

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*.

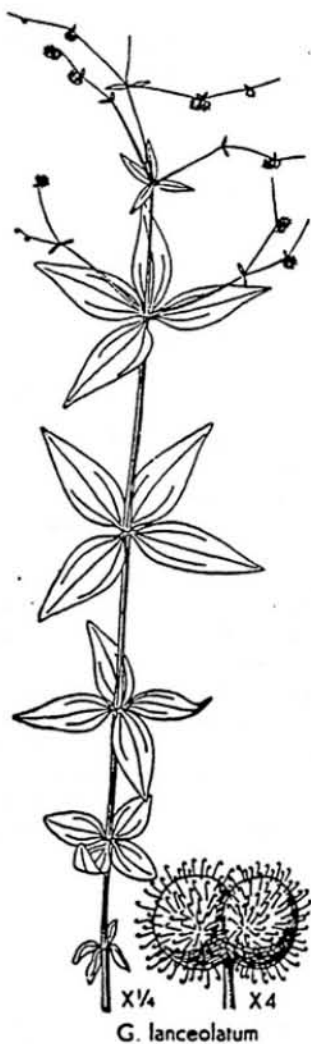
## CAPRIFOLIACEAE, Honeysuckle Family

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 funnelform.
  - 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



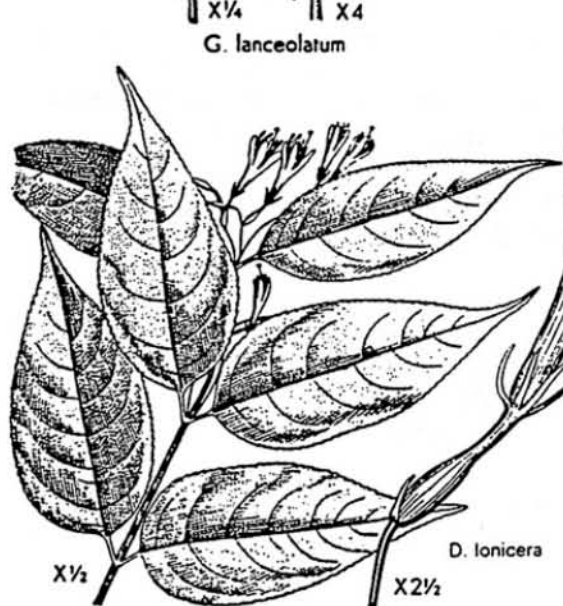
*G. lanceolatum*



*G. triflorum*



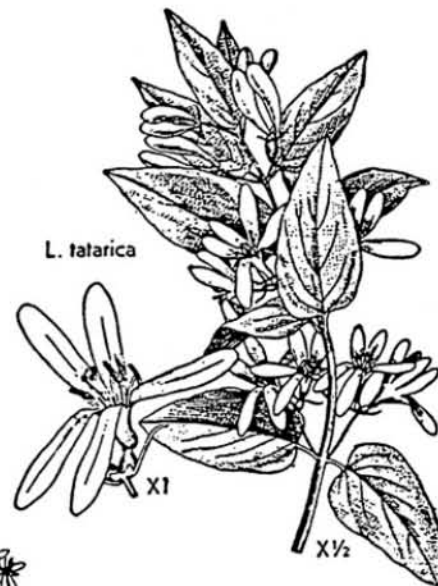
*G. aparine*



*D. lonicera*



*L. x bella*



*L. tatarica*

- d' Corolla nearly regular, campanulate to funnelform, 3-8 mm long; flowers in small terminal and axillary clusters; shrubs. **3. SYMPHORICARPOS**
- a' Style very short or none; shrubs; flowers in large terminal cymes; corolla white, rotate or broadly campanulate.
  - e Leaves simple. **5. VIBURNUM**
  - e' Leaves pinnately compound. **6. SAMBUCUS**

### 1. *DIERVILLA* Mill. Bush-honeysuckle

Shrub; blades ovate or lanceolate, acuminate, finely serrate; cymes small, terminal or in upper axils; sepals linear; corolla funnelform, nearly regular, 5-lobed, yellow, reddish in age, base somewhat gibbous; style exserted; ovary 2-loculed; capsule 10-15 mm long, beaked.

#### 1. *Diervilla lonicera* Mill.

Bush Honeysuckle

REFERENCE: Riddell 1834:156 (*Diervilla canadensis*, slaty ravines).

NOTE: No specimens seen from Franklin Co. Not mapped for Franklin Co. by Cooperrider 1995:537 (illus. p. 540).

### 2. *LONICERA* L. Honeysuckle

Woody vines or erect shrubs; blades usually entire; upper 1 or more pairs of leaves connate-perfoliate, subtending flower clusters, or flowers in pairs in axils, ovaries of the pair sometimes basally or completely united; calyx minute; corolla tubular or funnelform, shallowly to deeply 5-lobed, almost regular to 2-lipped; stamens 5; style elongate; ovary 1-3-loculed; fruit a berry.

- a Upper leaves not connate-perfoliate; flowers in 2's on axillary peduncles.
  - b Corolla almost regular, scarcely saccate at base, lobes equaling or longer than tube; erect shrubs.
    - c Corolla red to pink-white, mostly glabrous; sepals entire or ciliate; leaves glabrous or pubescent beneath.
      - d Corolla red, glabrous; sepals entire; blades glabrous beneath. **2. *L. tatarica***
      - d' Corolla pinkish-yellow, glabrous or sparingly pubescent; sepals ciliate; blades pubescent beneath. ***L. × bella* (*L. tatarica* × *morrowii*)**, treated under **2. *L. tatarica***
    - c' Corolla white changing to yellow, pubescent; sepals ciliate; blades pubescent beneath. **3. *L. morrowii***
  - b' Corolla evidently 2-lipped, one lip narrow, the other 4-lobed or -toothed.
    - e Vine; corolla 3-5 cm long, white or yellow, lips and tube about equal; fruit black. **5. *L. japonica***
    - e' Upright shrubs.
      - f Flowers appearing early, before or with leaves; corolla creamy-white, 1.5 cm long; ovaries sometimes partly united; branchlets solid. **1. *L. fragrantissima***
      - f' Flowers appearing after leaves; peduncles shorter than petioles; corolla white, changing to yellowish, tube not gibbous; ovaries separate; branchlets hollow; fruit red. **4. *L. maackii***
- a' Uppermost leaves connate-perfoliate; flowers in terminal and subterminal clusters; vines; fruit red.
  - g Flowers white to pale yellow, greenish-yellow, or red-purple.
    - h Disk of connate blades almost circular, glaucous above and below, apices rounded or emarginate; separate blades obovate to almost circular; corolla pale yellow. **6. *L. prolifera***
    - h' Disk of connate blades usually longer than wide, green above, apices acute; separate blades oblong to elliptic. **7. *L. dioica***, blades pubescent beneath, var. ***glaucescens***
  - g' Flowers golden to orange. **8. *L. flava***

#### 1. \**Lonicera fragrantissima* Lindl. & Paxton

Sweet-breath-of-spring

Adventive (native of China)

Upright shrub, branchlets solid; flowers very fragrant, appearing early, before or with leaves; corolla yellow to creamy-white.

REFERENCE: Cooperrider 1995:537.

HERBARIUM RECORDS: 19 Mar 1991—slope above Hayden Run, Hayden Run Rd., just W of Scioto River bridge, NW Cols. Quad., *Cusick 29336*; 29 Mar 1991—Hayden Falls, along Hayden Run Rd., W of Scioto River, Norwich Twp., *Lowden 4564*; 4 Apr 1991—W side of Olentangy River Rd., just S of entrance to Antrim Park, Sharon Twp., *Lowden 4564A*.

#### 2. \**Lonicera tatarica* L.

Tartarian Honeysuckle

Naturalized (native of Eurasia)

Shrub; young branches with pith hollow between nodes; leaves elliptic to oblong or ovate, glabrous beneath; flowers in axillary pairs on a single peduncle; peduncles glabrous, longer than petioles subtending leaves, bearing linear to lanceolate bracts at apex; petioles, peduncles and bracts glabrous; corolla red.

REFERENCE: Cooperrider 1995:542 (illus. p. 543).

HERBARIUM RECORDS: 14 May 1892—Cols., cult., *Werner*; 19 Apr 1967—OSU Botany Gardens, Cols., *Cooke & Stuckey*; 16 Apr 1986—W. Patterson Ave., close to Tuttle Park entrance, small wooded ravine, *Cooperband 30*; 8 May 1989—Overbrook Drive Ravine, between N. High St. & Cooke Rd., Clinton Twp., *Lowden 4019*.

The following hybrid is recognized:

\**Lonicera* × *bella* Zabel (*L. tatarica* L. × *L. morrowii* A.Gray)

Naturalized (introduced from Asia)

Shrub; young branches with pith hollow between nodes; stems and undersurface of leaves pubescent or glabrous; flowers in pairs borne at the tip of axillary peduncles; peduncles pubescent or glabrous, longer than subtending petioles, bearing linear to lanceolate bracts at apex; corolla nearly actinomorphic, pink to pinkish-yellow, glabrous to sparingly pubescent.

REFERENCE: Cooperrider 1995:541.

HERBARIUM RECORDS: 16 Jul 1968—Griggs Dam overlook, W side of Scioto R., *Moser*; 7 May 1980—W bank of Scioto River, just S of Griggs Dam, limestone bluffs, SW ¼ NW Cols. Quad., *W. Carr 2698* (KE, OS); 26 Apr 1986—OSU woodlot, 500 yards W of intersection Kenny Rd. & Ackerman Rd., Cols., *Hollander 017*; 27 Apr 1986—Highbanks Metro Park (Delaware Co.), open field, *Witsberger 888* (OS, OWU); 12 May 1986—5 blks. N of Worthington High School Environmental Bldg., off Rt. 161, *Benkowski 20*; 3 May 1991—Rt. 33, ½ mi. N of West Case Rd., along E bank of Scioto River, Perry Twp., *Lowden 4603*.

3. \**Lonicera morrowii* A.Gray

Morrow's Honeysuckle

Naturalized (native of Japan)

Shrub; young branches pubescent, with pith hollow between nodes; leaves pubescent beneath; flowers in axillary pairs on a single peduncle; peduncle pubescent, longer than petioles of subtending leaves, with linear to lanceolate bracts at apex; corolla white or yellow, pubescent, actinomorphic; fruits red.

REFERENCE: Cooperrider 1995:541 (illus. p. 543).

HERBARIUM RECORDS: 25 Apr 1977—Hayden Run on Scioto River, N of Cols., abundant on limestone cliffs, *W. Carr 117*; 7 May 1980—W bank of Scioto River, just S of Griggs Dam, limestone cliffs, SW ¼ NW Cols. Quad., *W. Carr 2699* (KE, OS); 27 Apr 1986—Weybridge Rd. approx. 50 M from intersection with Kenny Rd., woodlot, Cols., *Taylor-Lehman 34*; 8 May 1989—Overbrook Drive Ravine, between N. High St. & E. Cooke Rd., Clinton Twp., *Lowden 4026*; 3 May 1991—E bank of Scioto River off Rt. 257 just N of Rt. 161 limestone cliffs, Perry Twp., *Lowden 4596*.

4. \**Lonicera maackii* (Rupr.) Maxim.

Amur Honeysuckle

Naturalized (native of Asia)

Shrub or small tree; young branches pubescent, with pith hollow between the nodes; blades ovate to elliptic, long acuminate at apex; flowers in axillary pairs on a single peduncle; peduncles shorter than the equaling petioles of subtending leaves, usually without linear to lanceolate bracts at apex; corolla bilabiate, white to yellowish; ovaries separate; fruits dark red.

REFERENCE: Cooperrider 1995:542 (illus. p. 543).

HERBARIUM RECORDS: 10 May 1967—NE corner of Bradford Commons, OSU, Cols., *Cooke & Stuckey*; 9 May 1977—Hayden Falls, disturbed woods, S of Hayden Run Rd., W of Scioto R., Dublin, *Cusick 16158* (KE); 25 May 1980—OSU campus, S oval, cultivated, Cols., *H. Liu 2243*; 22 May 1982—OSU, W end of Waterman farm complex off Kenny Rd., Cols., *D. Wilson 52*; 2 Jun 1985—OSU campus, near B&Z Bldg., Cols., *Cho 46*; 12 May 1986—Antrim Park, bike path around Lake, *Yang 142*; 17 May 1986—OSU woodlot ½ mi. N of Lane Rd. & Kenny Rd. intersection, Cols., *R. Burnes 24*; 16 May 1988—corner of Adams Ave. & Oakland Ave., Cols., *Kelly 15*; 18 May 1988—between 5921-5945 N. High St., Worthington, 1 mi. S of Rt. 161 & Rt. 23 intersection, *M. Hoffman 69*; 6 Jun 1989—entrance to Highland Dr. off Olentangy River Rd., Clinton Twp., *Lowden 4104*; 24 May 1990—Dublin, ½ mi. S of Rt. 161 off Dublin Rd., Riverview, overlooking W bank of Scioto R., Washington Twp., *Lowden 4347*.

5. \**Lonicera japonica* Thunb.

Japanese Honeysuckle

Naturalized (native of E Asia)

Woody vine, pubescent, trailing or climbing; flowers in axillary pairs on a single peduncle; corolla white, fragrant, bilabiate, more than 3 cm long; fruits black.

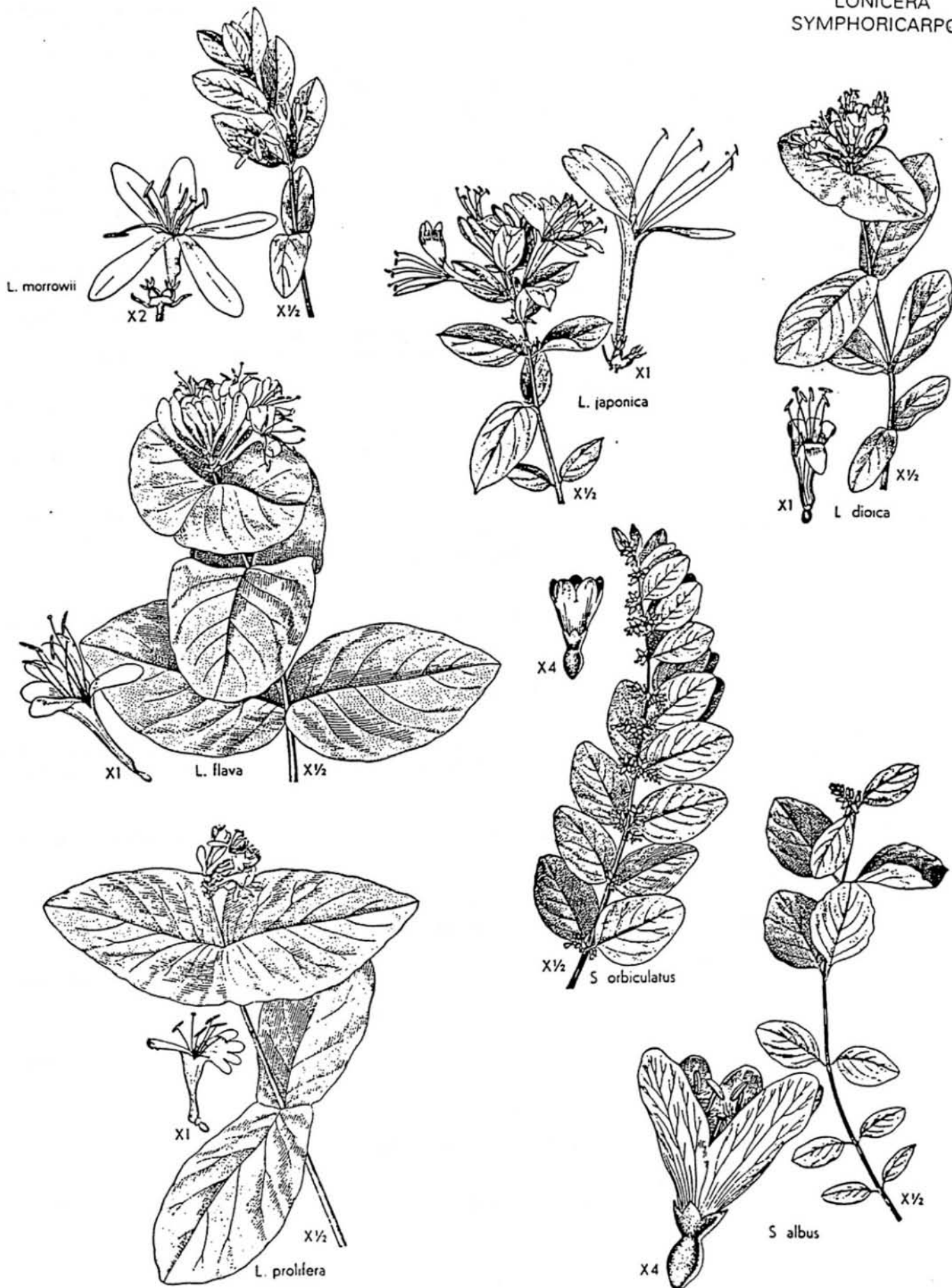
REFERENCE: Cooperrider 1995:544 (illus. p. 543).

HERBARIUM RECORDS: Jun 1888—Cols., *Craig*; 23 Oct 1932—E of Cols., *J. H. Schaffner*, [ca. 1982]—Blendon Woods, *Owens*; 21 May 1986—Park of Roses, Cols., *Blanco*; 16 Aug 1986—Highbanks Metro Park (Delaware Co.), woods, *Kasko*; 8 Jun 1993—SE corner of Lane Ave. & Kenny Ave., just W of RR overpass, Clinton Twp., *Lowden 5073*.

6. †*Lonicera prolifera* (Kirchn.) Rehder

Grape Honeysuckle

LONICERA  
SYMPHORICARPOS



Woody vine, twining or reclining; uppermost pair of leaves fused, forming an entire orbicular or nearly orbicular leaf-disk, glaucous above and below; non fused leaves ovate to suborbicular; corolla pale yellow with purple, bilabiate; stamens and style exerted. Syn.: *L. sullivantii* A.Gray

REFERENCES: Sullivant 1840:29, 57 (*Lonicera* species nov., seems to be intermediate between *Lonicera hirsuta* & *Lonicera flava*, but quite distinct from either ... grows with *Lonicera flava* on the rocky banks of the Scioto, above Cols.); Torrey & Gray 1841:6-7 (*Lonicera flava* Sims var.  $\beta$  Torr. & A.Gray, Type locality, banks of the Scioto [R.] above Cols., Sullivant; *Lonicera parviflora* Lamarck var.  $\beta$  Torr. & A.Gray, Type locality, on limestone cliffs along the Scioto [R.], Sullivant; Selby & Craig 1890:10; Rehder 1903:181 (*Lonicera glaucescens* Rydb. var. *dasygyna* Rehder; Type locality, rocky limestone banks of the Scioto R., Cols.); Braun 1961:321 (illus. p. 320); Roberts & Cooperrider 1982:67; McCance 1984:A-332; ODNR-DNAP 1996; Cooperrider 1995:546 (illus. p. 545).

HERBARIUM RECORDS: 2 Jun 1888—bank of Scioto R., Selby (mixed collection filed under *Lonicera dioica*); 1899—banks of Scioto R., near Cols., W. Kellerman (KE, OS); 22 May 1899—Big Darby, Cols., Selby; 27 May 1899—Cols., W. Kellerman; 18 Jun 1934—Harrisburg, 2 mi. S of Spring Hill Church, J. Foster; 16 Jun 1988—Battelle-Darby Metro Park, 3/4 mi. N of C.R. 11, 1/4 mi. W of C.R. 140, Pleasant Twp., Galloway Quad., McCormac 118.

7. †*Lonicera dioica* L. var. *glaucescens* (Rydb.) Butters

Wild Honeysuckle

Shrubby vine; uppermost pair of leaves fused, forming a green oblong to rhombic leaf-disk; nonfused lower leaves oblong to elliptic, pubescent beneath, sessile to narrowly petiolate at base, 1½-2 times longer than wide; corolla green or yellow to red or purple, bilabiate, tube pubescent; ovary often glandular or hirsute.

REFERENCES: Werner 1893:93 (*Lonicera hirsuta* Eaton, rocky banks of the Scioto, Werner); Jones 1943:98; Braun 1961:321, 323 (illus. p. 320); Cooperrider 1995:546 (illus. p. 545).

HERBARIUM RECORDS: 1840—Cols., Sullivant (mixed collection filed with *Lonicera flava* Sims); [date?—Scioto R., Selby; 2 Jun 1888—bank of Scioto River, Selby; 20 May 1892—Scioto River, near Cols., E. M. Wilcox; 22 May 1892—Scioto River, Selby (OS, WOOS); Jun 1893—Cols., Werner (CLM); 14 Jul 1893—Scioto River, Selby; 12 Aug 1897—Rocky Fork Creek, W. Kellerman; 15 May 1901—Worthington, Mead; 1925—Westerville, Walnut Creek, dry shale bank, Camp; 15 Jun 1931—Red Hills, Chapman; 10 May 1987—Highbanks Metro Park (Franklin Co.), woods on steep shale bank, Witsberger 938.

8. †*Lonicera flava* Sims

Yellow Honeysuckle

Vine; uppermost pairs of leaves fused, forming rhombic or elliptic leaf-disks; lower nonfused leaves ovate to obovate, only slightly longer than wide; corolla golden-yellow to orange.

REFERENCES: Riddell 1834:156 (dry prairies); Sullivant 1840:29.

HERBARIUM RECORD: 1840—Cols., Sullivant.

NOTE: Sullivant's *Lonicera flava* specimen might be closer to *Lonicera prolifera* since leaf-disk is orbicular and corolla not pubescent. Not mapped for Franklin Co. by Cooperrider 1995:546 (illus. p. 545).

### 3. SYMPHORICARPOS DuRoi

Shrubs; leaves oval or circular, entire or somewhat crenate or lobed; flowers small, in small clusters terminal and in upper axils; calyx short, 4-5-toothed; corolla 4-5-lobed, tube gibbous on one side; ovary 4-loculed, 1 ovule in each of only 2 of them; fruit a berry.

a Fruit coral-pink, 4-6 mm wide; corolla 3-4 mm long; style pubescent; leaves usually soft-pubescent beneath; branchlets villous or puberulent. 1. *S. orbiculatus*

a' Fruit white, 6-10 mm wide; corolla 6-8 mm long; style glabrous. 2. *S. albus*,

b Branchlets and lower surface of blades pubescent, var. *albus*

b' Branchlets and lower surface of blades glabrous, var. *laevigatus*

1. *Symphoricarpus orbiculatus* Moench

Coralberry

REFERENCE: Braun 1961:324 (illus. p. 322).

NOTE: No specimens seen from Franklin Co. Not mapped for Franklin Co. by Cooperrider 1995:548 (illus. p. 549).

2. *Symphoricarpus albus* (L.) S.F.Blake

Snowberry

Shrub; flowers pink; berries white.

Two varieties are recognized:

†var. *albus*

Upper internodes minutely puberulent; undersurface of leaves pilose.

REFERENCE: McCance 1984:A-333.

HERBARIUM RECORD: 27 May 1899—Cols., W. Kellerman.

NOTE: Not mapped for Franklin Co. by Cooperrider 1995:547 (illus. p. 549).

\*var. *laevigatus* (Fernald) S.F.Blake

Naturalized (native of Pacific NW)

Upper internodes and undersurface of leaves glabrous.

REFERENCES: Riddell 1834:156 (*Symphoricarpos racemosa*; naturalized, rocky situations); Selby 1891a:111a (*Symphoricarpos racemosus* Michx.; introduced); Cooperrider 1995:547 (illus. p. 549).

HERBARIUM RECORDS: 6 Jun 1882—Central Insane Asylum, Cols., *Devol*; 11 Jul 1891—Canal Winchester, *Selby*; 28 May 1934—Franklin Co., *Weishaupt*.

#### 4. TRIOSTEUM L. Horse-gentian

Herbs; leaves sessile or perfoliate, entire, ovate to oblanceolate; flowers solitary or in clusters of 2-4, axillary, sessile, 2-bracted; sepals linear, persistent, 5; corolla narrowly campanulate, the 5 lobes nearly equal, gibbous on one side; ovary 3-5-loculed, one ovule in each locule; fruit dry.

##### 1. *Triosteum aurantiacum* E.P.Bicknell

Wild Coffee

Erect herbs; stems with most hairs long and glandless intermixed with shorter glandular hairs; leaves opposite, rarely whorled, separate, sometimes only slightly connate-perfoliate, stipulate; blades soft-pubescent beneath; stipules not exceeding calyx lobes; flowers usually 1-2 per axil; calyx lobes with fine, usually even, pubescence on back and margins; corolla puberulent, maroon.

REFERENCES: Riddell 1834:156 (*Triosteum perfoliatum*, dry prairies); Sullivant 1840:29 (*Triosteum perfoliatum* L.); Selby & Craig 1890:10 (*Triosteum perfoliatum* L.); Cooperrider 1995:552 (illus. p. 551).

HERBARIUM RECORDS: [ca. 1834]—Cols., *Lapham* (CINC); 1834—Worthington, *J. Paddock Collection* (ILL); 1840—Cols., *Sullivant*; Jul 1888—Cols., *Craig*; May 1890—Cols., *Selby*; 26 May 1891—Cols., *Werner* (CLM); 21 May 1892—near Cols., *E. M. Wilcox*; 27 May 1892—Franklin Co., *Werner*; 2 May 1987—Battelle-Darby Creek Metro Park, along Big Darby Creek, 3 mi. S of Rt. 40, mesic deciduous forest on upland slopes, *T. Lammers 6091*; 31 May 1992—Battelle Darby Creek Metro Park, RR tracks E of Georgesville, between Big Darby Creek & Big Darby Dr., Pleasant Twp., *Lowden 4970*.

NOTE: I have seen no specimens of *Triosteum perfoliatum* L. from Franklin Co. Specimens labelled *Triosteum perfoliatum* L. from Franklin Co. prove to be *Triosteum aurantiacum*.

#### 5. VIBURNUM L. Arrowwood

Shrubs or small trees; leaves simple, sometimes stipuled; flowers small, in compound umbelliform or corymbiform clusters; sepals 5; corolla rotate or campanulate, deeply 5-lobed, regular, white; stamens exserted; style short or none; stigmas 3; fruit a drupe; in some species outer flowers of cluster have no flower parts except enlarged, often zygomorphic, corollas.

Among the cultivated species found on the OSU Campus are: †*Viburnum alnifolium* Marshall (Hobblebush), *V. burkwoodii* Burkwood, *V. carlesii* Hemsl., *V. dilatatum* Thunb., *V. rhytidophyllum* Hemsl., and *V. rhytidophylloides*.

a Leaf-blades pinnately veined, not lobed.

b Blades coarsely dentate, each vein or vein-branch ending in a tooth.

c Petioles 7 mm long or less; blades pubescent; linear stipules present. 1. *V. rafinesquianum*

c' Petioles more than 7 mm long.

d Blades round-ovate, cordate, pubescent beneath; 3 lowest pairs of lateral veins converging at junction with midvein. 2. *V. molle*

d' Blades broadly ovate, rounded at base or subcordate; 3 lowest pairs of lateral veins not converging. 3. *V. dentatum*

b' Blades serrulate, veins branching and anastomosing before reaching the leaf margin.

e Blades pubescent beneath with fascicled hairs. 8. *V. lantana*

e' Blades glabrous, or the pubescence not of fascicled hairs.

f Blades long-acuminate; petioles, at least those near the inflorescence, wavy-margined. 6. *V. lentago*

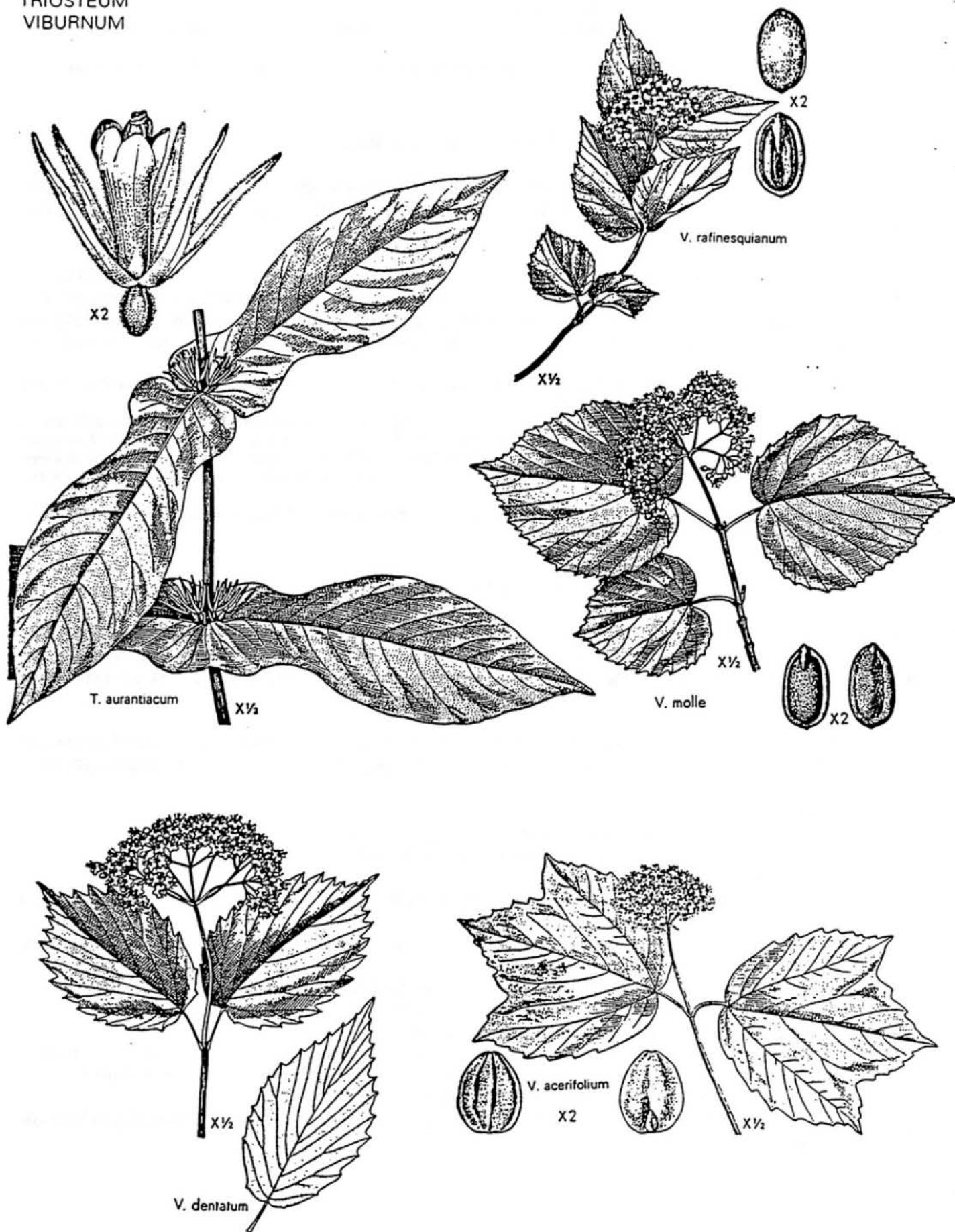
f' Blades acute or obtuse; petioles winged but not or little wavy-margined. 7. *V. prunifolium*

a' Leaf-blades palmately veined and lobed (rarely some unlobed).

g Outer corollas not enlarged; petioles without glands; fruit red, becoming blue-black; blades dotted beneath.

4. *V. acerifolium*

TRIOSTEUM  
VIBURNUM





g' Outer corollas enlarged; petioles with glands; fruit red. 5. *V. opulus*, glands of petiole mostly sessile, tops concave, var. *opulus*

1. *Viburnum rafinesquianum* Schult.

Downy Arrow-wood

REFERENCES: Riddell 1834:156 (*Viburnum pubescens*, dry prairies); Braun 1961:331 (illus. p. 332).

NOTE: No specimens seen from Franklin Co. Not mapped for Franklin Co. by Cooperrider 1995:557 (illus. p. 559).

2. †*Viburnum molle* Michx.

Soft-leaved Arrow-wood

REFERENCE: Selby & Craig 1890:10.

NOTE: No specimens seen from Franklin Co. Not mapped for Franklin Co. by Cooperrider 1995:558 (illus. p. 559).

3. *Viburnum dentatum* L.

Southern Arrow-wood

Shrub; leaf blades pinnately veined, unlobed; blades coarsely dentate, each vein ending in a tooth, 3 lowest pairs of lateral veins not converging at midrib; petioles, at least in the grooves, and undersurface of leaves pubescent, especially along major veins; corolla white; fruit bluish-black, stone with ventral groove.

REFERENCES: Sullivant 1840:29; Selby & Craig 1890:10; Braun 1961:335 (illus. p. 332); Cooperrider 1995:558 (illus. p. 559).

HERBARIUM RECORDS: 1840—Cols., *Sullivant*; Jun 1889—in Worthington Big Woods, near Cols., *Craig*; Jul 1891—Big Walnut, Cols., *Selby*; 2 Jul 1892—Franklin Co., *Bogue*; 18 Jun 1932—Allread Hollow, Red Hills, *Chapman & Gordon*; 26 May 1988—OSU campus, SE corner of Animal Science Bldg., *Gerberick 51*; 1 Aug 1990—E side of Hoover Dam Park, just W of Cabbage Rd. & S of Walnut St., Blendon Twp., *Lowden 4497*; 3 Sep 1992—W side of Cabbage Rd., common in dry openings in brushy field, ca. ½ mi. S of Walnut St., Blendon Twp., New Albany Quad., *McCormac 4898*.

4. *Viburnum acerifolium* L.

Maple-leaved Viburnum, Maple-leaved Arrow-wood

Shrub; leaves palmately veined and lobed, rarely some unlobed; petioles without glands; blades stellate-pubescent and dotted beneath; fruits red becoming blue-black.

REFERENCES: Riddell 1834:156 (dense and shady woods); Sullivant 1840:29; Selby & Craig 1890:10; Braun 1961 (illus. p. 328); Cooperrider 1995:560 (illus. p. 561).

HERBARIUM RECORDS: Jun 1888—N of Cols., *Craig*; Jun 1890—Worthington, *Selby*; Jun 1890—Cols., *Selby*; 1897—Neal's [Neil's] Run, *Ruppersberg*; Sep 1901—Franklin Co., *J. H. Schaffner*; 10 Oct 1902—Cols., *Sanders*; 20 Oct 1906—Glen Mary Park, *Detmers*; 14 Oct 1934—Indian Springs, Cols., *J. H. Schaffner*; 1 Jul 1986—Highbanks Metro Park (Delaware Co.), woods, *Kosko*; 25 May 1987—Highbanks Metro Park (Franklin Co.), near Olentangy River, *Witsberger 945*; 1 Sep 1987—Highbanks Metro Park (Delaware Co.), shale creek woods, *B. Reed*; 1 Aug 1990—E side of Hoover Dam Park, just W of Cabbage Rd., & S of Walnut St., woods, Blendon Twp., *Lowden 4495*.

5. \**Viburnum opulus* L. var. *opulus*

European Cranberry-bush, Guelder-rose

Cultivated Escape (Eurasian)

Shrub; leaves palmately veined and lobed, stipules attenuate; blades with simple hairs on undersurface, lacking dots; petioles with 2 or more concave glands at base of blades; inflorescences with larger sterile outer flower; corolla white; fruits red.

REFERENCE: Cooperrider 1995:560 (illus. p. 561).

HERBARIUM RECORDS: 10 May 1967—OSU, president's yard, cultivated, Cols., *Cooke & Stuckey*; 6 May 1977—OSU, just N of W Campus pond, cultivated, *Hoops 36*; 12 May 1977—OSU West Campus, path leading to woods, *Watson 26*; 1983—Blendon Woods, *Owens*; 16 Aug 1986—Highbanks Metro Park (Delaware Co.), woods, *Kosko*; 23 May 1989—Overbrook Drive Ravine, W of Indianola Ave. & just S of Cooke Rd., Clinton Twp., *Lowden 4071*; 19 Jul 1989—Antrim Park, N Cols., Sharon Twp., *Lowden 4206*.

6. *Viburnum lentago* L.

Nannyberry, Sheepberry

Shrub, upper internodes glabrous or sparingly pubescent; leaves unlobed, margins or petioles winged and wavy; blades variable in shape, usually acuminate, margins finely serrate, veins not reaching leaf margin; corolla white; fruits blue-black.

REFERENCES: Riddell 1834:156 (dry prairies); Selby & Craig 1890:10; Cooperrider 1995:555 (illus. p. 556).

HERBARIUM RECORDS: 1833—Worthington, *J. Paddock Collection (ILL)*; 1840—Cols., *Sullivant*; May 1890—Central College, *Selby*; 24 May 1967—back of OSU, Cols., *Cooke & Stuckey*.

NOTE: Difficult to distinguish this species from *Viburnum prunifolium*.

7. *Viburnum prunifolium* L.

Black-haw

Similar to *Viburnum lentago* except that leaf blades are elliptic-obovate with acute or obtuse apices, margins of petioles slightly winged but not wavy.

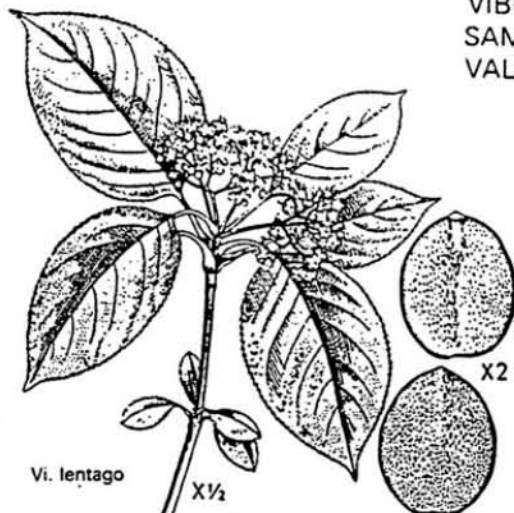
REFERENCES: Riddell 1834:156; Sullivant 1840:29; Selby & Craig 1890:10; Braun 1961:330 (illus. p. 330); Cooperrider 1995:557 (illus. p. 556).

HERBARIUM RECORDS: 1840—Cols., *Sullivant* (mixed collection filed with *Viburnum lentago*); [date?—Cols., *Devol*]; May 1889—Franklin Co., *Selby*; 4 Sep 1890—Central College, *Selby*; May 1892—Cols., *Werner (CLM)*; 7 May 1892—Georgesville, *Werner (CLM)*; 14 May 1892—Blacklick, *Werner (CLM)*; Sep & Oct 1901—Franklin Co., *J. H. Schaffner*; 1983—Blendon Woods, *Owens*; 6 May 1986—Highbanks Metro Park (Delaware Co.), talking rock woods, common, *Watts 291*; 14 May 1988—OSU campus, planted in bed E of Campbell Hall, *Gerberick 24*.

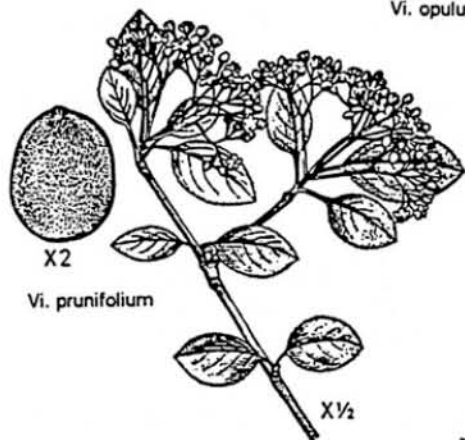
VIBURNUM  
SAMBUCUS  
VALERIANA



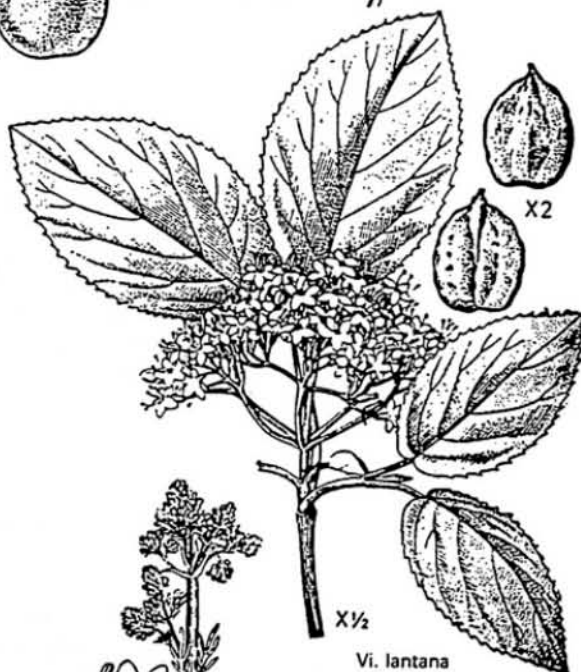
*Vi. opulus*



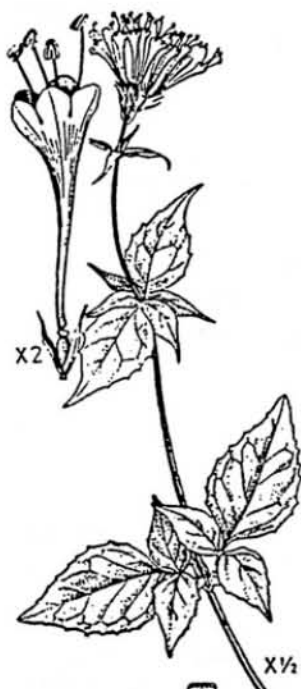
*Vi. lentago*



*Vi. prunifolium*



*Vi. lantana*



*Va. pauciflora*



*Va. officinalis*



*Va. edulis*



*S. canadensis*

NOTE: Sometimes it is difficult to distinguish this species from *Viburnum lentago*.

8. \**Viburnum lantana* L.

Wayfaring-tree

Adventive (native of Eurasia)

Shrub, upper internodes densely stellate-pubescent; leaves oblong-ovate, unlobed; blades rounded to cordate at base, pinnately veined, gray-tomentose stellate-pubescent beneath; margins singly serrate with teeth terminating in stout hyaline tips; corolla white; fruits red, becoming black.

REFERENCE: Cooperrider 1995:554.

HERBARIUM RECORD: 17 Jul 1971—W of Olentangy River Rd., ca. ½ mi. N of Henderson Rd., in *Prunus serotina* woods, Clinton Twp., Roberts 1343.

6. SAMBUCUS L. Elderberry

Shrubs with large pith; leaves pinnately compound, stipules and stipels often present, leaflets serrate; calyx minute or rudimentary; corolla rotate, shallowly cup-shaped, regular, white; ovary 3-5-loculed; style very short; drupe juicy.

1. *Sambucus canadensis* L.

Common Elder, Elderberry

Shrub, pith white; leaves pinnately compound, leaflets 5-11, sessile; inflorescence usually wider than high, with 5 main rays from base; flowers numerous, tiny; corolla white; fruits purple-black at maturity, edible.

REFERENCES: Riddell 1834:156; Sullivant 1840:29; Craig 1890:82 (common along the river and on the hillside S of horticultural hall, 22 Jun 1882, 11 Jun 1883, 10 Jun 1887, 6 Jun 1888, 22 Jun 1889); Selby & Craig 1890:10; Braun 1961:336 (illus. p. 334); Cooperrider 1995:562 (illus. p. 561).  
HERBARIUM RECORDS: 26 Jul 1882—University campus, *W. Green*; 1888—OSU farm, Cols., *Craig*; 1888—Cols., *Craig*; 2 Jul 1892—Cols., *Bogue*; 30 May 1896—Reservoir Park, *M. Wright*; 1 Aug 1911—Westerville, fencerows, *Hanawalt*; Summer 1938—OSU Botanical Garden, *C. Jones*; [ca. 1982]—Blendon Woods, *Owens*; 21 Jul 1986—Highbanks Metro Park (Franklin Co.), *Kosko*; 11 Jun 1987—Tuttle Park, E bank of the Olentangy River, between Lane Ave. & Dodridge St. bridges, margins of woods on floodplain, *T. Lammers 6120*; 5 Aug 1989—along Godown Rd., between Commerce Pl. & Le Anne Marie Circle, Perry Twp., *Lowden 4254*; 23 Jun 1991—E bank of Scioto River, between Lane Rd. & Lane Ave., Perry Twp., *Lowden 4714*.

VALERIANACEAE, Valerian Family

Herbs; leaves opposite; flowers small, clustered, epigynous, bisporangiate or monosporangiate; calyx minute or expanding late and appearing pappuslike on the fruit; corolla tubular or funnellform, not quite regular, 5-lobed; stamens usually 3 (1-5), on corolla tube; carpels 3, united; style 1; stigma 1 or 2-3-branched; ovary 3-loculed, one locule containing 1 ovule, the other 2 empty or failing to develop; fruit indehiscent, dry.

- a Leaves, or some of them, pinnately divided or pinnately compound; fruit 1-loculed, 1-seeded; calyx in fruit a circle of plumose bristles. 1. VALERIANA
- a' Leaves simple, blades entire or somewhat toothed; fruit 3-loculed, only 1 locule containing a seed; calyx minute or absent. 2. VALERIANELLA

1. VALERIANA L. Valerian

Cauline leaves pinnately compound or pinnately divided; flowers densely clustered, sometimes monosporangiate; calyx minute at anthesis; corolla usually gibbous at base, white or pink; calyx pappuslike in fruit, of several plumose bristles.

- a Corolla tube 1 cm long or more, slender; basal leaves cordate-ovate, simple or with 1 pair of leaflets; cauline leaves of 3-7 ovate leaflets. 1. *V. pauciflora*
- a' Corolla tube 5 mm long or less; basal blades entire or, like the cauline, pinnately divided into lanceolate or linear segments.
  - b Both basal and cauline blades pinnately divided into several to many segments that are reticulate-veined. 2. *V. officinalis*
  - b' Basal blades linear-oblongate, entire or with 1 or 2 divisions, nearly parallel-veined, thick; cauline blades with a few pinnate divisions. 3. *V. edulis*