

REFERENCES: Riddell 1834:116 (dense and shady woods); Sullivant 1840:8; Selby & Craig 1890:10; Cooperrider 1995:202 (illus. p. 203).
HERBARIUM RECORDS: 1834—Worthington, *J. Paddock Collection* (ILL); 4 Sep 1890—toward Central College, *Selby*; 5 Sep 1890—Central College, *E. V. Wilcox*; 7 Oct 1905—High Banks, *Fischer*.

2. *Panax trifolium* L.

Dwarf Ground-nut, Dwarf Ginseng

Herbs; leaves palmately compound, usually 3; leaflets 3-5, sessile; flowers in a single umbel, on an extended peduncle; berry yellow.

REFERENCES: Riddell 1834:116 (dense and shady woods); Riddell 1835:7 (Worthington, open woods).

HERBARIUM RECORD: 1833—Worthington, *J. Paddock Collection* (ILL).

NOTE: Not mapped for Franklin Co. by Cooperrider 1995:202 (illus. p. 203).

APIACEAE, Carrot Family

Herbs, often large and coarse; internodes of stem often hollow; leaves alternate, usually compound or decomposed, petioles usually sheathing; flowers small, bisporangiate or rarely monosporangiate, epigynous, in usually compound umbels, rarely in heads; bracts subtending umbel (involucre) and bractlets subtending umbellet (involucel) usually present; calyx of 5 sepals, at most 2-3 mm long, or only a rim or flange, or absent; corolla regular or rarely zygomorphic, of 5 separate usually inflexed petals; stamens 5, on epigynous disk; carpels 2, united; styles 2, often with enlarged base (stylopodium); stigmas 2; ovary 2-loculed, 1 ovule suspended from top of each locule; fruit a schizocarp (of 2 mericarps), each carpel with 5 primary ribs and alternating secondary ones, ribs sometimes corky, winged, or bearing prickles; oil tubes usually present in carpel wall; fruit sometimes flattened, dorsally, if parallel to face along which carpels are joined (commissure), laterally, if contrary to this face. (Umbelliferae, nom. altern.)

- a Leaves all simple, none of them deeply divided.
 - b Leaves linear, parallel veined; flowers in heads. **1. ERYNGIUM**
 - b' Leaves ovate, perfoliate, not parallel veined; flowers in peduncled umbels. **10. BUPLEURUM**
- a' Some or all leaves compound, decomposed, or deeply divided.
 - c Ovary and fruit covered with prickles; umbellets globose, bisporangiate flowers sessile or nearly so, staminate flowers pediceled; leaves palmately compound or palmately divided. **2. SANICULA**
 - c' Ovary and fruit not prickly or umbellets not as above.
 - d Corolla yellow (rarely purple).
 - e Ultimate divisions of leaf-blade filiform or narrowly linear. **8. ANETHUM**
 - e' Ultimate divisions of leaf broader.
 - f Leaflets entire. **11. TAENIDIA**
 - f' Leaflets serrate, crenate, incised, or lobed.
 - g Cauline leaves once pinnately compound; fruit flattened dorsally, lateral ribs winged. **18. PASTINACA**
 - g' Cauline leaves ternately compound or decomposed (rarely simple); basal leaves simple or ternately compound or decomposed.
 - h Central flower of each umbellet sessile; ribs of fruit not winged. **12. ZIZIA**
 - h' Central flower of each umbellet pediceled; some or all ribs of fruit winged. **13. THASPIUM**
 - d' Corolla white, greenish-white, or pink.
 - i Bulblets borne in axils of upper small leaves; lower leaves compound or decomposed, leaflets linear. **16. CICUTA**
 - i' Without bulblets.
 - j Fruit prickly or bristly.
 - k Fruit appressed-bristly, clavate, length more than twice width; umbel few-rayed; umbellet few-flowered. **4. OSMORHIZA**
 - k' Fruit with spreading or hooked prickles.
 - l Involucral bracts pinnately compound, conspicuous; umbel concave in fruit. **7. DAUCUS**
 - l' Involucral bracts small, simple, or none. **6. TORILIS**
 - j' Fruit not prickly or bristly.
 - m Leaves once compound; leaflets entire, serrate, incised or lobed, but not finely dissected (except in submersed plants of *Sium*).

- n Plants coarse and hairy; leaflets often lobed; corolla often zygomorphic; fruit flattened dorsally, lateral ribs winged. 19. **HERACLEUM**
- n' Plants glabrous.
 - o Leaves palmately compound, leaflets sometimes deeply lobed; umbels few-rayed; umbellets few-flowered; fruit about twice as long as wide. 3. **CRYPTOTAENIA**
 - o' Leaves pinnately compound; umbels and umbellets several- to many-flowered; fruits ellipsoid or ovoid.
 - p Leaflets finely serrate; sepals minute; fruit somewhat flattened laterally, ribs corky; submersed leaves, when present, 2-3 times dissected. 15. **SIUM**
 - p' Leaflets entire or somewhat toothed; sepals evident; fruit flattened dorsally, dorsal ribs slender, lateral ones broadly winged. 17. **OXYPOLIS**
- m' Leaves, or some of them, decompound.
 - q Fruit at least 3 times as long as wide; umbels few-flowered, sometimes simple; bractlets conspicuous. 5. **CHAEROPHYLLUM**
 - q' Fruit less than 3 times as long as wide.
 - r Small delicate early-spring plant usually 1-2 dm tall; leaves basal except one subtending the umbel. 21. **ERIGENIA**
 - r' Plants larger, with more leaves.
 - s Leaflets ovate to lanceolate, entire, toothed, or lobed, not pinnatifid.
 - t Leaflets lanceolate, sharply toothed, main lateral veins ending in sinuses; stem purple; fruit about as long as wide, brown, the rounded ribs paler than the spaces between. 16. **CICUTA**
 - t' Leaflets ovate, main veins ending in teeth (or some of them in sinuses); fruit usually longer than wide; lateral ribs broadly winged. 20. **ANGELICA**
 - s' Leaflets pinnatifid or ultimate leaflets linear to filiform.
 - u Plants with dimorphic leaves.
 - v Submersed leaves pinnately dissected, segments linear; emerged leaves (once) pinnately compound, leaflets linear or lanceolate, serrate; leaves of intermediate form often present; fruit oval, 2-3 mm long, ribs prominent and corky. 15. **SIUM**
 - v' Submersed leaflets filiform; emerged leaflets (leaves decompound) ovate, deeply pinnatifid into obtuse segments; fruit ovate-oblong, 4-5 mm long, ribs low and broad. 14. **OENANTHE**
 - u' Without submersed and emerged leaves of different forms; stem purple-spotted; ribs of fruit wavy, pale brown when dry. 9. **CONIUM**

1. **ERYNGIUM** L.

Stem coarse, erect; leaves linear, 1-3 cm wide, parallel-veined, entire or spiny-toothed; flowers in dense heads 1.5-2.5 cm long, each head subtended by bracts, each flower subtended by a bractlet; sepals large; petals white or blue, erect; fruit obovoid, covered with scales.

1. †*Eryngium yuccifolium* Michx.

Rattlesnake-master, Button Snake-root

Flowers in dense heads, petals white or blue; leaves linear, parallel veined, margins spiny. Syn.: *E. aquaticum* L., misapplied

REFERENCES: Riddell 1834:116 (wet prairies); Sullivan 1840:8; Selby & Craig 1890:10; Roberts & Cooperrider 1982:61; Cooperrider 1995:215 (illus. p. 216).

HERBARIUM RECORDS: [date & locality?]-Sullivan; 24 Aug 1937—3 mi. NE of Dublin, Dobbins.

2. **SANICULA** L. Snakeroot, Sanicle.

Stem glabrous; leaves palmately 3-7-divided; bracts leaflike; bractlets small; flowers perfect or staminate, the 2 kinds in the same or in separate umbellets; perfect flowers sessile or short-pedicelated, staminate flowers usually on longer pedicels; sepals relatively large, persistent in fruit; fruit ovoid to globose, with hooked prickles.

- a Styles spreading and recurved, longer than bristles of fruit; petals white or yellow.
- b Petals and anthers greenish-white; sepals of staminate flowers narrow, rigid, about equaling petals, 1 mm long or more. 1. *S. marilandica*
- b' Petals and anthers yellow; sepals of staminate flowers ovate, soft, shorter than petals, 1 mm long or less; fruit stipitate. 2. *S. gregaria*
- a' Styles hidden among and shorter than bristles of fruit; petals white.
- c Sepals of perfect flowers linear-lanceolate, acute, in fruit not exceeding bristles; pedicels of staminate flowers 2-3 mm long; fruit globose, stipitate. 3. *S. canadensis*
- c' Sepals of perfect flowers linear, rigid, incurved, in fruit forming a conspicuous beak longer than bristles; pedicels of staminate flowers about 4 mm long; fruit longer than wide, not stipitate. 4. *S. trifoliata*

1. *Sanicula marilandica* L.

Black Snakeroot

Flowers greenish-white in dense head-like clusters (simple umbels); leaves 3-5 parted, cut nearly to petiole; inflorescences with more than 10 staminate flowers, sepals of male flowers narrowly lanceolate, 0.9-1.4 mm long, with rigid subulate tips; style exerted and recurved beyond the hooked bristles of the fruit.

REFERENCES: Riddell 1834:116; Sullivant 1840:8; Craig 1890:82 (common in the W part of the island, 8 Jun 1882, 4 Jun 1884, 9 Jun 1889); Selby & Craig 1890:10.

HERBARIUM RECORD: 1840—Cols., Sullivant.

NOTE: Not mapped for Franklin Co. by Cooperrider 1995:213 (illus. p. 214). It appears that specimen labels indicate that what Craig 1890:82 referred to as *Sanicula marilandica* var. *canadensis* was not actually this species but probably *Sanicula canadensis* or *Sanicula trifoliata*.

2. *Sanicula gregaria* E.P.Bicknell

Clustered Snakeroot

Flowers yellow in dense head-like clusters (simple umbels); leaves 3-5 parted, cut nearly to petiole; inflorescence with 12 or more staminate flowers, sepals of male flowers triangular, 0.4-0.6 mm long; styles exerted and recurved beyond the hooked bristles of the fruit.

REFERENCE: Cooperrider 1995:213 (illus. p. 214).

HERBARIUM RECORDS: 1840—Cols., Sullivant [mixed collection filed under *Sanicula marilandica*]; 8 Jun 1882—Cols., Devol; Jun 1888—Cols., Craig; 1890—Cols., Selby; 1890—Insane Asylum, Cols., Selby; 8 Jun 1902—Cols., W. Kellerman; 19 May 1970—OSU woodlot at corner of Kenny & Ackerman, Boone 156; 24 May 1986—Worthington, ravine N of Colonial Hills Elem. School, Hollander 046; 12 Jul 1986—W bank of Olentangy R., just N of the Dodridge St. bridge, T. Lammers & Spooner 5957 (BHO, OS); 5 Jun 1987—Tuttle Park, E bank of Olentangy R. between Lane Ave. & Dodridge St. bridges, mesic woods on floodplain, T. Lammers 6113; 23 May 1989—Overbrook Drive Ravine, just E of N. High St. & S of Cooke Rd., Clinton Twp. Lowden 4081; 23 May 1990—N side of Central College Rd., ¼ W of Franklin/Licking Co. line, Plain Twp., Lowden 4333.

3. *Sanicula canadensis* L.

Short-styled Snakeroot

Flowers white in dense head-like clusters (simple umbels); leaves palmately compound, 3-parted, the two lateral divisions often lobed; inflorescences with 1-3 staminate flowers, pedicels of male flowers 1-2 mm long; styles shorter or equalling length of hooked bristles of fruit.

REFERENCE: Cooperrider 1995:215 (illus. p. 216).

HERBARIUM RECORDS: 6 Jul 1883—OSU, Cols., Devol; 189—Georgesville, Bogue; 1 Aug 1962—Flint Ravine, woods W side of Rt. 23, 0.8 mi. S of Delaware Co. line, Sharon Twp., E. Herrick; 13 Jul 1984—246 Piedmont Rd., weed in flowerbed, NW Cols. Quad., Cusick 23664 (MU).

4. *Sanicula trifoliata* E.P.Bicknell

Large-fruited Snakeroot

Flowers white in dense-like clusters (simple umbels); leaves palmately compound, 3-parted with lateral divisions somewhat lobed; inflorescences with 4-8 staminate flowers with pedicels 3-5 mm long; styles shorter or nearly equalling length of hooked bristles of fruit.

REFERENCE: Cooperrider 1995:213 (illus. p. 216).

HERBARIUM RECORDS: 1840—Cols., Sullivant [mixed collection filed under *Sanicula marilandica*]; 24 Jul 1890—Cols., Hine; Aug 1891—near Cols., E. M. Wilcox; 20 Jul 1899—Cols., W. Kellerman; 1 Aug 1962—woods along W side of Olentangy R., Rt. 315 0.7 mi. N of Rt. 161, E. Herrick.

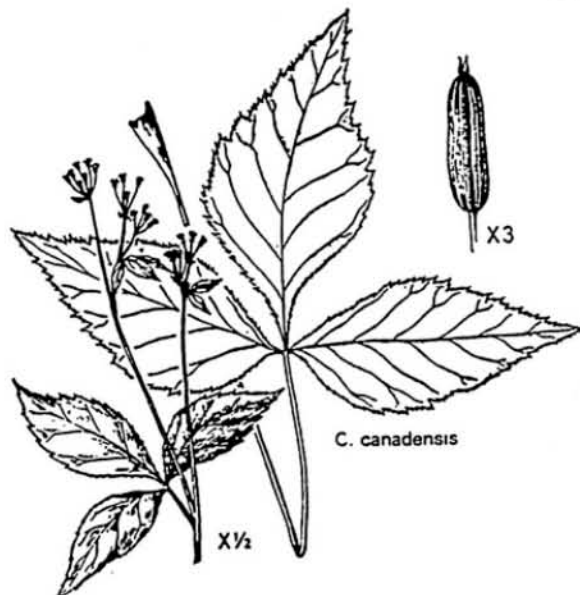
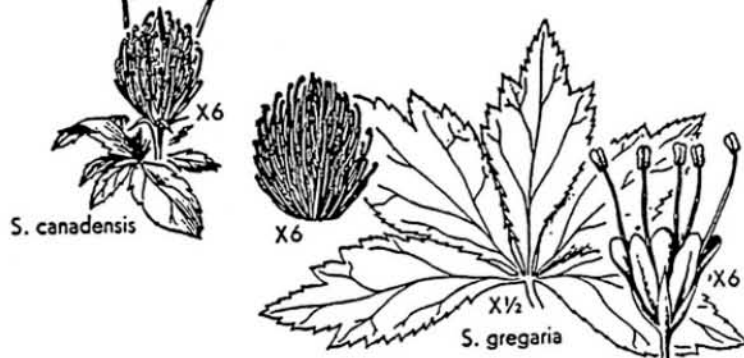
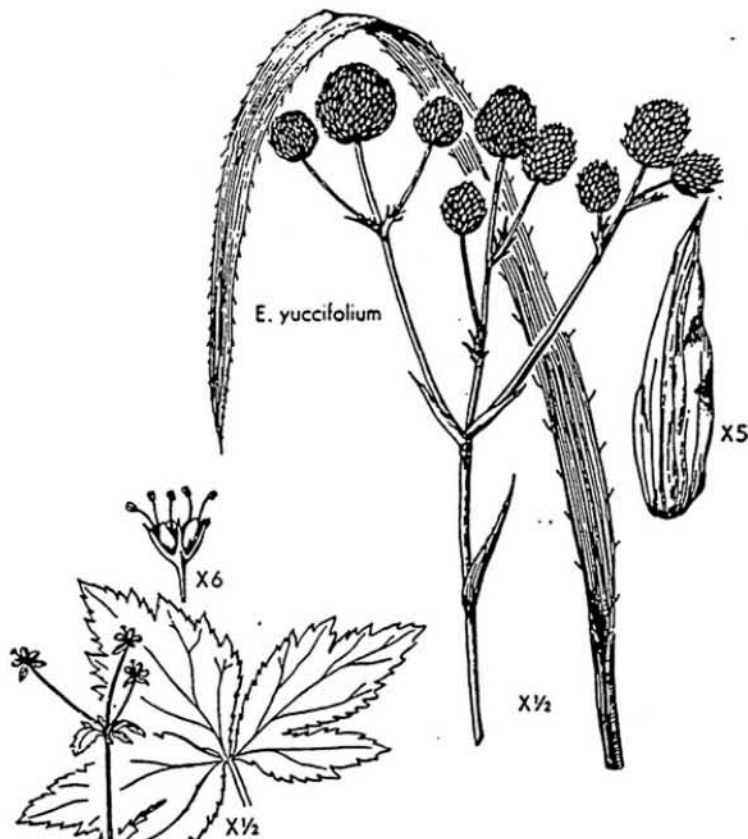
3. CRYPTOTAENIA DC. Honewort

Glabrous; leaves trifoliolate; leaflets ovate, incised, serrate, doubly serrate, or lobed; umbels few-rayed; umbellets few-flowered; bracts and bractlets few and small or none; sepals none or minute; corolla white; fruit linear-oblong, slightly flattened laterally.

1. *Cryptotaenia canadensis* (L.) DC.

Honewort

HEDERA
ERYNGIUM
SANICULA
CRYPTOTAENIA



Flowers white in compound umbels; leaves 3-foliolate; leaflets sometimes deeply lobed, pinnately veined, margins coarsely double-serrate; fruits glabrous, often curved.

REFERENCES: Riddell 1834:116 (*Uraspermum canadense*, open woods); Sullivant 1840:7; Selby & Craig 1890:10; Kellerman & Werner 1893:229 (quite common near the river, also found on bank S of the Botanical Bldg., 31 Jul 1890; occasionally met with in the woods); Cooperrider 1995:227 (illus. p. 228).

HERBARIUM RECORDS: [ca. 1834]—Cols. *Lapham* (CINC); 1840—Cols., *Sullivant*; 1890—Cols. & Franklin Co., *Selby*; 24 Jul 1890—OSU campus, near Cols., *Hine*; 24 Jul 1890—Cols., *Hine*; 27 May 1896—Clintonville, *M. Wright*; 30 Jun 1963—E bank of Olentangy R., N of W. Lane Ave., Cols., very common in woods, *Cusick*; 3 Jun 1982—Blendon Woods, common, *Owens*; 5 Jun 1987—Tuttle Park, E bank of Olentangy R., between Lane Ave. & Dodridge St. bridges, mesic woods on floodplain, *T. Lammers 6111*; 31 May 1990—Tuttle Park, open woody area, E bank of Olentangy R., N of Hudson St., Clinton Twp., *Lowden 4368*.

4. OSMORHIZA Raf. Sweet Cicely

Leaves ternately decomposed; umbels few-rayed; umbellets few-flowered; involucre of few narrow bracts; involucre conspicuous; sepals none; petals white or greenish; fruit clavate, elongate, appressed-bristly, slightly flattened laterally, the ribs slender, acute.

- a Stylopodium and style not more than 1.5 mm long, not exceeding petals. 1. *O. claytonii*
a' Stylopodium and style 2-4 mm long, exceeding petals; roots anise-scented. 2. *O. longistylis*

1. *Osmorhiza claytonii* (Michx.) C.B. Clarke

Woolly or Hairy Sweet Cicely

Flowers white in compound umbels; combined length of stylopodium and style up to 1 mm in flower, to 1.3 mm in fruit; umbellets with 4-8 flowers; leaves once-twice pinnately compound; stems carrot-root-scented.

REFERENCES: Riddell 1834:116 (*Uraspermum hirsutum*, dense and shady woods); Sullivant 1840:8 (*Osmorhiza brevistylis* DC.); Craig 1890:53, 81 (*Osmorhiza brevistylis* DC., 2 or 3 plants grow near the culvert on the W side of Neil Ave., 12 May 1882, 30 May 1887, 27 May 1888, University Farm Oct 1887); Selby & Craig 1890:10 (*Osmorhiza brevistylis* DC.); Cooperrider 1995:218 (illus. p. 219).

HERBARIUM RECORDS: 1833—Worthington, *Paddock Collection* (ILL); [ca. 1834]—Cols., *Lapham* (CINC); 1840—Cols., *Sullivant*; 1889—Insane Asylum grounds, Cols., *Selby*; May 1889—Insane Asylum grounds, *Selby*; 21 May 1890—Insane Asylum grounds, Cols., *Smith*; 21 May 1892—near Cols., *E. M. Wilcox*; 21 May 1892—Cols., *Werner*; 12 May 1988—Worthington, bike path, ¼ mi. N of Rt. 161, 1 mi. W of Rt. 23, shaded woods, abundant, *M. Hoffman 63*.

2. *Osmorhiza longistylis* (Torr.) DC.

Smooth Sweet Cicely

Similar to *Osmorhiza claytonii* except combined length of stylopodium and style 2 mm or more in flower and fruit; umbellets with 7-16 flowers; stems anise-scented.

REFERENCES: Sullivant 1840:8; Craig 1890:81 (very rare, river bank near the island spring where I found a single specimen this spring, 26 May 1885); Selby & Craig 1890:10; Cooperrider 1995:218 (illus. p. 219).

HERBARIUM RECORDS: 1840—Cols., *Sullivant*; 23 May 1882—Central Insane Asylum, Cols., *Devol*; May 1889—Insane Asylum grounds, Cols., *Selby* (OS, WOOS); 19 May 1967—limestone rocky slope approx. ¼ mi. S of Dublin on E bank of Scioto R. floodplain, *Stuckey 3779*; 19 May 1969—Park of Roses, Cols., *Wiley 2*; 13 May 1981—E bank of Olentangy R. N of Dodridge St., *Abeles 031*; 15 May 1982—Blendon Woods, common, *Owens*; 18 May 1982—Scenic Nature Preserve, Highbanks Metro Park (Franklin & Delaware Cos.), floodplain, *G. Moore 325*; 12 May 1986—Highbanks Metro Park (Delaware Co.), woods, *Watts 305* (OS, OWU); 17 May 1987—Tuttle Park W side beside jogging track, *Jen 25*; 5 Jun 1987—Tuttle Park, E bank Olentangy R. between Lane Ave. & Dodridge St. bridges, mesic woods on floodplain, *T. Lammers 6112*; 29 May 1988—Highbanks Metro Park (Delaware Co.), *Morawetz 72* (OS, OWU); 8 May 1989—Overbrook Drive Ravine, between N. High St. & Cooke Rd., Clinton Twp., *Lowden 4005 & 4006*; 23 May 1989—Overbrook Drive Ravine, between N. High St. & Cooke Rd., Clinton Twp., *Lowden 4073*; 19 May 1990—just S of Plain/Jefferson Twp. line, intersection of Blacklick Creek & Morse Rd., Jefferson Twp., *Lowden 4319*.

5. CHAEROPHYLLUM L. Chervil

Leaves decomposed; umbels simple or compound, few-flowered; bracts none; bractlets ovate, conspicuous; sepals none; corolla white; fruit 3 or more times as long as wide, flattened laterally; ribs rounded, prominent.

1. *Chaerophyllum procumbens* (L.) Crantz

Wild Chervil, Dwarf Cicely, Spreading Chervil

Stems weak or lax; upper stem and lower surface of leaves glabrous or somewhat pubescent; leaves decomposed, leaf-segments rounded or blunt at apex; flowers white in compound umbels; umbels peduncled with short broadly lanceolate bractlets; pedicels not clavate; fruits widest at about the middle.

Two varieties are recognized:

var. *procumbens*

Fruits glabrous.

OSMORHIZA
CHAEROPHYLLUM
TORILIS
DAUCUS
ANETHUM
CONIUM



REFERENCES: Riddell 1834:116 (bottomland); Sullivant 1840:7; Craig 1890:81 (abundant in shady localities along the river; also along the S line fence, 23 May 1884, 21 Apr 1886, 2 May 1888, 17 Apr 1889); Selby & Craig 1890:10; Cooperrider 1995:217 (illus. p. 219).
HERBARIUM RECORDS: 1833—Worthington, *J. Paddock Collection* (ILL); 1840—Cols., *Sullivant*; Jun 1890—Franklin Co., *Selby*; Jun 1890—OSU woods, *Selby*; Jun 1890—OSU, Cols., *Selby*; 12 May 1892—Cols., *Werner*, 18 May 1923—Westerville, roadside, *Eschbach*; 25 Apr 1925—Westerville, *Camp*; 24 Feb 1948—swamp forest, Fuller's farm, N Clintonville, *Beasley*; 23 Apr 1967—common on floodplain of E bank of Scioto R., approx. ¼ mi. S of Dublin, Perry Twp., *Stuckey 3483*; 19 May 1967—abundant on broken limestone rocky slope approx. 0.25 mi. S of Dublin, E bank of Scioto R. & on floodplain, *Stuckey 3780*; 1 May 1970—frequent on damp hillsides, E edge of Scioto R., ½ mi. S of Dublin bridge, *Boone 104*; 6 May 1982—floodplain, Scenic Nature Preserve, Highbanks Metro Park (Franklin & Delaware Cos.), *G. Moore 322*; 3 Jun 1984—flowerbeds at Cols. City Hall, W. Broad St. & Front St., SW Cols. Quad., *Cusick 23453*; 1 May 1987—Tuttle Park, E bank of Olentangy R., between Lane Ave. & Dodridge St. bridges, mesic woods on floodplain, *T. Lammers 6087*; 8 May 1989—Overbrook Drive Ravine off N. High St., S of Cooke Rd., Clinton Twp., *Lowden 4044*.

†var. *shortii* Torr. & A. Gray

Fruits pubescent.

HERBARIUM RECORD: 16 May 1992—along the N bank of Little Darby Creek, Battelle Darby Creek Metro Park, Day Camp Woods, Pleasant Twp., *Lowden 4959*.

NOTE: Not mapped for Franklin Co. by Cooperrider 1995:217.

6. TORILIS Adans. Hedge-parsley

Plant hispidulous; leaves pinnately or ternately compound or decomposed, ultimate leaflets pinnatifid; involucre and involucre of few slender bracts; pedicels short; sepals small; petals white; fruit flattened laterally, covered with hooked prickles.

1. **Torilis japonica* (Houtt.) DC.

Japanese Hedge-parsley

Naturalized (Eurasian)

Bristles on fruit sharp-pointed, not gland-tipped, tips hooked sharply forward at maturity.

HERBARIUM RECORD: 21 Jul 1986—Highbanks Metro Park (Delaware Co.), floodplain, *Watts 338* (OS, OWU).

NOTE: Mapped for Delaware Co. by Cooperrider 1995:220 (illus. p. 221).

7. DAUCUS L. Carrot

Leaves pinnately decomposed, leaflets linear or lanceolate; umbels concave in fruit; bracts leaflike, once pinnate, leaflets filiform; bractlets linear or pinnate; sepals none; corolla white or pinkish, of marginal flowers larger and somewhat irregular, of central flower(s) of umbel sometimes purple; fruit ellipsoid, flattened dorsally, primary ribs short-bristly, secondary ribs winged and bearing a row of barbed prickles.

1. **Daucus carota* L.

Wild Carrot, Queen Anne's Lace

Naturalized (native of Eurasia)

Flowers white to rose-purple, in compound umbels; leaves decomposed, finely dissected; fruit bristly; inflorescence subtended by deeply lobed bracts.

REFERENCES: Riddell 1834:116 (naturalized); Craig 1890:81 (I found a single specimen along the brook just W of the lake, 24 Jul 1887, the first that has been found since 1882); Selby & Craig 1890:10 (introduced); Cooperrider 1995:238 (illus. p. 237).

HERBARIUM RECORDS: Fall 1899—Cols., *J. H. Schaffner*; Aug 1913—Franklin Co., *J. H. Schaffner*; 1 Jul 1982—Blendon Woods, *Owens*; 2 Aug 1982—Scenic Nature Preserve, Highbanks Metro Park (Franklin & Delaware Cos.), common, *G. Moore 323*; 16 Jul 1986—Highbanks Metro Park (Delaware Co.), field, *Watts 319* (OWU); 21 Sep 1986—Highbanks Metro Park (Franklin Co.), woods & field edge, *Higgins*; 4 Aug 1989—Rt. 71 at the Franklin/Pickaway Co. line, W of Harrisburg, Pleasant Twp., *Lowden 4231*.

8. ANETHUM L. Dill

Glabrous; leaves finely dissected, segments filiform; bracts and bractlets none; sepals none; petals yellow; fruit ellipsoid, flattened dorsally, lateral ribs winged, dorsal ribs sharp and slender.

1. **Anethum graveolens* L.

Dill

Adventive (native of S Europe)

Flowers yellow in compound umbels with evident pedicels; leaves deeply dissected, all segments filiform; fruit glabrous, somewhat flattened, ribbed laterally winged.

REFERENCE: Cooperrider 1995:204.

HERBARIUM RECORD: 25 Jul 1923—escaped from cultivation, Cols., *J. H. Schaffner*.

9. CONIUM L. Poison-hemlock

Stem spotted; leaves pinnately decomposed, ultimate leaflets ovate to lanceolate, pinnatifid; involucre and involucre of lanceolate or ovate bracts; sepals none; petals white; fruit ovoid, somewhat flattened laterally, ribs prominent, wavy, paler than intervals, corky.

1. **Conium maculatum* L.

Poison Hemlock

Naturalized (native of Eurasia)

Large herbs; flowers white in compound umbels; leaves decomposed, elaborately dissected; rays of primary umbels 10-15; fruits glabrous; bractlets subtending umbellets conspicuous, 1-2 mm wide. Roadsides, disturbed habitats.

REFERENCES: Riddell 1834:116 (roadsides); Selby & Craig 1890:10 (introduced).

HERBARIUM RECORDS: 10 Jun 1989—between Rt. 71 & Rt. 104, just S of Cols., Frank Rd. turnoff Rt. 71, Franklin Twp., *Lowden 4131*; 14 Jun 1989—directly behind B&Z Bldg., in pit of Greenhouse, OSU campus, *Lowden 4186*; 12 Jun 1993—W side of Kenny Rd., just N of RR crossing & Kinnear Rd. intersection, Clinton Twp., *Lowden 5076*.

NOTE: Not mapped for Franklin Co. by Cooperrider 1995:222 (illus. p. 223).

10. BUPLEURUM L.

Glabrous; leaves entire, perfoliate, cauline ones ovate; bracts none; bractlets 5, ovate, surpassing flowers of umbellet; sepals none; petals yellow; fruit ellipsoid, dark-colored.

1. **Bupleurum lancifolium* Hornem.

Thoroughwax

Adventive (Mediterranean)

Stems upright; umbel compound with rounded apiculate bractlets; fruits wrinkled and tuberculate; leaves entire margined; upper leaves perfoliate, ovate. Casual waif. Syn.: *B. subovatum* Link

REFERENCE: Cooperrider 1995:204.

HERBARIUM RECORD: 19 Jun 1964—flower bed, may have been introduced in wild bird seed from bird feeder nearby, Whetstone High School grounds, *M. & E. Thomas*.

11. TAENIDIA (Torr. & A.Gray) Drude

Glabrous, somewhat glaucous; leaves 2-3 times compound, ultimate leaflets entire, ovate to lanceolate; bracts and bractlets usually none; sepals small; petals yellow; marginal flowers of umbellet perfect, inner ones staminate; fruit short-oblong, laterally flattened.

1. *Taenidia integerrima* (L.) Drude

Yellow Pimpernel

Flowers yellow in compound umbels; leaves twice pinnately compound, margins of leaflets entire; ovary glabrous. REFERENCES: Riddell 1834:116 (*Zizia integerrima*; slaty ravines); Sullivan 1840:8 (*Zizia integerrima* DC.); Craig 1890:81 (*Pimpinella integerrima* Benth. & Hook.; sparingly in the clover field a little N of the road and near the lagoon, 23 May 1882, 4 Jun 1884, 22 May 1885, 8 May 1887, 13 May 1888); Selby & Craig 1890:10 (*Pimpinella integerrima* Benth. & Hook.); Cooperrider 1995:227 (illus. p. 228).

HERBARIUM RECORDS: 1840—Cols., *Sullivan*; [date?—Neil's Run, Cols., *Selby*; 21 Apr 1890—Cols., *H. Richardson*; 15 Jul 1892—Georgesville, *Bogue*; 16 May 1895—Olentangy R., *Osburn*; 19 May 1896—W Cols., *M. Wright*; Spring 1898—Cols., *J. H. Schaffner*; 11 May 1970—Camp Johnson, 8 mi. N of OSU on N. High, infrequent on damp hillsides, *Boone 137*; 6 May 1982—Scenic Nature Preserve, Highbanks Metro Park (Franklin & Delaware Cos.), hillsides (C-1, 65), *G. Moore 326*; 14 May 1992—Cedar Ridge, Battelle-Darby Creek Metro Park, Pleasant Twp., *Lowden 4941*.

12. ZIZIA W.D.J.Koch Golden Alexanders

Glabrous or nearly so; leaves simple and ovate-cordate, or ternately compound or decomposed, margins serrate; involucre none; involucre of linear-lanceolate bractlets; central flower of each umbellet sessile; sepals evident; petals yellow; stylopodium wanting; fruit short-ellipsoid, somewhat flattened laterally, ribs slender, not winged.

a Basal and cauline leaves ternately compound or decomposed. 1. *Z. aurea*

BUPLEURUM
TAENIDIA
ZIZIA
THASPIUM



a' Basal leaves simple, ovate-cordate; cauline, with 3-5 leaflets. 2. *Z. aptera*

1. *Zizia aurea* (L.) W.D.J.Koch

Common Golden Alexanders

Flowers yellow in compound umbels, central flower or fruit of each umbellet sessile or subsessile; cauline leaves with 9 or more leaflets with sharply serrate margins; basal leaves mostly ternately decomposed with 5-9 leaflets; fruits glabrous, ribs wingless or with low wings.

REFERENCES: Riddell 1834:116 (slaty ravines); Sullivant 1840:8; Selby & Craig 1890:10; Cooperrider 1995:224 (illus. p. 225).

HERBARIUM RECORDS: 1840—Cols., Sullivant; 1 Jul 1891—Georgesville, Werner; 1 Jul 1891—Georgesville, Selby (OS, WOOS); 6 May 1982—Scenic Nature Preserve, Highbanks Metro Park (Franklin & Delaware Cos.), hillside, G. Moore 329; 25 Apr 1985—Sawmill Rd., ½ mi. N of Case Rd., Rutter 98; 24 May 1990—Dublin, ½ mi. S of Rt. 161 off Dublin Rd., Riverview overlooking Scioto R., Washington Twp., Lowden 4351.

2. *Zizia aptera* (A.Gray) Fernald

Heart-leaved Golden Alexanders

Flowers yellow in compound umbels, central flower or fruit of each umbellet sessile or subsessile; cauline leaves simple to mostly trifoliate, margins of leaflets crenate-dentate; basal leaves simple with cordate base, rarely 3-lobed or trifoliate; fruits glabrous, ribs wingless or with low wings. Syn.: *Z. cordata* W.D.J.Koch and later authors

REFERENCES: Riddell 1834:116 (slaty ravines); Sullivant 1840:8; Selby & Craig 1890:10; Selby 1891a:111a (#299 Re-collected); Cooperrider 1995:222 (illus. p. 225).

HERBARIUM RECORDS: 1 Jul 1891—Franklin Co., Werner (CLM); 1 Jul 1891—Georgesville, Werner; 15 Jul 1892—Georgesville, Bogue.

13. THASPIUM Nutt. Meadow-parsnip

Leaves compound or decomposed or basal ones simple, ovate-cordate; bracts none or few; bractlets several; all flowers of umbellet pediceled; sepals evident; petals yellow or greenish-yellow or rarely purple; fruits ovoid or ellipsoid, terete or slightly compressed dorsally, some or all ribs winged.

a Basal leaves simple, ovate-cordate, or once compound with 3 or 5 leaflets, or twice compound; cauline leaves usually ternate; leaf-margin white, thickened; nodes glabrous or nearly so. 1. *T. trifoliatum*

a' Basal leaves once or twice ternate; cauline leaves twice compound, ultimate leaflets serrate or incised; nodes of stem pubescent with short stiff hairs. 2. *T. barbinode*

1. *Thaspium trifoliatum* (L.) A.Gray

Smooth Meadow-parsnip

Flowers yellow or purple in compound umbels, central flower or fruit in each umbellet on a short pedicel; medial leaves usually divided into 3-6 leaflets with margins shallowly serrate-dentate; basal leaves simple or trifoliate; fruits glabrous with conspicuous wings. Syn.: *T. aureum* Nutt., misapplied

REFERENCES: Craig 1890:81 (in clover meadow near the river, 30 May 1882, 20 May 1883, 3 Jun 1884, 26 May 1885, 29 May 1888, 13 Mar 1889); Selby & Craig 1890:10 (#294 & 295); Kellerman & Werner 1893:225; Cooperrider 1995:230 (illus. p. 234).

HERBARIUM RECORDS: 1840—Cols., Sullivant; 1890—Cols., Selby; May 1891—Big Darby, Selby (OS, WOOS); 1 Jul 1891—Cols., Werner; 1 Jul 1891—Big Darby, Selby; 7 May 1892—Georgesville, Detmers; 8 Sep 1892—Cols., Bogue; 24 Sep 1892—Georgesville, Werner; 19 May 1896—W. Cols., M. Wright; 14 Jul 1898—Scioto R., Selby; 6 Jun 1923—Westerville, open field, M. Baker; 22 May 1924—Westerville, cemetery, R. Musselman; 15 Jun 1925—Flint, R. Crane (OWU); 19 May 1969—Park of Roses, Cols., Willey 9; 19 Jul 1977—Big Darby Creek, N of Pickaway Co. line, NW of Orient, Pleasant Twp., Cusick 17029 (KE); 6 May 1982—Scenic Nature Preserve, Highbanks Metro Park (Franklin & Delaware Cos.), floodplain, W. Reed 328; 12 May 1986—Highbanks Metro Park (Delaware Co.), field & wood edge, Watts 301 (OS, OWU); 5 Jun 1987—Tuttle Park, E bank of Olentangy R., between Lane Ave. & Dodridge St. bridges, mesic woods on floodplain, Cols., T. Lammers 6110; 20 Apr 1991—SE corner of jct. Rt. 665 & Graessle Rd., summit of bluffs, Pleasant Twp., Harrisburg Quad., McCormac 3469.

2. *Thaspium barbinode* (Michx.) Nutt.

Hairy-jointed Meadow-parsnip

Flowers yellow or purple in compound umbels, central flower or fruit in each umbellet on a short pedicel; medial leaves usually divided into 9 or more leaflets with margins deeply serrate or lacerate; basal leaves twice compound or ternately decomposed; fruits glabrous, with conspicuous wings.

REFERENCES: Sullivant 1840:8; Selby & Craig 1890:10; Cooperrider 1995:232 (illus. p. 234).

HERBARIUM RECORDS: 1840—Cols., Sullivant; 8 Jun 1882—Central Insane Asylum, Devol; Spring 1889—Cols., Craig; May 1889—Hayden's Falls, Craig; 1 Jul 1891—Georgesville, Werner (CLM); 8 Jul 1892—Cols., Bogue; 15 Jul 1892—Georgesville, Bogue; 29 Aug 1892—Georgesville, Werner; 4 Jul 1893—Cols., Werner (CLM); 6 May 1982—Scenic Nature Preserve, Highbanks Metro Park (Franklin & Delaware Cos.), floodplain, G. Moore 327; 25 May 1982—Scenic Nature Preserve, Highbanks Metro Park (Franklin & Delaware Cos.), floodplain, G. Moore 330 & 331; 8 May 1989—Overbrook Dr. Ravine off N. High St., S of Cooke Rd., Clinton Twp., Lowden 4011.

NOTE: There is a Sullivant specimen (1840—Cols., *Thaspium barbinode*, Nutt. var. β) at OS that might be this species, with stems minutely puberulent at nodes, leaves pinnately divided with linear to oblong lobes. This determination is somewhat doubtful, since this specimen can be confused with \uparrow *Thaspium pinnatifidum* (Buckley) A.Gray (Cut-leaf Meadow-parsnip), a species which Cooperrider (1995) thinks was attributed to Ohio in error.

14. OENANTHE L. Water-fennel

Decumbent or floating aquatic with dimorphic leaves; leaves decomposed; aerial leaflets ovate, deeply pinnatifid into obtuse segments, submersed leaflets filiform; fruit ovate-oblong, 4-5 mm long, tipped by sepals and styles, ribs low and broader than intervals.

1. **Oenanthe aquatica* (L.) Lam.

Water-fennel

Adventive (native of Eurasia)

Aquatic, stems rooting at lower nodes; flowers white in compound umbels; leaves decomposed, finely dissected ultimate segments entire and mucronate-tipped; ovary glabrous.

REFERENCE: Cooperrider 1995:205.

HERBARIUM RECORDS: 12 Jun 1986—pond in Greenlawn Cemetery, W of Greenlawn Ave., SW Cols. Quad., Cusick 25523 (MU, OS); 28 Aug 1989—E border of pond at Greenlawn Cemetery, in 3 feet of water, Franklin Twp., Lowden 4298.

15. SIUM L. Water-parsnip

Glabrous; of wet soil or shallow water; submersed leaves, when present, 2-3 times pinnately dissected, segments linear; emerged leaves pinnately compound, leaflets linear to lanceolate, serrate; bracts and bractlets several to many, ovate to narrow; sepals minute; petals white; fruit short-ellipsoid, ribs prominent, corky.

1. *Sium suave* Walter

Water-parsnip

Aquatic plant, flowers white in compound umbels; ovary glabrous; principal cauline leaves once-pinnately compound, leaflets lanceolate, margins sharply serrate with many teeth; aquatic leaves highly dissected. Syn.: *S. cicutaefolium* Gmel.

REFERENCES: Riddell 1834:116 (*Sium latifolium*; marshes); Sullivant 1840:8 (*Sium latifolium*); Selby & Craig 1890:10; Cooperrider 1995:229 (illus. p. 233).

HERBARIUM RECORDS: 1840—Cols., Sullivant; [date?]-Franklin Co., Werner, 10 Aug 1890—Westerville, E. V. Wilcox; 9 Jun 1896—Alum Creek, W. Kellerman; 6 Aug 1897—Hamilton Twp., W. Kellerman; 3 Nov 1984—Gahanna Woods State Nature Preserve, swampy area along woodland pond trail (1), Tyrrell.

16. CICUTA L. Water-hemlock

Leaves 1-3 times pinnately compound or upper ones simple; bracts none or few; bractlets present; sepals evident; petals white; fruit ovoid or globose, slightly flattened laterally, ribs rounded, corky, paler than intervals.

a Leaflets lanceolate; no bulblets in axils. 1. *C. maculata*

a' Leaflets linear; bulblets in axils of upper leaves, which are sometimes simple. 2. *C. bulbifera*

1. *Cicuta maculata* L.

Spotted Water-hemlock, Common Water-hemlock

Similar to *Cicuta bulbifera* except leaflets lanceolate with margins regularly serrate or incised.

REFERENCES: Riddell 1834:116; Sullivant 1840:7; Craig 1890:81 (wet places near the island, but is not common, 2 Jun 1883, 12 Jun 1887); Selby & Craig 1890:10; Cooperrider 1995:224 (illus. p. 226).

HERBARIUM RECORDS: 1 Jul 1891—roadside, Big Darby, Selby; 5 Jul 1911—Alum Creek bank, 2 mi. below Westerville, Hanawalt; 18 or 19 Jun 1953—Olentangy River Rd., N of the University, Blaydes; Jul 1973—Big Darby Creek at I-70, floodplain, Franklin/Madison Co. line, D. Keil 9631; Summer 1988—Big Darby Creek between I-70 and Little Darby Creek, DeLong.

2. *Cicuta bulbifera* L.

Bulb-bearing Water-hemlock

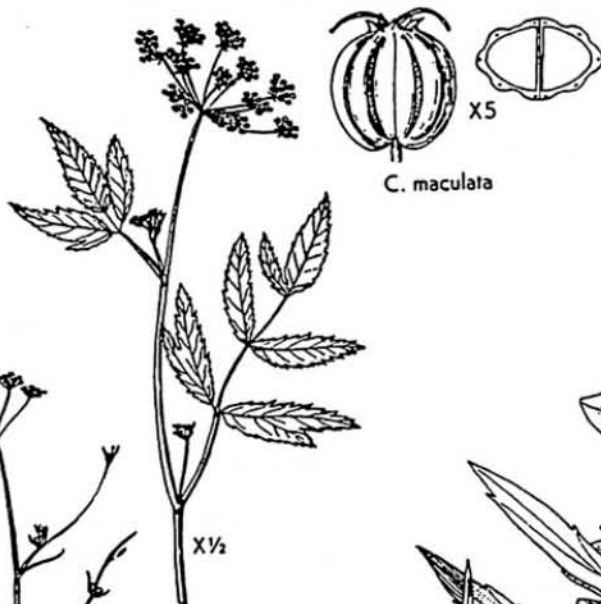
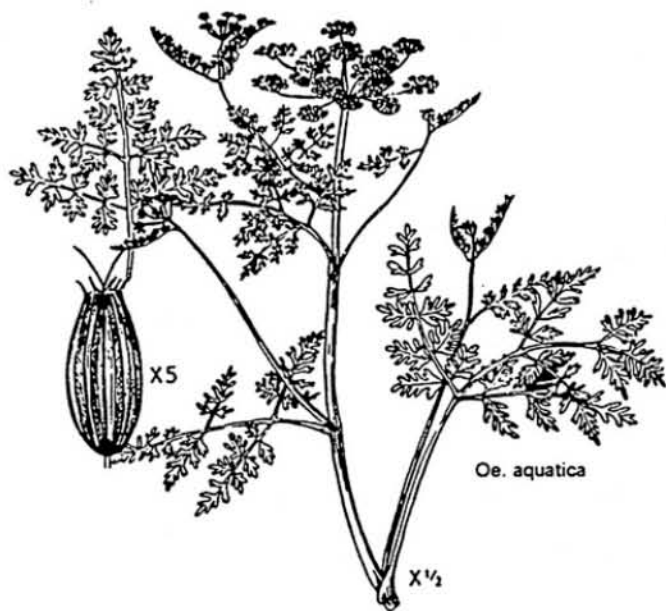
Tall herbs; flowers white in compound umbels, fruits glabrous; leaves decomposed; leaflets linear, margins irregularly toothed or incised; bulblets often in upper leaf axils.

REFERENCES: Riddell 1834:116 (marshes-dense and shady woods); Sullivant 1840:7; Selby & Craig 1890:10; Cooperrider 1995:224 (illus. p. 226).

HERBARIUM RECORDS: Sep 1833—Scott's plains, J. Paddock Collection (ILL); 1840—Cols., Sullivant; Jul 1890—near Cols., E. M. Wilcox; 7 & 14 Sep 1890—Lake Park, Cols., Selby; 26 Oct 1891—Lake Park, Cols., Selby; 6 Aug 1897—Hamilton Twp., W. Kellerman; 24 Sep 1958—Westwood Rd., N Cols., Clinton Twp., Blaydes yard from soil dug up on Cranberry Island, Buckeye Lake, Blaydes.

17. OXYPOLIS Raf. Water-dropwort

OENANTHE
SIUM
CICUTA
OXYPOLIS



Glabrous; of wet places; leaves pinnately compound, leaflets lanceolate or linear, entire or toothed; bracts and bractlets few and narrow or none; sepals evident; petals white; stylopodium thick; fruit ellipsoid, flattened dorsally; dorsal ribs slender, lateral ribs broadly winged.

1. *Oxypolis rigidior* (L.) Raf.

Cowbane

Flowers white in compound umbels; leaves once pinnately compound; leaflets linear-lanceolate, entire with few teeth along each side; ovary glabrous.

REFERENCES: Riddell 1834:116 (*Archemora rigida* DC., wet prairies); Sullivant 1840:7 (*Archemora rigida* DC.); Selby & Craig 1890:10 (*Tiedemannia rigida* J.M.Coult. & Rose); Cooperrider 1995:235 (illus. p. 236).

HERBARIUM RECORDS: 1840—Cols., Sullivant; 11 Sep 1882—Cols., W. Green; Aug 1890—Big Woods, Cols., Selby; Aug 1891—OSU campus, near Cols., E. V. Wilcox; 18 Aug 1929—Big Darby, Gordon & Chapman.

18. PASTINACA L. Parsnip

Stem stout, grooved; leaves pinnately compound, leaflets ovate, toothed, incised, or lobed; bracts and bractlets mostly lacking; sepals none; petals yellow; fruit ellipsoid, much flattened dorsally, lateral ribs broadly winged.

1. **Pastinaca sativa* L.

Wild Parsnip

Naturalized (native of Eurasia)

Plants stout; flowers yellow in compound umbels; leaves once pinnately compound; leaflets oblong-ovate, coarsely serrate to lobed; ovary glabrous; fruits flat and winged.

REFERENCES: Riddell 1834:116 (naturalized); Craig 1890:53, 81 (#157, common in fence rows and in waste places along the river, 11 Jun 1882, 28 May 1884, 6 Jun 1885, 29 May 1887; University Farm Oct 1887 & 5 Nov 1888); Selby & Craig 1890:10 (introduced); Cooperrider 1995:238 (illus. p. 237).

HERBARIUM RECORDS: 6 Jul 1883—Olentangy R., Cols., Devo; 30 Jun 1890—near Cols., E. Green; 1 Jun 1892—Cols., W. McCormick; 25 May 1895—Cols. Rd., E. Johnson (DEN); 8 Jun 1911—Westerville, roadsides, Hanawalt; 1 Jun 1980—limestone gravel of RR bed, N of McKinley Ave., about 5 blks. W of Souder St., NE ¼ SW Cols. Quad., W. Carr 2852; 17 May 1982—ODNR Fountain Square, open field, Forrest 45; 17 May 1982—ODNR Fountain Square, Woodell 40; 22 May 1982—OSU, Cols., W end of Waterman farm complex, Kenny Rd., D. Wilson 54; 1 Jun 1982—Blendon Woods, Owens; 8 May 1986—OSU Research Center, N of Kinnear Rd., Hollander 029; 18 May 1986—Cols., woodlot on Weybridge Rd. near intersection with Kenny Rd., Taylor-Lehman 53; 23 May 1989—Overbrook Drive Ravine, just E of N. High St. & S of Cooke Rd., Clinton Twp., Lowden 4085; 10 Jun 1989—between Rt. 71 & Rt. 104, Frank Rd. turnoff Rt. 71, S of Cols., Lowden 4132.

19. HERACLEUM L. Cow-parsonip

Stout; pubescent; leaves large, ternate, leaflets ovate or broader, sometimes lobed; bracts deciduous; bractlets narrow; sepals minute; petals white, obcordate, usually larger on outer than on inner side of flower, and on peripheral than on central flowers; fruit obovate, flattened dorsally, lateral ribs broadly winged, dorsal and intermediate ribs separated by 4 dark lines.

1. *Heracleum lanatum* Michx.

Cow-parsonip

Stout herbs, hairy; flowers white in compound umbels; leaves trifoliolate; leaflets large, variously lobed, margins serrate-dentate; petioles broad and sheathed, white-woolly at base; ovary and rays of umbels pubescent. Syn.:

H. maximum Bartram

REFERENCES: Sullivant 1840:8; Craig 1890:81 (rather abundant in the rich alluvial soil along the river and near the island, 25 May 1882, 4 Jun 1883, 25 May 1884, 6 Jun 1885, 22 May 1887, 29 May 1889); Selby & Craig 1890:10; Cooperrider 1995:238 (illus. p. 237).

HERBARIUM RECORDS: 25 Jun 1892—Cols., Bogue; 15 May 1896—Cols., McCall; 27 May 1896—Clintonville, M. Wright; 8 May 1977—just S of Rt. 161 on W bank of Alum Creek, Hoops 38; 21 May 1986—Park of Roses, Cols., Blanco; 31 May 1986—Highbanks Metro Park (Delaware Co.), floodplain, Morawetz 8 (OS, OWU); 1 Jun 1986—N of St. Michael's Church, corner of Selby & High St., Benkowski 72; 5 Jun 1987—Tuttle Park, E bank of Olentangy R. between Lane Ave. & Dodridge St. bridges, mesic woods on floodplain, T. Lammers 6109; 22 May 1988—E bank of Olentangy R., ¼ mi. from Lane Ave., abundant, Cols., Kelly 19; 31 May 1990—Tuttle Park, just N of Hudson St. along E bank of Olentangy R., open woody area, Clinton Twp., Lowden 4370.

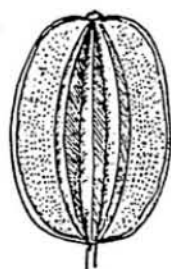
20. ANGELICA L. Angelica

Tall, stout; basal leaves decomposed, long-petioled; stem-leaves reduced upward, petioles of upper ones conspicuously sheathing and sometimes bladeless; bracts none or inconspicuous; bractlets few to many; umbels large;

PASTINACA
HERACLEUM
ANGELICA
ERIGENIA



X½



X5



P. sativa



X2

H. lanatum

X½



X3

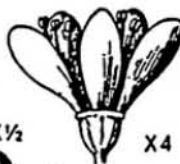
X5

A. atropurpurea



X½

E. bulbosa



X4



X5

sepals small or none; petals white or greenish; fruit ellipsoid or as wide as long, dorsally compressed, primary ribs prominent, lateral ribs broadly winged.

1. *Angelica atropurpurea* L.

Alexanders, Purplestem Angelica, Masterwort

Tall herb, stem to 3 m high and 3 cm thick, glabrous or nearly so above; flowers white, in compound umbels with evident pedicels; leaves decomposed, leaflets serrate; petioles of upper leaves forming a broad sheath, more than 1 cm wide when flattened, rounded or auricled at top; fruit and spherical umbel glabrous or nearly so. Syn.: *A. triquinata* Michx.

REFERENCES: Riddell 1834:116 (bottomland); Riddell 1835:8 (Worthington, bottomlands); Sullivant 1840:7; Selby & Craig 1890:10; Kellerman & Werner 1893:228 (on the island, first observed during the summer of 1891); Cooperrider 1995:235 (illus. p. 236).

HERBARIUM RECORDS: 1840—Cols., Sullivant; 20 Jun 1892—Cols., Bogue (CLM, OS); 7 Jul 1892—Cols., Bogue; 3 Jul 1911—Alum Creek, 2 mi. below Westerville, Hanawalt.

21. ERIGENIA Nutt. Harbinger of Spring

Plant glabrous; stem usually 1-2 dm tall; leaves ternately decomposed, ultimate segments linear or spatulate, basal except for the one subtending the inflorescence; bractlets spatulate, somewhat foliaceous; umbel usually 3-rayed, in the axil; pedicels short; sepals none; petals white, not incurved, obovate; fruit flattened laterally, wider than long, notched at top and base; ribs slender.

1. *Erigenia bulbosa* (Michx.) Nutt.

Harbinger of Spring, Pepper-and-salt

Stems arise from a globose tuber; flowers white in compound umbels; primary umbels with usually 3 rays; leaves ternately decomposed, ultimate segments linear or spatulate; umbellets subtended by oblong bractlets; anthers dark. REFERENCES: Riddell 1834:116 (open woods); Sullivant 1840:8; Craig 1890:82 (rather common in the woods, and sparingly along the river, 4 Mar 1882, 7 Apr 1883, 21 Apr 1884, 17 Apr 1885, 7 Mar 1886, 27 Mar 1887, 7 Apr 1888, 17 Mar 1889); Selby & Craig 1890:10; Cooperrider 1995:220 (illus. p. 223).

HERBARIUM RECORDS: 1840—Cols., Sullivant; 4 Mar & 13 Apr 1882—Olentangy R., OSU, Lazenby; 13 Apr 1882—OSU; 19 May 1883—Olentangy R., University Farm, Devo; 24 Mar 1889—beyond Sellsville, Selby; 27 Mar 1892—near Cols., E. M. Wilcox; 23 Apr 1892—Cols., Werner, [ca. 1925]—Westerville, moist lowlands, Camp; 4 Apr 1965—Flint Ravine, very common, rich woods, W of Rt. 23, N of Worthington, Sharon Twp., Cusick (KE); 1 Apr 1967—in rich black soil overlying broken limestone rock, approx. ½ mi. S of Dublin, E bank of Scioto R., Perry Twp., Stuckey 3348; 2 Apr 1967—E bank of Big Darby Creek, NW of cemetery at Georgesville, Pleasant Twp., Stuckey 3357; 7 Apr 1968—thin soil over limestone fragmented rock, E bank of Scioto R., approx. ¼ mi. S of Dublin, Stuckey 6358; 10 Apr 1970—½ mi. S of Dublin on E side of Scioto R., floodplain, Roberts 112; 11 Apr 1970—Flint Ravine near Camp Mary Orton, approx. 2 mi. N of Worthington along Rt. 23, Sharon Twp., Haynes 3257; 27 Mar 1971—along Scioto R. near limestone quarries, Roberts & D. Keil K6939; 10 Apr 1971—approx. ¾ mi. S of Dublin on E side of Scioto R., N of limestone quarry, floodplain, Perry Twp., Roberts 910; 15 Apr 1980—floodplain of Scioto R. ½ mi. S of Rt. 161, E bank N of abandoned limestone quarries, W. Carr 2620; 30 Apr 1980—Hayden Run ravine, bottom rocky soil, S of Hayden Run Rd., between Scioto R. & Dublin Rd., Norwich Twp., WC edge NW Cols. Quad., W. Carr 2656 (KE); 13 Apr 1982—Scenic Nature Preserve, Highbanks Metro Park (Franklin & Delaware Cos.), common, G. Moore 324; 10 Mar 1983—Blacklick Woods, Spring Hollow, Owens; 30 Mar 1986—Highbanks Metro Park (Delaware Co.), Olentangy R. floodplain, Witsberger 868 (OS, OWU); 21 Mar 1992—Rt. 33, ½ mi. S of Rt. 161, limestone outcropping along E bank of Scioto R., Perry Twp., Lowden 4890; 13 Apr 1992—Camp Mary Orton, N of Worthington, W of Rt. 23, woods near Olentangy R., Sharon Twp., Lowden 4900.

GENTIANACEAE, Gentian Family

Herbs; glabrous or nearly so; flowers perfect, hypogynous; petals usually 4 or 5, united; stamens as many, on the corolla; carpels 2, united; ovary 1-loculed, placentae 2, parietal; style 1; fruit a capsule.

a Stem-leaves opposite; petals without fringed glands.

b Corolla rotate, usually pink with green center, tube short. 1. SABATIA

b' Corolla tubular, funnellform, or campanulate, tube equaling to much longer than lobes or teeth.

c Corolla with erose, toothed, or fringed plaits between the lobes. 2. GENTIANA

c' Corolla without plaits between the lobes.

d Corolla 2-6 cm long, lobes fringed; flowers solitary. 3. GENTIANOPSIS

d' Corolla 1-2 cm long, lobes not fringed; flowers in dense cymes. 4. GENTIANELLA

a' Lower stem-leaves in whorls of 3-5; a fringed gland on each petal. 5. FRASERA

1. SABATIA Adans. Marsh-pink