

Emergent herbs of shallow water, stems jointed; leaves alternate, simple; blades cordate-ovate; flowers small, bracted, numerous in a peduncled nodding spike; perianth none; stamens 6-8, filaments white; carpels united at base, styles curved outward. Marshy stream borders.

REFERENCES: Riddell 1834:120 (denuded river banks); Sullivant 1840:23; Craig 1890:99 (N of the island, not abundant, 19 Jul 1882); Selby & Craig 1890:15.

HERBARIUM RECORDS: 1833—Worthington, *J. Paddock Collection* (ILL); [date?]-Cols., *Devol*; 19 Jul 1882—Hayden's Falls, *Devol*; 20 Jul 1890—Scioto R., *Selby*; 24 Sep 1892—Georgesville, *Selby*; 19 Oct 1903—Gahanna, *Jennings*; 3 Oct 1971—W side of Scioto R., ½ mi. S of Greenlawn Ave., uncommon, Cols., *Phillips & Roberts 2240*; Jul 1973—Franklin/Madison Co. line along Big Darby Creek at I-70, floodplain, *D. Keil 9630*; Summer 1988—along Big Darby Creek between I-70 and Little Darby Creek, Galloway Quad., *Delong*; 13 Jun 1991—Friendship Park, jct. of Big Walnut Creek with Rocky Fork Creek, S of Rt. 317, Gahanna, Mifflin Twp., *Lowden 4695*.

ARISTOLOCHIACEAE, Birthwort Family

Low herbs or twining vines; leaves often few, simple, petioled, blades entire; flowers epigynous, bisporangiate, solitary; sepals 3, united, tubular below, 1-3 lobed above; petals none or vestigial; stamens 6 or 12; carpels 6 (in ours), united; style short and thick; stigma-lobes as many as carpels; ovary 6-loculed; placentae central; ovules many; fruit a capsule.

a Stamens 12; leaves 2; perianth regular, tube short and wide. 1. ASARUM

a' Stamens 6; leaves usually more than 2; perianth tube curved. 2. ARISTOLOCHIA

1. ASARUM L. Wild Ginger

Low herb with elongate rhizome bearing each year 2 large leaves 6-8 cm wide at anthesis, round-ovate, cordate at base, becoming larger; flowers solitary, red-brown, borne between petiole-bases near the ground; peduncle short, stout; sepals united below in a short tube, lobes variable; petals none or vestigial; seeds with a caruncle.

1. *Asarum canadense* L.

Wild Ginger

Low herb, with rhizome bearing 2 large round-ovate leaves, bases cordate; flowers red-brown, borne between petiole-bases near the ground; calyx lobes spreading to reflexed, petals none.

Intergrading vars. (or species) have been named, two of which are: var. *canadense*, with calyx-lobes longer than tube, spreading and curved upward, tapering to caudate or acuminate tips; and var. *reflexum* (E.P.Bicknell) B.L.Rob., with calyx-lobes about as long as tube, reflexed, abruptly narrowed to caudate tips.

REFERENCES: Riddell 1834:118; Sullivant 1840:24; Selby & Craig 1890:14.

HERBARIUM RECORDS: 1840—Cols., *Sullivant*; 13 & 31 May 1888—Insane Asylum Grounds, Cols., *Selby*; Jun 1888—Cols., *Craig*; 21 May [ca. 1890s]—near Cols., *E. M. Wilcox*; May 1890—Cols., *Selby*; 3 & 18 May 1898—Cols., *Fullmer*; 31 May 1899—Cols., *W. Kellerman*; 18 May 1904—Franklin Co., *Spease*; 16 May 1909—Flint, *Pike*; 25 May 1922—Westerville, wooded slope along Alum Creek & Big Walnut, *Camp*; 7 May 1924—Westerville, woods, *Cooper*; 14 Apr 1967—E bank of Scioto R., common on broken limestone rocky slope, approx. ¼ mi. S of Dublin, Perry Twp., *Stuckey 3428*; 26 Apr 1970—Clintonville, abundant along stream in Whetstone Park, *W. Owen 95*; 3 May 1970—Clintonville, Olentangy R. floodplain in Northmoor Park, abundant, *W. Owen 110*; 24 Apr 1981—E side of Olentangy R., along bike path just S of Whetstone Park, Cols., *Shelly 203* (MU); 28 Apr 1985—along Big Darby Creek, N of Darbydale off Rt. 665, *Chansa-Ngavej 7*; 21 Apr 1986—Highbanks Metro Park (Delaware Co.), floodplain & mound bottom, *Watts 288* (OS, OWU); 25 Apr 1986—in front of Worthington High School Environmental Bldg., off Rt. 161, E side of bike trail, *Benkowski 12*; 8 May 1986—woods behind the school for the deaf, N of Morse Rd., Cols., *Taylor-Lehman 64*; 13 May 1986—ravine 20 feet from road between 177 & 159 Riverview Park Dr., Cols., *R. Burnes 17*; 28 Apr 1987—Tuttle Park, E bank of Olentangy R. between Lane Ave. & Dodridge St. bridges, mesic woods on floodplain, Cols., *T. Lammers 6080*; 16 May 1988—S bank of Olentangy R., ¼ mi. from High St., abundant, Clintonville, *Kelly 14*; 8 May 1989—Overbrook Drive Ravine, between N. High St. and E. Cooke Rd., Clinton Twp., *Lowden 4029*; 19 May 1990—just S of Plain/Jefferson Twp. line, where Blacklick Creek intersects with Morse Rd., Jefferson Twp., *Lowden 4323*.

2. ARISTOLOCHIA L. Birthwort

Erect herb; leaves few, those near base of stem bractlike, blades ovate to lanceolate, bases cordate, truncate, or sagittate; flowers on short peduncles usually from near base of stem; calyx purple-brown, tube curved, limb flaring, 3-lobed; petals none; stamens adnate to style.

1. *Aristolochia serpentaria* L.

Virginia Snakeroot

Erect herb; leaves ovate to lanceolate, bases cordate or sagittate; flowers and fruits on short peduncles near base of the stem.

REFERENCES: Riddell 1834:118 (dense and shady woods); Sullivant 1840:24; Selby & Craig 1890:14.

HERBARIUM RECORDS: 8 Jul 1891—Central College, *Selby*; 27 May 1933—Red Hills, *Hicks*; 12 Jun 1979—0.3 mi. W of Alkire Rd. & Koebel-Suydam Rd., Darby Creek Metro Park, Pleasant Twp., Galloway Quad., *Cusick 19358*; 10 Jun 1991—Union Cemetery, N side of Frank Rd., W of Gantz Rd., 3 large colonies under maples, Franklin Twp., SW Cols. Quad., *Cusick 29638*.

NELUMBONACEAE, Lotus-Lily Family

Aquatic herbs; flowers hypogynous, perfect, regular, elevated above the water on long stout peduncles; perianth parts numerous, spirally arranged, a few outer ones green and sepaloid; stamens numerous; pistils numerous, sunken in the enlarged, obconic, spongy receptacle; leaves long-petiolate, with large, circular, peltate blade, some blades floating, others raised above the water.

1. NELUMBO Adans. Lotus-Lily

Leaves long-petioled, peltate, the circular blades emersed; flowers 5-10 inches wide, solitary, long-peduncled; perianth parts many, the outer green, the inner pale yellow; stamens many; carpels many, the 1-ovuled ovaries and nutlike indehiscent fruits embedded in the obconic flat-topped receptacle.

1. *Nelumbo lutea* (Willd.) Pers.

American Water-lotus

Leaves peltate, long-petioled; circular blades floating; perianth parts many, inner ones yellow and petal-like; fruits nutlike, indehiscent, embedded in a flat-topped receptacle.

REFERENCES: Riddell 1834:117 (*Nelumbium luteum*, standing pools); Wilcox 1895:137 (seems to have established itself in a pond near the Olentangy where specimens were gathered first in 1891, by C. C. Wilcox, specimens were gathered also, last summer, although the pond has been partially drained).

HERBARIUM RECORD: Aug 1890—pond near King Ave., near Cols., *C. Wilcox*.

NYMPHAEEAE, Water-Lily Family

Aquatic herbs; flowers perfect, regular, hypogynous to perigynous or epigynous; sepals 4-5, sometimes petaloid; petals 8-many; stamens numerous; carpels firmly united into a compound, plurilocular ovary; ovules and seeds numerous.

a Flowers yellow, often tinged with red or purple or green; sepals petaloid; petals inconspicuous. 1. NUPHAR

a' Flowers white or rarely pink; sepals green; petals conspicuous. 2. NYMPHAEA

1. NUPHAR Sm. Yellow Water-lily, Spatter-dock

Leaves long-petioled; blades emersed, ovate or rounded, bases cordate-sagittate; flowers hypogynous, solitary in the axils, long-peduncled, emersed, 3-5 cm in diameter; outer perianth parts greenish, yellow, or purplish; petals many, yellow, smaller than the sepals, stamenlike; stamens many; carpels several to many, united; stigmas united in an almost sessile several- to many-rayed broad disk; fruit a leathery berry, locules and seeds several to many.

1. *Nuphar advena* (Aiton) W.T.Aiton

Yellow Water-lily, Spatter-dock, Yellow Pond Lily

Emersed leaves on stout petioles, basal lobes separated by a broadly triangular sinus; sepals 6, yellow within; petals and stamens inserted below ovary; carpels united.

REFERENCES: Riddell 1834:117 (standing pools); Sullivant 1840:7; Selby & Craig 1890:7.

HERBARIUM RECORDS: 1836 & 27 Jul 1839—Worthington, *J. Paddock Collection* (ILL); 17 May 1890—between Central College & Westerville, Cols., *Selby*; 17 Jun 1892—Cols., *W. Kellerman*; 18 Jun 1892—Alum Creek, near Cols., *E. M. Wilcox*; 1 Aug 1929—Baumgardner's Lake, Jackson Twp., *Thut, Gordon & Blaydes*; 16 Aug 1929—Baumgardner's Lake, Jackson Twp., *Thut*; 7 Jun 1991—Boyer Park, end of Park St., E of Rt. 3, Westerville, Blendon Twp., *Lowden 4678*; 6 Jul 1992—Pickerington Ponds, wetland wildlife area, just S of Wright Rd. & E of Bowen Rd., Madison Twp., *Lowden 4982*.

ASARUM
ARISTOLOCHIA
NELUMBO
NUPHAR
NYMPHAEA

