatley*.

11. *Galium aparine* L.

Goose-grass, Cleavers

Stems reclining, with retrorse bristles; leaves in whorls of 6-8, linear to oblanceolate, having one visible main vein at base, margins with diverging or retrorse bristles; corolla white; fruits covered with bristles.

REFERENCES: Riddell 1834:156 (open woods); Sullivant 1840:29; Craig 1890:82 (abundant in damp shady places, in the woods, S of the culvert, and near the river, 6 May 1882, 16 May 1883, 23 May 1884, 21 May 1885, 5 May 1887, 2 May 1888, 28 Apr 1889); Selby & Craig 1890:10; Cooperrider 1995:519 (illus. p. 521).

HERBARIUM RECORDS: 23 Apr 1890—near Cols., *Selby*; 19 May 1896—W Cols., *M. Wright*; 8 May [ca. 1920s]—Rd. to Alum Creek, *McCoy*; 12 May [ca. 1920s]—Westerville, *White*; 11 Jun 1964—S side of Rt. 161 at E side of Alum Creek, woods, *E. Herrick*; 19 May 1969—Park of Roses, Cols., *Wiley 10*; 6 May 1982—Highbanks Metro Park (Franklin & Delaware Cos.), ravine, *G. Moore 285*; 8 May 1982—Blendon Woods, *Owens*; 6 May 1986—Highbanks Metro Park (Delaware Co.), woods, *Watts 292* (OWU); 10 May 1986—Highbanks Metro Park (Delaware Co.), open thicket, *Witsberger 903* (OS, OWU); 15 May 1986—1 blk. N of Worthington High School Environmental Bldg., along bike path off Rt. 161, *Benkowski 26*; 22 May 1986—OSU woodlot, 500 yards W of intersection Kenny Rd. & Ackerman Rd., *Hollander 045*; 7 May 1988—lot between 5921-5945 N. High St., Worthington, 1 mi. S of Rt. 161 & Rt. 23 intersection, *M. Hoffman 56*; 25 May 1988—E bank of Olentangy R., near Dodridge St., Cols., *Kelly 34*; 8 May 1989—Overbrook Drive Ravine, E of N. High St., & S of Cook Rd., Clinton Twp., Cols., *Lowden 4004*; 19 May 1990—N side of Morse Rd. at Franklin/Licking Co. Line, Plain Twp., *Lowden 4325*; 22 May 1990—Roberts Rd., W of Alton & Darby Creek Rd., 1 mi. E of Walker Rd., field, Brown Twp., *Lowden 4331*; 10 Jun 1990—along both sides of McOwen Rd., where McOwen Rd. meets Dixon Rd. at the Franklin/Licking Co. Line, Jefferson Twp., *Lowden 4380*.

CAPRIFOLIACEAE, Honeysuckle Family

Shrubs and woody vines, rarely herbs; leaves opposite, usually simple, with or without stipules; flowers epigynous, usually perfect, in small clusters or in terminal cymes; sepals, petals, and stamens 5 or 4; calyx sometimes minute; petals united; corolla regular or zygomorphic, sometimes 2-lipped; stamens inserted on corolla; carpels 3-5, united; locules 1-5; style 1, sometimes very short; stigmas separate or united; fruit a berry, drupe, or capsule.

Ornamentals not included in the key below are *Kolkwitzia amabilis* Graebn. (Beauty-bush), *Weigelia floribunda* Mey., *Weigelia japonica* Thunb., and *Abelia* × *grandiflora* (André) Rehder (Glossy Abelia). All are Asian shrubs, cultivated on the OSU Campus.

- a Style half as long as corolla or longer; corolla campanulate, tubular, or funnelliform.
- b Sepals linear, separate or almost, not less than 1/3 as long as corolla tube.
 - c Shrubs; blades serrate; sepals 1/3-1/2 as long as corolla tube. **1. DIERVILLA**
 - c' Coarse herbs; blades entire; sepals not shorter than corolla tube. **4. TRIOSTEUM**
- b' Calyx entire or with triangular teeth or lobes, sometimes minute.
 - d Corolla zygomorphic to nearly regular, rarely as short as 8 mm, sometimes tubular, sometimes 2-lipped; calyx minute; flowers in terminal and subterminal clusters subtended by connate-perfoliate leaves, or in pairs on axillary peduncles; shrubs and vines. **2. LONICERA**

GALIUM
DIERVILLA
LONICERA

