

Plants small, of moist habitats, delicate, creeping or ascending, light green; leaves ovate, minutely serrate, sterile ones 4-ranked, lateral ones the larger.

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

NOTE: Both *Sullivant* 1840:55 (*Lycopodium rupestre* L.) and Selby & Craig 1890:18 (*Selaginella rupestris* Spring) cited [*Selaginella rupestris* (L.) Spring] as plants collected in adjacent counties.

DIVISION EQUISETOPHYTA

EQUISETACEAE, Horsetail Family

1. EQUISETUM L. Horsetail, Scouring-rush

Stems erect or decumbent, from rhizomes, ridged and grooved, deposits of silica on the ridges; stomates in the grooves in definite rows, in bands, or scattered; leaves small, united except at their tips, forming sheaths at the nodes, the free tips persistent or deciduous; sporophylls in cones, each sporophyll with a stalk and a peltate top beneath which several sporangia are borne.

- a Stomates not in 2 lines in the grooves; stems containing chlorophyll and branched or stems with little or no chlorophyll, fertile, usually unbranched.
- b Branches sometimes few, not again branched; stems green, not dimorphic, central cavity 4/5 the diameter; teeth of sheaths not deciduous. **3. *E. fluviatile***
- b' Sterile stems with many branches, green; fertile stems often unbranched, brown or pink, with little or no chlorophyll.
 - c Branches of sterile stem again branched, slender, spreading; teeth of sheaths coherent as 3-4 lobes, translucent; green branches developing on fertile stems; ridges flat-topped or concave, with short hairs or spinules on edges. **4. *E. sylvaticum***
 - c' Branches of sterile stem usually not again branched; teeth usually separate; fertile stems soon withering; ridges not as above. **5. *E. arvense***
- a' Stomates in 2 lines in the grooves (except in *E. fluviatile*); stems not dimorphic, unbranched or with few branches, containing chlorophyll.
 - d Ridges of sheath not wider than grooves; stem smooth; teeth persistent, separate, lanceolate, not hyaline-margined. **3. *E. fluviatile***
 - d' Ridges of sheath more or less flattened, wider than grooves; teeth hyaline-margined, sometimes deciduous.
 - e Sheath longer than wide, flaring at summit, usually with 1 dark band at top; teeth deciduous. **2. *E. laevigatum***
 - e' Sheath about as long as wide, cylindric, usually with dark band at top and at base; teeth deciduous or persistent; ridges rough. **1. *E. hyemale***

1. *Equisetum hyemale* L. var. *affine* (Engelm.) A.A.Eaton

Common Scouring-rush

Stomates in 2 lines in the grooves; stems many ridged, with one row of tubercles on each ridge; ridges of sheath flattened, wider than grooves, teeth if persistent, hyaline-margined; sheaths almost as long as wide, with dark band at top and at base. Woody ravines.

REFERENCES: Riddell 1834:159; *Sullivant* 1840:54; Selby & Craig 1890:18.

HERBARIUM RECORDS: 20 Jun 1922—Indian Springs, Cols., *J. H. Schaffner*, 15 Oct 1922 & 21 Jun 1925—Cols., *J. H. Schaffner*, 1 Nov 1926—Cols., *J. H. Schaffner*, 13 May 1928—Cols., *J. H. Schaffner*, 9 Sep 1928—Indian Springs, Cols., *J. H. Schaffner*, 27 Sep 1930—Cols., *J. H. Schaffner*, 24 Apr 1938—Cols., *J. Herrick* (KE); [ca. 1982]—Spring Hollow and Blendon Woods, *Owens*; 23 May 1989—Overbrook Dr. Ravine, just W of Indianola Ave., S. of Cooke Rd., Clinton Twp., *Lowden* 4070.

2. *Equisetum laevigatum* A.Braun

Smooth Scouring-rush

REFERENCE: King 1981:119 (Pleasant Twp.: 1-Battelle-Darby Creek, Metro Park, bluff prairie).

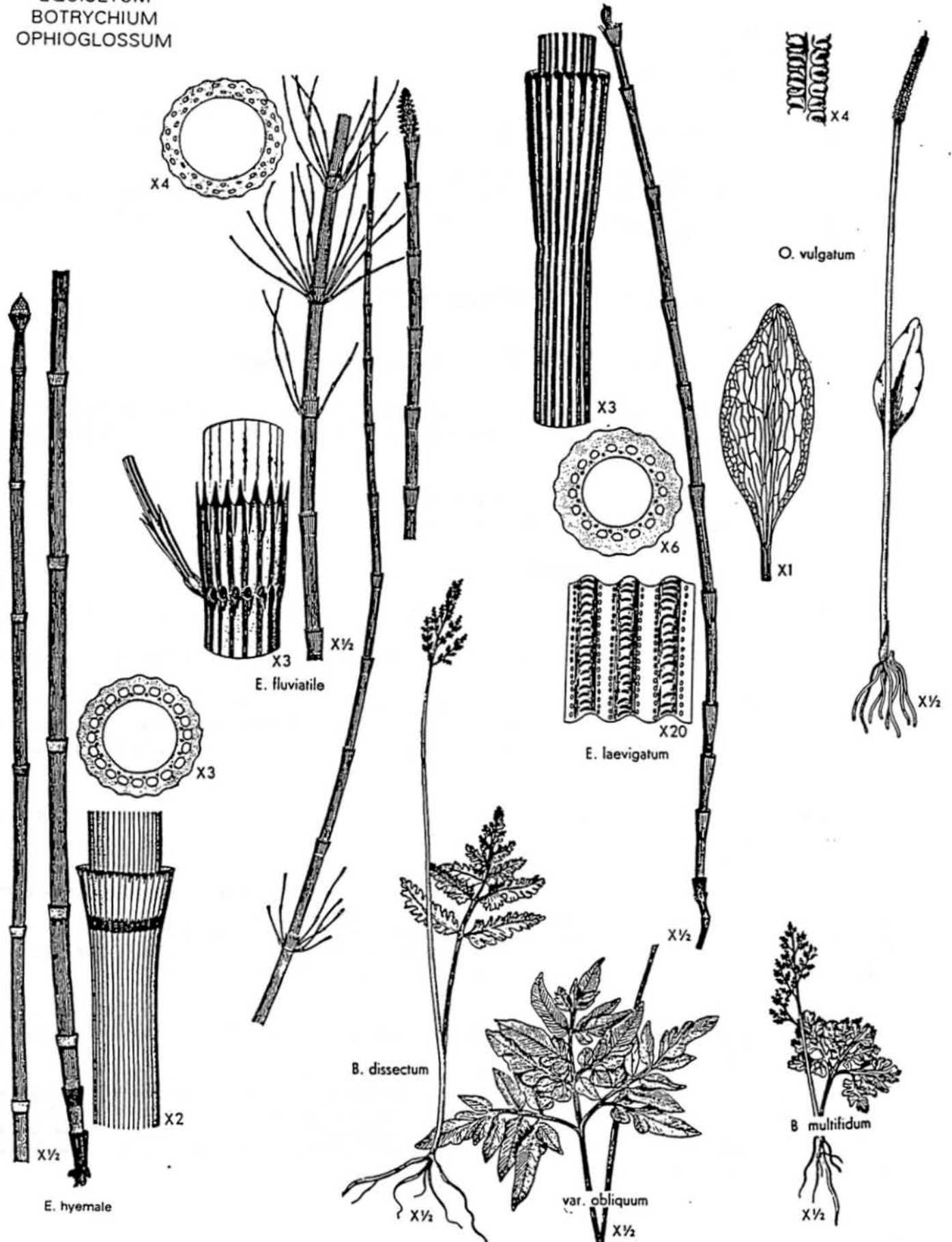
NOTE: No specimens seen from Franklin Co.

3. *Equisetum fluviatile* L.

Water Horsetail

Syn.: *E. limosum* L.

EQUISETUM
BOTRYCHIUM
OPHIOGLOSSUM



REFERENCES: Sullivant 1840:54; Selby & Craig 1890:18.

NOTE: No specimens seen from Franklin Co.

4. †*Equisetum sylvaticum* L.

Woodland Horsetail

REFERENCE: Riddell 1834:159.

NOTE: No specimens seen from Franklin Co.

5. *Equisetum arvense* L.

Common or Field Horsetail

Stomates not in 2 lines in the grooves; branches of the sterile stem usually not again branched; teeth usually separate.

REFERENCES: Riddell 1834:159; Sullivant 1840:54; Selby & Craig 1890:18.

HERBARIUM RECORDS: 6 May 1928—on RR embankment, Cols., J. G. & J. H. Schaffner, 1 May 1982—Blendon Woods, Owens; 13 May 1988—Highbanks Metro Park (Delaware Co.), wet ditch along Overlook Trail, *Watts* 418; 6 Jun 1989—Turkey Run, between Olentangy River Rd. & Pegg Ave. just S of Highland Dr., Clinton Twp., *Lowden* 4105.

DIVISION POLYPODIOPHYTA, FERNS

OPHIOGLOSSACEAE, Adder's-tongue Family

With erect rhizomes and fleshy roots; leaf (portion of plant above ground) consisting of branched petiole, one branch sterile, bearing a green foliaceous structure (called blade, in the keys below), the other branch fertile, bearing sporangia.

a Blade lobed or compound; veins ending free. 1. **BOTRYCHIUM**

a' Blade simple, entire; veins reticulate. 2. **OPHIOGLOSSUM**

1. *Botrychium* Sw. Grape Fern

Blade lobed or compound, sessile or stalked above common petiole; fertile branch stalked or sessile, 1-3-pinnate.

a Blade evergreen, on stalk usually 5 cm long or more above common petiole, borne near base of plant; spores ripening in late summer or autumn.

b Pinnules mostly 2-4 times as long as wide, acute at tip; blade usually bronze in autumn. 2. *B. dissectum*

b' Pinnules mostly less than twice as long as wide, rounded to obtuse; blade green in autumn. 1. *B. multifidum*

a' Blades deciduous, sessile, usually borne near or above middle of plant; spores ripening in spring or summer.

3. *B. virginianum*

1. †*Botrychium multifidum* (S.G.Gmel.) Rupr.

Leathery Grape-fern

REFERENCE: Inniswood Location 7, 10-23, 25.

NOTE: No specimens seen from Franklin Co.

2. *Botrychium dissectum* A.Spreng.

Grape Fern, Lace-frond Grape Fern

Syn.: *B. dissectum* var. *dissectum* Milde, *B. dissectum* var. *obliquum* (Muhl.) Clute

REFERENCES: Riddell 1834:159 (*Botrychium fumarioides*); Selby & Craig 1890:18; Kellerman & Werner 1893:232.

HERBARIUM RECORDS: 4 Apr 1965—Flint Ravine, rich woods, W of Rt. 23, N of Worthington, Sharon Twp., *Cusick*; [ca. 1982]—Blendon Woods, Owens; 18 Sep 1989—Highbanks Metro Park, woods on ridgetops E of Olentangy R., common, *Watts* 488 (OS, OWU).

3. *Botrychium virginianum* (L.) Sw.

Rattlesnake Fern

Blade bipinnate-pinnatifid to tripinnate, deltoid, usually more than 10 cm wide, sessile, borne near or above middle of plants; fertile branch stalked.

REFERENCES: Riddell 1834:159; Sullivant 1840:55; Selby & Craig 1890:18; Inniswood Location 19 & 20.

HERBARIUM RECORDS: [ca. 1830s]—Cols., *Lapham* (URB); 6 Jun 1927—near Westerville, low woods or thickets, *Seall*; [ca. 1982]—Blendon Woods, Owens; 29 May 1988—Highbanks Metro Park (Delaware Co.), beech-maple woods, *Morawetz* 74 (OS, OWU); 11 Jun 1989—Highbanks Metro Park (Delaware Co.), woods S of Oak Coves picnic area, common, *Watts* 472 (OS, OWU); 29 May & 2 Jun 1991—Hoover Dam Park, W of Cabbage Rd., woodland, Blendon Twp., *Lowden* 4643 & 4646; 16 May 1992—Battelle Darby Creek Metro Park, day camp woods along N bank of Little Darby Creek, Pleasant Twp., *Lowden* 4956.